# *ACADEMIC PROGRAM REVIEW 2007 - 2011*

PHYSICS & ASTRONOMY

**6.1 Introduction to the Department and Update**

The Department Physics & Astronomy has a long and essential history at the university, having graduated our first physics major, Mr. Hayes Holman, in 1929. A primary component of the department's purpose is to provide instruction and knowledge in pure and applied physics and astronomy at both the undergraduate and graduate levels in order to provide high-quality, educated scientists to government and industry, to provide quality science teachers to the public schools and institutions of higher education, and to prepare students for advanced graduate studies in physics, astronomy, or related fields. We accomplish this through teaching courses for majors and for University Studies students, through sponsoring seminars and other general educational experiences, involving students in research activities, and by providing outreach services for local schools and the community. The department faculty, students, and postdoctoral fellows conduct scholarly research to create new knowledge that advances our understanding of the nature of the physical world, and to disseminate that new knowledge via publications in the peer-reviewed literature, presentations at national and international conferences, and organization of national and international meetings and workshops. Participation in the research enterprise by undergraduate and graduate students is a critical component of our departmental mission. Since 2011 we have hosted a Research Experiences for Undergraduates (REU) summer intern program, funded by the National Science Foundation (Dr. Bao-An Li, PI).

In the past few years, new faculty hires have shifted the research focus of the department in the direction of astronomy and astrophysics. We now have an internationally recognized Nuclear Theory and Nuclear Astrophysics group headed by Drs. Bao-An Li (named TAMUS Regents Professor in 2012) and Carlos Bertulani (hired in the Fall of 2007 and named a Fellow of the American Physical Society in 2012). In 2010 we hired astronomer Dr. Kurtis Williams, and in the fall of 2012 Drs. William Newton and Matthew Wood were hired, the former to lead our physics education program, and the latter as department head. In recognition of this expansion of our research expertise, the name of the department was changed from Physics to Physics and Astronomy in 2010, an astronomical observatory was constructed in 2008 about 5 miles south of campus, and in 2009 the department implemented a minor in astronomy. In Fall 2012, A&M Commerce joined the Southeastern Association for Research in Astronomy (SARA) Telescope Consortium, and is now a full partner entitled to ~2 months per year of observing time on 1-m-class telescopes located at Kitt Peak National Observatory (KPNO) in Arizona, and Cerro Tololo International Observatory (CTIO) in Chile.

**Mission**: To foster Innovation and Discovery by providing a nationally-competitive foundation for careers in science and technology as well as for advanced study in physics and astronomy through the acquisition of problem-solving skills and participation in the research experience.

**Vision**: The Department of Physics and Astronomy is dedicated to high standards of excellence in teaching, scientific discovery, and service to our community. We provide a high quality and constantly adapting curriculum that equips all university students for the rapidly changing needs of and challenges facing our nation and the world. Our faculty, graduate students, and undergraduate students conduct innovative research of international renown.

### 6.1.1 Actions Taken in Response to Recommendations Made in Previous Five-Year Review

The most recent Undergraduate Program Review for our department was 2008. The recommendations and actions taken in response to those recommendations are:

- Recommendation: Add references to research, creation of knowledge in the Mission Statement. Add references to impact on society, recruitment, dissemination of science." Action: revised mission statement as above. The current mission statement is brief, but contains the essence of our purpose.
- Recommendation: Add a vision statement. Action: Vision statement added (see above).
- Recommendation: Need additional research-active faculty members. Action: Two additional faculty members have been hired, both with significant current research activities.
- Recommendation: Investigate possible "bridge" position with national labs, observatories, research centers, or industry. Action: In Fall 2012, A&M Commerce joined the SARA Consortium, giving our faculty and students guaranteed access to research grade telescopes at two of the world's premier observatories.
- Recommendation: Get active in Texas Section of American Physical Society by (i) increasing student and faculty attendance of meetings, and (ii) hosting the TS-APS fall meeting. Action: Faculty and students now regularly attend the TS-APS meetings, and A&M-Commerce hosted the Fall 2011 Meeting of the TS-APS.
- Recommendation: Need to standardize teaching loads and develop mechanisms to provide release time for faculty with research grants. Action: Faculty with active research grants including external funding generating overhead are provided release time to the extent possible. The Faculty Senate is currently (FY13) promulgating a new institutional workload policy, and we no longer have teaching overloads in the College of Science, Agriculture, and Engineering.
- Recommendation: Develop clear guidelines regarding the criteria for tenure and promotion. Action: The department follows A&M Policy 12.01.99.R0.01.
- Recommendation: Develop clear guidelines regarding the assignment of teaching loads. Action: teaching loads are nominal for all faculty. Those faculty who have substantial external funding that generates overhead may receive reduced teaching loads, as may faculty whose service activities are significantly above nominal expectations.
- Recommendation: Assess need for more experimentalists in the faculty; lobby for substantial start-up funds. Action: Of the 3 hires since this recommendation, one is an

observational astronomer (Williams), one a numerical experimentalist focusing on science education, and one who pursues both observational and numerical projects.

- Recommendation: Create larger travel budget. Action: Currently, we allocate roughly $1,000 per year per faculty member for travel or equipment purchases.
- Recommendation: Be pro-active in the recruitment of minorities; use Hispanic faculty to host parent's nights in Spanish. Action: The department has not hosted parent's nights in Spanish.
- Recommendation: Define target areas for recruitment, local and international. Action: The department is currently developing a new brochure, and the new department head and retired department head Dr. Ben Doughty have visited 3 local Junior Colleges. Dr. Wood will return to those 3 Junior Colleges in the Spring of 2013 to recruit transfer students using 5 guaranteed transfer scholarships ranging between $7,000 and $11,000.
- Recommendation: Host "Open House" and physics activities such as telescope nights, general audience talks. Action: We currently host 3-4 Open House events at the local observatory per academic year, and will soon implement a "Astronomy and Astrophysics Public Lecture Series."
- Recommendation: Improve stipends for GAs, obtain tuition waivers, etc. Action: stipends and tuition waivers have increased significantly since the previous report, but not nearly enough to be competitive in the current market. Our GA stipends are currently $8,000/yr, and should be nearly double that amount.
- Develop joint M.S./Ph.D. programs with TAMU at College Station to motivate students to stay at Commerce for the MS. Action: This recommendation has not been implemented.
- Recommendation: To improve retention of UG students: (i) Hire HG students as research or teaching assistants, (ii) have UG students present in research conferences (TS-APS), and (iii) Establish co-op opportunities for UG in regional industry. Action: Items (i) and (ii) have been implemented, but (iii) has not yet been implemented.
- Recommendation: Consider requiring three faculty members in thesis committees, one from outside the department. Action: We typically still have all three faculty members on our M.S. thesis committees come from within the department, but are planning to include more out-of-department faculty on thesis committees in the future.
- Recommendation: Calendarize course offerings. Action: We have developed a 2-year rotation schedule of courses, but our small student numbers can result in that schedule being changed as required to best serve the student population.
- Recommendation: Expand research areas with future hires. While one of the recent hires (Newton) works in the existing area of Nuclear Theory and Nuclear Astrophysics, the other two recent hires (Williams and Wood) have been in the general area of Stellar Astronomy and Astrophysics. In addition, both Newton and Wood bring substantial expertise in numerical modeling of astrophysical systems.

- Recommendation: Support new minor in astronomy. Action: The minor in astronomy was implemented in 2009.
- Recommendation: Consider the use of UG teaching assistants: The department does use UG teaching assistants as tutors in the JAMP room. We also often use upper-division undergraduate students for grading help with the PHYS 2425 and PHYS 2426 courses.

### 6.1.2 Enrollment Trends and Analysis

The department has been reasonably successful in recruiting and retaining students, but the department's plan is to improve on both fronts. Enrollment during the past 5 years has been reasonably steady between 20 and 30 majors per year (see Figure 1). Our graduation rates over the previous decade have fluctuated significantly over the previous decade, but the 5-year trailing average has been trending in the right direction (see Figure 2). The department is on the edge of being a low-producing program and Figure 2 shows that while the department was just below the mandated 25 graduates in 5 years, it graduated 8 majors in FY12, bringing the 5-year average to 5.2/year. The department must improve our recruitment and retention.

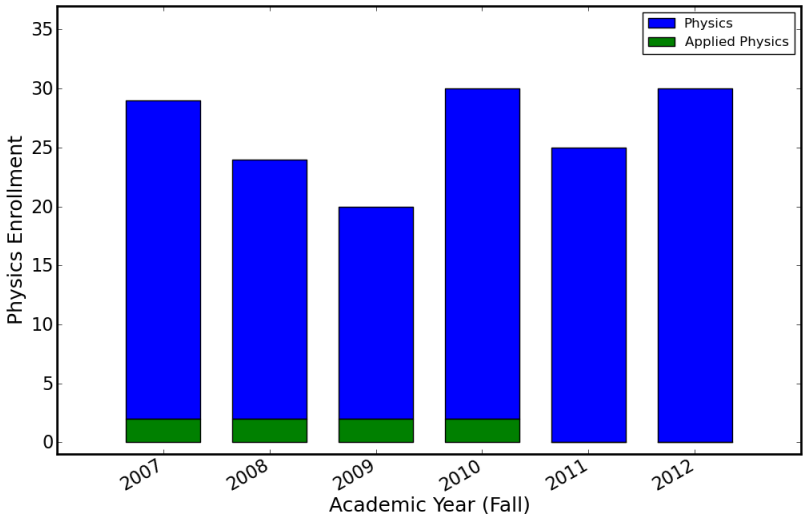


Figure 1: Physics and Astronomy Department Enrollment for the previous 5 years and current.

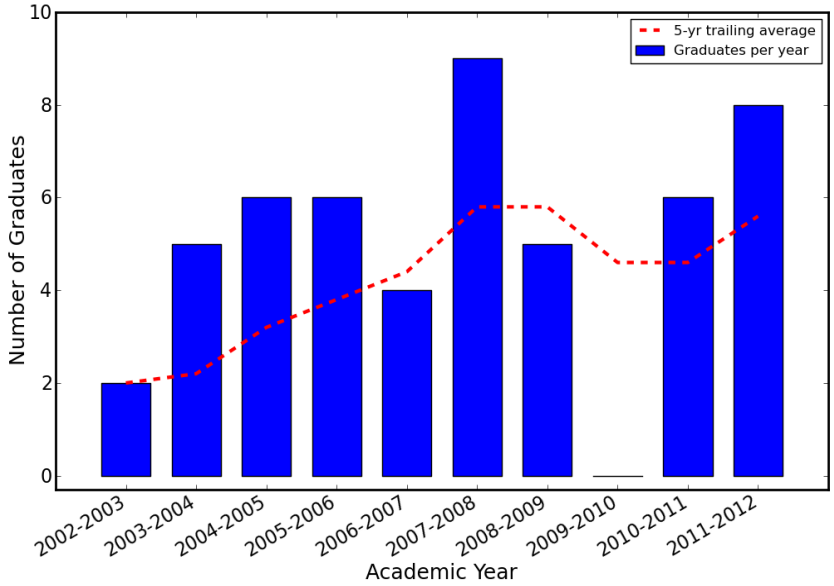


Figure 2: Number of graduates per year for the Department of Physics & Astronomy. The red line shows a 5-year trailing average.

### 6.1.3 Changes to the program and evaluation of the field.

The major changes to the program are the implementation of the minor in astronomy, and the addition of the new service course PHYS 141: Introduction to Musical Acoustics.

## 6.2 Department Planning and Structure

### 6.2.1 Departmental Goals and Priorities for the Next 5 Years

The primary goal of the department over the next 5 years must be recruiting and retaining a larger number of majors at the undergraduate and M.S. levels. Our goal is to grow the department such that we have roughly 50 undergraduate majors enrolled in any given year, and 12 graduate students in the M.S. program. Physics is arguably *the* most fundamental science, and a healthy physics program is essential for a successful, vibrant university.

### 6.2.2 Strengths and Weaknesses of the Department

The faculty of the department as a group have grown in recent years, but we still rely too heavily on adjunct professors. We currently use adjunct instructors to teach over 20 SCH each term at our main campus, An analysis completed by Dr. Haydn Fox, Asst. Dean of CoSEA indicates that our department has a faculty line deficit of 3.4 faculty. We believe that these students would be best served by one or more new faculty members who are scientists holding Ph.D. degrees in physics or astrophysics but who also have a passion for physics education. Faculty members that can bring the excitement of the research endeavor to the Integrated Science classroom will

inspire those future teachers who will in turn inspire their students. Currently, all our departmental faculty members are all male. This is not uncommon in the physical sciences, but studies show that the presence of female faculty members does positively influence course selection and major choice (e.g., Bettinger & Long, 2005 Am. Economic Rev., 95, 152-157). Our goal will be to actively recruit top-tier female candidates for this new faculty line using personal contacts, with the hope that we can attract candidates that are the best of all applicants. The new faculty hire must be eager to teach future teachers, but of course also will have a research focus that compliments the existing research efforts in the department. We are hoping to attract a candidate who is an observational astronomer who will make use of our newly acquired access to the SARA telescopes at KPNO in Arizona, and the CTIO in Chile. A strong record of successful grant proposals will be an additional factor used to identify the top candidate. Next year we will propose to add a concentration in Astronomy and Astrophysics to our existing Physics Degree, as we know from experience that such an offering is very attractive to today's prospective students. We anticipate that this new concentration supported by the new faculty line will lead to a doubling of our number of entering freshmen within 5 years, and more than a doubling of graduation rates within 10 years.

Many of our classes are taught in the classrooms of the McFarland Science Building. These rooms are in general adequate.

The University Observatory located about 5 miles south of campus is used for teaching, research, and public outreach. The site currently lacks internet access, which limits some research activities.

### 6.2.3 Faculty Expertise

Our faculty have broad expertise that fully covers the breadth of the program, from Experimental Physics (Drs. Chourasia and Rogers), to Physics Education (Dr. Newton), to Theoretical Physics (Drs. Bertulani and Li), to Astronomy & Astrophysics (Drs. Montgomery, Williams and Wood). Curriculum Vitae for faculty members are included in an Appendix A.

### 6.2.4 Faculty Qualifications

SACS Credential Inventory forms are included in Appendix B.

### 6.2.5 Faculty Productivity 2011- 2012 Academic Year

All faculty members teach full loads excepting those that have significant externally-funded research efforts or administrative duties. An analysis by Dr. Hayden Fox, Asst. Dean of CoSEA indicates that Physics and Astronomy SCH generation is 125.16 hours, with 2985 credit hours production. Nearly all faculty members are research active, producing one or more refereed publications per year (see Appendix A). All faculty contribute service to the department and/or university though committee assignments or organizing special projects or events.

### 6.2.6 Quality of the Management and Communications in the Department

The current department head (Wood) was hired Aug 1, 2012. He has worked to foster a collegial environment where faculty and staff are encouraged to participate in the decision-making process and the implementation activities that result. Faculty meet as a group approximately twice per month to discuss the needs of the department, but the most frequent means of communication is face-to-face contact and via email. The department head works closely with the administrative secretary on a daily basis, and is in face-to-face, phone or email contact with adjunct faculty as needed. Dr. Newton is a new faculty, and the department head asked Dr. Li to serve as his faculty mentor.

### 6.2.7 Student Advising and Mentoring

The Department of Physics and Astronomy is committed to providing quality advising for all students in our program. Beginning Fall 2012, Dr. Montgomery serves as the undergraduate academic advisor for our majors. Dr. Kurtis Williams is the faculty advisor for the Society of Physics Students.

### 6.2.8 Substantial Online Course Offerings/off-campus Programs

Dr. Kurtis Williams received a Texas Space Grant Consortium to develop an online section for ASTR 1412: Stars and the Universe. The first offering was in the Fall 2012 term. The goal is to reach students who are unable to take the courses on-campus. Dr. Williams is working with the Faculty Center for Teaching with Technology to develop student-centered course materials including laboratory exercises. The course is being developed to meet national Quality Matters standards. Assessment includes widely used concept inventory tests and student attitude surveys, in addition to the standard university course evaluation surveys.

We also have been teaching our Integrated Science I and II courses IS 1415 and IS 1417 online for several years now using adjunct professors. These courses are University Studies courses serving students who are non-science majors. We have offered a section of IS 1415 at the new Rockwall Center, but at the time of this writing, it does not appear there will be a sufficient number of students for the course to make.

Our courses IS 351 and IS 352 (Science Inquiry I and II) for pre-service teachers are taught at off-campus locations (Collin Higher Education Center, Navarro-Corsicana, and Navarro-Midlothian) using adjunct professors.

## 6.3 Commitment to Student Learning

### 6.3.1 Learning Goals and Assessment Program

The Department of Physics and Astronomy has not to-date had a strong record of assessment activities. Our Student Learning Outcomes as listed on our Matrix for Educational Programs are:

1. Physics majors will know and be able to apply the concepts of (i) mechanics, (ii) electricity & magnetism, (iii) thermal physics, and (iv) atomic physics.

- Assessment: Embedded questions in final exams of (i) PHYS 411 (ii) PHYS 412 (iii) PHYS 414, and (iv) PHYS 321 and PHYS 420. At least 70% of students will achieve a score of 70% or better.

2. Students should be able to communicate their knowledge of physics both in written and oral presentations; they should be adept at presenting ideas conceptually and in specific detail.
   - Assessment: Students give oral presentations or prepare manuscripts in PHYS 401, depending on the semester. Students take this seminar course twice.
3. Students will have adequate practical skills to approach physics problems, including designing and executing experiments to test physical theories, as well as analyzing and understanding experimental data.
   - Assessment: Performance in PHYS 441, measured by lab reports.

In addition, we have Student Learning Outcomes for six of our University Studies courses. These SLOs and results as determined by embedded questions on course final exams as reported for Spring 2011 are as follows:

1. ASTR 1411: Students will be able to determine latitude by using the altitude of the Sun. (55%)
2. ASTR 1412: Students will be able to identify the primary energy source of main sequence stars. (89%)
3. IS 1415: Students should be able to understand the nature of forces among different objects. (88%)
4. IS 1417: Students will understand the importance of experiments to the natural sciences and have developed basic laboratory skills. (81%)
5. PHYS 2425: Students will be able to calculate the acceleration of an object with unbalanced forces applied on it. (67%)
6. PHYS 2426: Students should be able to understand the interaction among the electric charges and should be able to determine this interaction (either through the force or through the field) (77%)

We encourage all students to participate in research projects, and our department is an active participant in the Annual Research Symposium (organized by Dr. Chourasia) held each year during the first week of May.

**6.3.2 Summary Analysis of Results of Assessment Program**

As noted above, we are only recently begun to implement a significant *formal* assessment culture in the department, so at this time, we have not made any dramatic changes that were the result of formal assessments. Note, however, that of course our faculty are professionals with a keen interest in doing the best job they can in the classroom, and each faculty member makes changes from year to year in how they deliver their course materials and engage the student population based on the experience and student evaluations from previous years.

### 6.3.3 The Program's Role in Providing Service Courses

The Department offers a wide variety of service courses for the core curriculum and general education program. We offer lower-division lecture+lab Integrated Science courses (IS1411, IS1412) for non-science majors, and upper-division Integrated Science courses (IS 351, IS 352) for pre-service teachers. The latter courses focus on teaching pre-service teacher *how* to teach science, including a large sample of lab exercises that they can use directly in their own classrooms. We also offer Historical Development of Great Ideas in Science (IS 451) for pre-service teachers. In 2011 we implemented a lecture+lab course for music majors - Musical Acoustics (PHYS 141) - that has attracted typically 20 students per year. We offer lecture+lab College Physics courses (PHYS 1401, PHYS 1402), which are algebra based, and the traditional lecture+lab University Physics courses (PHYS 2425, PHYS 2426), which are calculus based. These courses address directly the intellectual competencies Reading, Listening, and Critical Thinking, and to a lesser extent Writing, Speaking, and Computer Literacy. The bulk of our SCH hours are service hours, given that our upper-division physics courses taken by majors are typically offered every other year, and have ~10 students enrolled. Our total SCH production thus only slightly overestimates our service course SCH production. Our total SCH production for the past 5 years are given in Table 1, and average 7160 with a significant positive trend.

Table 1: Total SCH Production by Academic Year

| Academic Year | Total SCH Production |
|---|---|
| 2007-2008 | 6,812 |
| 2008-2009 | 6,517 |
| 2009-2010 | 7,007 |
| 2010-2011 | 7,919 |
| 2011-2012 | 7,549 |

This year, we will be working to implement the changes required by the statewide core science mandate dropping to 6 sch effective Fall 2014. We anticipate these changes will reduce the number of lab sections offered, and so may reduce our need for GAT positions slightly.

## 6.4 Recommendations and Implementation Plan

### 6.4.1 Recommendations of the Program in Response to this Review

We need to grow our undergraduate major enrollment by at least 50% over the next 5 years. We have started an active recruiting effort, are currently developing a new departmental brochure, and are discussing whether advertising our program would attract additional students. What distinguishes us from other nearby Physics programs is our emphasis in astrophysics, and our access to two of the premier observing sites in the world through our membership in the SARA Telescope Consortium. We feel that if we can get the word out, we will recruit students who otherwise would not have come to A&M Commerce.

We need to improve our assessment activities in the department. We will implement a more broad-based assessment of our course and program effectiveness, using input and expertise from departmental faculty members. Within three years we will have formal assessment data gathered for all courses offered.

We plan to introduce concentrations under the physics degree to attract additional students. The first concentration will be "Astronomy & Astrophysics", and the second "Biophysics". Our experience is that prospective students now make extensive (and perhaps exclusive) use of internet search engines while searching for universities that offer the degrees that interest them, and their search terms are likely to be specialized. The current department head found this to be the case at his previous university, where enrollment numbers more than doubled after he worked to implement a concentration in Astronomy & Astrophysics under the existing Space Sciences degree program. We are hoping for a similar result here. These plans are evolutionary, and can be accomplished with only limited 'new' courses – one for each concentration. This is a relatively small price to pay for a significant increase in enrollment of departmental majors.

We are also currently re-working our Broadfield Science: Major in Physics program designed for pre-service teachers. A&M Commerce is one of the largest producers of Texas teachers, and we are working to recruit pre-service teachers into this program which has been streamlined to 120 hours, consistent with our physics degree.

We expect that our students will continue to be drawn mostly from our region, and most of our active recruiting will focus on high schools and junior colleges in the area. We have made preliminary visits to 3 local junior colleges, and will visit their physics classrooms during the Spring 2013 term to recruit students to our program.

### 6.4.2 Resources Needed

Our primary need at this time is 1-2 additional faculty lines, as noted above in section 6.2.2. Carefully selected hires will allow us to expand our research efforts and our ability to recruit pre-service teachers into our Broadfield Science: Major in Physics program. These new faculty members will require office and laboratory space, so if the hires are granted, we will request additional space.

As noted above, we currently lack internet access at our University Observatory located 5 miles south of campus. We require internet access to fully utilize the facility.

# Appendix A: Faculty Curriculum Vitae

# Biographical Data


## Carlos A. Bertulani

Department of Physics, Texas A&M University-Commerce, Commerce, TX 75429-3011
*Phone*: (903) 886-5882, *Fax*: (903) 886-5480
*E-mail*: carlos.bertulani@tamuc.edu
*URL*: http://faculty.tamuc.edu/cbertulani/


**Current Position:**

Professor, Texas A&M University-Commerce, Commerce, USA.

**Previous Faculty Positions:**

- Professor, Physics Department, Federal University of Rio de Janeiro, Brazil, 1988-2000 (on leave 1991-1994).
- Assistant Professor, Physics Department, Federal University of Rio de Janeiro, Brazil, 1980-1983.

**Visiting Faculty Positions:**

- Research Professor, Department of Physics, University of Tennessee, Knoxville, USA, 2006-2007.
- Senior Scientist, Physics Division, Oak Ridge National Laboratory, Oak Ridge, USA, 2006-2007.
- Visiting Professor, Department of Physics, University of Arizona, USA, 2004 -2006.
- Visiting Professor, National Superconducting Cyclotron Laboratory, Michigan State University, USA, 2002 -2004.
- Guggenheim Fellow and Senior Researcher, Brookhaven National Laboratory, NY, USA, 2000-2001.
- Visiting Professor, Institut fuer Kernphysik III, Gesellschaft fuer Schwerionenforschung, Darmstadt, Germany, 1994.
- Visiting Professor, University of Wisconsin, Madison, USA, 1993.
- Visiting Professor, National Superconducting Cyclotron Laboratory, Michigan State University, USA, 1991 -1992.

**Other Faculty Positions:**

Distinguished Affiliated Professor, Department of Physics, University of North Texas, 2007-present

**Degrees:**

- Ph.D. (Nuclear Physics), University of Bonn, Germany, June 1987 -Thesis with *Summa Cum Laude*.
- M.S. (Nuclear Physics), Federal University of Rio de Janeiro, Brazil, 1983.
- B.S. (Physics), Federal University of Rio de Janeiro, Brazil, 1980.

**Grants, Awards, Fellowships and Honors:**

- National Science Foundation – Research Experience for Undergraduates, Co-PI, 2011-2013.
- Department of Energy (DE-FG02-08ER41533), PI, 2011-2013.
- Department of Energy (DE-FG02-08ER41533), PI, single investigator, 2008-2010.
- Department of Energy (DE-FC02-07ER41457), PI, single investigator, 2007-2011.
- Cotrell Corporation (ID: 10497), PI, single investigator, 2010-2011.
- National Science Foundation (ID: OISE-0921447), PI, Pan-American Advanced Institute 2010.
- Department of Energy (DOE FOA 08-10), co-PI, collaborative, 2010-2013.
- Department of Energy (DE-FC02- ER41588), PI, single investigator, 2007.
- Department of Energy (DE-FC02-07ER41457), Oak Ridge National Lab, 2006.
- Department of Energy, Co-PI, (with Bira van Kolck), 2005.
- Research Award: Program for Excellence in Research (PRONEX), Brazil, 1996-2000, Co-PI.
- Research Award: CNPq and CAPES, Brazil, 1997-2000. To fund 60-70 PhD students in the graduate study program of the Physics Department of the UFRJ (Federal University of Rio de Janeiro).
- Granted 3 times (as PI) an International US(NSF)-Brazil(CNPq) collaboration. Two with the University of Wisconsin at Madison, (American co-PI's: Kirk McVoy and A. Baha Balantekin) and one with Michigan State University (American co-PI's: Vladimir Zelevinsky and P. Gregers Hansen).

**Honors:**

- *APS Fellow.*
- *John Simon Guggenheim Fellow*, 2000-2001.
- *H.M. Lafferty Distinguished Faculty award*, Texas A&M University-Commerce, 2009.
- *Dev R. Chopra Research Excellence Award*, Texas A&M University-Commerce, 2010.
- Fellow of the Conselho Nacional de Desenvolvimento Científico e Tecnólogico (CNPq), Brazil, 1995-2000. Highest rank.
- Fellow of the Conselho Nacional de Desenvolvimento Científico e Tecnólogico (CNPq), Brazil, 1988 -1990.
- *Humboldt Fellowship*, KFA-Juelich, 1987.
- *Deutscher Akademische Austauschdienst Fellow*, Germany, 1984-1987.

**Scientific Publications:**

- Scientific Journals: *180+ articles* published in refereed international scientific journals, *30+ papers* in conference proceedings.
- Conferences: 30+ *publications* in conference proceedings and participation in numerous conferences.
- Author of 5 textbooks published with *Princeton Press*, IOP and *Nova Science* and *World Scientific*.
- Edited 5 Proceedings of International Conferences with World Scientific and North Holland.

**Textbooks:**

- "*Nuclear Physics in a Nutshell*", Princeton Press, 2007, ISBN13: 978-0-691-12505-3, 473 pages.
Provides a clear, concise, and up-to-date overview of the atomic nucleus and the theories that seek to explain it. For graduate students.
- "*Introduction to Nuclear Reactions*", with P. Danielewicz, IOP Publishing, Bristol, May 2004, ISBN: 0-75030-932-6, 536 pages.
Providing a concise overview of nuclear reactions, this reference discusses the main formalisms, ranging from basic laws to the final formulae used to calculate measurable quantities. For graduate students.
- "*Introduction to Nuclear Physics*", with H. Schechter, Nova Publishers, Hauppage, NY, 2002, ISBN: 1-59033-358-6, 313 pages.
A concise overview of nucleus physics. For undergraduate students.
- "*Physics of Radioactive Beams*", with M. Hussein and G. Muenzenberg, Nova Publishers, Hauppage, NY, 2002, ISBN: 1-59033-141-9, 437 pages.
To my knowledge, the first textbook on the physics of rare nuclear isotopes, the reaction theory developed for reactions and structure theory of unstable nuclei. For graduate students.
- "*Introdução a Física Nuclear*" (in Portuguese) with Helio Schechter, Editora da UFRJ, 2006, ISBN: 978-85-7108-288-5, 412 pages.
This book is a translation to Portuguese of "Introduction to Nuclear Physics", with few additional material. For undergraduate students.

**Books edited**

- *"Neutron Star Crust",* Eds. C.A. Bertulani and J. Piekarewicz, Nova Science Publishers, Hauppage, New York, 2012.
- *"International Nucleus-Nucleus Conference", Rio de Janeiro, Brazil,* Eds. C.A. Bertulani, M.S. Hussein and A. Szanto de Toledo and P.R.S. Gomes. Special volume of Nuclear Physics A, North-Holland, Amsterdam, 2007.
- *"Collective Excitations in Fermi and Bose Systems: Proceeding of the International Workshop",* Serra Negra, Sao Paulo, Brazil, Eds. Carlos Bertulani, L. Felipe Canto and Mahir Hussein, World Scientific, Singapore, 1999.
- *"Physics of Unstable Nuclear Beams: Proceedings of the International Workshop",* Serra Negra, Brazil, Eds. Carlos A. Bertulani, L. Felipe Canto and M. S. Hussein, World Scientific, Singapore, 1997.
- *"Nuclear Physics: Proceedings of the VIII Jorge André Swieca Summer School by Brazil) Jorge Andre Swieca Summer School*", Campos Do Jordão, Brazil, eds. Carlos A. Bertulani, M. E. Bracco and B. V. Carlson, World Scientific, Singapore, 1997.
- "*Nuclear Physics: Proceedings of the V J.A. Swieca Summer School*", Campos do Jordão, Brazil, Ed. C.A. Bertulani (CNEN Publishing), Rio de Janeiro, 1992.

**Administrative Positions:**

- *Chair*: Graduate Program of Physics - Federal University of Rio de Janeiro, Brazil, 1997-1999. A program with 60 to 70 PhD students.

- Member of Committees for Science funding (Group Grants, Postdoc Positions, PhD Fellowships) at the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Brazil, at the Coordenadoria de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Brazil, at the Deutscher Akademischer Austauschdienst (DAAD), Germany, at the Fundação de Amparo à Pesquisa do Estado de São Paulo, and at the Argentine Funding Agency PICT.
- Member of Department Committees (Strategic Plan, NSF and DOE Panels, Undergraduate Curriculum, Graduate Curriculum, Graduate Admissions, Recruitment & Prizes, Refereeing MS and PhD thesis).
- Executive Committee of the Texas Section of the *American Physical Society*. 2010 – 2013.
- Member of the American Physical Society Education committee. 2013 – 2015.

**Teaching Experience:**

- *59 undergraduate and graduate courses taught in the past.*
- *Thesis supervisor of 4 Ph.D. students and 7 MS students.* (completed).
- Presently advising two MSc students (John Fuqua and Lucretius Adrien Coleman).
- Four past postdoctoral fellows. Presently, two postdocs (Mesut Karakoç and Paolo Avogadro).

**Courses Taught as Assistant, Associate, or Full Professor:**

| **Semester** | **Course** | **Title** |
|---|---|---|
| Spring 1980 | Introductory Physics I | Physics for Engineers -- Mechanics -- UFRJ* |
| Fall 1980 | Introductory Physics I | Physics for Engineers -- Mechanics -- UFRJ |
| Spring 1981 | Introductory Physics III | Physics for Engineers -- Electricity, Magnetism & Optics -- UFRJ |
| Fall 1981 | Introductory Physics III | Physics for Engineers -- Electricity, Magnetism & Optics -- UFRJ |
| Spring 1982 | Introductory Physics II | Physics for Engineers -- Fluids & Thermodynamics -- UFRJ |
| Fall 1982 | Introductory Physics II | Physics for Engineers -- Fluids & Thermodynamics -- UFRJ |
| Spring 1983 | Introductory Physics IV | Physics for Engineers -- E&M, Optics & Modern Physics -- UFRJ |
| Fall 1987 | Quantum Mechanics I | Quantum Mechanics for Physics students -- UFRJ |
| Spring 1988 | Nuclear Physics I | Introduction to Nuclear Physics (for graduate students) -- UFRJ |
| Fall 1988 | Nuclear Physics I | Introduction to Nuclear Physics (for graduate students) -- UFRJ |
| Spring 1989 | Classical Electrodynamics I | Classical Electrodynamics (for graduate students) -- UFRJ |
| Fall 1989 | Classical Electrodynamics I | Classical Electrodynamics (for graduate students) -- UFRJ |
| Spring 1990 | Nuclear Reactions | Nuclear Reactions (for graduate students) -- UFRJ |
| Fall 1990 | Nuclear Reactions | Nuclear Reactions (for graduate students) -- UFRJ |
| Spring 1991 | Computational Physics I | Introduction to Computational Physics - Graduate -- UFRJ |
| Spring 1993 | PHY208 | Physics for Biology Students - Electricity/Magnetism/Optics - University Wisconsin, Madison |
| Summer | Radioactive Beams | Graduate -- GSI/Darmstadt**, 1994 |
| Fall 1994 | Quantum Mechanics | Modern Physics -- UFRJ |
| Spring 1995 | Quantum Mechanics | Modern Physics -- UFRJ |
| Fall 1995 | Classical Mechanics III | Classical Mechanics -- UFRJ |
| Spring 1996 | Classical Mechanics III | Classical Mechanics -- UFRJ |
| Fall 1996 | Physics for Biology I | Physics for Biology -- Mechanics & Thermodynamics -- UFRJ |
| Spring 1997 | Physics for Biology I | Physics for Biology -- Mechanics & Thermodynamics -- UFRJ |
| Fall 1997 | Quantum Mechanics II | Quantum Mechanics - Graduate -- UFRJ |
| Spring 1998 | Quantum Mechanics II | Quantum Mechanics - Graduate -- UFRJ |
| Fall 1998 | Topics in Hadron Physics | Topics in Hadron Physics - Graduate -- UFRJ |
| Spring 1999 | Topics in Hadron Physics | Topics in Hadron Physics - Graduate -- UFRJ |
| Spring 2002 | PHY982 | Nuclear Reactions - Graduate – Michigan State University |
| Fall 2002 | PHY232 | Physics for Biology Students - Electricity/Magnetism/Optics – Michigan State Univ. |

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| Spring 2003 | PHY184 | Physics for Engineers -- Mechanics -- Michigan State University |
| Fall 2003 | PHY184 | Physics for Engineers -- Mechanics -- Michigan State University |
| Spring 2004 | PHY982 | Nuclear Reactions – Graduate - Michigan State University |
| Fall 2004 | PHYS 102 | Introductory Physics I (Non-calculus) – Mechanics – Univ. of Arizona |
| Fall 2005 | PHYS 241 | Physics for Scientists and Engineers – Electricity/Magnetism – Univ. of Arizona |
| Spring 2006 | PHYS 142 | Physics for Scientists and Engineers – Thermodynamics/Optics – Univ. of Arizona |
| Fall 2007 | PHYS 111 | College Physics - Mechanics/Thermodynamics/Waves – TAMU-Commerce |
| Fall 2007 | PHYS 497 | Nuclear Astrophysics - TAMU-Commerce |
| Fall 2007 | PHYS 597 | Nuclear Astrophysics - Graduate - TAMU-Commerce |
| Spring 2008 | PHYS 512 | Classical Electromagnetism - Graduate - TAMU-Commerce |
| Spring 2008 | PHYS 112 | College Physics II - Thermodynamics/Waves/Optics - TAMU-Commerce |
| Fall 2008 | PHYS 411 | Classical Mechanics - Graduate - TAMU-Commerce |
| Fall 2008 | PHYS 517 | Mathematical Methods of Physics - Graduate - TAMU-Commerce |
| Spring 2009 | PHYS 211 | Introductory Physics I - Mechanics - TAMU-Commerce |
| Spring 2009 | PHYS 526 | Modern Physics II - Graduate - TAMU-Commerce |
| Fall 2009 | PHYS 497/590 | Nuclear Astrophysics - Graduate - TAMU-Commerce |
| Fall 2009 | PHYS 520 | Quantum Mechanics - Graduate - TAMU-Commerce |
| Spring 2010 | PHYS 512 | Classical Electromagnetism - Graduate - TAMU-Commerce |
| Spring 2010 | PHYS 514 | Statistical Physics - Graduate - TAMU-Commerce |
| Fall 2010 | PHYS 517 | Principles of Mathematical Physics, Graduate - TAMU-Commerce |
| Fall 2010 | PHYS 526 | Modern Physics, Graduate - TAMU-Commerce |
| Spring 2011 | PHYS 2046 | Musical Acoustics – TAMU-Commerce |
| Spring 2011 | PHYS141 | Introductory Physics – TAMU-Commerce |
| Fall 2011 | PHYS/497597 | Nuclear Astrophysics – TAMU-Commerce |
| Fall 2011 | PHYS520 | Quantum Mechanics – TAMU-Commerce |
| Spring 2012 | PHYS141 | Musical Acoustics – TAMU-Commerce |
| Spring 2012 | PHYS512 | Classical Electromagnetism - Graduate - TAMU-Commerce |
| Fall 2012 | PHYS2426 | College Physics II - Electromagnetism – TAMU-Commerce |
| Fall 2012 | PHYS523 | Atomic Physics – TAMU-Commerce |

* UFRJ = Federal University of Rio de Janeiro, Brazil
** GSI/Darmstadt = Gesellschaft für Schwerionenforschung, Darmstadt, Germany

**Organization of Meetings:**

- "NN2012 – 11th International Conference on Nucleus-Nucleus Collisions", San Antonio, Texas, May 27 – June 1, 2012. Local Organizing Committee.
- "*Texas Section APS meeting of the American Physical Society"*, Texas A&M-Commerce, October 6-8, 2011. *Chair.*
- "*YIPQS Long-term workshop Dynamics and Correlations in Exotic Nuclei (DCEN2011)*", 20th September - 28th October, 2011, Kyoto, Japan.
- "*International Workshop on The Limits of Existence of Light Nuclei*", ECT/European Center for Nuclear Studies and Related Areas, Trento, Italy, October 25-30, 2010. *Chair*.
- "*Pan-American Advanced Studies Institute on Rare Nuclear Isotopes*", Paraiba, Brazil, August 1 - 13, 2010. *Chair.*
- "*International Joint LACAM-JUSTIPEN workshop*", Oak Ridge National Laboratory, March 5-8, 2007. *Chair.*

- "*9th International Nucleus-Nucleus Conference*", Rio de Janeiro, Brazil, August 28-September 1, 2006. *Co-Chair*.
- "*International Workshop on Collective Phenomena in Bose and Fermi Systems*", Serra Negra, Brazil, August 1998. *Chair*.
- "*International Summer School on Nuclear Physics*", Campos do Jordão, Brazil, January 1997. *Chair*.
- "*International Workshop on Physics of Unstable Nuclear Beams*", Serra Negra, 1996, Brazil. *Chair*.
- "*Annual Meeting of the Brazilian Physics Society*", Aguas de Lindóia, Brazil, September 1995. *Chair.*
- "*Workshop on Indirect Methods in Nuclear Astrophysics*", Gesellschaft für Schwerionenforschung, Darmstadt, Germany, June, 1994. *Chair.*
- "*International Summer School on Nuclear Physics*", Campos do Jordão, Brazil, January 1991. *Chair*.
- Local Organizing Committee of the "*International Conference of Nuclear Physics - IUPAP*", São Paulo, Brazil, August 1989.
- "*Workshop on Theoretical Physics*", Physics Department, Federal University of Rio de Janeiro, Brazil, January 1988. *Chair.*

**Other Activities:**

- Member of the American Physical Society Education Committee.
- Member of the Executive Committee of the Texas Section of the American Physical Society.
- Panelist of the National Science Foundation on several occasions. Also as chair.
- Panelist of the Department of Energy on several occasions.
- Consultant for foreign funding agencies in Japan, Europe, South-Africa, Canada, and US (DOE and NSF).
- Member of the Advisory Committees of several International Workshops and Conferences.
- Member of the American Physical Society and of the Brazilian Physical Society.
- Referee for several international scientific journals (~ 10 times/year), including "The Physical Review" and "Nuclear Physics" journals.
- Member of Committees for Funding of Science (Group Grants, Postdoc Positions, PhD Fellowships) at the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Brazil, at the Coordenadoria de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Brazil, at the Deutscher Akademischer Austauschdienst (DAAD), Germany, at the Fundacao de Amparo à Pesquisa do Estado de São Paulo, and at the Argentine Funding Agency PICT.
- Member of Department Committees worldwide (Strategic Plan, Undergraduate Curriculum, Graduate Curriculum, Graduate Admissions, Recruitment & Prizes, Refereeing MS and PhD thesis).
- Organizer (chair or co-chair) of 13 international conferences and 2 international schools for graduate students.
- Software developer: wrote 4 computer codes distributed worldwide by Computer Physics Communications Library (UK).

**Invited Talks:**

- *220+ talks* presented at several universities and laboratories in USA, Europe, Asia and South America.

**Publications in peer-reviewed scientific journals**

**In press, or submitted**

1. A Democratic Gauge Model for Dark/Visible Matter Symmetry, O. Oliveira, C. A. Bertulani, M. S. Hussein, W. de Paula and T. Frederico, to be published. arXiv:1108.2723.
2. Coulomb distortion and medium corrections in nucleon-removal reactions, Mesut Karakoc, A. Banu, C. A. Bertulani, L. Trache, to be published.
3. Beyond the Neutron Drip-Line: The Unbound Oxygen Isotopes 25O and 26O, C. Caesar et al, to be published.
4. Updated evidences of the Trojan Horse particle invariance for 2H(d,p)3H reaction, R. G. Pizzone, C. Spitaleri, C. A. Bertulani, A. M. Mukhamedzhanov, L. Blokhintsev, M. La Cognata, L. Lamia, A. Rinollo, R. Spartá, A. Tumino, arXiv:1211.0904, to be published.
5. Big bang nucleosynthesis with a non-Maxwellian distribution , C.A. Bertulani, J. Fuqua and M.S. Hussein, to be published.

## Published

6. Pygmy dipole resonance in 208Pb, I. Poltoratska et al., Phys. Rev. C 85, 041304 (2012). (5 pages)
7. Constraining Gluon Shadowing Using Photoproduction in Ultraperipheral pA and AA Collisions, Adeola Adeluyi and Carlos A. Bertulani, Phys. Rev. C 85, 044904 (2012). (13 pages)
8. Global investigation of odd-even mass differences and radii with isospin dependent pairing interactions, C.A. Bertulani, Hongliang Liu and H. Sagawa, Phys. Rev. C 85, 014321 (2012). (8 pages)
9. Extending the Kawai-Kerman-McVoy Statistical Theory of Nuclear Reactions to Intermediate Structure via Doorways, G. Arbanas, C.A. Bertulani, D.J. Dean, A.K. Kerman, and K.J. Roche, Eur. Phys. J. Conference series 21, 07002 (2012). (7 pages)
10. Tunneling, Diffusion and Dissociation of Feshbach Molecules in Optical Lattices, Taylor Bailey, Carlos A. Bertulani and Eddy Timmermans, Phys. Rev. A 85, 033627 (2012). (6 pages)
11. Gluon distributions in nuclei probed at the CERN Large Hadron Collider, Adeola Adeluyi and Carlos A. Bertulani, Phys. Rev. C 84, 024916 (2011). (9 pages)
12. Complete Electric Dipole Response in 208Pb, A. Tamii et al., Phys. Rev. Lett., 107, 062502 (2011). (5 pages)
13. On the occurrence of extreme K-isomers in neutron-rich Hf nuclei, H.L. Liu, F.R. Xu, P.M. Walker, and C.A. Bertulani, Phys. Rev. C, 83, 067303(2011). (4 pages)

14. Solar fusion cross sections II: the pp chain and CNO cycles, E.G. Adelberger et al., Rev. Mod. Phys. 83, 195 (2011). (51 pages)
15. Fusion 11, C.A. Bertulani, Eur. Phys. J. Conference series 17, 15001 (2011). (8 pages)
16. Trojan horse particle invariance studied with the 6Li(d, alpha )4He and 7Li(p, alpha )4He reactions, R. G. Pizzone et al, R. G. Pizzone et al, Phys. Rev. 83, 045801 (2011). (8 pages)
17. Neutrino and antineutrino cross sections in 12C, A. R. Samana, F. Krmpotic, N. Paar, and C. A. Bertulani, Journal of Physics: Conference Series 312 (2011) 072009. (6 pages)
18. The nucleus-nucleus interaction between boosted nuclei, Wen-Hui Long and C.A. Bertulani, Physical Review C 83, 024907 (2011). (6 pages)
19. Neutrino and Antineutrino charge-exchange reactions on 12C, A.R. Samana, F. Krmpotic, N. Paar and C.A. Bertulani, Physical Review C 83, 024303 (2011). (19 pages)
20. Effects of order deformation on superheavy high-*K* isomers, H.L. Liu, F.R. Xu, P.M. Walker, C.A. Bertulani, Phys. Rev. C 83, 018801 (2011). (4 pages)
21. Electron screening and its effects on Big-Bang nucleosynthesis, Biao Wang, C.A. Bertulani and A.B. Balantekin, Physical Review C 83, 018801 (2011). (4 pages)
22. Electric dipole response in 120Sn, Anna Maria Heilmann et al., J. Phys: Conference Series 312, 092029 (2011). (6 pages)
23. The electron-ion scattering experiment ELISe at the International Facility for Antiproton and Ion Research (FAIR), A.N. Antonov et al., Nuc. Inst. Meth. Phys. Res. A 637, 60 (2011). (18 pages)
24. Pauli blocking and medium effects in nucleon knockout reactions, C. Bertulani, and C. De Conti, submitted to Phys. Rev. C 81, 064603 (2010). (8 pages)
25. Nuclear Astrophysics with Radioactive Beams, C.A. Bertulani and A. Gade, Physics Reports 485, 195 (2010). (65 pages)
26. Nuclear halo structure and pseudospin symmetry, WenHui Long, Peter Ring, Jie Meng, Nguyen Van Giai, and Carlos A. Bertulani Phys. Rev. C 81, 031302(R) (2010). (5 pages)
27. QRAP: a numerical code for projected (Q)uasi-particle (RA)ndom (P)hase approximation, F. Krmpotic; A. Samana, C.A. Bertulani, Computer Physics Communications 181 (2010) 1123–1135. (13 pages)
28. Dynamical Relativistic Effects in Breakup Processes of Halo Nuclei, K. Ogata and C.A. Bertulani, Prog. Theor. Phys, 123, 710 (2010).
29. Production of exotic atoms at energies available at the CERN Large Hadron Collider, C. A. Bertulani and M. Ellermann, Phys. Rev. C 81, 044910 (2010). (6 pages)
30. Nuclear Astrophysics in Rare Isotope Facilities, C.A. Bertulani, Nucl. Phys. A, 834, 643 (2010).
31. Nuclear reactions (book chapter), C.A. Bertulani, Wiley Encyclopedia of Physics, ISBN-13: 978-3-527-40691-3 - Wiley-VCH, Berlin, 2009. (45 pages)
32. Odd-even mass difference and isospin dependent pairing interaction, C.A. Bertulani, Hongfeng Lu, H. Sagawa, Phys. Rev. C 80, 027303 (2009). (4 pages)
33. Probing two-photon decay widths of mesons at energies available at the CERN Large Hadron Collider (LHC), C.A. Bertulani, Phys. Rev. C 79, 047901 (2009). (4 pages)

34. Effects of distortion on the intercluster motion in 2H, 3He, 3H, 6Li and 9Be on trojan horse applications, R. G. Pizzone, C. Spitaleri, A. M. Mukhamedzhanov, L. D. Blokhintsev, C. A. Bertulani, B. F. Irgaziev, M. La Cognata, L. Lamia, and S. Romano, Phys. Rev. C 80, 025807 (2009). (10 pages)
35. Non-inertial effects in fusion reactions of astrophysical interest, C.A. Bertulani, Jun-Ting Huang and Plamen Krastev, Mod. Phys. Lett. A 24, 1109(2009). (12 pages)
36. Odd-even mass differences from self-consistent mean field theory, G.F. Bertsch, C.A. Bertulani, W. Nazarewicz, N. Schunck and M.V. Stoitsov, Phys. Rev. C 79, 0343306 (2009). (12 pages)
37. Radiative capture of protons and neutrons at astrophysical energies with single-particle models, Junting Huang, C.A. Bertulani and V. Guimaraes, Atomic Data and Nuclear Data Tables, 2010.
38. Dissociation of relativistic projectiles with the continuum-discretized coupled-channels method, K. Ogata and C.A. Bertulani, Prog. Theor. Phys. (Letter) 121 (2009), 1399. (8 pages)
39. The 9Be(8Li,9Be)8Li elastic-transfer reaction, O. Camargo et al., Phys. Rev. C 78, 034605 (2008). (8 pages)
40. Nuclear astrophysics from direct reactions, C.A. Bertulani, Rev. Mex. Phys. 53, 11 (2008). (8 pages)
41. Detection of superrnovae neutrinos with neutrino-iron scattering, A.R. Samana and C.A. Bertulani, Phys. Rev. C78, 024312 (2008). (5 pages)
42. Blurred femtoscopy in two-proton decay, C.A. Bertulani, M.S. Hussein and G. Verde, Phys. Lett. B 666, 86 (2008). (5 pages)
43. Geometry of halo nuclei, C.A. Bertulani and M.S. Hussein, Phys. Rev. C76, 051602 (2008) (R). (4 pages)
44. Tunneling of a composite particle: Effects of intrinsic structure, C.A. Bertulani, V.V. Flambaum, and V.G. Zelevinsky, Journal of Physics G 34 (2007) 2289. (7 pages)
45. Electro-disintegration following beta-decay, C.A. Bertulani, Phys. Rev. C75, 057602 (2007). (3 pages)
46. Nuclear astrophysics with unstable nuclei, C.A. Bertulani, Nucl. Phys. A 790, 467 (2007). (5 pages)
47. Pygmy resonances probed with electron scattering, C.A. Bertulani, Nucl. Phys. A 788, 366 (2007). (6 pages)
48. Coulomb excitation of unstable nuclei at intermediate energies, C.A. Bertulani, G. Cardella, M. De Napoli, G. Raciti, and E. Rapisarda, Phys. Lett. B. 650 (2007) 233. (6 pages)
49. 7Be(p,gamma)8B S-factor from ab initio wave functions, P. Navrátil, C.A. Bertulani, and E. Caurier, Nucl. Phys. A787 (2007) 539. (8 pages)
50. Excitation of soft dipole modes in electron scattering, C.A. Bertulani, Phys. Rev. C 75, 024606 (2007). (9 pages)
51. Probing nuclear skins and halos with elastic electron scattering, C.A. Bertulani, J. Phys. G 34 (2007) 315. (9 pages)
52. Direct reactions in/for astrophysics, Proceedings of Science (online at: http://pos.sissa.it/index.html), 2007. (11 pages)

53. Short-range correlations in two-nucleon knockout reactions, C.A. Bertulani, Nucl. Phys. A 767, 155 (2006). (16 pages)
54. 7Be(p,gamma)8B S-factor from ab initio wave functions, P. Navrátil, C.A. Bertulani, and E. Caurier, Phys. Lett. B 634 (2006) 191. (4 pages)
55. 7Be(p,gamma)8B S-factor from ab initio No-Core Shell Model (NSCM) wave functions, P. Navratil, C.A. Bertulani, and E. Caurier, Phys. Rev. C73 (2006) 065801. (20 pages)
56. MOMDIS: a Glauber model computer code for knockout reactions, C.A. Bertulani and A. Gade, Comp. Phys. Comm. 17 (2006) 372. (9 pages)
57. Nuclear Physics from Scratch, W.E. Ormand, P. Navratil, C. Forssen and C.A. Bertulani, Acta Phys. Hung. (Heavy Ion Phys.) 25 (2006) 187. (8 pages)
58. Can the neutron capture cross sections be measured with Coulomb dissociation?, Á. Horváth, C.A. Bertulani, et al., Eur. Phys. J. A 27, Supp. 1 (2006) 217. (4 pages)
59. Electron scattering on halo nuclei, C.A. Bertulani, Phys. Lett. B 624 (2005) 203. (7 pages)
60. Knockout from 46Ar: l=3 removal and deviations from the eikonal theory, A. Gaade, D.A. Bazin, C.A. Bertulani, B.A. Brown, C.M.Campbell, D.C. Dinca et al., Phys. Rev. C 71, 051301(R) (2005). (5 pages)
61. New 32Cl(p, gamma)33Ar reaction rate for astrophysical rp-process calculations, H. Schatz, C.A. Bertulani, A.B. Brown, R. R. C. Clement, A.A. Sakharuk, and B. Sherrill, Phys. Rev. C 72, 065804 (2005). (7 pages)
62. Physics of ultra-peripheral relativistic nuclear collisions, C.A. Bertulani, S. Klein and J. Nystrand, Ann. Rev. Nuc. Part. Sci. 55 (2005) 271 . (41 pages)
63. Relativistic continuum-continuum coupling in reactions with halo nuclei, C.A.Bertulani, Phys. Rev. Lett. 94, 072701 (2005). (4 pages)
64. Momentum distributions in stripping reactions of radioactive projectiles at intermediate energies, C.A. Bertulani and P.G. Hansen, Phys. Rev. C70, 034609 (2004). (13 pages)
65. Electronic stopping in astrophysical fusion reactions, C.A. Bertulani, Phys. Lett. B 585 (2004) 35. (7 pages)
66. Proton-tetraneutron elastic scattering, B. Sherrill and C.A. Bertulani, Phys. Rev. C 69, 027601 (2004). (2 pages)
67. The stopping of low energy ions in reactions of astrophysical interest, C.A. Bertulani, Prog. Theo. Phys. Suppl. 154, 325 (2004). (8 pages)
68. Proton vs. neutron halo breakup, A. Bonaccorso, D. Brink and C.A. Bertulani, Phys. Rev. C 69, 024615 (2004). (7 pages)
69. Nuclear astrophysics in rare isotope facilities, C.A. Bertulani, Acta Phys. Hung. (Heavy Ion Phys.) 21, 307 (2004). (8 pages)
70. RADCAP: A potential model tool for radiative capture reactions, C.A. Bertulani, Comput. Phys. Commun. 156 (2003) 123. (19 pages)
71. Intermediate Coulomb excitation as a probe of nuclear structure at radioactive beam facilities, C.A. Bertulani, A. Stuchbery, T. Mertzimekis and A. Davies, Phys. Rev. C 68, 044609 (2003). (10 pages)

72. Two-phonon giant resonances in 136Xe, 208Pb, and 238U, K. Boretzky, A. Grünschloß, S. Ilievski, P. Adrich, T. Aumann, C. A. Bertulani, J. Cub, W. Dostal, B. Eberlein, Th. W. Elze, H. Emling, M. Fallot, J. Holeczek, R. Holzmann, C. Kozhuharov, J. V. Kratz, R. Kulessa, Y. Leifels, A. Leistenschneider, E. Lubkiewicz, S. Mordechai, T. Ohtsuki, P. Reiter, H. Simon, K. Stelzer, J. Stroth, K. Sümmerer, A. Surowiec, E. Wajda, and W. Walus, Phys. Rev. C 68, 024317 (2003). (17 pages)
73. Entangled states in reactions with rare isotopes and the EPR paradox, C.A Bertulani, J. Phys. G29 (2003) 769. (7 pages)
74. Tetraneutron as a dineutron-dineutron molecule, C.A. Bertulani and V.G. Zelevinsky, J. Phys. G 29 (2003) 2431. (7 pages)
75. Breakup of the weakly bound 17F nucleus, C.A. Bertulani and P. Danielewicz, Nucl. Phys. A717 (2003) 199. (15 pages)
76. Photon exchange in nucleus-nucleus collisions: Topic Review, C.A. Bertulani, Int. Journ. Mod. Phys. A18 (2003) 685. (51 pages)
77. DWEIKO: A computer program for nuclear scattering at intermediate and high energies, C.A. Bertulani, C.M. Campbell, and T. Glasmacher, Comput. Phys. Commun. 152 (2003) 317. (24 pages)
78. Coupling of giant resonances to soft E1 and E2 modes in boron-8, C.A. Bertulani, Phys. Lett. B 3 (2002) 205. (5 pages)
79. Effective field theory for halo nuclei, C.A. Bertulani, H.-W. Hammer and U. van Kolck , Nucl. Phys. A 712 (2002) 37. (22 pages)
80. One- and two-photon physics with relativistic heavy ions, C.A. Bertulani, Acta Phys. Hung. (Heavy Ion Phys.) 15 (2002) 359. (8 pages)
81. Peripheral heavy ion collisions as a probe of the nuclear gluon distribution, V.P. Goncalves and C.A. Bertulani, Phys. Rev. C 65, 054905 (2002). (8 pages)
82. Multipole expansion in relativistic Coulomb excitation, H. Esbensen and C.A. Bertulani, Phys. Rev. C 65 (2002) 024605. (7 pages)
83. Two- and Three-photon Fusion in Relativistic Heavy Ion Collisions, C.A. Bertulani and F. Navarra, Nucl. Phys. A703 (2002) 861. (15 pages)
84. Description of Double Giant Dipole Resonance within the Phonon Damping Mode, C.A. Bertulani, P.F. Bortignon, V.Yu. Ponomarev, V.V. Voronov, Phys. Rev. Lett. 87 (2001) 269201. (1 page)
85. Peripheral Collisions of Relativistic Heavy Ions, C.A. Bertulani, Acta Phys. Hung. (Heavy Ion Phys.) 14 (2001) 51. (6 pages)
86. Density dependence of in-medium nucleon-nucleon cross sections, C.A. Bertulani, J. Phys. G 27 (2001) L67. (5 pages)
87. The electromagnetic interaction of relativistic heavy ions, C.A. Bertulani, Phys. Rev. A 63 (2001) 062706. (4 pages)
88. Pair production with capture in peripheral collisions with heavy ions, C.A. Bertulani and D. Dolci, Nucl. Phys. A 683 (2001) 635. (14 pages)

89. The stopping of swift protons in matter and its implication for nuclear astrophysics , C.A. Bertulani and D.T. de Paula, Phys. Rev. C 62, 045802 (2000). (5 pages)
90. Influence of damping on the excitation of the double giant resonance, G. Baur, C.A. Bertulani and D. Dolci, Eur. Phys. J. A7 (2000) 55. (4 pages)
91. Charge exchange in relativistic heavy ion collisions, C.A. Bertulani and D. Dolci, Nucl. Phys. A 674 (2000) 527. (12 pages)
92. Impact parameter dependence of giant resonance excitations in relativistic heavy ion collisions, A. Grünschloss et al., LAND collaboration, and C.A. Bertulani, Phys. Rev. C60, 051601 (1999). (4 pages)
93. Measurement of the Coulomb dissociation of 8 B at 254 MeV/nucleon and the 8B solar neutrino flux , N. Iwasa, F. Boué, G. Surówka, K. Sümmerer, T. Baumann, B. Blank, S. Czajkowski, A. Förster, M. Gai, H. Geissel, E. Grosse, M. Hellström, P. Koczon, B. Kohlmeyer, R. Kulessa, F. Laue, C. Marchand, T. Motobayashi, H. Oeschler, A. Ozawa, M. S. Pravikoff, E. Schwab, W. Schwab, P. Senger, J. Speer, C. Sturm, A. Surowiec, T. Teranishi, F. Uhlig, A. Wagner, W. Walus, and C. A. Bertulani , Phys. Rev. Lett. 83 (1999) 2910. (4 pages)
94. Microscopic studies of the double giant resonance, C.A. Bertulani and V. Ponomarev, Phys. Reports 321 (1999) 139-251. (113 pages)
95. Bremsstrahlung radiation by a tunneling particle, C.A. Bertulani, D. T. de Paula, and V.G. Zelevinsky, Phys. Rev. C 60, 031602 (1999). (4 pages)
96. Isospin structure of one- and two-phonon GDR excitations, A.F.R. de Toledo Piza, M.S. Hussein, B. V. Carlson, C.A. Bertulani, L.F. Canto and S. Cruz-Barrios, Phys. Rev. C 59 (1999) 3093. (6 pages)
97. The astrophysical reaction 8Li (n, gamma ) 9Li from measurements by reverse kinematics, C.A. Bertulani, J. Phys. G 25 (1999) 1959. (5 pages)
98. RELEX: A Computer Program for Relativistic Multiple Coulomb and Nuclear Excitation, C.A. Bertulani, Computer Physics Communications 116 (1999) 345. (8 pages)
99. Double giant resonances in deformed nuclei, V.Yu. Ponomarev, C.A. Bertulani, and A.V. Sushkov, Phys. Rev. C 58 (1998) 2750. (4 pages)
100. Transitions between complex configurations in the excitation of the Double Giant Resonance, V.Yu. Ponomarev and C.A. Bertulani, Phys. Rev. C 57 (1998) 3476. (4 pages)
101. A Study of the Coulomb Dissociation of 8B and the 7Be(p, gamma )8B Reaction , C.A. Bertulani and M. Gai, Nucl. Phys. A636 (1998) 227-239. (13 pages)
102. Multiphonon Giant Resonances, "Topic Review", C.A. Bertulani, J. Phys. G 24 (1998) 1. (15 pages)
103. Theoretical calculation of antihydrogen production and accuracy of the equivalent photon approximation, C.A. Bertulani and G. Baur, Phys. Rev. D58: 034005, 1998. (9 pages)
104. Energy dependence of effective interactions in the breakup of halo nuclei, C.A. Bertulani, P. Lotti and H. Sagawa, Phys. Rev. C 57 (1998) 217. (6 pages)
105. Gravity Effects on Nuclear Reactions at Low Energies, M.S. Hussein, R. Lichtenthäler F., M.P. Pato and C.A. Bertulani, Braz. Jour. Phys. 27 (1997) 464. (11 pages)

106. Two-phonon background for the double giant resonance, V.Yu. Ponomarev and C.A. Bertulani, Phys. Rev. Lett. 79 (1997) 3853. (4 pages)
107. Small Effects in Astrophysical Fusion Reactions, A. B. Balantekin, C. A. Bertulani, M. S. Hussein, Nucl. Phys. A 627 (1997) 324. (10 pages)
108. Nuclear Astrophysics in Storage Rings, C.A. Bertulani, Nucl. Phys. A 626 (1997) 187-198. (12 pages)
109. Fermi and Gamow-Teller Strength in Charge Exchange with Radioactive Beams, C. A. Bertulani and P. Lotti, Phys. Lett. B 402 (1997) 237. (6 pages)
110. Elastic and inelastic scattering of exotic nuclei, A.A. Korsheninnikov, E.A. Kuzmin, E.Yu. Nikolskii, C.A. Bertulani, O.V. Bochkarev, S. Fukuda, T. Kobayashi, S. Momota, B.G. Novatskii, A.A. Ogloblin, A. Ozawa, V. Pribora, I. Tanihata and K. Yoshida, Nucl. Phys. A 616 (1997) 189c. (12 pages)
111. A Quantum-mechanical Equivalent-photon Spectrum for Heavy-ion Physics: comment, G. Baur and C.A. Bertulani, Phys. Rev. C 56 (1997) 581. (2 pages)
112. Scattering of radioactive nuclei 6He and 3H by protons. Effects of neutron skin and halo in 6He, 8He, and 11Li, A.A. Korsheninnikov, E.Yu. Nikolskii, C.A. Bertulani, et al, Nucl. Phys. A617 (1997) 45. (12 pages)
113. First Study of Heavy-Ion Mirror Charge-Exchange: errata , M. Steiner, S. M. Austin, D. Bazin, W. Benenson, C. A. Bertulani, J. A. Brown, M. Fauerbach, M. Hellström, E. Kashy, J. H. Kelley, R. A. Kryger, T. Kubo, N. A. Orr, R. Pfaff, B. M. Sherrill, M. Thoennessen, S. J. Yennello, B. M. Young, P. D. Zecher, D. J. Morrissey, and C. F. Powell, , Phys. Rev. Lett. 76 (1996) 3042. (1 page)
114. Electromagnetic Excitation of Radioactive Beams, C. A. Bertulani, Braz. J. Phys. 26 (1996) 618-627. (10 pages)
115. Excitation of the two-phonon giant dipole resonance in 238 U studied via inclusive measurements of neutron-removal cross sections, T. Aumann, K. Suemmerer, C.A. Bertulani, J.V. Kratz, Nucl. Phys. A599 (1996) 321. (6 pages)
116. Multipole Excitations in Light Neutron-Rich Nuclei, H. Sagawa and C.A. Bertulani, Prog. Theo. Phys. Supp. 124 (1996) 143. (11 pages)
117. 7Be(p, gamma)8B revisited , C.A. Bertulani, Z. Phys. A356 (1996) 293. (5 pages)
118. Quenching of 1+ excitations in the double giant resonance, C.A. Bertulani, V. Ponomarev, and V. Voronov, Phys. Lett. B388 (1996) 457. (5 pages)
119. First Study of Heavy-Ion Mirror Charge-Exchange, M. Steiner, S. M. Austin, D. Bazin, W. Benenson, C. A. Bertulani, J. A. Brown, M. Fauerbach, M. Hellström, E. Kashy, J. H. Kelley, R. A. Kryger, T. Kubo, N. A. Orr, R. Pfaff, B. M. Sherrill, M. Thoennessen, S. J. Yennello, B. M. Young, P. D. Zecher, D. J. Morrissey, and C. F. Powell, , Phys. Rev. Lett. 76 (1996) 26. (4 pages)
120. Theory of Multiphonon Excitation in Heavy-Ion Collisions, C.A. Bertulani, L.F. Canto, M.S. Hussein and A.F.R. de Toledo Piza, Phys. Rev. C 53 (1996) 334. (13 pages)
121. A Coupled-Channels Study of Coulomb Excitation of 11 Be Projectiles, C.A. Bertulani, L.F. Canto and M.S. Hussein, Phys. Lett. B353 (1995) 413. (4 pages)

122. Momentum Distributions of 9Li Fragments from the Break-up of 11Li and the Neutron Halo, N.A. Orr, N. Anantaraman, S.A. Austin, C.A. Bertulani, K. Hanold, J.H. Kelley, D.J. Morrissey, B.M. Sherrill, G.A. Souliotis, M.Thoenenssen, J.S. Winfield, J.A. Winger and B.M. Young, Phys. Rev. C 51 (1995) 3116. (11 pages)
123. Probing the Ground-state and Transition Densities of Halo Nuclei, C.A. Bertulani and H. Sagawa, Nucl. Phys. A588 (1995) 667. (26 pages)
124. Fusion of Halo Nuclei, M.S. Hussein, C.A. Bertulani, L.F. Canto, R. Donangelo, M.P. Pato and A.F.R. de Toledo Piza, Nucl. Phys. A 588 (1995) 85c. (5 pages)
125. Solar Neutrinos (in portuguese), C.A. Bertulani, Ciência Hoje 18 (1995) 52. (6 pages)
126. Comment: On the E2 Contribution to the 8B --> p + 7 Be Coulomb Dissociation Cross Section, M. Gai and C.A. Bertulani, Phys. Rev. C 52 (1995) 1706. (3 pages)
127. Neutron Removal in Peripheral Heavy Ion Collisions, T. Aumann, C.A. Bertulani and K. Suemmerer, Phys. Rev. C 51 (1995) 416. (4 pages)
128. The Photodissociation of 8B and the Solar Neutrino Problem, C.A. Bertulani, Nucl. Phys. A 587 (1995) 318. (21 pages)
129. Higher-order Dynamical Effects in Coulomb Dissociation, H. Esbensen, G.F. Bertsch and C.A. Bertulani, Nucl. Phys. A 581 (1995) 107. (12 pages)
130. Neutron Halo Effects in Proton Elastic Scattering, L.V. Chulkov, C.A. Bertulani and A.A. Korsheninnikov, Nucl. Phys. A 587 (1995) 291. (10 pages)
131. Coulomb Reacceleration as a Clock for Nuclear Reactions - A Two-dimensional Model, C.A. Bertulani and G.F. Bertsch, Phys. Rev. C 49 (1994) 2834. (4 pages)
132. Mott Scattering as a Probe of Long Range QCD Effects, C.A. Bertulani, A.B. Balantekin, and E. Ditzel, Phys. Rev. C 50 (1994) 1104. (6 pages)
133. Relativistic Heavy Ion Physics without Nuclear Contact, C.A. Bertulani and G. Baur, Physics Today, March 1994, p. 22. This article was cover of Physics Today. Cover caption. (6 pages)
134. The Astrophysical Reactions 12C(alpha, gamma) 16 O and 7Be(p, gamma)8B and Coulomb Dissociation Experiments, C.A. Bertulani, Phys. Rev. C 49 (1994) 2688. (7 pages)
135. Excitation of Multiphonon Resonances in Relativistic Heavy Ion Collisions, C.A. Bertulani and V. Zelevinsky, Nucl. Phys. A568 (1994) 931. (22 pages)
136. Relativistic Coulomb Excitation by a Deformed Projectile, C.A. Bertulani, Phys. Lett. B 319 (1993) 421. (4 pages)
137. Multiphonon Resonances in Heavy Ion Scattering, C.A. Bertulani and V. Zelevinsky, Phys. Rev. Lett. 71 (1993) 967. (4 pages)
138. Electromagnetic Excitation of 11Li, D. Sackett, K. Ieki, A. Galonsky, C.A. Bertulani, H. Esbensen, J.J. Kruse, W.G. Lynch, D.J. Morrissey, N.A. Orr, H. Schulz, B.M. Sherrill, A. Sustich, J.A. Winger, F. Deak, A. Horvath, A. Kiss, Z. Seres, J.J. Kolata, R.A. Warner and D.L. Humphrey, Phys. Rev. C 48 (1993) 118. (18 pages)
139. Momentum Fluctuations in Reactions with Neutron Rich Nuclei, C.A. Bertulani and K.W. McVoy, Phys. Rev. C 48 (1993) 2534. (3 pages)
140. Molecular Bonding Effects in the Fusion of Halo Nuclei, C.A. Bertulani and A.B. Balantekin, Phys. Lett. B 314 (1993) 275. (4 pages)

141. Heavy Ion Excitation of Giant Resonances: A Bridge from the Elastic Scattering to the Inelastic Data, A.N.F. Aleixo, C.A. Bertulani and M.S. Hussein, Mod. Phys. Lett. A8 (1993) 997. (12 pages)
142. Coulomb Reacceleration as a Clock for Nuclear Reactions, G.F. Bertsch and C.A. Bertulani, Nucl. Phys. A 556 (1993) 136. (11 pages)
143. Differential Cross Sections of Soft Multipole States, C.A. Bertulani and H. Sagawa, Phys. Lett. B 300 (1993) 205. (5 pages)
144. Coulomb Dissociation of 11Li, K. Ieki, D. Sackett, A. Galonsky, C.A. Bertulani, J.J.Kruse, W.G. Lynch, D.J. Morrissey, N.A. Orr, H. Schulz, B.M. Sherrill, A. Sustich, J.A. Winger, F. Deak, A. Horvath, A. Kiss, Z. Seres, J.J. Kolata, R.A. Warner and D.L. Humphrey, Phys. Rev. Lett. 70 (1993) 730. (4 pages)
145. Excitation and Gamma-Decay of Giant Resonances in High-Energy Collisions, C.A. Bertulani and A.M. Nathan, Nucl. Phys. A 554 (1993) 158. (15 pages)
146. The Structure and Reactions of Neutron-Rich Nuclei, C.A. Bertulani, L.F. Canto and M.S. Hussein, Physics Reports 226 (1993) 281. (96 pages)
147. Charge-Exchange Reactions in High-Energy Heavy Ion Collisions, C.A. Bertulani, Nucl. Phys. A 554 (1993) 493. (16 pages)
148. Momentum Distributions of 9LiFragments Following the Break-up of 11Li, N.A. Orr, N. Anantaraman, S.A. Austin, C.A. Bertulani, K. Hanold, J.H. Kelley, D.J. Morrissey, B.M. Sherrill, G.A. Souliotis, M. Thoenenssen, J.S. Winfield and J.A. Winger, Phys. Rev. Lett. 69 (1992) 2050. (4 pages)
149. Multipole Response of 11Li, C.A. Bertulani and A. Sustich, Phys. Rev. C46 (1992) 2340. (4 pages)
150. Momentum Distributions in Radioactive Beam Interactions, C.A. Bertulani and K.W. McVoy, Phys. Rev. C 46 (1992) 2638. (4 pages)
151. Closed Form Theory of the Elastic Breakup Reactions and Applications to Heavy-Ions, C.A. Bertulani, L.F. Canto and M.S. Hussein, Phys. Rev. C45 (1992) 2995. (5 pages)
152. Nucleon-Nucleon Correlation Effects in the Elastic Scattering of alpha-particles from 11Li at 26 MeV/nucleon, A.N.F. Aleixo, C.A. Bertulani and M.S. Hussein, Phys. Rev. C45 (1992) 2403. (6 pages)
153. Semiclassical Calculation of Coulomb break-up of Weakly-Bound Nuclei, C.A. Bertulani and L.F. Canto, Nucl. Phys. A 539 (1992) 163. (14 pages)
154. Direct vs. Statistical Breakup in the 16,18 O+ 27 Al, 28Si Reactions at E/A 4 MeV, N. Added, R.M. dos Anjos, N. Carlin, L.Fante Jr., M.C.S. Figueira, R. Matheus, E.M. Szanto, A. Szanto de Toledo, M.S. Hussein, C.A. Bertulani and L.F. Canto, Nucl. Phys. A 540 (1992) 328. (13 pages)
155. Higher-order Electromagnetic Processes in the Dissociation of Fast Particles, G. Baur, C.A. Bertulani and D.M. Kalassa, Nucl. Phys. A 550 (1992) 527. (13 pages)
156. Low Energy Behaviour of 11Li Dissociation Cross Sections, M.S. Hussein, M.P .Pato and C.A. Bertulani, Phys. Rev. C 44 (1991) R2219. (3 pages)

157. RPA-cluster Model for the Strength Function of 11 Li, N. Teruya, C.A. Bertulani, S. Krewald, H. Dias and M. S. Hussein, Phys. Rev. C 43 (1991) 2049. (3 pages)
158. The Elastic Scattering of Protons from 11Li and the Neutron Halo, A.N.F. Aleixo, C.A. Bertulani and M. S. Hussein, Phys. Rev. C 43 (1991) 2722. (6 pages)
159. Heavy Ion Excitation of Giant Resonances at Intermediate Energies, A.N.F. Aleixo and C. A. Bertulani, Nucl. Phys. A 528 (1991) 436. (11 pages)
160. Two-neutron Removal Cross Sections of 11 Li Projectiles, C. A. Bertulani, G. Baur and M. S. Hussein, Nucl. Phys. 526 (1991) 751. (11 pages)
161. Direct Breakup of Weakly-bound Projectiles and Its Relation to Astrophysical Reactions, C.A. Bertulani and M.S. Hussein, Nucl. Phys. 524 (1991) 306. (15 pages)
162. Microscopic Multiple Scattering Theory of the Heavy Ion Total Reaction Cross Section and Applications to Stable and Exotic Nuclei, M.S. Hussein, R.A. Rego and C.A. Bertulani, Physics Reports 201 (1991) 279. (56 pages)
163. Relativistic Coulomb Excitation of Giant Resonances in the Hydrodynamical Model, A.C. Vasconcellos-Gomes and C.A. Bertulani, Nucl. Phys. A 517 (1990) 639. (20 pages)
164. Elastic Coulomb Scattering of Heavy Ions at Intermediate Energies, C.E.Aguiar, A.N.F. Aleixo and C.A. Bertulani, Phys. Rev. C 42 (1990) 2180. (7 pages)
165. Reactions with Exotic Nuclei (in portuguese), C.A. Bertulani, Ciência Hoje 11 (1990) 60. (6 pages)
166. Color Van der Waals Force Acting in Heavy Ion Scattering at Low Energies, M.S. Hussein, C.L. Lima, M.P. Pato and C.A. Bertulani, Phys. Rev. Lett. 65 (1990) 839. (4 pages)
167. Direct versus Sequential Fragmentation of Neutron Rich Nuclei, C.A.Bertulani and M.S.Hussein, Phys. Rev. Lett. 64 (1990) 1099. (4 pages)
168. Electromagnetic Physics at Relativistic Heavy Ion Colliders: for Worse and for Better, G. Baur and C.A. Bertulani, Nucl. Phys. A 505 (1989) 835.
169. Coulomb Excitation in Intermediate Energy Collisions, A.N.F. Aleixo and C.A. Bertulani, Nucl. Phys. A 505 (1989) 448. (14 pages)
170. Short Range Correlations and Nucleon Emission in Relativistic Heavy Ion Collisions, C.A. Bertulani, L.F.Canto, R.Donangelo and J.O.Rasmussen, Mod. Phys. Lett. A4 (1989) 1315. (8 pages)
171. Matéria Supercomprimida e Superaquecida, C.A. Bertulani, Ciência Hoje 8 (1988) 48 [in portuguese] . (8 pages)
172. Pair Production with Atomic Shell Capture, C.A. Bertulani and G.Baur, Braz. J. Phys. 18 (1988) 559. (15 pages)
173. Lepton-pair Production in Relativistic Heavy Ion Collisions, C.A. Bertulani and G. Baur, Braz. J. Phys. 18 (1988) 525. (16 pages)
174. Electromagnetic Excitation of One- and Multiphonon Giant Resonance States with Relativistic Heavy Ions, G. Baur and C.A. Bertulani, Nucl. Phys. A482 (1988) 313c. (16 pages)
175. Electromagnetic Processes in Relativistic Heavy Ion Collisions, C.A.Bertulani and G.Baur , Phys. Reports 163 (1988) 299. (110 pages)

176. Coincidence Cross Sections for the Dissociation of Light Ions in High-energy Collisions, C.A. Bertulani and G. Baur, Nucl. Phys. A 480 (1988) 615. (14 pages)
177. Gamma-Gamma Physics with Relativistic Heavy Ions, G. Baur and C.A. Bertulani, Z. Phys. A 330 (1988) 77. (5 pages)
178. Electromagnetic Production of Heavy Leptons in Relativistic Heavy Ion Collisions, G. Baur and C.A. Bertulani, Phys. Rev. C 35 (1987) 836. (2 pages)
179. Multistep Fragmentation of Heavy Ions in Peripheral Collisions at Relativistic Energies , G. Baur and C.A. Bertulani, Phys. Rev. C34 (1986) 1654. (9 pages)
180. Multiple Electromagnetic Excitation of Giant Dipole Phonons in Relativistic Heavy Ion Collisions, G. Baur and C.A. Bertulani, Phys. Lett. B174 (1986) 23. (4 pages)
181. Coulomb Dissociation as a Source of Information on Radioactive Capture Processes of Astrophysical Interest, G. Baur , C.A. Bertulani and H. Rebel, Nucl. Phys. A458 (1986) 188. (17 pages)
182. Electromagnetic Processes in Relativistic Heavy Ion Collisions, C.A. Bertulani and G. Baur, Nucl. Phys. A 458 (1986) 725. (20 pages)
183. Heavy Ion Reaction Cross Sections, C.A. Bertulani, Braz. J. Phys. 16 (1986) 380. (12 pages)
184. Quantal and Semiclassical Methods in Relativistic Electromagnetic Excitation, C.A. Bertulani and G.Baur , Phys. Rev. C 33 (1986) 910. (5 pages)
185. Relativistic Coulomb Collisions, C.A. Bertulani and G. Baur, Nucl. Phys. A 442 (1985) 739. (14 pages)

**Publications in <u>Peer-Reviewed Proceedings</u> (no abstracts: full articles)**

186. Nuclear structure and neutrino-nucleus interaction, A. R. Samana, F. Krmpotic, N. Paar, and C. A. Bertulani, XXXIV edition of the BrazilianWorkshop on Nuclear Physics, 5-10 June 2011, Foz de Iguacu, Parana state, Brazil. (12 pages)
187. Nuclear physics in the cosmos, C.A. Bertulani, XXXIV edition of the BrazilianWorkshop on Nuclear Physics, 5-10 June 2011, Foz de Iguacu, Parana state, Brazil. (20 pages)
188. Medium Effects in Reactions with Rare Isotopes, International Conference on "Nuclear Physics in Astrophysics V", Eilat, Israel, April 3-8, 2011.
189. Fusion 11, C.A. Bertulani, Conference Summary, 5th international Conference FUSION11, Saint-Malo, France, May 2nd – 6th, 2011, arXiv:1105.6356.
190. Radiative capture reactions from potential models, Lecture presented at the Carpathian Summer School of Physics 2010, June 20 - July 3, 2010, Sinaia, Romania. Published in AIP proceedings.
191. Light radioactive nuclei capture reactions with phenomenological potential models, V. Guimaraes and C.A. Bertulani, Meeting of the Brazilian Physical Society, September 2009, to be published in the proceedings of the American Institute of Physics, arXiv:0912.0221 (9 pages)
192. Nuclear astrophysics studies with ultra-peripheral heavy-ion collisions, C.A. Bertulani, Lecture notes of the 5th European Summer School on Experimental Nuclear Astrophysics, Sep.

20- 27, 2009, Santa Tecla, Sicily, Italy. To be published in the proceedings of the American Institute of Physics, arXiv:0912.3307 (12 pages)

193. ``Theory and applications of Coulomb excitation", 8th CNS-EFES Summer School, Center for Nuclear Study (CNS), the University of Tokyo, and RIKEN Wako Campus, August 26 - September 1, 2009. (69 pages)
194. `Nuclear Astrophysics with Indirect Methods", 10th International Conference on Nucleus-Nucleus Collisions, Beijing, China, August 16-21, 2009. (6 pages).
195. ``Nuclear Astrophysics from Direct Reactions", XXXI Symposium on Nuclear Physics (Oaxtepec), Cocoyoc, Mexico, January 7-10, 2008. (6 pages)
196. ``Statistical Properties of Kawai-Kerman-McVoy T-matrix", G. Arbanas, C.A. Bertulani, D. Dean and A. Kerman, Int. Workshop on Compound-Nuclear Reactions and Related Topics, Yosemite National Park, Fish Camp, California, USA, 22 – 26 October 2007. (4 pages)
197. 7Be(p,gamma)8B S-factor from ab initio wave functions, P. Navrátil, C.A. Bertulani, and E. Caurier, IX International Conference on "Nucleus-Nucleus Collisions", Rio de Janeiro, August 28-September 1, 2007, Brazil. (6 pages)
198. 7Be(p,gamma)8B S-factor from ab initio wave functions, P. Navratil, C.A. Bertulani and E. Caurier, International Few Body Conference, Santos, August, 2006, Brazil. (6 pages)
199. 7Be(p,gamma)8B S-factor from ab initio wave functions, P. Navratil, C.A. Bertulani and E. Caurier, International Symposium on Structure of Exotic Nuclei and Nuclear Forces, University of Tokyo, March 9 – 12, 2006, Japan. (6 pages)
200. Pygmy resonances probed with electron scattering, C.A. Bertulani, Int. Conf. on "Collective Motion in Nuclei under Extreme Conditions" (COMEX 2), June 20 - 23, 2006, Sankt Goar, Germany. (9 pages)
201. Elastic Electron Scattering off Exotic Nuclei, C.A. Bertulani, 11th Int. Conference on Nuclear Reaction Mechanisms, Varenna (Italy), Villa Monastero, June 12 - 16, 2006. (10 pages)
202. Direct reactions in/for astrophysics, C.A. Bertulani, "Nuclei in the Cosmos IX", CERN, Switzerland, 25-30 June 2006. (11 pages)
203. Special relativity and reactions with unstable nuclear beams, C.A. Bertulani, Proc. Int. Workshop on Reaction Mechanisms for Rare Isotope Beams, Michigan State University, March 9-12, 2005, USA. (8 pages)
204. S-factors of capture reactions important for astrophysics from ab-initio wave functions, P. Navratil, C. Forssén, W.E. Ormand, C. Bertulani and E. Caurier, Second joint meeting of the Nuclear Physics Divisions of the American Physical Society and the Physical Society of Japan, Kapalua, Maui, Hawaii, USA, Sep 18-22, 2005, Bull. Am. Phys. Soc. 50, No. 6 (2005) 70. (8 pages)
205. The stopping of low energy ions in reactions of astrophysical interest, C.A. Bertulani, Proc. Int. Conf. Fusion03, Matsushima, Miyagi, Japan, November 12-15, 2003. (8 pages)
206. Radiative capture cross sections: challenges and solutions, C.A. Bertulani, 10th Int. Conf. on Nuclear Reaction Mechanisms, Varenna , Italy , June 9-13, 2003 . (10 pages)
207. Nuclear astrophysics in rare isotope facilities, C.A. Bertulani, Proc. Workshop on Nuclear Dynamics, Breckenridge, Colorado, February 8-15, 2003. (6 pages)

208. Heavy ion excitation of giant resonances, C.A. Bertulani, Proc. Int. Conf. on Electromagnetic Probes of Fundamental Physics, Erice, Italy, 16-21 October 2001, World Scientific, eds. W. Marciano and S. White. (8 pages)
209. Hot Topics in ultra-peripheral Ion Collisions, G. Baur, C. A. Bertulani, M. Chiu, I. F. Ginzburg, K. Hencken, S. R. Klein, J. Nystrand, K. Piotrzkowski, C. G. Roldao, D. Silvermyr, J. H. Thomas, S. N. White, and P. Yepes, in Proceedings of the Workshop on Electromagnetic Probes of Fundamental Physics, EMFCSC, Erice, Italy, October 16-21, 2001, available as e-print hep-ex/0201034. (7 pages)
210. One- and two-photon physics with relativistic heavy ions, Proc. Workshop on Nuclear Dynamics, Park City , Utah , March 10-17, 2001 . (10 pages)
211. Peripheral collisions of relativistic heavy ions , C.A. Bertulani, Proc. Symp. on Fundamental Issues in Elementary Matter, In Honor and Memory of Michael Danos, Ed. by Walter Greiner, 25-29 September 2000, Bad Honnef, Germany, EP Systema Publisher, Debrecen, Hungary, 2001. (10 pages)
212. Astrophysical S-factors for the Sun and for massive stars, C.A. Bertulani, Proc. Int. Conf. "Nuclear Structure and Related Topics", Eds. S.N. Ershov, R.V. Jolos, and V.V. Voronov, Dubna, 1997, p. 223-230. (8 pages)
213. Coherent Bremsstrahlung in the Early Stage of Relativistic Heavy ion Collisions, C.A. Bertulani, L. Mornas and U. Ornik, "Int. Work. on Models of Hadrons", São Paulo , 1995. arXiv:hep-ph/9412303. (6 pages)
214. 7Be(p, gamma)8B revisited, C.A. Bertulani, Int. Workshop on the Extremes of Nuclear Structure, Hirschegg, Austria, 1996, eds. H. Feldmeier, J. Knoll and W. Norenberg. (8 pages)
215. Coulomb Excitation of Unstable Nuclei, C.A. Bertulani, Proc. of the Int. Conf. on Exotic Nuclei and Atomic Masses, Arles, France , 1995, Ed. By M. De Saint Simon and O. Sorlin, Editions Frontieres. (10 pages)
216. Fusion, Inelastic Scattering, and Momentum Distributions, C.A. Bertulani, Proc. of the Third Int. Conference on Radioactive Nuclear Beams, 24-27 May 1993, East Lansing, Editions Frontieres, Eds. D.J. Morrissey, 1994. (8 pages)
217. Heavy Ion Excitation of Giant Resonances, C.A. Bertulani, Proc. Int. Workshop on Nuclear Dynamics, Jackson Hole, USA, January 1992, Edited by W. Bauer and B. Beck (World Scientific, Singapore, 1992). (8 pages)
218. Elastic and Inelastic Scattering of Unstable Nuclei, C.A. Bertulani, Proc. Int. Symp. on Structure and Reactions of Unstable Nuclei, Niigata , Japan , 1991, edited by K. Ikeda and T. Suzuki (World Scientific, Singapore, 1992). (8 pages)
219. Electromagnetic Processes in Relativistic Heavy Ion Collisions, C.A.Bertulani, Proc. Int. Conference on Nuclear Reaction Mechanisms, Calcutta, India, January, 1989, World Scientific, ed. by S. Mukherjee. (10 pages)
220. Breakup Reactions and Nuclear Astrophysics, C.A. Bertulani, XI Reunion de Trabajo en Fisica Nuclear, Buenos Aires, 23- 26 august 1988, eds. M.C. Cambiaggio and G. Marti, p. 275. (12 pages)

221. Peripheral Collisions with Relativistic Heavy Ions, Proc. Int. Nuclear Phyhsics Conf., Harrogate, UK, 1986, Publ. Institute of Physics, Bristol, 1986. (4 pages).
222. Electromagnetic Excitation Processes in Relativistic Heavy Ion Collisions, G.Baur and C.A.Bertulani, Proceedings of the Int. School of Heavy Ion Physics, Erice, Italy, October 1986, Plenum Press, ed. by R.A. Broglia and G. F. Bertsch, p. 331. (6 pages)
223. Coulomb Break-up as a Source of Information on Radiative Capture Processes of Astrophysical Interest, G.Baur, C.A.Bertulani and H. Rebel, Int. Symposium on Weak and Electromagnetic Interactions in Nuclei, Heidelberg, West Germany, 1986, Springer Verlag, ed. by V. Klapdor. (4 pages)
224. Relativistic Coulomb Excitation, Int. Workshop on the Physics of Relativistic Heavy Ions, Hirschegg, Austria, 1986, eds. J. Knoll, W. Noerenberg, H. Feldmeier. (8 pages)

***Colloquia, Seminars, and <u>Invited</u> Talks (incomplete)***

**1983**
1. *Dissipation in Heavy Ion Collisions,* Physics Institute, Federal University of Rio de Janeiro, Brazil, June, 1983.
2. *Dissipation in Heavy Ion Collisions,* Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Itaipava, Rio de Janeiro, Brazil, 1983.
**1984**
3. *Viscosity Coefficient for Nuclear Dissipation in Heavy Ion Collisions,* Institut fuer Kernphysik, Kernforschungszentrum Juelich, Germany, March, 1984.
**1985**
4. *Dissipation Coefficients in Heavy Ion Collisions,* Spring Meeting of the German Physical Society, Nuclear Physics Section, Muenchen, Germany, 1985.
5. *Heavy Ion Total Reaction Cross Sections,* Institut fuer Kernphysik, Kernforschungszentrum Juelich, Germany, 1985.
**1986**
6. *Relativistic Coulomb Collisions,* Physik Institut, Justus Liebig Universitaet Giessen, Germany, March 5, 1986.
7. *Relativistic Coulomb Excitation,* Int. Workshop on the Physics of Relativistic Heavy Ions, Hirschegg, Austria, January, 1986.
8. *Coulomb Break-up as a Source of Information on Radiative Capture Processes of Astrophysical Interest,* Int. Symposium on Weak and Electromagnetic Interactions in Nuclei, Heidelberg, West Germany, 1986.
9. *Peripheral Collisions with Relativistic Heavy Ions,* International Nuclear Physics Conference, Harrogate, UK, June 1986.
10. *Peripheral Collisions with Relativistic Heavy Ions,* Enrico Fermi School of Nuclear Physics, Varenna, Italy, June 1986.
11. *Electromagnetic Excitation Processes in Relativistic Heavy Ion Collisions,* International School of Heavy Ion Physics, Erice, Italy, October 1986.
12. *Electromagnetic Excitation in Relativistic Heavy Ion Collisions,* LNS, Istituto Nationale Fisica Nucleare, Catania, October 1986.
**1987**

13. *Electromagnetic Interactions in Relativistic Heavy Ion Collisions,* Institut fuer Kernphysik, Kernforschungszentrum Juelich, Germany, 1987.
14. *Coulomb Excitation in Relativistic Heavy Ion Collisions,* Spring Meeting of the German Physical Society, Nuclear Physics Section, Groningen, The Netherlands, 1987.
15. *Coulomb Break-up as a Source of Information on Radiative Capture Processes of Astrophysical Interest*, Institut fuer Kernphysik, Universitaet Muenster, Germany, June 1987.
16. *Electron-positron Pair Production in Peripheral Collisions with Heavy Ions,* Universitaet Siegen, Fachbereich Physik, Gerrmany, July 1987.
17. *Electromagnetic Processes with Relativistic Heavy Ions,* Physics Institute, Federal University of Rio de Janeiro, August 1987.
18. *Electromagnetic Processes in Relativistic Heavy Ion Collisions,* Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Aguas de Lindoia, Brazil, 1987.

**1988**

19. *Breakup Reactions and Nuclear Astrophysics,* XI Reunion de Trabajo en Fisica Nuclear, Buenos Aires, 23- 26 august 1988.
20. *Electron-Position Pair Production in Relativistic Heavy Ion Collisions,* Physics Division, Brookhaven National Laboratory, Long Island, USA, July 1988.
21. *Electron-positron Pair Production in Relativistic Heavy Ion Collisions,* Institut fuer Kernphysik, Kernforschungszentrum Juelich, Germany, July, 1988.
22. *Excitation Giant Resonances in Heavy Ion Collisions,* Annual meeting of the Brazilian Physics Society, Divisiion of Nuclear Physics, Caxambu, Brazil, 1988.

**1989**

23. *Electromagnetic Processes in Relativistic Heavy Ion Collisions,* Interrnational Conference on Nuclear Reaction Mechanisms, Calcutta, India, January, 1989.
24. *Nuclear Matter under Extreme Conditions,* Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil, 1989.
25. *Excitation Giant Resonances in Heavy Ion Collisions,* Institut fuer Kernphysik, Kernforschungszentrum Juelich, Germany, July 1989.
26. *Excitation Giant Resonances in Heavy Ion Collisions,* Physics Department, Technical University Munich, Garching, Germany, July 1989.
27. *Multiphonon Giant Resonances,* Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Caxambu, Brazil, 1989.
28. *Electromagnetic Processes in Relativistic Heavy Ion Collisions,* Physics Institute, University of Sao Paulo, March 1989.

**1990**

29. *New Directions in Nuclear Physics,* Physics Institute, Federal University of Rio de Janeiro, February 1990.
30. *Reactions with Unstable Nuclei,* Institut fuer Kernphysik, Kernforschungszentrum Juelich, Germany, February 1990.
31. *Reactions with Unstable Nuclei,* Johann Wolfgang Goethe-Universität, Frankfurt am Main Germany, February 1990.
32. *Coulomb Dissociation of 11-Li* Theoretical Physics Institute, IFT, Sao Paulo, April 1990.
33. *Breakup of Light Nuclei at Intermediate Energies,* Physics Institute, State University of Rio de Janeiro (UERJ), 1990.
34. *Reactions with Radioacitve Nuclei,* Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Cacapava, Brazil, September, 1990.

**1991**

35. *Elastic and Inelastic Scattering of Unstable Nuclei*, International Symposium on Structure and Reactions of Unstable Nuclei, Niigata, Japan, 1991
36. *Elastic and Inelastic Scattering of Unstable Nuclei,* Cycotron Laboratory, RIKEN, Wako-shi, Japan, 1991
37. *Excitation of Multiphonon Giant Dipole Resonances,* Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil, 1991.
38. *Multiphonon Giant Dipole Resonances,* NSCL, Michigan State University, September 1991.
39. *Heavy Ion Excitation of Giant Resonances: A Bridge from the Elastic Scattering to the Inelastic Data,* Workshop on Giant Resonances and Related Phenomena, University of Notre Dame, USA, **1991.**
40. *Reactions with Radioacitve Nuclei,* Physics Department, University of Wisconsin, Madison, USA, November, 1991.

**1992**

41. *Heavy Ion Excitation of Giant Resonances,* International Workshop on Nuclear Dynamics, Jackson Hole, USA, January 1992.
42. *Multiphonon Giant Resonances,* Theory Lunch Talk, NSCL, Michigan State University, September, 1992.
43. *Elastic and Inelastic Scattering of Unstable Nuclei,* Institut de Physique Nucleaire, Orsay, France, 1992.
44. *Reactions with Unstable Nuclei,* LPTMS, Université Paris-Sud, Orsay, France, 1992
45. *Relativistic Nuclear Collisions without Nuclear Contact,* Laboratoire de Physique Subatomique et des Technologies Associees, Universite de Nantes, France 1992.
46. *Reactions with Unstable Nuclei*, Grand-Acelerateur National D'Ions Lourds, Caen, France, 1992.

**1993**

46. *Halo Nuclei*, Department of Physics, University of Michigan, Ann-Arbor, 1993.
47. *Electromagnetic Processes in Relativistic Heavy Ion Collisions,* Physics Department, University of Wisconsin, La-Crosse, April, 1993.
48. *Fusion, Inelastic Scattering, and Momentum Distributions,* Third International Conference on Radioactive Nuclear Beams, 24-27 May 1993.
49. *Soft Giant Resonance Excitation in Relativistic Heavy-Ion Collisions,* Gordon Research Conference on Nuclear Chemistry, New London, June 1993.
50. *Reactions with Exotic Nuclei,* Gesellschaft fuer Schwerionenforshung, Darmstadt, Germany, October 1993.
51. *New Methods in Nuclear Astrophysics,* Workshop on Nuclear Astrophysics, GSI, Darmstadt, Germany, November 1993.
52. *Excitation of Multiphonon Giant Resonances,* Physics Department, Technical University Munich, Garching, Germany, December 1993.

**1994**

53. *Molecular Bonding Effects in the Fusion of Halo Nuclei*, Spring Meeting of the German Physical Society, Nuclear Physics Section, Muenchen, Germany, 1994.
54. *Coupled-Channels Calculations of Excitation of Giant Resonances,* LAND/GSI Meeting, Taunus, Germany 1994.
55. *Indirect Methods for Nuclear Astrophysics,* Halo Workshop, Niels Bohr Insititute, March 1994.
56. *Indirect methods for the 12C(alpha,gamma)16O reaction,* Kellog Radiation Laboratory, Caltech, Pasadena, USA, 1994.
57. *Coulomb Dissociation of 8B* ACS Meeting, Nuclear Chemistry, San Diego, USA, 1994.

58. *Mott Scattering as a Probe of Long Range QCD Effects,* NSCL, Michigan State University, September, June 1994.
59. *Reactions and Structure of Unstable Nuclei,* Physics Institute, University of Guadalajara, Mexico, June 1994.
60. *Peripheral Reactions with Relativistic Heavy Ions,* Physics Department, Notre Dame University, June 1994.
61. *Indirect Methods for Nuclear Astrophysics,* Physik Institut, Justus Liebig Universitaet Giessen, Germany, August 1994.
62. *The Coulomb Dissociation Method for Nuclear Astrophysics,* Workshop on Indirect Methods for Nuclear Astrophysics, Strasbourg, France, 1994.

**1995**

63. *Coulomb Excitation of Unstable Nuclei,* International Conference on Exotic Nuclei and Atomic Masses, Arles, France, 1995.
64. *Nuclear Astrophysics with Radioactive Beams,* Department of Physics, University of Connecticut, Storrs, Connecticut, USA 1995.
65. *The Photodissociation of 8B and the Solar Neutrino Problem,* Physics Institute, University of Santa Catarina, Brazil, 1995.
66. *The Photodissociation of 8B and the Solar Neutrino Problem,* Annual meeting of the Brazilian Physics Society, Divisiion of Nuclear Physics, Sao Lourenco, Brazil, September, 1995.
67. *Nuclear Response of Soft Dipole Modes* Workshop on Physics of Exotic Nuclei, Physics Institute, University of Sao Paulo, Brazil, 1995.
68. *Coherent Bremsstrahlung in the Early Stage of Relativistic Heavy ion Collisions*, International Workshop on Models of Hadrons, University of Sao Paulo, Brazil, 1995.

**1996**

69. *7Be(p, gamma)8B revisited,* International Workshop on the Extremes of Nuclear Structure, Hirschegg, Austria, 1996.
70. *Neutron Removal in Peripheral Heavy Ion Collisions,* Gesellschaft fuer Schwerionenforshung, Darmstadt, Germany, 1996.
71. *Long Range QCD Effects in Nucleaus-Nucleus Scattering,* Grand-Acelerateur National D'Ions Lourds, Caen, France, 1996.
72. *Nuclear Astrophysics in Storage Rings,* 7th International Conference on Nuclear Physics at Storage Rings, Bernkastel-Kues, Germany, 1996.
73. *Particle Production in Peripheral Heavy Ion Collisions,* Instituto de Fisca Teorica, Sao Paulo, Brazil, May, 1996.
74. *Excitation of Double Giant Resonances,* Physics Department, University of Aizu-Wakamatsu, Japan 1996
75. *Small Effects in Astrophysical Nuclear Reactions,* J.A. Swieca Summer School: Nuclear Physics, Campos do Jordão, Brazil 76. *Direct Reactions with Exotic Nuclei,* Physics Department, University of Tohoku, Sendai, 1996.

**1997**

77. *Astrophysical S-factors for the Sun and for Massive Stars,* International Conference on Nuclear Structure and Related Topics, Dubna, Russia, 1997.
78. *Recent Development in Nuclear Astrophysics,* Nuclear Physics Laboratory, Yale University, New Haven, USA, April 24, 1997.
79. *Charge Exchange in Heavy Ion Reactions,* Physics Department, University of Padova, Italy, 1997.
80. *Charge Exchange with Radioactive Beams,* Gesellschaft fuer Schwerionenforshung, Darmstadt,

Germany, 1997.
81. *Astrophysical S-factors for the Sun and for Massive Stars,* Johann Wolfgang Goethe-Universität, Frankfurt am Main Germany, 1997.

**1998**

82. *The Production of Anti-Atoms,* Physics Institute, Federal University of Rio de Janeiro, Brazil, March, 1998.
83. *The Production of Anti-Hydrogen at CERN,* Physics Institute, Federal Fluminense University, Niteroi, Brazil, May, 1998.
84. *Relativistic Heavy Ion Collisions without Nuclear Contact,* Physics Institute, University of Sao Paulo, 1998.

**1999**

85. *Isospin structure of one- and two-phonon GDR excitations,* International Workshop on Double Giant Resonances, ECT, Trento, Italy, 1999.
86. *Nuclear Astrophysics with Radioactive Beams,* Physics Department, University of Connecticut, Storrs, USA, 1999.
87. *Bremsstrahlung in Particle Tunneling,* Nuclear Physics Laboratory, Yale University, New Haven, USA, November 2, 1999.
88. *Fermi and Gamow-Teller Strength in Charge Exchange with Radioactive Beams,* International Workshop on Neutrino Astrophysics, INT, Seattle, USA, 1999.
89. *Ultra-peripheral Collisions of Relativistic Heavy Ions,* Brookhaven National Laboratory, Physics Department, Upton, Long Island, USA, 1999.
90. *Particle Production in Peripheral Heavy Ion Collisions,* CTP, Massachusetts Institute of Technology, Boston, USA, 1999.
91. *Nuclear Astrophysics with Radioactive Beams,* Physics Department, University of Wisconsin, Madison, USA, 1999.

**2000**

92. *Peripheral Collisions of Relativistic Heavy Ions*, Symp. on Fundamental Issues in Elementary Matter, In Memory of Michael Danos, Bad Honnef, Germany, 25-29 September 2000.

**2001**

93. *One- and Two-photon Physics with Relativistic Heavy Ions,* Workshop on Nuclear Dynamics, Park City, Utah, March 10-17, 2001.
94. *Coherent E/M Fields in Collisions with Relativistic Heavy Ions,* Physics Division, Argonne National Laboratory, May 7, 2001.
95. *Coherent E/M Fields in Collisions with Relativistic Heavy Ions,* Lawrence Berkeley National Laboratory, Physics Division, May 2001.
96. *One- and Two-Photon Physics with Relativistic Heavy Ions,* Cyclotron Laboratory, Texas A&M University, College Station, USA, August 21, 2001.
97. *One- and Two-Photon Physics with Relativistic Heavy Ions,* Institute for Nuclear Theory, University of Washington, August 2001.
98. *Hot Topics in Ultra-peripheral Ion Collisions,* Workshop on Electromagnetic Probes of Fundamental Physics, Erice, Italy, October 17, 2001.
99. *Heavy Ion Excitation of Giant Resonances,* Workshop on Electromagnetic Probes of Fundamental Physics, Erice, Italy, October 20, 2001.
100. *Shining Light on Heavy Ions* Department of Chemistry and Physics, Arkansas State University, Nov. 9, 2001.
101. *Ultra-peripheral Collisions of Relativistic Heavy Ions,* Brookhaven National Laboratory, Physics Department, Upton, Long Island, USA, 2001.

**2002**

102. *Reactions with Unstable Nuclear Beams,* Physics Division, Argonne National Laboratory, May 13, 2002.

102. *Shining light on heavy ions,* Center for Nuclear Studies, The George Washington University, March 29, 2002.

103. *Reactions with Unstable Nuclear Beams,* TANDAR Laboratory, Argentina, June 2002.

104. *Reactions with Unstable Nuclear Beams,* Physics Department, University of La Plata, Argentina, June, 2002.

105. *Reactions with Unstable Nuclear Beams,* NSCL, Michigan State University, East Lansing, USA, August 5, 2002.

106. *S- factor for 7Be(p, gamma)8B from Coulomb Breakup,* Workshop on Reaction Theory for Nuclei Far from Stability, University of Washington, Seattle, September 6, 2002.

107. *Fusion of Exotic Nuclei,* Division of Nuclear Physics Meeting, APS, MSU, East Lansing, USA, October 2002.

**2003**

108. *Nuclear Astrophysics With Radioactive Nuclear Beams,* 19th Winter Workshop on Nuclear Dynamics, Breckenridge, Colorado, February 9 -14, 2003.

109. *Radiative Capture Reactions: Challenges and Solutions,* Isitituto Galileo Galilei, University of Pisa, Pisa, Italy, June 9, 2003.

110. *Radiative Capture Reactions: Challenges and Solutions,* Gesellschaft fuer Schwerionenforschung, Darmstadt, Germany, June 10, 2003.

111. *Radiative Capture Reactions: Challenges and Solutions,* International Conference on Nuclear Reaction Mechanisms, Varenna, Italy, June 11, 2003.

112. *Screeening Effects in Nuclear Fusion Reactions,* Halo Workshop, St. Petersburg, Russia, July 12, 2003.

113. *Stopping Power vs. Screeening Effects in Nuclear Fusion Reactions* International Conference FUSION03, Matsushima, Miyagi, Japan, November 12-15, 2003.

**2004**

114. *Momentum Distributions in Breakup Reactions,* NSCL, Michigan State University, East Lansing, USA, Feburary 5, 2004.

115. *New directions in Nuclear (astro)Physics,* LNS, INFN, Catania, Italy, February 16, 2004

116. *Physics of Strong QED Fields in Peripheral RHIC* LNS, INFN, Catania, Italy, February 17, 2004.

117. *Momentum Distributions in Knockout Reactions,* LNS, INFN, Catania, Italy, February 21, 2004.

118. *Charge-Exchange Reactions in Heavy Ion Collisions,* LNS, INFN, Catania, Italy, February 23, 2004.

119. *Nuclear Astrophysics: Challenges and Solutions,* Department of Physics, JINA Talk, MSU, East Lansing, April 15, 2004.

120. *Charge Exchange Reactions at High Energies Energies,* I Workshop on Charge-Exchange Reactions Department of Physics, JINA Talk, MSU, East Lansing, May 31, 2004.

121. *Charge Exchange Reactions at High Energies Energies,* I Workshop on Charge-Exchange Reactions Department of Physics, JINA Talk, MSU, East Lansing, June 4, 2004.

122. *Fusion Reactions in Stars: Challenges and Solutions,* Nuclear Physics Division, Lawrence Livermore National Laboratory, August 17, 2004.

123. *Momentum Distributions and Alignment Effects in Stripping Reactions,* Annual Meeting of the Nuclear Physics Division of the APS, Chicago, October 27-30, 2004.

124.*New directions in Nuclear Astrophysics,* Physics Department, University of Arizona, September 24, 2004.
125. *Mission not yet accomplished: Back to QED,* Physics Department, University of Arizona, November 2, 2004.

**2005**

126. *Relativistic approach to nuclear reactions with unstable nuclei,* 2nd Argonne/MSU/JINA/INT RIA Workshop**,** Reaction Mechanisms for Rare Isotope Beams, Michigan State University, March 9-12, 2005.
127. *7Be(p,γ)8B S-factor from ab initio wave functions,* DNP Meeting of the American Physical Society, Tampa, April 17, 2005.
128. *Nuclear Astrophysics: Challenges and Solutions,* TRIUMF, Vancouver, Canada, April 25, 2005.
129. *Short-Range Correlations in Two-Nucleon Knockout Reactions,* Workshop on Direct Reactions with Exotic Beams, Michigan State University, East Lansing, June 2005.
130. *Stellar Reactions on Earth: Selected Topics,* Physics Division, Los Alamos National Laboratory, Los Alamos, October 2005.
131. *On Reaction Matrices and Effective Field Theories,* Workshop on Nuclear Structure near the Limits of Stability, INT, Seattle, October 2005.

**2006**

132. *New directions in Nuclear Astrophysics,* Physics Department, Mississippi State University, Starkville, February 2006.
133. *New Directions in Nuclear Astrophysics,* Physics Department, Southern Methodist University, Dallas, March 2006
134. *Stellar Reactions on Earth,* Physics Department, University of Texas at San Antonio, April 2006.
135. *Electron Scattering off Halo Nuclei,* Meeting of the American Physics Society, Dallas, April 2006.
136. *Electron Scattering off Halo Nuclei,* International Workshop on Nuclear Physics, University of Tunis, Tunisia, June 1, 2006.
137. *Electron Scattering off Halo Nuclei,* Istituto Galileo Galilei, University of Pisa, Italy, June 6, 2006.
138. *Electron Scattering off Halo Nuclei,* Legnaro Nuclear Physics Laboratory, Legnaro, Italy, June 8, 2006.
139. *Electron Scattering off Halo Nuclei,* International Workshop on Reaction Mechanisms with Exotic Nuclei, Varenna, Italy, June 12, 2006.
140. *Pygmy resonances probed with electron scattering,* International Workshop COMEX-2, Sankt-Goar, Germany, June 23, 2006.
141. *Direct Reactions in/for Nuclear Astrophysics,* IX International Conference Nuclei in the Cosmos, CERN, Geneve, Switzerland, June 28, 2006.
142. *Short-range Correlations in Knockout Reactions,* Gesellschaft fuer Schwerionenforshung, Darmstadt, Germany, July 12, 2006.
143. *Stellar Reactions on Earth,* Physics Department, University of North Texas, September 19, 2006.
144. *Direct Reactions with Exotic Nuclei,* Physics Department, Aizu-Wakamatsu University, Japan, October 20, 2006.
145. *Stellar Reactions on Earth,* Physics Department, Tohoku University, Sendai, Japan, October 24, 2006.

146. *New Directions in Nuclear Astrophysics,* Tokyo Institute of Technology, Tokyo, Japan, October 26, 2006.
147. *New Directions in Nuclear Astrophysics,* Nishina Center, RIKEN, Wako-shi, Japan, November 03, 2006
148. *New Directions in Nuclear Astrophysics,* Department of Physics, Tsukuba University, Japan, November 15, 2006.
149. *Spectroscopy of Exotic Nuclei from Knockout Reactions,* Nishina Center, RIKEN, Wako-shi, Japan, November 16, 2006.
150. *Reaction cross-sections and in-medium effects,* Workshop on Reaction Cross Sections with Radioactive Nuclei, RIKEN, Wako-shi, Japan, November 17, 2006.
151. *Photon Physics at the Large Hadron Collider at CERN*, Physics Department, University of Tennessee, Knoxville, November 27, 2006.
152. *New Directions in Nuclear Astrophysics*, Physics Division, Oak Ridge National Laboratory, November 30, 2006.

**2007**

153. *Nuclear Spectroscopy with Knockout Reactions,* JUSTIPEN/LACAM Workshop, Oak Ridge National Laboratory, March 8, 2007.
154. *Nuclear Spectroscopy with Knockout Reactions,* LNS, INFN, Catania, Italy, March 14, 2007
155. *Study of Exotic Nuclei,* Physics Department, University of North Texas, April 17, 2007.
156. *Stellar Reactions on Earth,* Physics Department, Washington University, Saint Louis, May 2, 2007.
157. *Knockout Reactions,* Physics Department, Washington University, Saint Louis, May 3, 2007
158. *Benchmark calculations of nuclear mass tables,* INT, Washington University, Seattle, November 7, 2007.
159. *Mission not yet accomplished,* Edwards Accelerator Lab, Ohio University, Athens, Ohio, November 13, 2007.

**2008**

160. *Direct Reactions in/for Nuclear Astrophysics,* International Conference on Nuclear Astrophysics, Cocoyoc, Mexico, January 8, 2008.
161. *Odd-even staggering effect in nuclei,* JUSTIPEN/LACAM International conference, Oak Ridge National Laboratory, January 25, 2008.
162. *Taming the Pairing Interaction in Nuclei,* Int. Conf. on Path Integrals – New Trends and Perspectives, Max Planck Institute for Complex Systems, Dresden, Germany, March 5-8, 2008.
163. *Short-range correlations in p-A and A-A scattering,* Quasi-free Scattering Workshop, ECT* Trento, Italy, April 7 –11, 2008.
164. *Tunneling of Composite Objects,* NSCL, Michigan State University, East Lansing, April 22, 2008.
165. *Even-odd mass Staggering with Density Dependent Pairing,* Physics Department, Aizu-Wakamatsu University, Japan, May 29, 2008.
166. *Stellar Reactions on Earth,* RCNP, Osaka, Japan, June 6, 2008
167. *Pairing and Odd-Even Mass Staggering,* Nishina Center, RIKEN, Wako-shi, Japan, June 9, 2008.
168. *Stellar Conundrum,* Yukawa Institute, Kyoto, Japan, June 17, 2008.
169. *Even-odd mass Staggering with Density Dependent Pairing,* Physics Department, University of Tsukuba, Japan, June 26, 2008.
170. *Dissociation of Relativistic Projectiles with the Continuum-Discretized Coupled-Channels Method*, Fall Meeting of the American Physical Society, Oakland, October 23, 2008.

171. *Dissociation of Relativistic Projectiles with the Continuum-Discretized Coupled-Channels Method*, Workshop on Unbound Nuclei, INFN, Sez. di Pisa, Pisa, Italy 3-5 November 2008.
172. *Stellar Conundrum*, CNLS, Los Alamos National Laboratory, Los Alamos, November 17, 2008.
173. *Tunneling of Composite Objects*, Physics Department, University of North Texas, Denton, November 25, 2008.

**2009**

174. *Tunneling of composite objects*, Physics Department, Kyushu University, Fukuoka, Japan, February 19, 2009.
175. *Even-odd mass staggering,* University of Kyushu, Fukuoka, Japan, February 18, 2009.
176. *Stellar Reactions on Earth*, School of Science, Kyushu University, Fukuoka, Japan, February 20, 2009.
177. *Light Nuclei in Stars*, Department of Physics, Jiao Tong University, Shanghai, China, March 16, 2009.
178. *Stellar Reactions on Earth*, Department of Physics, University of Lanzhou, Lanzhou, China, March 19, 2009.
179. *Challenges in Nuclear Astrophysics*, Institute of Modern Physics, Lanzhou, China, March 20, 2009.
180. *Solar Fusion Reactions*, Department of Physics, Texas A&M University-Commerce, March 26, 2009.
181. *Nuclear Astrophysics with Indirect Methods* 10th International Conference on Nucleus-Nucleus Collisions, Beijing, China, September 16-21, 2009.
182. *Coulomb Excitation*, Center for Nuclear Studies, RIKEN, Wako-shi, Japan, August 26, 2009.
183. *Relativistic Coulomb Excitation,* Physics Department, The University of Tokyo, Tokyo, Japan, August 27, 2009.
184. *The Coulomb Dissociation Method*, Center for Nuclear Studies, RIKEN, Wako-shi, Japan, 29, 2009.
185. *Coulomb Excitation of Pigmy Resonances*, Center for Nuclear Studies, RIKEN, Wako-shi, Japan, 31, 2009.
186. *Coulomb excitation for Nuclear Astrophysics,* 5$^{th}$ European School on Experimental Nuclear Physics, Santa Tecla, Sicily, Italy, 21-26 September, 2009.
187. *Odd-even mass staggering,* Workshop on "Ab initio calculations and nuclear forces", J. Vary and T. Otsuka, organizers, APS/JPS meeting, Hawaii, October 12, 2009.
188. *The continuum-discretized coupled-channels method applied to exotic nuclei,* 3rd Joint Meeting of the Nuclear Divisions of the American Physical Society and Japanese Physical Society, October 13, 2009.
189. *Odd-even Mass Staggering & Relativistic Eikonal-CDCC*, Workshop of the Japan-US Theory Institute for Physics of Exotic Nuclei, Center for Nuclear Studies, RIKEN, Wako-shi, Japan, December 7-9, 2009.

**2010**

190. *Stellar Riddles*, Physics Department, Brookhaven National Laboratory, Long Island, NY, February 19, 2010.
191. *(p,2p) reactions with exotic nuclei,* Gesellschaft fuer Schwerionenforschung, Darmstadt, Germany, June 24, 2010.
*192. Challenges in nuclear astrophysics,* Carpathian Summer School of Physics, Sinaia, Romania, June 29, 2010.
*193. New directions in Nuclear Astrophysics,* Department of Physics and Astronomy, Ghent

University, Belgium, July 7, 2010.
*194. Reaction Theory for Nuclear Astrophysics,* PanAmerican Advanced Studies Institute (PASI), Joao Pessoa, August 1-13, Brazil.
*195. Reactions with rare isotopes and nuclear astrophysics,* Department of Physics, University of Texas at San Antonio, Texas, October 8, 2010.
*196. The nucleus-nucleus interaction between boosted nuclei,* The RIKEN-Nishina Center for Accelerator-based Science, Wako-shi, Japan, November 8, 2010.
*197. Spectroscopic information from reactions with unstable nuclei,* Symposium on "Cutting-Edge Physics of Unstable Nuclei", University of Aizu, Aizu-Wakamatsu, Japan, November 13, 2010.
*198. Challenges in nuclear astrophysics,* Physics Department, University of Texas at El Paso, Texas, December 2, 2010.
*199. Challenges in nuclear astrophysics,* Physics Department, New Mexico State University, Las Cruces, December 3, 2010.
*200. Reaction theory for rare isotopes,* Halo 2010 Symposium, Shonan Village, Hayama, Japan, December 7, 2010.

**2011**

201. *Reaction theory for neutron-deficient nuclei* EURISOL topical meeting, Valencia, Spain, February 22, 2011.
202. *Nuclear physics in the cosmos* Department of Physics, University of Texas at Arlington, March 4, 2011.
203. *Spectroscopic information form reactions with unstable nuclei* International Conference on "Nuclear Physics in Astrophysics V", Eilat, Israel, April 5, 2011.
204. *Summary talk - Fusion11* 5th international Conference FUSION11, Saint-Malo, France, May 2nd – 6th, 2011.
205. *Reaction theory for radioactive beams - I* International Workshop on Nuclear Physics, NITheP, Stellenbosch, South Africa, May 20, 2011.
206. *Reaction theory for radioactive beams - II* International Workshop on Nuclear Physics, NITheP, Stellenbosch, South Africa, May 22, 2011.
207. *Nuclear physics in the cosmos* Meeting of the Brazilian Physical Society, Iguassu Falls, Brazil, June 9, 2011.
208. *How robust is big bang nucleosynthesis?* Laboratori Nationali del Sud, Catania, Italy, August 2, 2011.
209. *Reactions at Intermediate Energies* 7th ANL/INT/JINA/MSU Annual FRIB Workshop, INT, University of Washington, Seattle, August 17, 2011.
210. *Coulomb dissociation method for nuclear astrophysics I* 6th European Summer School on Experimental Nuclear Astrophysics, Sep 22, 2011, Sicily, Italy.
211. *Coulomb dissociation method for nuclear astrophysics II* 6th European Summer School on Experimental Nuclear Astrophysics, Sep 22, 2011, Sicily, Italy.
212. *Direct reactions with rare isotopes* YIPQS Long-term workshop, Dynamics and Correlations in Exotic Nuclei (DCEN2011), 20th September - 28th October, 2011, Yukawa Institute for Theoretical Physics, Kyoto, Japan.

**2012**

213. *Nuclei in the Cosmos* Department of Physics, Texas Tech University, Lubbock, TX, February 23, 2012.
214. *Nuclear Astrophysics with Rare Isotopes* International Russbach Workshop on Nuclear Astrophysics, Russbach, Austria, March 15, 2012.
215. *Nuclear Physics in the Cosmos* Department of Physics, University of Idaho, April 16,

2012 216. *Implications of non-extensive statistics for big bang nucleosynthesis*
CompStar: the physics and astrophysics of compact stars, Tahiti, June 4-8, 2012.
217. *Thermal properties of big bang nucleosynthesis*
Worshop on New Directions in Nuclear Astrophysics, Castiglion Fiorentino, Italy, June 18-22, 2012.
218. *Nuclear Astrophysics with Radioactive Beams - Lecture I*
Summer School VI on Nuclear Collective Dynamics, Istanbul, Turkey, June 24-30, 2012.
219. *Nuclear Astrophysics with Radioactive Beams - Lecture II*
Summer School VI on Nuclear Collective Dynamics, Istanbul, Turkey, June 24-30, 2012.
220. *Nuclear Astrophysics with Radioactive Beams - Lecture III*
Summer School VI on Nuclear Collective Dynamics, Istanbul, Turkey, June 24-30, 2012.
221. *Thermal properties of big bang nucleosynthesis*
Carpathian Summer School of Physics, Exotic Nuclei and Nuclear/Particle Astrophysics (IV) - From Nuclei to Stars, Sinaia, Romania, June 24 - July 7, 2012.
222. *Quasi-free reactions with radioactive beams* R3B Collaboration meeting, Koenigstein, Germany, July 16-20, 2012.
223. *BBN and stellar nucleosynthesis: what direct reactions can do for it?* Zakopane Conference on Nuclear Physics, Zakopane, Poland, August 26 - September 1, 2012.
224. *Frontiers of Nuclear Astrophysics - Lecture I* Escuela Andina "Física Nuclear en el siglo 21", Universidad de Los Andes, Bogota, Colombia, November 26, 2012.
225. *Frontiers of Nuclear Astrophysics - Lecture II* Escuela Andina "Física Nuclear en el siglo 21", Universidad de Los Andes, Bogota, Colombia, November 27, 2012
226. *Frontiers of Nuclear Astrophysics - Lecture III* Escuela Andina "Física Nuclear en el siglo 21", Universidad de Los Andes, Bogota, Colombia, November 28, 2012.
227. *Frontiers of Nuclear Astrophysics - Lecture IV* Escuela Andina "Física Nuclear en el siglo 21", Universidad de Los Andes, Bogota, Colombia, November 29, 2012.
228. *Frontiers of Nuclear Astrophysics - Lecture V* Escuela Andina "Física Nuclear en el siglo 21", Universidad de Los Andes, Bogota, Colombia, November 30, 2012.
229. *New Frontiers in Nuclear Astrophysics I,* 1st SA-USA AstroNuclear Physics Meeting on Nuclear Physics, iThemba labs, Cape Town, South Africa, December 12, 2012.
230. *New Frontiers in Nuclear Astrophysics II,* 1st SA-USA AstroNuclear Physics Meeting on Nuclear Physics, iThemba labs, Cape Town, South Africa, December 13, 2012

# Grady Price Blount

blount@wcc.net, (325) 716-0450

## Education:

Harvard University, Cambridge, Massachusetts, Graduate School of Education, 2005.
*Certificate: Management Development Program*

Arizona State University, Tempe, Arizona, Ph.D., Planetary Geology, 1988.
*Dissertation: Regional Aeolian Dynamics from Remote Sensing: Origin of the Gran Desierto, Sonora, Mexico*

Sul Ross State University, Alpine, Texas, M.S., Geology, 1985.
*Thesis: Interpretation of Shuttle Multispectral Infrared Radiometer Data for a Portion of Trans-Pecos Texas*

Corpus Christi State University, Corpus Christi, Texas, B.S. Geology, 1982.
*Senior Project: Historical Changes in the Morphology of Corpus Christi Bay since 1540*

## Academic Positions Held:

2011-present **Texas A&M University-Commerce:**
Dean, College of Science, Engineering & Agriculture (CoSEA) and Professor of Physics; Inaugural dean for new integrated college with six academic departments and ≈100 employees. Bottom up mentoring and management establishing a shared mission and creating a culture of assessment with transparent operations. Accreditation and assessment oversight and guidance. $7M Budget administration. Development and implementation of novel academic programs and distance education (DE) best practices. Institutional budget review and development.

2006-2011 **Angelo State University:**
Dean, College of Sciences and Professor of Geosciences; Academic supervision and engagement for six to eight departments and ≈80-100 employees in science, mathematics and nursing. Created new College of Nursing and Allied Health in 2009. Planning, organization, administrative assessment and oversight, budget administration on $5M/year, planning, and implementation of student learning outcomes measurement.

1993-2006 **Texas A&M University-Corpus Christi:**
Assistant Vice-President for Research and Associate Graduate Dean (2004-2006); Coordination of institutional doctoral-comprehensive initiative. Accreditation support, Program Reviews, coordination of Centers and Institutes. Other duties supporting 27 master's degree programs and 4 doctoral programs. Coordination of Ph.D. program in *Coastal and Marine System Science*.

Chair (1995-2006) of the Department of Physical and Life Sciences. Operation and administration of an interdisciplinary group serving more than 90 faculty and staff with 1,200 majors in eight undergraduate and graduate degrees. Budgeting, personnel evaluations, operations, policy implementation, and leadership initiatives.

Professor (1998-2006) of Environmental Science and Geology. Department of Physical and Life Sciences; Undergraduate and graduate classroom teaching. Advising, community outreach, and externally-funded scholarly activities. Associate Professor (1993-1998).

## Academic Positions Held (continued):

1988-1993 **The University of North Dakota:**
Associate Professor (1991) of Space Studies, University of North Dakota, Grand Forks, North Dakota. Upper division and graduate DE and classroom teaching at Grand Forks, Grand Forks Air Force Base, and Minot Air Force Base campuses. *Earth System Science* initiative. Space Grant College satellite coordinator.

## Professional Training:

2010 *Implementing Preventive Law Best Practices***,** National Center for Higher Education Risk Management.

2005 & 2008 Delegate to the Annual Meeting of the *Commission on Colleges*, Southern Association of Colleges and Schools, Atlanta, GA. and San Antonio, TX.

2008 Participant, Financial Oversight of Credit Union Fiscal Operations, Credit Union National Association, San Antonio, TX.

2008 Participant, Institute on Quality Enhancement and Accreditation, *Commission on Colleges*, Southern Association of Colleges and Schools, Orlando, FL.

2008 Incident Command Systems (ICS-100) and National Incident Management System (IS-700), Federal Emergency Management Agency.

2004 *Strengths Quest*, The Gallup Organization

1998-2003 *Employee Evaluation and Goal Setting*, *Inventory Control and Purchasing*, *Professional Ethics*, Texas A&M University System

## Other Professional Positions:

2003-2006 **Harte Research Institute for Gulf of Mexico Studies:**
Management Team Member; operational administration of $46M endowment creating a new center of excellence for marine studies and associated Ph.D. program.

2003-2006 **National Spill Control School**:
Executive Director of the congressionally-mandated center providing professional training for first responder HAZMAT operations.

1986-88 **Arizona State University:**
Research Associate, Planetary Geology Group, Tempe, Arizona. Field and lab research on Mars analog terrains.

1985 **The University of Texas at El Paso:**
Graduate Teaching Assistant, Dept. of Geology, Responsible for teaching lab sections of Physical Geology & Remote Sensing.

1983-85 **Sul Ross State University:**
Graduate Research Assistant, Alpine, Texas. Remote sensing groundtruth projects. Sports Information Director for Lobos athletic programs.

1971-82 **KNOW Radio, KEYS Radio, and KRIS Television:**
Broadcast Journalist (radio and television), Austin and Corpus Christi, Texas. Creator of the *StarDate* radio program. Chief, Wendell Mayes Capitol Bureau, Science Correspondent, *RKO Radio Network* for first two launches of the Space Shuttle (1981).

## Recent Professional Activities:

- University Executive Council, Texas A&M-Commerce, 2011-present.
- Budget Review & Development Council, Texas A&M-Commerce, 2011-present.
- Coordinator, Minority Serving Institutions, Texas Space Grant Consortium, 2010-present.
- Secretary, Texas Association of Deans of Liberal Arts and Sciences, 2009-present.
- Proposal Reviewer, SACNAS (Society for Advancement of Chicanos and Native Americans in Science) Annual Conference, 2009-present.
- Board of Directors, *Texas Space Grant Consortium*, 2004-present.
- Co-Host, First Texas Tech University System *Engagement Conference*, March, 2009.

## Additional Professional Activities:

- Host, NASA Workshop on *Innovations in Global Climate Change Education*, 2010.
- Charter Participant, *Austin Science and Engineering Fair*, 2010-11.
- Member, Angelo State University *SACS* (Accreditation) Advisory Team, 2008-2010.
- Delegate, *Texas Higher Education Climate Summit*, National Council for Science and the Environment, The Woodlands, Tx., 2007.
- External Review Board, National Science Foundation *STEP Program*, Texas A&M University-Kingsville, 2005-2007.
- Campus Coordinator, *American Democracy Project*, Stewardship of Public Lands initiative, American Association of State Colleges and Universities, 2005-2006.
- Board of Directors, *South Texas Children's Museum* (Exploratorium venue), 2004-2006.
- Session Moderator, *Modeling and Decision Support for Environmental Systems* Conference, San Antonio, Texas, April 2005.
- Author, *Substantive Change Prospectus* for Texas A&M University-Corpus Christi, to the Southern Association of Colleges and Schools, 76 pp., 2005.
- Member, *Hallmarks of Excellence Task Force*, Policy Center for the First Year of College, American Association of State Colleges and Universities, 2003.
- Chair, Advisory Board, *Corpus Christi Museum of Science and History*, 2005-2006. Vice-Chair, 2003-2005.
- U. S. Representative, *Consorcio Educativo para la Proteccion Ambiental*, Santiago, Chile, 1998; Brownsville, Texas, 2000.
- Founding Member, Advisory Committee to the U.S. Secretary of the Interior, *National Satellite Land Remote Sensing Data Archive*, 1997-2000.
- Liaison Member of the *Land Processes Distributed Active Archive Committee*, Earth Resources Observation Center, Sioux Falls, S.D., 1998-1999.
- Texas Space Grant Consortium *Remote Sensing and GIS Advisory Group*, 1995-2001.
- Proposal reviewer: *NASA Planetary Geology & Geophysics Program*, 1996-2000.
- Member, *International Consultative Committee on Space Data Systems*, 1991-1995.

## Professional Memberships:

American Geophysical Union (AGU), American Institute of Aeronautics and Astronautics (AIAA), Assoc. of Mars Explorers, Intl. Dark Sky Association, National Society of Hispanic Physicists, Society for Advancement of Chicanos and Native Americans in Science (SACNAS), Texas Association of Deans of Liberal Arts and Sciences.

## Certifications and Licenses:

Federal Emergency Management Agency (FEMA) Incident Command Systems (ICS-100) and National Incident Management System (IS-700); Texas CHL (semi-automatic), BATF *Type 3* federal firearm license, *Advanced Open Water Scuba* license, FCC Third Class Radiotelephone (with *Broadcast Endorsement*), FCC *Extra Class* radio licensee: K5EP, Texas *Class C* Driver's License, B.S.A. Northern Lights Council *Trained Adult* certification.

## University Service Leadership:

- Co-organizer: First TAMU-Commerce Management Development training, Sept. 2012.
- Member, *Executive Council*, Texas A&M University-Commerce, 2011-present.
- Member, *President's Council*, Angelo State University, 2009-2011.
- Chair, *West Texas Medical Associates* Distinguished Lecture Selection Committee, Angelo State University, 2006-2011.
- Chair, *Program Review* policy writing committee, Angelo State University, 2009-1010.
- Chair, *Distance Education Task Force*, Angelo State University, 2006-2007.
- Chair, *Evidentiary Hearing Committee on Faculty Grievances*, College of Arts and Humanities, A&M-CC, 2004-05.
- Chair, Search Committee, A&M-CC *Vice-Provost and Associate Vice-President*, 2001; *Graduate Dean*, 2000.
- Campus Coordinator, *Teresa Heinz Environmental Scholarships*, 2001-2006.
- Chair, *Faculty Core Curriculum Committee (FC$^3$)*, 1999-2000 (interim Chair, 1998).

## Civic, Professional and University Service:

- Reviewer, Geoscience and Environmental Science manuscripts, SACNAS Annual Meetings, 2008-present.
- Member, Board of Directors, Concho Educator's Federal Credit Union, 2008-2011.
- Director, NASA Translingual Earth System Science Education Center, 1998-2001.
- Member, A&M-CC *Distance Education Council*, 1999-2002.
- A&M-CC Women's Center: Vice-Chair, 1995-98; Board of Directors, 1995-2000.
- Faculty Sponsor, *Islanders Across America* student disaster relief volunteers, 1997.
- Textbook Reviewer:
  Environment: The Science Behind the Stories, 2nd ed., Peterson, 2005
  Living in the Environment, 12th ed., Brooks/Cole, 1999
  Environmental Science-Earth as a Living Planet, 2nd ed., Wiley, 1997
  The New Solar System, 2nd ed., Sky Publishing, 1996
  GIS in The Geosciences, John Wiley & Sons, 1995
  The Realm of the Universe, Saunders College Publishing, 1995.
- Member, *Faculty Senate,* Texas A&M University-Corpus Christi, 1994-96.
- Member, *Faculty Senate,* University of North Dakota *Faculty Senate*, 1992-1993.
- Candidate for *U.S. House of Representatives* from North Dakota, statewide race, 1992.
- Lecturer, Kuwaiti National Science Foundation, *DE Course on Sand Transport*, 1988;
- Peer reviewer for *Journal of Geophysical Research* and *Proceedings of the Lunar & Planetary Science Conference*, 1987-1990.
- Vice-President, UPI Broadcasters Association of Texas, 1978-81.

## Honors and Awards:

- *Jerry Morris Outstanding Administrator* award, Texas A&M University-Commerce Faculty Senate, 2012.
- First *Distinguished Faculty Achievement Award*, A&M-CC Alumni Association, 2000.
- First *Honorary Woman* award, A&M-CC Women's Center for Education and Service, 1999.
- Inducted: Sigma Xi, 1998
- NASA award for *Excellence in Research*, 1996.
- Awarded academic tenure at A&M-CC, 1996
- NASA awards for *Excellence in Research*, *Excellence in Curriculum Development*; and *Excellence in Outreach* (*Project Earth*), 1995.
- Inducted: Sigma Gamma Epsilon (Earth Science Honor Society), 1984.
- Inducted: Epsilon Delta Pi (Computer Science Honor Society), 1981.
- *Best Newscast* award & *Best Feature* award, UPI Broadcasters Association of TX, 1978.
- RIAA *Gold Record* awards: Wildfire, Michael Murphey, 1975
  Come Monday, Jimmy Buffet, 1974

## Major Fundraising Activities:

2010 Center for Security Studies *Global Emersion Center*, U.S. Air Force, $675,000.

2004-2006 Board of Directors, *South Texas Children's Museum*, Phase 1 (of four) completed. $35M project total.

1991-93 NASA, Proposal Team Member to create the *North Dakota Space Grant Consortium*, Three-year joint partnership contract for $675K.

1992 Shell Oil Company, Proposal Team Member for Cray XMP supercomputer, University of North Dakota *Earth System Science Institute*, $12.5M.

1988 U.S. Department of Agriculture, Proposal Team Member for congressional appropriation to create an *Earth System Science Institute*. $8.4M.

## Grants & Funded Research:

2011 National Science Foundation, PI (with Satterfield and Ward), Pathways for Inspiring, Educating, and Recruiting West Texans in the Geosciences, *Diversity in the Geosciences* program, $164,839.

2008-09 Office of Naval Research, Co-PI (with Sauncy and Urbanzyk) for Electromagnetic and Crystallographic Characterization of Naturally-Occurring Zeolites with an Emphasis on Passive Detection and Shielding of Undersea Vehicles, $300,000.

2007-08 National Science Foundation, Co-PI (with Poppeliers and Satterfield) for High Performance Computing for Undergraduate Geoscience Research, $51,000.

2003-06 National Science Foundation, Co-PI (with Silliman et al.) for Cabeza de Vaca Earthmobile Program, $580,868

2005 Texas Research Development Fund, PI, Startup Initiatives in the Physical and Life Sciences, $164,250.

2000-03 NASA Institutional Research Award, Co-PI (with Steidley et al.): Building an Interdisciplinary Research Infrastructure in Applied Computer Science, Geographic Information Science, Engineering Technology, and Mathematics, $1,920,367.

## Grants & Funded Research (continued):

2001 ASARCO, Co-PI (with Smith et al.) for Implementation of Management Plans for the Up River Road Conservation Easement, $102,000

2000 NASA Earth Science Enterprise Education Program, PI, The Translingual Earth System Science Education Center, $154,540.

1999 A&M-CC Office of the Vice-President for Finance and Administration, Co-PI (with Hickman) for A Wildlife Management Plan for Ward Island, $54,000.

1999 ASARCO, PI (with Smith et al.) for Biodiversity Assay, Land Use Survey and Proposed Management Plan for the Bath/Grant/Kelly Property, $164,268.

1998 Consorcio Educativo para la Protección Ambiental, PI for Translingual Environmental Science Education; $5,000.

1994-97 NASA Joint Venture (JOVE) Research Program, Principal Investigator for Calibration and Data Analysis for the Deep Space Program Science Experiment (aka *the Clementine mission*); Three year contract for $110,000.

1996 Mexican Petroleum Institute, Co-Investigator (with Rodriguez and Jeffress) for A Regional Environmental Assessment of the State of Tabasco from Remote Sensing Data, $225,000.

1995 Office of Naval Research, Co-Investigator (with Price and Jeffress) for Laboratory Instrumentation for Geographic Information Sciences, $296,109 block grant.

1995 Eisenhower Foundation, Co-Investigator (with Duran) for Mathematics Integration Laboratory: Project Earth, $68,000.

1994 A&M-CC Organized Research Grants, Principal Investigator for Installation and Operation of a Geosynchronous Operational Environmental Satellite Receiving Station, $6,250.

1994 Ed Rachael Foundation, Principal Investigator for Satellite Image Acquisition for the Galvan Ranch Field Site, $2,000.

1993 National Science Foundation, Principal Investigator for An Imaging Laboratory Curriculum in the Earth and Planetary Sciences, $48,000.

1992-93 NASDA (Japanese Space Agency), Co-Investigator for Preliminary Data Analysis from the JERS-1 Imaging Radar, $Data Grant

1990-92 National Center for Resource Innovation, Principal Investigator for TM analysis of prairie pothole variability, $6,000.

1990 NASA Planetary Geology Field Experiment, Consultant for Correlation of mineralogical, textural, sorting, packing, mantling and slope variables with full-spectrum (visible to radar) multivariate image analysis in the Mojave Desert.

1990 UND Faculty Research travel grant to attend First International Conference on the Environment of Mars, Sopron, Hungary, $1,000

## Recent Publications and Refereed Presentations:

Dyess, Jonathan and Blount, G.P., Field Mapping and Regional Remote Sensing of the Buck Hill Volcanic Group, Trans-Pecos Texas, Geological Society of America, Abs. with Programs Vol. 41, No. 7, 2009.

Krieg, M. and Blount, G., The GulfBase Image Mosaic Project, Annual Conference of the American Society for Photogrammetry and Remote Sensing, May 2005.

## Recent Publications and Refereed Presentations (continued):

Billeaux, D., Blount, G.P., Logsdon, S., Meyer, P., Quiroz, A., Heath, S., and Jozwiak, J., Writing Across the Curriculum and First-Year Learning Communities, presented at the 6th National WAC Conference, Rice University, March 2002.

Blount, Grady Price, Holm, T. and Faundeen, J., Quaternary Park: Retrieval of Lost Satellite Images from the late 20th Century, *Proceedings from the Annual Conference of the American Society for Photogrammetry and Remote Sensing-2001*, St. Louis, April 2001.

## Other Publications and Invited Presentations:

Blount, G.P., Kratz, D., and Staton, A., Braking While Accelerating: The View from Texas, Council of Colleges of Arts and Sciences annual meeting, Seattle, WA., 2012.

Gabryonowitz, J., P. Adler, M. Baumgardner, G. Bethel, G. Blount, A. Budge, J. Copple, K. Davidson, K. Green, J. Harroun, T. Holm, A. Krygiel, J. MacDonald, G. Robinson, E. Shaw, P. Tessar, D. Williams, Access to Restricted Data, *Report to the Secretary of the Interior*, National Satellite Land Remote Sensing Data Archive Advisory Committee, 6 pp., 2000.

Blount, G.P., Front Cover Image (from Ikonos II), *Surveying and Land Information Systems*, v. 60, n. 2, August 2000.

Blount, G.P., Scenters-Zapico, J. and Dew, D., Discourse Plazas: A Blooming Large Scale Initiative, presented at the conference on Evolution, Revolution and Implementation: Computers and Writing for Global Change, Texas Women's University, May 2000.

Blount, G.P., Is NASA a Religion? *First International Conference on Children's Rights & Education for the 21st Century*, Texas A&M University-Corpus Christi, July 2005.

Blount, Grady and Smith, E., and Dilworth, S.J., Land Use and Biodiversity Assay of ASARCO Property, A&M-CC Center for Coastal Studies Report #9908, 51 pp., 1999.

Rodriguez, A., Blount, G., and Jeffress, G., Evaluacion Ambiental Regional de los Cambios en el patron de Flujo de Agua Superficial en al Estado de Tabasco, Mexico, A&M-CC Center for Coastal Studies Report #9808, 27 pp., 1998.

Blount, G., Towards a Trans-Boundary Gulf of Mexico Initiative, report to Texas General Land Office, 1997.

Blount, G., review of Verbyla, D., Satellite Remote Sensing of Natural Resources, in Surveying and Land Information Systems, v. 57, n. 1, p. 59, 1997.

Blount, G., Space Science Outreach and Education at A&M-CC, presented at the NASA Joint Venture Conference, Jet Propulsion Laboratory, CA., 1997.

Price, K. and G. Blount, Laboratory Manual for Environmental Science, Kendall/Hunt, 97 p., 1997.

Blount, G., McEwen, A., and Robinson, M., Reconnaissance Results from the Clementine Mission: A First Look at the Lunar North Pole, presented at the NASA Joint Venture Conference, Monterey, CA., July 5-8, 1995.

Blount, G., Design Specifications for a Mars Multispectral Microscope, *Mars Surveyor Workshop*, NASA Jet Propulsion Laboratory, CA., 1994.

Blount, G., South Texas Vegetation Classification Plan, in Hegwood, D., ed., Feasibility Study of Developing a South Texas Space Science and Remote Sensing Test Area, Texas Space Grant Consortium, 154 p., 1994.

Wood, C. and G. Blount, After Magellan: Design Considerations for the next generation of Venus Spacecraft, Lunar and Planetary Science Conf. XXIII, part 1, 1992.

**Other Publications and Invited Presentations (continued):**

Blount, G., Spectral mixing models for quantitative surface mapping, Symposium on Geographic data processing, Proc., North Dakota Academy of Sciences., Minot, ND, 1991.

Blount, G., Quaternary Depositional History of a Southwestern Core Desert, Annual meeting of the Quaternary Research Center, Univ. of Washington, Seattle, WA., 1991.

Blount, G., Multivariate analysis of aeolian surfaces: An aide to regional climatic interpretation, presented at the First International Conference on the Environment of Mars, Sopron, Hungary, January 1990.

Blount, G., Smith, M.O., Adams, J.B. and Greeley, R., Regional aeolian dynamics and sand mixing in the Gran Desierto: Evidence from Landsat Thematic Mapper images, Journal of Geophysical Research, v. 95, p. 15463-15482, 1990.

Blount, G. and Lancaster, N., Development of the Gran Desierto sand sea, Geology, v.18, p. 724-728, 1990.

Blount, G., Greeley, R., Christensen, P.R., Lancaster, N., Adams, J. and Smith, M.O., Determination of regional surficial geology for aeolian terrains utilizing a linear mixing algorithm for remote sensing data, Reports of the Planetary Geology and Geophysics Program, 1988, NASA TM-4130, p. 255-256, 1989.

Blount, G., Greeley, R., Christensen, P.R. and Lancaster, N., Interpreting the geologic history of aeolian bodies from remote sensing data, presented at the annual meeting of the L.P.S.C., Houston, Texas, Lunar and Planetary Science Conf. XIX, part 1, 104-105, 1988.

Blount, G., Regional Aeolian Dynamics from Remote Sensing: Origin of the Gran Desierto, Sonora, Mexico, Ph.D. dissertation, Arizona State University, Tempe, Arizona, 227 p., 1988.

Blount, G., Greeley, R., Christensen, P.R. and Lancaster, N., Semi-quantitative remote sensing of aeolian terrains using a linear mixing model, Reports of the Planetary Geology and Geophysics Program, 1987, NASA TM-4041, p. 273-274, 1988.

Blount, G., Evidence for the Pleistocene migration of the Colorado River delta, Symposium on the Geology and Mineral Deposits of Sonora II, Instituto de Geologia-Universidad de Sonora, Asociacion de Ingenieros de Minas - Sonora, 1988.

Lancaster, N. and Blount, G., Episodic eolian deposition in the Gran Desierto of Mexico: Super bounding surfaces in the making, abs. 41st Southwestern Geology Symposium, Flagstaff, Arizona, p. 41, 1988.

Blount, G. and Greeley, R., Lunar Rotation and the Distribution of Dark-Halo Pyroclastic Deposits: A Cause for Asymmetric Ejecta Patterns, Lunar and Planetary Science Conf. XVIII, part 1, 91-92, 1987.

Blount, G., Greeley, R., Christensen, P.R. and Arvidson, R., Aeolian Mixing and the Identification of Active Sand Surfaces on the Earth and Mars, presented at the annual meeting of the L.P.S.C., Houston, Texas, Lunar and Planetary Science Conf. XVIII, part 1, 95-96, 1987.

Blount, G., Greeley, R. and Christensen, P.R., Regional Aeolian Dynamics from Remote Sensing: A test case for Mars Observer, presented at the annual meeting of the G.S.A., Phoenix, Az., Geol. Soc. Amer., Abs. with Prog., v. 19, n. 7., 592, 1987.

Blount, G. and Greeley, R., Correlated Noise as a Planetary Image Enhancement Technique, presented at the annual meeting of the Division of Planetary Sciences-American Astronomical Society, Bull. Amer. Astronomical Soc., v. 19, n. 3, 847, 1987.

Blount, H.G., Percepcion remota de el Gran Desierto, Sonora, in: International Guide to Research on Mexico, UC-San Diego/Colegio de la Frontera Norte-Tijuana, 665-666, 1987.

## Other Publications and Invited Presentations (continued):

Blount, G., Barbera, P., Pappalardo, R., Posin, S. and Watts, A., The Occurrence of Seismically-Disrupted Antipodal Terrains, Lunar and Planetary Science Conf. XVIII, part 1, 93-94, 1987.

Blount, H.G., II, Greeley, R., Christensen, P.R. and Arvidson, R., Bright Sand/Dark Dust: The Identification of Active Sand Surfaces on the Earth and Mars, Reports of the Planetary Geology and Geophysics Program, 1986, NASA TM-89810, 257-258, 1987.

Blount, H.G., II and Whitford-Stark, J.L., Identification of geological units representing the spectra obtained from the Shuttle Multispectral Infrared Radiometer for a portion of the Trans-Pecos, Texas, in Reports of the Planetary Geology and Geophysics Program, 1985, NASA TM-88383, 502-504, 1986.

Marston, R.A. and Blount, H.G., II, Shuttle Imaging Radar coverage of southwest New Mexico, in Hoffer, J., ed., Geology of Southcentral New Mexico, El Paso Geological Society, 52-59, 1986.

Blount, H.G., II, Greeley, R., and Christensen, P.R., Identification of Active Sand Surfaces: Earth and Mars, presented at the annual meeting of the G.S.A., San Antonio, Texas, Geol. Soc. Amer., Abs. with Prog., v. 18, n. 6., 544, 1986.

Blount, H.G., II, An Interpretation of Shuttle Multispectral Infrared Radiometer Data for a portion of Trans-Pecos Texas, M.S. thesis, Sul Ross State University, 128 p., 1985.

Blount, H.G., II, Space Based Exploration of the Big Bend, Chihuahuan Desert Research Institute, Chihuahuan Desert Discovery, 18, 4-7, 1985.

Blount, H.G., II and Whitford-Stark, J.L., Analysis of SMIRR data for volcanic and sedimentary terraines of the Trans-Pecos, Texas, in Reports of the Planetary Geology and Geophysics Program, 1984, NASA TM-87563, 432-433, 1985.

## Graduate Thesis or Research Projects Supervised:

Krieg, Melissa, *GulfBase Mosaic project: Landsat Thematic Mapper Composite of the Coastal Gulf of Mexico and GIS Viewer*, 31 pp., 2005.

Johnson, Cassidy B., *The Effect of Changes in Gravity on Human TUR Cell Phagocytosis*, 74 pp., 2005.

Iglesias, Claudia, *Laboratory Exercises in Earth System Science*, 102 pp., 2003.

Weaver, Karen, *Pre-European Texas: Vegetation Change on the Palo Alto Battlefield National Historic Site*, 380 pp., 1999.

Williams, Deidre D., *Recreational Beach Fill: Processes & Functional Design*, 265 pp., 1999.

Cowart, R., *Surface Water Temperature Monitoring from Wesley-Seale Dam to Port Aransas Utilizing AVHRR Satellite Data*, 48 p., 1997.

Martin, O. and K. Nolan, *GPS Rectification of TM Imagery for South Texas*, 22 p., 1997.

Chambers, C., *Scale and Chaos in Global Models*, 72 p., 1992.

Mino, T., *Solar Activity and its Effect on Terrestrial Communications*, 43 p., August 1991.

Qualls, D., *Playa analysis utilizing the linear mixing model on Landsat 5 thematic mapper data*, 44 p., 1991.

Wise, S.W., *Wetland Monitoring in the Prairie Pothole Region Using Linear Mixing Model Analysis*, 37 p. report and Pascal code, 1990.

Mee, M., *Advanced Image Processing on Microcomputers: Implementations for 32-bit Color Display and Multivariate Image Analysis*, 60 p. report, manual and C code, 1990.

Mackin, J. E., *System Design Evolution in Deep-Space Sensing Probes*, 42 p., 1990.

## Graduate Thesis or Research Projects Supervised (continued):

Anderson, C., *Variations on Entry Parameters for Mars Aerobraking Maneuvers*, 65 p., 1990.

Mani, M., *An application of the NDVI algorithm to North Dakota farmlands during the droughts of 1988 and 1989*, 37 p. report and FORTRAN code, 1990.

Bieri, S.R., *Agricultural opportunities for the Institute of Earth System Science at the University of North Dakota*, 49 p., 1989.

Kakadelis, S., *Space User Display Software (SPUDS) package*, 41 p. and Pascal code, 1989.

## Citation Index:


Bartholomeus, H., Epema, G., and Schaepman, M., Determining Iron Content in Mediterranean Soils in Partly Vegetated Areas, using Spectral Reflectance and Imaging Spectroscopy, *Intl. J. of Applied Earth Observation and Geoinformation*, v. 9, n. 2, pp. 194-203, 2007.

Kasper-Zubillaga, J.J., and Faustinos-Morales, R., Análisis por Microscopía Electrónica de Barrido de Granos de Cuarzo de Dunas Desérticas y Costeras, *Ciencias Marinas*, v. 33, n. 1, pp. 11-22, 2007.

White, K., Walden, J., and Gurney, S.D., Spectral properties, iron Oxide Content and Provenance of Namib Dune Sands, *Geomorphology*, v. 86, n. 3-4, pp. 219-229, 2007.

Kasper-Zubillaga, J.J., Zolezzi-Ruiz, H., Carranza-Edwards, A., Giron-Garcia, P., Ortiz-Zamora, G., and Palma, M., Sedimentological, modal analysis and geochemical studies of desert and coastal dunes, Altar Desert, NW Mexico, *Earth Surface Processes and Landforms*, v. 32, n. 4, pp. 489-508, 2007.

Beveridge, C., Kocurek, G., Ewing, R.C. and Lancaster, N., Development of Spatially Diverse and Complex Dune-field Patterns: Gran Desierto Dune Field, Sonora, Mexico, *Sedimentology*, v. 53, n. 6, pp. 1391-1409, 2006.

White, K. and Eckardt, F., Geochemical mapping of carbonate sediments in the Makgadikgadi basin, Botswana using moderate resolution remote sensing data, *Earth Surface Processes and Landforms*, v. 31, n. 6, pp. 665-681, 2006.

Rodríguez-López, J.P., de Boer, P.L., Meléndez, N., Soria, A.R. and Pardo, G., Windblown desert sands in coeval shallow marine deposits: a key for the recognition of coastal ergs in the mid-Cretaceous Iberian Basin, Spain, *Terra Nova* v. 18 (5), pp. 314–320, 2006.

Kasper-Zubillaga, J. J. and Carranza-Edwards, A., Grain size discrimination between sands of desert and coastal dunes from northwestern Mexico, *Revista Mexicano de Ciencias Geológicas*, v. 22, n. 3, pp. 383-390, 2005.

Marin, L. Forman, S.L., Valdez, A., and F. Bunch, 20th Century dune movements Great Sand Dunes National Park, Colorado, and relation to drought variability, *Geomorphology*, 2004.

Okin, G.S. and T.H. Painter, Effect of Grain Size in Remotely Sensed Spectral reflectance of Sandy Desert Surfaces, *Remote Sensing of Environment*, 89, 272-280, 2004.

Bandfield, J.L., Rogers, D., Smith, M.D., and Christensen, P.R., Atmospheric correction and surface spectral unit mapping using Thermal Emission Imaging System data, J. Geophysical research-Planets, v. 109, n. E10: Art. No. E10008, 2004.

Ramsey, M., Quantitative Geological Surface Processes Extracted from Infrared Spectroscopy and Remote Sensing, in *Infrared Spectroscopy in Geochemistry, Exploration Geochemistry, and Remote Sensing*, 234 pp., 2004.

Pu, R., Xu, B., and P. Gong, Oakwood Crown Closure Estimation by Unmixing Landsat TM Data, *International Journal of Remote Sensing*, 24, 22, 4422-4445, 2003.

**Citation Index (continued):**


Wang, X., Dong, Z., Zhang, J., Qu, J., and A. Zhao, Grain Size Characteristics of Dune Sands in the central Taklimakan Sand Sea, *Sedimentary Geology*, 161, 1-14, 2003

Fenton, L.K., Bandfield, J.L., and Ward, A.W., Aeolian processes in Proctor Crater on Mars: Sedimentary history as analyzed from multiple data sets, *Journal of Geophysical Research-Solid Earth,* 108 (E12), 5129, doi:10,1029/2002JE002015, 2003.

Muhs, D.R., Reynolds, R.L., Been, J., Skipp, G., Eolian sand transport pathways in the southwestern United States: importance of the Colorado River and local sources, *Quaternary International*, 104: 3-18, 2003.

Foppa, N., Wunderle, S., and A. Hauser, Operational Snow Cover Estimation at Subpixel Scale using NOAA-AVHRR Data, Remote Sensing for Environmental Monitoring, *Proceedings of the SPIE*, v. 4886, 659-666, 2003.

Mushtak, T. J., Hu, G. and Chen, J., Study of Sand Dunes and Their Effect on Desertification of Cultivated Lands in Shaanxi Province, China Using Remote Sensing Techniques, *China J. of Geosciences*, v. 13, no.3 P.234-239, 2002.

Bullard J.E. and White K., Quantifying iron oxide coatings on dune sands using spectrometric measurements: An example from the Simpson-Strzelecki Desert, Australia, *Journal of Geophysical Research-Solid Earth,* 107 (B6): art. no. 2125, June 2002.

Bandfield J.L., Edgett K.S., and Christensen P.R., Spectroscopic study of the Moses Lake dune field, Washington: Determination of compositional distributions and source lithologies, *Journal of Geophysical Research-Planets*, 107 (E11): art. no. 5092, Nov. 2002.

Pease P.P. and Tchakerian V.P., Composition and sources of sand in the Wahiba Sand Sea, Sultanate of Oman, *Annals of the Association of American Geographers*, 92 (3): 416-434, Sept. 2002.

White, K., Livingstone, I., Gurney, S., Dearing, J., and Bateman, M., Post-processing of mineral mixture maps for mapping surficial materials: the example of the Matmata loess, southern Tunisia, *International Journal of Remote Sensing*, 23 (15): 3091-3106. Aug. 10, 2002.

Jabbar, M.T., Guangdao, H., and Jianguo, C., Study of Sand Dunes and their Effect on Desertification of Cultivated Lands in Shaanxi Province, China using Remote Sensing Techniques, *China J. of Geosciences*, v. 13, n. 3, pp. 234-239, 2002.

Foppa, N., Wunderle, S., and A. Hauser, Spectral Unmixing of NOAA-AVHRR Data for Snow Cover Estimation, Proceedings: *EARSeL-LISSIG Workshop Observing our Cryosphere from Space*, Bern, 155-163, March 2002

Carriquiry, J.D., Sanchez, A., and Camacho-Ibar, V.F., Sedimentation in the northern Gulf of California after cessation of the Colorado River discharge, *Sedimentary Geology*, 144 (1-2): 37-62 Special. Issue, SI Oct. 1, 2001.

Malin, M.C., Bell, J.F., Calvin, W., Clancy, R.T., Haberle, R.M., James, P.B., Lee, S.W., Thomas, P.C., Caplinger, M.A., Mars Color Imager on the Mars Climate Orbiter, *Journal of Geophysical Research-Planets,* 106 (E8): 17651-17672, Aug. 25, 2001.

White, K., Goudie, A., Parker, A., Al-Farraj, S., Mapping the geochemistry of the northern Rub' Al Khali using multispectral remote sensing techniques, *Earth Surface Processes and Landforms*, 26 (7): 735-748, July 2001.

Bandfield, J.L., Christensen, P.R., and Smith, M.D., Spectral data set factor analysis and end-member recovery: Application to analysis of Martian atmospheric particulates, *Journal of Geophysical Research* - Planet 105: (E4) pp. 9573-9587, April 25, 2000.

**Citation Index (continued):**


Pease, P.P., Bierly, G.D., Tchakerian, V.P., et al., Mineralogical characterization and transport pathways of dune sand using Landsat TM data, Wahiba Sand Sea, Sultanate of Oman, *Geomorphology*, 29: (3-4), pp. 235-249, Sept. 1999.

Ramsey, M.S., Christensen, P.R., Lancaster, N., et al., Identification of sand sources and transport pathways at the Kelso Dunes, California, using thermal infrared remote sensing, *Geological Society of America Bulletin*, 111: (5), pp. 646-662, May 1999.

Carriquiry J.D., and Sanchez, A., Sedimentation in the Colorado River delta and Upper Gulf of California, *Marine Geology* 158: (1-4), pp. 125-145, June 1999.

Ramsey, M.S. and Christensen, P.R., Mineral Abundance Determination: Quantitative Deconvolution of Thermal Emission Spectra, *Journal of Geophysical Research*, v. 103, n. 1, pp. 577-598, 1998.

White, K., Walden, J., Drake, N., Eckardt, F., and Settle, J., Mapping the Iron Oxide Content of Dune Sands, Namib Sand Sea, Namibia, using Landsat Thematic Mapper data, *Remote Sensing of Environment*, v. 62, n. 1, pp. 30-39, 1997.

Felger, R.S., Broyles, B., Nabhan, G.P., and Evans, L., Our grand desert: A gazetteer for northwestern Sonora, southwestern Arizona, and northeastern Baja California, *J. of the Southwest*, v. 39, n. 3-4, pp. 703-856, 1997.

Sept, M.L., Mapping and detecting change in the aeolian sand deposits of Southern Alberta using wet year-dry year using Landsat Thematic Mapper imagery, M.S. thesis, University of Alberta, 85 p. 1997.

Tompkins, S., Mustard, J.F., Pieters, C.M., and Forsyth, D.W., Optimization of Endmembers for Spectral Mixture Analysis, *Remote Sensing of Environment*, v. 59, n. 3, pp. 472-489, 1997.

Lancaster, N., Geomorphology of Desert Dunes, Routledge, 290 p., 1996.

Merenyi, E., Singer, R.B., and Miller, J.S., Mapping of Spectral Variations on the Surface of Mars from High Spectral Resolution Telescopic Images, *Icarus*, v. 124, n. 1, pp. 280-295, 1996.

Winspear, N.R. and Pye, K., Sand Supply to the Algodones Dunefield, South-Eastern California, USA, *Sedimentology*, v. 42, n. 6, pp. 875-891, 1995.

Ritter, D.F., Kochel, R.C., and Miller, J.R., *Process Geomorphology*, Brown, 546 p., 1995.

Farrand, W.H. and Harsanyi, J.C., Discrimination of Poorly Exposed Lithologies in Imaging Spectrometer Data, *Journal of Geophysical Research*, v. 100, n. El, pp. 1565-1578, 1995.

Edgett, K., Ramsey, M., and Christensen, P., Aeolian erosion, transport, and deposition of volcaniclastic sands among the shifting sand dunes, Christmas Lake Valley, Oregon: TIMS image analysis, *Summaries of the Fifth Annual JPL Airborne Earth Science Workshop*, v. 2: TIMS Workshop, pp 13-16 (SEE N95-33789 12-42); 1995.

Ray, T.W. and Murray, B.C., Remote Monitoring of Shifting Sands and Vegetation Cover in Arid Regions, in *Geoscience and Remote Sensing Symposium, 1994. IGARSS '94. Surface and Atmospheric Remote Sensing: Technologies, Data Analysis and Interpretation*., International v. 2, pp. 1033-1035, 1994.

Farrand, W.H., Singer, R.B., and Merenyi, E., Retrieval of Apparent Surface Reflectance from AVIRIS Data - A Comparison of Empirical Line, Radiative-Transfer, and Spectral Mixture Methods, *Remote Sensing of Environment*, v. 47, n. 3, pp. 311-321, 1994.

Smith, M.O., Adams, J.B., and Sabol, D.E., Mapping Sparse Vegetation Canopies, in *Imaging Spectrometry for Environmental Observations*, Springer Netherlands, pp. 221-235, 1994.

**Citation Index (continued):**


Edgett, K.S. and Blumberg, D.G., Star and Linear Dunes on Mars, *Icarus*, v. 112, n. 2, pp. 448-464, 1994.

Murphy, R.J., and Wadge, G., The Effects of Vegetation on the Ability to Map Soils Using Imaging Spectrometer Data, *International Journal of Remote Sensing*, v. 15, n. 1, pp. 63-86, 1994.

Lancaster, N., Arid Geomorphology, *Progress in Phys. Geog.*, v. 16, n. 4, pp. 489-495, 1992.

Lancaster, N., Relations Between Dune Generations in the Gran Desierto of Mexico, *Sedimentology*, v. 39, n. 4, pp. 631-644, 1992.

Lancaster, N., Gaddis, L., and Greeley, R., New Airborne Imaging Radar Observations of Sand Dunes-Kelso Dunes, *Remote Sensing of Environment*, v. 39, n. 3, pp. 233-238, 1992.

Paisley, E.C., Lancaster, N., Gaddis, L.R., and Greeley, R., Discrimination of Active and Inactive Sand from Remote Sensing-Kelso Dunes, Mojave Desert, California, *Remote Sensing of Environment*, v. 37, n. 3, pp. 153-166, 1991.

White, K., Remote Sensing, Progress in Physical Geography, v. 15, n. 1, pp. 71-76, 1991.

Lancaster, N., Paleoclimatic Evidence from Sand Seas, *Paleogeography, Paleoclimatology, and Paleoecology*, v. 76, n. 3-4, pp. 279-290, 1990.

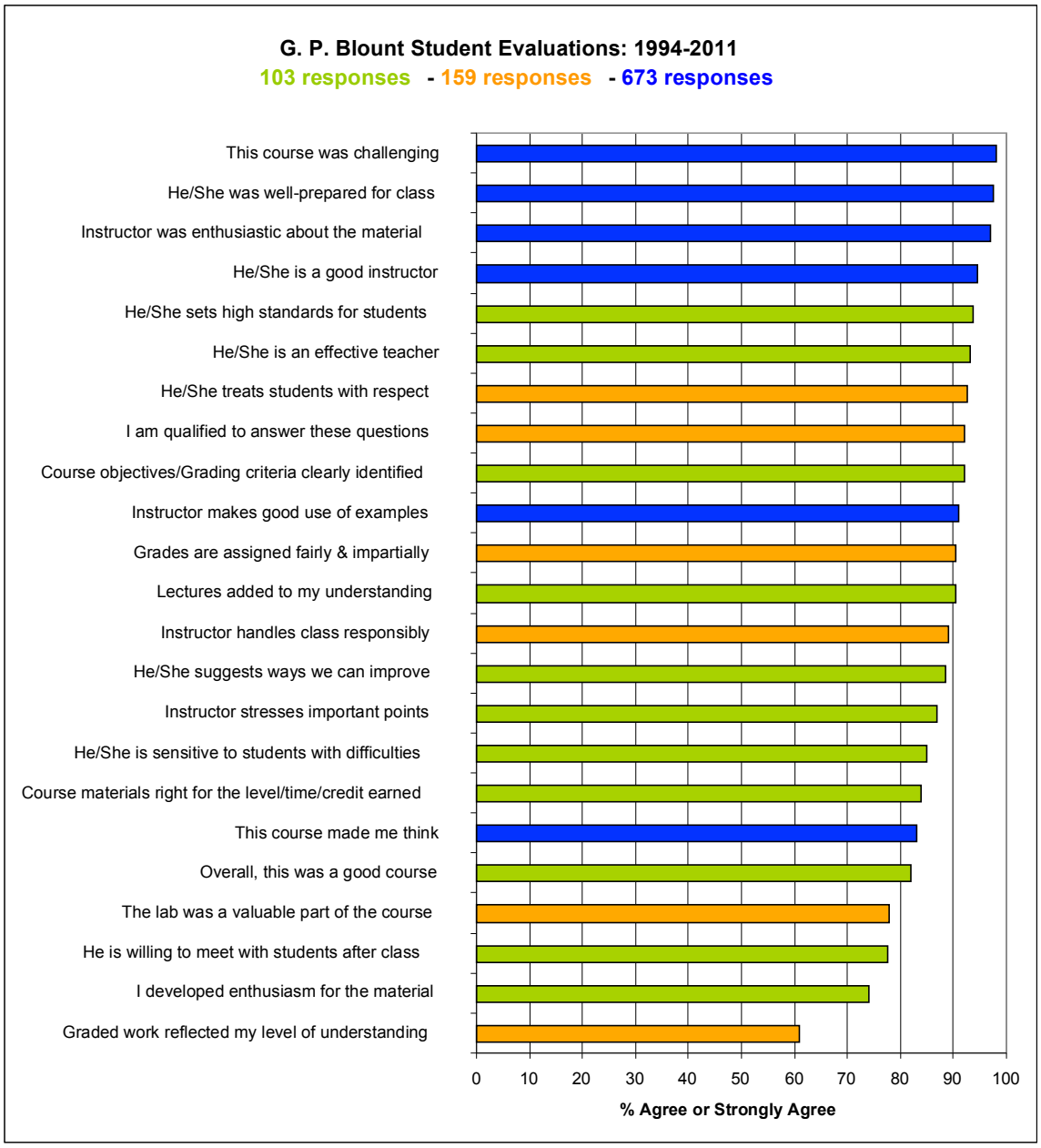
MacDonald Detwiller Associates, distribution of images in satellite imaging brochure, 1990.

Lancaster, N., The Dynamics of Star Dunes, *Sedimentology*, v. 36, pp. 273-290, 1989.

Tellez, J.R. and Whitford-Stark, J.L., SMIRR Data Analysis of West Texas: Enhancement of Lithologic Signatures, *Lunar and Planetary Science Conference*, v. 19, pp. 1187-1188, 1988.

# Teaching Evaluations for Grady Price Blount

**Student Evaluations from**: Astronomy of the Solar System (1000-level)
Introduction to Environmental Science (1000-level)
Geomorphology (3000-level)
Environmental Geology (3000-level)
Photogrammetry and Remote Sensing (3000-level)
Professional Ethics (3000-level)
Seminar in Coastal and Marine System Science (Graduate)
Coastal Management (Graduate)



RESUME

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## EDUCATION

Ph.D. (Physics) Nagpur University, Nagpur, India (1986)
Dissertation title : "X-ray Spectroscopic Investigation of some compounds of Germanium and Arsenic."

M.Sc. (Physics) Nagpur University, Nagpur, India (1978)

B.Sc. (Physics, Mathematics, Chemistry) Nagpur University, Nagpur, India (1975)

## EXPERIENCE

| | |
|---|---|
| Professor<br>(Fall 2006-Present) | Texas A&M University-Commerce<br>Department of Physics |
| Acting Head<br>(Jun 2004-May 2005) | Texas A&M University-Commerce<br>Department of Physics |
| Associate Professor<br>(2001 - Summer 2006) | Texas A & M University-Commerce<br>Department of Physics |
| Assistant Professor<br>of Physics<br>(Non-tenure track)<br>(1996 - 2001) | Texas A & M University - Commerce<br>(Formerly known as East Texas State Univ)<br>Department of Physics |
| Visiting Scientist: | National Research Institute for Metals, (Jan. 96 - March 96) Tsukuba, Japan (Extended X-ray Absorption Fine Structure (EXAFS) utilizing high intensity x-ray beam from modified rotating anode tube.)<br><br>Argonne National Laboratory, Illinois, Summer 1998. |

Royal Melbourne Institute of Technology, Melbourne, Australia
June - July, 2005

Adjunct Faculty: East Texas State University,
(1992 - 1996) Department of Physics
Research Associate: East Texas State University,
(1985-90 & 91-95) Department of Physics

Teaching: Teaching undergraduate and graduate courses in Physics; Guiding graduate and undergraduate students in research theses

Research: UHV Techniques
Thin Film Deposition and Characterization using X-ray Photoelectron Spectroscopy, RHEED and Appearance Potential Spectroscopy
Low temperature electrical resistivity, magnetoresistance, and Hall Effect.

Computer Experience: Familiar with Fortran, Basic, C, DOS, UNIX, computer interfacing. Write my own application programs.

Research Scholar: Nagpur University, Nagpur, India (1979-1985). Analyzed the Extended X-ray Absorption Fine Structure (EXAFS) associated with the Ge K absorption discontinuity in the rare earth intermetallics of the type $RGe_2$. Studied the electronic structure of arsenic chalcogenides with the help of X-ray absorption spectroscopy.

## GRANTS

### Internal

| | |
|---|---|
| Organized Research, A&M-Commerce | 1997-98 |
| TEES | 1997 |
| Organized Research, A&M-Commerce | 2000-01 |
| Organized Research, A&M-Commerce | 2005-06 |

### External

* NSF Project "NIRT-Molecular Nanomagnets: Magnetic and Electronic Properties of Novel Magnetic Nanostructures and Nanostructured Materials"
($ 7000)
Summer 2003
Texas A&M Univ-College Station

* Research Corporation
"Chemical Reactivity at $Hf/SiO_2$ Interface"
2005-2007

($ 43,650)

## PROFESSIONAL MEMBERSHIPS

American Physical Society
American Vacuum Society

## COMMITTEE SERVICES

Physics Senator
Facilities and Scheduling Committee
Departmental Graduate Co-ordinator
Departmental Library Representative
Coordinator, Departmental Scholarship Committee
Various Departmental and University Committees

## EXTERNAL RESEARCH COLLABORATION

The University of Houston
The University of Arlington
University of North Texas
Royal Melbourne Institute of Technology, Australia

## HONORS AND AWARD

| | |
|---|---|
| Listed in Who's Who Among America's Teachers (Educational Communications, Inc., Lake Forest, IL) | 2000 |
| Sigma Xi Research Award | 1992 |
| Robert A. Welch Foundation Fellowship | 1991-1995 |
| Robert A. Welch Foundation Fellowship | 1985-1990 |
| Junior & Senior Research Fellowship, Council of Scientific & Industrial Research, New Delhi, India | 1979-1984 |
| Open Merit Scholarship, Govt. of Maharashtra, India | 1976-1978 |
| Talent Development in Math, Govt. of Maharashtra | 1972-1975 |

## THESES

### Graduate

| | |
|---|---|
| Christi Emery | Summer 1998 |
| Steve Hood | Spring 1999 |
| Sangho Bae | Spring 2002 |
| Tao Jiang | Fall 2002 |
| S. H. McKinney | May 2003 |
| Richard Miller | Summer 2006 |
| Hong Dong | Summer 2009 |
| Josh Edmondson | Summer 2011 |

**Undergraduate (Honors Thesis)**

| | |
|---|---|
| Richard Miller | May 2004 |

## PUBLICATIONS IN REFEREED JOURNALS

1. Chemical shifts in K absorption discontinuities of germanium and selenium in some amorphous compounds.
   Y. L. Rao, A. R. Chourasia & C. Mande.
   Journal of Non-crystalline Solids 43, 13-19 (1981).

2. EXAFS study of intermetallics of the type $RGe_2$ ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ).
   A. R. Chourasia, V. D. Chafekar, S. D. Deshpande, V. B. Sapre & C. Mande.
   Springer Proceedings in Physics 2, 455- 457 (1984).

3. EXAFS study of intermetallics of the type $RGe_2$ ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ) Part I: Determination of Ge-Ge distances.
   A. R. Chourasia, V. D. Chafekar, S. D. Deshpande & C. Mande.
   Pramana 24, 787-796 (1985).

4. EXAFS study of intermetallics of the type $RGe_2$ ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ) Part II: Determination of Ge-R distances.
   A. R. Chourasia, V. D. Chafekar & C. Mande.
   Pramana 24, 867-873 (1985).

5. X-ray spectroscopic study of arsenic chalcogenides of the type $As_2X_3$ ( where X = O,S,Se and Te ).
   C. Mande & A. R. Chourasia.
   Indian Journal of Physics 60B, 72-83 (1986).

6. Study of 4f levels in lanthanides by Appearance Potential Spectroscopy.
   D. R. Chopra, A. R. Chourasia & P. V. Prasad.
   Journal of Electron Spectroscopy and Related Phenomena 41, 167-173 (1986).

7. Study of the Ti/Si Interface using X-ray Photoelectron and Auger Electron Appearance Potential Spectroscopies.
D. R. Chopra, A. R. Chourasia, T. R. Dillingham, K. L. Peterson & B. Gnade.
Journal of Vacuum Science and Technology A 5, 1984-1987 (1987).

8. XPS study of the Ni/Si oxide/Si Interface.
T. R. Dillingham, A. R. Chourasia, D. R. Chopra, S. R. Martin, K. L. Peterson, C. Z. Hu and B. Gnade.
Journal of Vacuum Science and Technology A 5, 3340-3345 (1987).

9. A study of $LaH_3$ by Auger Electron Appearance Potential Spectroscopy.
A. R. Chourasia and D. R. Chopra.
Journal of Electron Spectroscopy and Related Phenomena 43, 233-241(1987).

10. Soft X-ray Appearance Potential study of $Ni_{74}Fe_{26}$.
A. R. Chourasia and D. R. Chopra.
Surface Science 206, 484-494 (1988).

11. SXAPS study of $Nd_2Fe_{14}B$.
A. R. Chourasia and D. R. Chopra.
Journal of Less Common Metals 148, 413-420 (1989).

12. SXAPS study of $Pr_2Fe_{14-x}Co_xB$.
A. R. Chourasia and D. R. Chopra.
Journal of Vacuum Science and Technology A 7, 2075-2079 (1989).

13. Soft X-ray Appearance Potential Spectroscopy study of Ni-Fe alloys.
A. R. Chourasia and D. R. Chopra.
Nuclear Instruments and Methods B40/41, 376-378 (1989).

14. X-ray photoelectron study of Al-Mn Alloys.
A. R. Chourasia and D. R. Chopra.
Journal of Electron Spectroscopy and Related Phenomena 52, 541-550 (1990).

15. Deposition of Diamond Films at Low Pressures and their Characterization by Positron annihilation, Raman, SEM, and XPS.
S. C. Sharma, C. A. Dark, R. C. Hyer, M. Green, T. D. Black, A. R. Chourasia, D. R. Chopra, and K. K. Mishra.
Applied Physics Letters 56, 1781-1783 (1990).

16. Characterization of Low Pressure Deposited Diamond Films by X-ray Photoelectron Spectroscopy.
A. R. Chourasia, D. R. Chopra, S.C. Sharma, M.Green, C.A.Dark, R.C. Hyer.
Thin Solid Films 193/194, 1079-1086 (1990).

17. Growth of Diamond and Diamond-like Carbon Films and Characterization by Raman, Scanning Electron Microscopy, and X-ray Photoelectron Spectroscopy.
S. C. Sharma, M. Green, R. C. Hyer, C. A. Dark, T. D. Black, A. R. Chourasia, D. R. Chopra, and K. K. Mishra.
Journal of Materials Research 5, 2424-2432 (1990).

18. Diamond and Amorphous Carbon Films.
D. R. Chopra, A. R. Chourasia, M. Green, R. C. Hyer, K. K. Mishra, & S.C. Sharma.
Surface Modification Technologies IV, 583-591 (1991).

19. A Study of Y-Ba-Cu-O/Si Interfaces by X-ray Photoelectron Spectroscopy.
A. R. Chourasia, D. R. Chopra, A. H. Bensaoula, A. Bensaoula, and P. Ruzakowski.
Journal of Vacuum Science and Technology A 10, 115-121 (1992).

20. A Study of YBaCuO/W/Si by X-ray Photoelectron Spectroscopy.
D. R. Chopra, A. R. Chourasia, Li Chen, A. H. Bensaoula, and A. Bensaoula.
Journal of Vacuum Science and Technology A 10, 1547-1553 (1992).

21. Sputter Deposited Aluminum Nitride.
A. R. Chourasia, D. R. Chopra, and T. K. Hatwar.
Surface Science Spectra 1, 75-79 (1992).

22. Angle-resolved X-ray Photoemission study of $CaF_2$/Si(111) Interfaces.
A. R. Chourasia, D. R. Chopra, C-C. Cho and B. E. Gnade.
Surface Science 275, 424-432 (1992).

23. X-ray photoelectron study of TiN.
A. R. Chourasia and D. R. Chopra
Surface Science Spectra 1, 233- 237 (1992).

24. Scanning Tunneling Microscopy of the Electronic Structure of Chemical Vapor Deposited Diamond Films.
J. M. Perez, C. Lin, W. Rivera, R. C. Hyer, M. Green, S. C. Sharma, D. R. Chopra and A. R. Chourasia
Applied Physics Letters 62, 1889-1891 (1993).

25. A Study of $Si_3N_4$ by XPS.
A. R. Chourasia and D. R. Chopra
Surface Science Spectra, 2, 117-122 (1994).

26. A Study of the Electronic Structure of $GdMn_2$ by Appearance Potential Spectroscopy.
A. R. Chourasia, D. R. Chopra and G. Wiesinger
Journal of Electron Spectroscopy and Related Phenomena 70, 23-28(1994).

27. Appearance Potential Study of $PrMn_2$ and $SmMn_2$ Intermetallics.
A. R. Chourasia, M. A. Seabolt, R. L. Justiss, D. R. Chopra, and G. Wiesinger
Journal of Alloys and Compounds, 224, 287-291 (1995).

28. Elemental Manganese studied by X-ray Photoelectron Spectroscopy using Mg and Zr Radiations.
A. R. Chourasia and D. R. Chopra
Surface Science Spectra, 3, 74-81 (1995).

29. X-ray Photoelectron study of $TiN/SiO_2$ and TiN/Si Interfaces.
A. R. Chourasia and D. R. Chopra
Thin Solid Films 266, 298-301 (1995).

30. A Study of Si-Compounds by Zr La Photoelectron Spectroscopy.
A. R. Chourasia, S. J. Hood, and D. R. Chopra
Journal of Vacuum Science and Technology A 14, 699-703 (1996).

31. Core level XPS Spectra of elemental silicon using zirconium radiation.
A. R. Chourasia
Surface Science Spectra 5, 115-121 (1998).

32. A Study of CrNx Thin Films by X-ray Photoelectron Spectroscopy.
Christi Emery, A. R. Chourasia, and P. Yashar
Journal of Electron Spectroscopy and Related Phenomena
104, 91-97 (1999).

33. Soft X-ray Appearance Potential Study of Rare Earth-manganese Compounds.
A. R. Chourasia and S. D. Deshpande
AIP CP475, Applications of Accelerators in Research and Industry,
Edited by J. L. Duggan and I. L. Morgan
488-491 (1999).

34. Spin dynamics and absence of a central peak anamoly in $La_{0.67}Ca_{0.33}MnO_3$.
J. J. Rhyne, H. Kaiser, L. Stumpe, J. F. Mitchell, T. McCloskey, and A. R. Chourasia
Journal of Applied Physics 87, 5813 (2000).

35. Core level XPS spectra of Cr and N in chromium nitride films
A. R. Chourasia
Surface Science Spectra 7, 150-166 (2000).

36. Auger electron appearance potential spectroscopy study of $CrN_x$ Films.
A. R. Chourasia and S. J. Hood
Surface and Interface Analysis, 31, 291-296 (2001).

37. Core level XPS spectra of silicon carbide using Zirconium and Magnesium radiation

A. R. Chourasia
Surface Science Spectra 8, 45-55 (2001).

38. Composition dependence of the spin wave stiffness parameter in La1-xCaxMnO3 CMR materials
J. J. Rhyne, H. Kaiser, L. Stumpe, J. F. Mitchell, T. McCloskey, and A. R. Chourasia
Journal of Magnetism and Magnetic Materials, 226-230, 775-776 (2001).

39. Effects of Growth and Postgrowth Parameters on the Microstructure and Copper distribution in Al(Cu)/$SiO_2$ Thin Films
N. Hozhabri, K. M. Watson, S. C. Sharma, and A. R. Chourasia
Journal of Electronics materials, 81, L7-L10 (2002).

40. A. Study of Amorphous Ti-Ni Alloys by X-ray Photoelectron Spectroscopy
M. A. Seabolt, W. R. Ogden, A. R. Chourasia, and A. Ishida
Journal of Electron Spectroscopy and Related Phenomena, 135, 135-141 (2004).

41. Auger Parameter of Hafnium in Elemental Hafnium and in Hafnium oxide
A. R. Chourasia and R. L. Miller
Surface Science, 573, 320-326 (2004).

42. Core level of Silicon Dioxide using zirconium and magnesium radiations
A. R. Chourasia
Surface Science Spectra, 13, 48-57 (2008)

43. Core level spectroscopy of elemental hafnium and hafnium dioxide
R. L. Miller, S. H. McKinney, and A. R. Chourasia
Surface Science Spectra 15, 59-69 (2008)

44. X-ray Photoemission study of the oxidation of hafnium
A. R. Chourasia, J. L. Hickman, R. L. Miller, G. A. Nixon, and M. A. Seabolt
International Journal of Spectroscopy, vol. 2009, Article ID 439065, 6 pages, 2009. doi:10.1155/2009/439065

45. Investigation of Chemical Reactivity at the M/CuO Interfaces (where M = Fe, Co, or Ni)
A. R. Chourasia
Journal of Applied Physics 112, 24323 (2012)

46. Chemical Reactivity at Fe/CuO Interface Studied by X-ray Photoelectron Spectroscopy
H. Dong, J. Edmondson, R. L. Miller, and A. R. Chourasia
Submitted to Thin Solid Films

## REVIEW ARTICLES AND BOOK CONTRIBUTION

1. Appearance Potential Spectroscopy of Solid Surfaces.
   D. R. Chopra and A. R. Chourasia.
   Scanning Micros. 2, 677-702 (1988).

2. Characterization of semiconductor surfaces by Appearance Potential Spectroscopy.
   D. R. Chopra and A. R. Chourasia.
   "Characterization of semiconductor materials" Vol 1.
   Editor Dr. G. McGuire (Noyes Publication, 1989) pp 289-327.

3. Surface Characterization.
   J. E. Fulghum, G. E. McGuire, I. H. Musselman, R. J. Nemanich, J. M. White, D. R. Chopra, and A. R. Chourasia.
   Analytical Chemistry 61, 243R-269R (1989).

4. Surface Characterization.
   G. E. McGuire, M. A. Ray, S. J. Simko, F. K. Perkins, S. L. Brandow, A. Dobisz, R. J. Nemanich, A. R. Chourasia and D. R. Chopra.
   Analytical Chemistry 65, 311R-333R (1993).

5. Surface Characterization
   G. E. McGuire, M. L. Swanson, N. R. Parikh, S. Simko, P. S. Weiss, J. H. Ferris, R. J. Nemanich, D. R. Chopra and A. R. Chourasia
   Analytical Chemistry 67, 199R-220R (1995).

6. Appearance Potential Spectroscopy
   D. R. Chopra and A. R. Chourasia
   Surface Analysis, Encyclopedia of Analytical Science, Academic Press, England, pp. 4893-4899 (1996).

7. X-ray Photoelectron Spectroscopy
   D. R. Chopra and A. R. Chourasia
   Chapter contribution to the Handbook of Analytical Chemistry, (Prentice Hall, 1997), Chapter 43, pp. 809-827.

8. Auger Electron Spectroscopy
   A. R. Chourasia and D. R. Chopra
   Chapter contribution to the Handbook of Analytical Chemistry, (Prentice Hall, 1997), Chapter 42, pp. 791-808.

9. Appearance Potential Spectroscopy: A Surface Sensitive Technique to Characterize Materials

A. R. Chourasia
Trends in Vacuum Science and Technology, 2, 113-121 (1997).

10. Appearance Potential Spectroscopy
A. R. Chourasia
Encyclopedia of Analytical Science, Second Edition
Surface Analysis, Encyclopedia of Analytical Science (Academic Press) England, Second Edition, 474-481 (2004).

## PAPERS PRESENTED AT CONFERENCES AND SYMPOSIA

1. Study of the 4f levels in Lanthanides by Appearance Potential Spectroscopy.
   American Physical Society, April 4, 1986 at The Univ. of Texas at Dallas, Texas.

2. Electronic Properties of Transition Metal-Silicon Interfaces.
   American Chemical Society, Houston, Nov. 19, 1986.

3. XPS study of Transition Metal-Silicon Interfaces.
   American Physical Society, March 6, 1987 at Abilene Christian University, Abilene, Texas.

4. Appearance Potential Study of $Ni_{74}Fe_{26}$.
   March 4, 1988 at the 91st Annual Meeting of Texas Academy of Science, Commerce, Texas.

5. A study of W-Ti-Si and W-Ti-$Si_2$ interfaces by Auger Electron Spectroscopy, Rutherford Backscattering Spectrometry and X-ray Photoelectron Spectroscopy.
   Eighth Joint Symposium by North Texas Materials Characterization Society, Texas Chapter of the American Vacuum Society, and the North Texas Section of the Electrochemical Society, Dallas, June 5,1989.

6. X-ray photoelectron study of Al-Mn alloys.
   Fourth International Conference on Electron Spectroscopy, University of Hawaii at Manoa, Honolulu, Hawaii, July 10-14, 1989.

7. SXAPS study of Al-Mn alloys.
   36th National Symposium of AVS, Boston, MA, Oct. 23-27, 1989.

8. Characterization of Low Pressure deposited Diamond Films.
   8th International Conference on Thin Films, San Diego, CA, April 2-6, 1990.

9. A study of Y-Ba-Cu-O on Si, $SiO_2$, MgO, and W/Si by X-ray Photoelectron Spectroscopy.
   37th Symposium of American Vacuum Society, Toronto, Canada, Oct.8-12, 1990.

10. Diamond and Amorphous Carbon Films.
    Fourth International Conference on Surface Modification Technologies, Paris, France, Nov. 6-8, 1990.

11. Angle Resolved X-ray Photoelectron Spectroscopy Study of $CaF_2$/Si(111) Interfaces.
    American Physical Society, South Western Texas State University, San Marcos, Texas, March 6-7, 1992.

12. Characterization of TiN/Si, TiN/$SiO_2$, and W/TiN Interfaces.
Twelfth Joint Symposium by North Texas Materials Characterization Society, Texas Chapter of the American Vacuum Society, and the North Texas Section of the Electrochemical Society, Austin, June 7-8,1993.

13. X-ray photoelectron study of Co/Si interfaces.
124th TMS Annual Meeting, Las Vegas, February 12-16, 1995.

14. Interdiffusion study of cobalt-silicon interfaces by X-ray Photoelectron Spectroscopy.
American Physical Society, Sam Houston State University, Huntsville, Texas, March 2-4, 1995.

15. A study of Si-compounds by Zr La photoelectron spectroscopy.
42nd National Symposium of American Vacuum Society, Minneapolis, MN, Oct. 16 - 20, 1995.

16. Electronic structure of $RMn_2$ compounds by Appearance Potential Spectroscopy.
42nd National Symposium of American Vacuum Society, Minneapolis, MN, Oct. 16 - 20, 1995.

17. EXAFS studies of amorphous Ni-Ti thin films.
American Physical Society, University of Texas at Arlington, Texas, October 10-12, 1996.

18. Study of $CrN_x$ Films by X-ray Photoelectron Spectroscopy
Christi Emery and A. R. Chourasia
Texas Sections of the AAPT, APS, and SPS,
March 19-21, San Antonio, Texas

19. Electronic Structure Study of Amorphous and Crystalline Ti-Ni Films by X-ray Photoelectron Spectroscopy
Lucian B. Holmes and A. R. Chourasia
Texas Sections of the AAPT, APS, and SPS,
March 19-21, San Antonio, Texas

20. The study of $CrN_x$ films by X-ray Photoelectron Spectroscopy
Christi Emery and A. R. Chourasia
5th annual A & M - Commerce Sigma Xi Student Research Forum,
April 9, 1998

21. Electronic Structure study of amorphous and crystalline Ti-Ni films by X-ray Photoelectron Spectroscopy
Lucian B. Holmes and A. R. Chourasia

5th annual A & M-Commerce Sigma Xi Student Research Forum, April 9, 1998

22. Reactive ion etching of BN and GaN using $Cl_2$/Ar and $BCl_3/Cl_2$/Ar plasmas
N. Medelci, A. Tempez, E. Kim, N. Badi, D. Starikov, I. Berichev, and A. Bensaoula
SVEC, University of Houston, Houston, TX
A. R. Chourasia, A & M-Commerce.
The Texas Surface Science Round Up
May 27, Houston, Texas

23. Photoenhanced RIE of III-V Nitrides in $BCl_3/Cl_2/Ar/N_2$ Plasmas
N. Medelci, A. Tempez, E. Kim, O. Kameli, N. Badi, I. Berichev, D. Starikov, A. Bensaoula
SVEC, University of Houston, Houston, TX
A. R. Chourasia, A & M - Commerce
45th American Vacuum Society International Symposium, Nov. 2-6, 1998, Baltimore, MD.

24. Soft x-ray appearance potential study of Rare Earth Manganese Compounds.
A. R. Chourasia and S. D. Deshpande
Fifteenth International Conference on the Application of Accelerators in Research and Industry, Nov. 4-7, 1998, Denton, Texas.

25. Design of a High Resolution XANES Monochromator.
S. D. Deshpande, S. Prabhu, and A. R. Chourasia
Fifteenth International Conference on the Application of
Accelerators in Research and Industry, Nov. 4-7, 1998,
Denton, Texas.

26. Unusual T-dependence of the spin wave stiffness in La-Ca Manganites
J. J. Rhyne, H. Kaiser, J. F. Mitchell (Argonne National Lab.)
And A. R. Chourasia
American Physical Society Centennial Meeting, March 20 - 26, 1999,
Atlanta, Ga

27. Electronic Structure Study of CrNx Thin films
K. D. Steed, S. J. Hood, C. Emery, and A. R. Chourasia
American Physical Society Centennial Meeting, March 20 - 26, 1999,
Atlanta, Ga

28. A Study of elemental Iron, Cobalt, and Nickel by Soft X-ray Appearance Potential Spectroscopy
S. H. McKinney, J. A. Yancey, and A. R. Chourasia
American Physical Society Centennial Meeting, March 20 - 26, 1999,
Atlanta, Ga

29. Investigation of the Electronic Structure of Lanthanum-Calcium-Manganese-Oxide
S. Bae, S. J. Hood, and A. R. Chourasia
American Physical Society Centennial Meeting, March 20 - 26, 1999, Atlanta, Ga

30. An algorithm to analyze Appearance Potential Spectrum
Jeremy Yancey and A. R. Chourasia
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce

31. APS study of Iron, Cobalt and Nickel
S. H. Ryan McKinney and A. R. Chourasia
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce

32. A study of La-Ca-Mn-O compounds by X-ray Photoelectron Spectroscopy
S. Bae and A. R. Chourasia
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce

28. AEAPS and XPS study of CrN thin films
S. J. Hood and A. R. Chourasia
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce

34. Determining Density of Conduction Band States from Appearance Potential Spectroscopy
Jeremy A. Yancey and A. R. Chourasia
Texas Section of American Physical Society, October 29 - 30, 1999, Austin, TX

35. Appearance Potential Spectroscopy Study of CrNx Thin Films
A. R. Chourasia and S. J. Hood
Quantitative Surface Analysis - 11, July 3 - 7, 2000,
University of Surrey, Guildford, UK

36. Determination of thickness of deposited films using x-ray photoelectron spectra
K. Steed and A. R. Chourasia
Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19, 2001

37. Importance of background in XPS spectra in estimating the density of states at the Fermi level
M. Seabolt and A. R. Chourasia
Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19, 2001

38. Ti 2p AEAPS spectra in amorphous and crystalline Ti-50%Ni compounds
S. McKinney and A. R. Chourasia
Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19,

2001

39. Estimation of density of states in Crystalline Titanium-Nickel Compounds using X-ray Photoelectron Spectroscopy
M. A. Seabolt and A. R. Chourasia
Joint Fall Meeting of the Texas Section of the American Physical Society,
Texas Christian University, Fort Worth, Texas, October 6, 2001

40. Oxidation of Copper studied by X-ray Photoelectron Spectroscopy
T. Jiang and A. R. Chourasia
Joint Fall Meeting of the Texas Section of the American Physical Society,
Texas Christian University, Fort Worth, Texas, October 6, 2001

41. A study of unoccupied density of states in La1-xCaxMnO3 compounds
by Auger electron appearance potential spectroscopy
C. A. Watson, A. R. Chourasia, and J. F. Mitchell
American Physical Society March Meeting, Indianapolis, IN,
March 18-22, 2002

42. Background effects in the core level XPS spectra of Ti-Ni alloys
M. A. Seabolt, A. R. Chourasia, and A. Ishida
American Physical Society March Meeting, Indianapolis, IN,
March 18-22, 2002

43. Electronic structure study of Ti-Ni amorphous and crystalline alloys
by Auger electron appearance potential spectroscopy
S. H. McKinney, A. R. Chourasia, and A. Ishida
American Physical Society March Meeting, Indianapolis, IN,
March 18-22, 2002

44. AEAPS Study of Ti-Ni Alloys
S. H.McKinney and A. R. Chourasia
Sigma Xi Research Symposium, April 11, 2002, A & M – Commerce.

45. Appearance Potential Spectroscopy study of Ti-Ni Alloys
A. R. Chourasia, S. H. McKinney, C. A. Watson, and A. Ishida
Invited Talk
17$^{th}$ International Conference on the Application of Accelerators in
Research and Industry, Denton, TX Nov. 12-16, 2002

46. Auger Parameter of Elemental Hafnium and Hafnium oxide
R. Miller and A. R. Chourasia
Texas Section of APS, Stephenville, TX, April 2-3, 2004

47. Oxidation of Hafnium as studied by X-ray Photoelectron Spectroscopy

A. R.Chourasia and R. Miller
Texas Section of APS, Stephen F. Austin State University, Nacagdoches, TX, March 3-5, 2005

48. Auger parameter of aluminum
R. L. Miller, S. H. McKinney, A. R. Chourasia, and G. A. Nixon
Texas Section of APS, University of Houston, Houston, TX, Oct. 21-22, 2005.

49. Auger parameter of aluminum
R. Miller and A. R. Chourasia
American Physical Society, Baltimore, MD, March, 2006

50. Examination of oxidation of silicon using x-ray photoelectron spectroscopy
A. R. Chourasia
Ab Initio Modelling in Solid State Chemistry, Torino, Italy,
Sep. 3-8, 2006

51. Influence of Hamiltonian on the properties of NaCl
Ryan Jacob and A. R. Chourasia
Texas Section of American Physical Society, The University of Texas at Arlington, TX, Oct. 5-7, 2006

52. Interaction of Hafnium oxide with Silicon
Richard Miller and A. R.Chourasia
Texas Section of American Physical Society, The University of Texas at Arlington, TX, Oct. 5-7, 2006

53. Electronic Structure Calculations of Si, SiC, $Si_3N_4$, and $SiO_2$.
Ryan Jacob and A. R. Chourasia
March Meeting of the American Physical Society, Denver, CO, March 3-9, 2007

54. Study of Oxidation of silicon by X-ray Photoelectron Spectroscopy
W. Johnston, Ryan Jacob, and A. R. Chourasia
March Meeting of the American Physical Society, Denver, CO, March 3-9, 2007

55. Appearance potential Study of Ti-Ni Alloys
S. H. McKinney and A. R. Chourasia
March Meeting of the American Physical Society, Denver, CO, March 3-9, 2007

56. Interaction between silicon and thin films of hafnium oxide
John Hickman, Steven McDonough, and A. R. Chourasia

Texas Section of American Physical Society, Oct. 18-20, 2007, College Station, TX

57. Oxidation of Hafnium studied by X-ray Photoelectron Spectroscopy
John Hickman, R. L. Miller, G. A. Nixon, M. A. Seabolt, and
A. R. Chourasia
March Meeting of American Physical Society, New Orleans, LA,
March 10-14, 2008

58. Density of States of Silicon, Silicon Oxide, Silicon Nitride and
Silicon Carbide
Hong Dong and A. R. Chourasia
March Meeting of American Physical Society, New Orleans, LA,
March 10-14, 2008

59. Partial Density of States of Silicon in Silicon Compounds
A. R. Chourasia
MSSC2008, Imperial College, London, Sep. 15-19, 2008.

60. Electronic Structure of Aluminum Compounds
Hong Dong and A. R. Chourasia,
American Physical Society, Pittsburgh, PA, March 2009

61. Study of oxidation of titanium by X-ray photoelectron
Spectroscopy
A. R. Chourasia and Hong Dong
American Physical Society, Pittsburgh, PA, March 2009

62. Investigation of the thickness of titanium dioxide by x-ray photoelectron spectroscopy
A. R. Chourasia
American Physical Society, Portland, OR, March 2010

63.

**BAO-AN LI, Ph.D.** **(Last updated on Jan. 3, 2013)**
Department of Physics and Astronomy Phone: (903) 886-5478 (O), (512) 439-9955 (Cell)
Texas A&M University-Commerce Fax: (903) 886-5480
Commerce, TX 75429-3011, USA Email: Bao-An.Li@TAMUC.edu

***Born in China in 1962, a naturalized US citizen***

## Education

Ph.D. in Physics, December 1991, Michigan State University
B.S. in Physics, July, 1983, Lanzhou University, China

## Administrative Positions Held

Head, Department of Physics and Astronomy, Texas A&M University-Commerce
Aug. 15, 2006-Aug. 23, 2011

Interim Chair, Department of Chemistry and Physics, Arkansas State University (ASU),
May 15, 2003 – May 14, 2004

## Faculty and Research Positions Held

Professor of Physics with Tenure, Department of Physics and Astronomy, Affiliated faculty in the Department of Chemistry, TAMU-Commerce, Aug. 15, 2006-present

Professor of Physics (2004-Aug. 15, 2007) *(Granted one-year leave with tenure at ASU from Aug .15 2006 to Aug. 14, 2007 while being the department head with tenure at TAMU-Commerce),* Associate Professor (2000 – 2004), Assistant Professor (1998 – 2000), Department of Chemistry and Physics, Arkansas State University

Associate Research Scientist at the Cyclotron Institute & Visiting Assistant Professor at the Department of Physics, Texas A&M University, College Station, Jan. 1994 - Aug. 1998

Postdoctoral Research Associate, Hahn-Meitner Institute & Free University of Berlin, Germany, March 1992 - Dec. 1993

Visiting Research Scholar, The Niels Bohr Institute, University of Copenhagen, Denmark, June - Aug. 1987

Visiting Research Scholar, Oak Ridge National Laboratory, USA, July 1986 - June 1987

## Guest Professorship

Chang Jiang Chair Professor, Xian Jiao Tong University, 2010-present
Guest Professor of Physics, Institute of Modern Physics, Chinese Academy of Science, 1997-present
Guest Professor of Physics, Shanghai Institute of Applied Physics, 2004-present
Guest Professor of Physics, Shanghai Jiao Tong University, 2007-present

## Achievement Awards

Regents Professor Award, Texas A&M University System, 2012
Provost Awards for Research and Creative Activity, TAMU-Commerce, 2011
Outstanding Researcher of the Year Award, TAMU-Commerce, 2011
H.M. Lafferty Distinguished Faculty Award for Scholarship and Creative Activity, TAMUC, 2009
Dean's Distinguished Faculty Achievement Award, College of Sciences and Math, ASU, 2004
Board of Trustees Distinguished Faculty Achievement Award for Scholarship, ASU, 2000

## Statistics of Publications: total 244

Book published: 1
Refereed journal articles published: 170 (13 in PRL)
Articles in conf. proceedings and invited book chapters: 67
Submitted to refereed journals: 6

## Statistics of Talks: total 224

Invited talks at conferences: 94
Colloquiums and seminars: 108
Contributed talks at conferences: 22
**Co-authored talks given by others: MANY**

## Citations of publications:

**8193 citations, H-Index of 49 on Google Scholars as of Jan. 3, 2013 (4692 since 2007)**

## Research Grants Received in the USA **(PI of $1,621,279 and Co-PI of $1,586,363)**

1. Constraining the Symmetry Energy of Neutron-Rich Nucleonic Matter at Supra-Saturation Densities
*Bao-An Li (PI), NSF, $171,000, Aug. 1, 2011-July 31, 2014*

2. Research Experience for Undergraduates (REU) in Physics and Astronomy
*Bao-An Li (PI) and Carlos Bertulani, NSF, $240,000, May 1, 2011-April 30, 2014*

3. Extracting the symmetry energy of dense neutron-rich matter from astrophysical observations
*Bao-An Li (PI) and Will Newton, NASA, $399,878, Jan.1, 2011-Dec. 31, 2014*

4. Probing the density and momentum dependence of the nucleon isovector potential in neutron-rich nuclear matter with heavy-ion reactions
*Bao-An Li (PI), NSF, $150,000, Aug.1, 2008-July 31, 2012*

5. Scholarships and Research Experiences for Transfer Students to Excel in Science and Engineering
*Ben Jang (PI), Matthew Elam, Jeff Kopachena and Bao-An Li , NSF, $593,700, Aug. 15, 2008-Aug. 14, 2013*

6. M2T2 - Maximizing Motivation, Targeting Technology
*Gil Naizer (PI), Tracy Henley, Bao-An Li and Sam Saffer, NSF, $992,663, Jan. 1, 2009-Dec. 31, 2012*

7. Determining the Equation of State of Neutron-Rich Nuclear Matter and its Astrophysical Impacts
*Bao-An Li (PI), Advanced Research Program, Texas Coordinating Board of Higher Education, $134,300, May 15, 2008-Feb 28, 2011*

8. Constraining the changing rate of the gravitational constant G using terrestrial nuclear laboratory data,
*Bao-An Li (PI), Research Corporation for the Advancement of Sciences $37,800, July 31, 2007-July 30, 2010*

9. Probing the isospin-dependence of in-medium nuclear effective interactions at the Rare Isotope Accelerator
*Bao-An Li* (*PI), NSF, $145,278, Aug. 1, 2005-Oct. 31, 2009*

10. Equation of state of dense neutron-rich matter in neutron stars
*Bao-An Li (PI), Tony Hall and Andy Sustich*
*NASA-Arkansas Space Grants Consortium, $92,408, March 1, 2005-Feb. 28, 2008*

11. Astrophysical applications of the nuclear equation of state
*Arkansas-SILO Advisory Council Undergraduate Research Fellowships, $3,900*
*Bao-An Li (PI) with my undergraduate research student Hunter Broadaway, Jan. 1 – Dec. 31, 2005*

12. Probing the equation of state of neutron-rich matter at RIA
*Bao-An Li (PI), National Science Foundation, $46,695, Sept.1, 2004 to Aug. 31, 2005.*

13. Transport theory with Bose-Einstein statistics
*Bao-An Li (PI), National Science Foundation, $15,000, Aug.1, 2003 - July 31, 2004*

14. Ultra-relativistic heavy-ion collisions and isospin physics with radioactive beams
*Bao-An Li (PI), National Science Foundation, $97,000, Aug.1, 2000 – July 31, 2004.*

15. Isospin physics with radioactive beams
*Bao-An Li (PI), Subcontract, National Superconducting Cyclotron Laboratory, $8,000, July, 2004*

16. Theoretical study of ultra-relativistic heavy-ion collisions
*Bao-An Li (PI), Arkansas Science and Technology Authority, $61,120, Dec.1, 1999 - June 30, 2001.*

17. Development of a multi-phase transport model for heavy-ion collisions
*Bao-An Li (PI)), Subcontract, Texas A&M Research Foundation, $15,000, May, 1999 - Aug., 2002.*

18. Computer simulation of nuclear reactions
*Arkansas-SILO Advisory Council Undergraduate Research Fellowships, $3,900*
*Bao-An Li (PI) with student Matt Tilley, Dec., 1999 - Nov., 2000.*

## Research Grants Received in China

19. Theoretical nuclear physics and astrophysics
*Bao-An Li (PI), RMB 1,000,000, Ministry of Education of China,*
*March 1, 2010-Feb. 28, 2013 (Managed through Xian Jiao Tong University)*

20. Investigation of exotic properties of dense neutron-rich matter at the Cooler Storage Ring
*Bao-An Li (PI), Wenlong Zhan, Hu-Shan Xu, Wei Zuo, Xi-Guo Lee and Gao-Chan Yong,*
*RMB 250,000, National Natural Science Foundation of China, Jan. 1, 2008-Dec. 31, 2010*
*(Managed through the Institute of Modern Physics, Chinese Academy of sciences)*

21. Nuclear matter under extreme conditions
*Wenlong Zhan (PI, Chinese Academy of Science), Haiyan Gao (Duke), Huanzhong Huang (UCLA),*
*Bao-An Li (TAMU-Commerce), Xin-Nian Wang (LBNL) and Nu Xu (LBNL),*
*RMB 6,000,000, National Natural Science Foundation of China, Jan., 2005- Jan. 2010*
*(Managed through the Institute of Modern Physics, Chinese Academy of sciences)*

## Postdoctoral research associates supervised:

Dr. Plamen G. Krastev (Aug. 2006- Aug. 2008, now a research scientist at Harvard U.),
Dr. William G. Newton (Sept. 2008-Sept. 2009, now an Assist. Prof. at TAMU-Commerce)
Dr. Chang Xu (Feb. 2009- Jan. 31, 2011, now an associate professor at Nanjing University)
Dr. Adeola A. Adeluyi (Aug. 2009-Aug. 2010)
Dr. Li Ou (Nov. 1, 2010-Oct. 30, 2011, now an associate professor at Guangxi Normal University)
Dr. Yuan Tian (Oct. 22, 2010-Oct. 21, 2011, now an associate professor at China Institute of Atomic Energy)
Dr. Jun Xu (Jan. 1-Dec. 31, 2012)
Dr. Farrooh Fattoyev (Jan. 4, 2012-present)

## Visiting Research Scientists hosted:

Prof. Jian-Ye Liu, Chinese Academy of Science, 1 month in 2002
Prof. Lie-Wen Chen, Shanghai Jiao Tong University, 3 months in 2007, 3 months in 2010
Prof. Wei-Zhou Jiang, Southeast University, China, 1.5 years during 2007-2008
Prof. De-Hua Wen, South China U. of Science and Technology, 1 year during 2008-2009, 2-month in 2011
Dr. Gao-Chan Yong, Chinese Academy of Science, 6 months in 2007, 6 months in 2009
Prof. Fuli Li, Xian Jiao Tong University, April 10-May 31, 2010
Prof. Ang Li, Xiamen University, March 14, 2011-Aug. 31, 2011.

## Professional Services

1. Grant and award Reviewer for*:* The US National Science Foundation, The US Department of Energy, The US Civilian Research & Development Foundation, The Fulbright Scholarship Program, The Chinese State Commission for Sciences and Technology, The Chinese Academy of Science, The Croatian Science Fundation
2. Referee for Physical Review Letters, Physical Review C, Physics Letters B, Nuclear Physics A, Journal of Physics G, Euro. Phys. Letters, International Journal of Modern Physics D & E, The Canadian Journal of Physics, Journal of Central Europe, Nuclear Instrument and Methods, Physics Scripta, Modern Physics Letters A, TURKISH JOURNAL OF PHYSICS, European Physics Journal A
3. Member of the Editorial Board, Nuclear Physics and High Energy Physics, 2003-2007
4. Member of the Editorial Board, Chinese Physics C, 2007-present
5. Associate Editor & referee, Journal of Arkansas Academy of Science, 2000-2006
6. Co-organizer, International Workshop on Nuclear Reaction Dynamics, Nov. 14-18, 2001, National Superconducting Cyclotron Laboratory, East Lansing, USA
7 Chair of the organizing committee, 88$^{th}$ Arkansas Academy of Science Annual Meeting
8 Consultant, March 1998 - May 1999, Geophysics Division, Shell Research Center, Houston
9 International Advisory Committee, WCI (World Consensus Initiative) in intermediate energy nuclear physics
10 Reaction theory coordinator, RIA theory working group
11 Co-chair and a panelist**,** 2004 Gordon Research Conference in Nuclear Science, June 13-18, 2004, Colby-Sawyer College, New London, NH, USA
12 Organizer, Workshop on Nuclear Equation of State for Nuclei, Neutron Stars and Supernovae, April, 14-15, 2005, Jonesboro, Arkansas
13 Member, writing committee of the RIA Theory Blue Book
14 Co-organizer, International Workshop on Nuclear Dynamics in Heavy-Ion Reactions and Neutron Stars, July 10-14, 2007, Beijing, China
15 International Advisory Committee, International Workshop: Nuclear Symmetry Energy at Intermediate Energies, Catania, Italy, May 28-31, 2008
16 International Advisory Committee, 10$^{th}$ International Conference on Nucleus-Nucleus Collisions, Beijing, China, Aug. 16-21, 2009
17 International Coordinator for the program "Relativistic many-body problems for heavy and super-heavy nuclei" at the Kavli Institute for Theoretical Physics, Beijing, China, June 8-27, 2009
18 International Advisory Committee, International Workshop on Nuclear Dynamics and Symmetry Energy, Shanghai, China, Aug. 23-25, 2009
19 International Advisory Committee, Pan-American Advanced Studies Institute on Rare Isotopes, Joao Pessoa, Brazil, Aug. 1-13, 2010
20 Chair, Invited Session on the Symmetry Energy Term of the Nuclear EOS, Fall 2010 APS/DNP Meeting, Santa Fe, NM, Nov. 2-6, 2010
21 Chair of the Organizing Committee, Topical Workshop on Nuclear Symmetry Energy and Astrophysics, Xian, China, Dec. 16-20, 2010
22 Local Organizing Committee, 2011 Fall Meeting of the APS-Texas section, Texas A&M University-Commerce

23 Coordinator for the session on "Nuclear EOS and effective interaction" of the 2011 Gordon Research Conference on Nuclear Chemistry, Colby-Sawyer College, NH, June 12-17, 2011

24 International Advisory Committee, International Symposium on Nuclear Symmetry Energy, Smith College, MA, USA, June 17-20, 2011

25 Co-Chair, organizing committee of the 11th International Conference on Nucleus-Nucleus Collisions, San Antonio, Texas, USA, May 27-June 1, 2012

26 US coordinator and a member of the Governing Board of the China-US Theory Institute for Physics with Exotic Nuclei (CUSTIPEN), 2011-present

27 International Organizing Committee, International Symposium on the theme "Recent Trends in Nuclear Structure and Heavy- Ion Reaction Mechanism", Chitkara University, Himachal Pradesh, India, 19th -22nd November, 2012.

28 International Advisory Committee, International Workshop on Nuclear Dynamics, Shenzhen, China, Nov. 6-9, 2012

29 Co-Chair, International Workshop on Nuclear Dynamics and Thermodynamics, College Station, Texas, Aug. 19-22, 2013

30 International Advisory Board, 2013 International Nuclear Physics Conference, Florence, Italy, June 2-7, 2013

31 Program Advisory Committee (PAC) of the Korea Rare Isotope Science Project, 2012-present

32 International Advisory Committee, 12th International Conference on Nucleus-Nucleus Collisions (NN2015), Catania, Italy, 2015

33) Co-Editor, Proceedings of the 11th International Conference on Nucleus-Nucleus Collisions in Journal of Physics: Conference Series (2013).

34) A guest editor for a special volume on nuclear symmetry energy for the European Journal of Physics A (2013).

## Services to the University Communities

- Director, REU (Research Experience for Undergraduates) Program in Physics and Astronomy, TAMU-Commerce, 2011-present
- Member, search committee for the Vice Provost and Dean of Graduate School, TAMU-Commerce, 2012-present
- Chair, Search Committee for the head of the Department of Physics and Astronomy, TAMU-Commerce, 2012
- Member, Search Committee for the Dean of the College of Science, Engineering and Agriculture, TAMU-Commerce, 2011
- Member, Search Committee for the grant writer at the Graduate School and Research, TAMU-Commerce, 2011
- Member, University Ad Hoc Hearing Committee, TAMU-Commerce, 2010
- Member, university taskforce on restructuring the College of Arts and Sciences, TAMU-Commerce, 2010
- Coordinator, Physics and Astronomy Colloquium, 2006-present
- Director, GK-12 pilot program, TAMU-Commerce, 2009-2010
- Member, university taskforce on faculty annual evaluation, TAMU-Commerce, 2009
- Member, special university inquiry committee on research ethics,

TAMU-Commerce, 2008
- External Review Panelist for the Department of Chemistry, TAMU-Commerce, 2007
- Member, Search Committee for the Head of the Department of Computer Science, TAMU-Commerce, 2008
- Member, University Research Advisory Committee, TAMU-Commerce, 2007-2010
- Member, Executive Advisory Committee, Arkansas Bioscience Institute , May, 2004-2006
- Member, ASU Information Technology Advisory Committee, June, 2005-2006
- Member, ASU Faculty Advisory Group to the Vice Chancellor for Research and Academic Affairs May, 2004-2006
- Member, ASU Research Advisory Council, Aug. 2003 – 2004
- Judge, Northeast Arkansas Science Fair, 1998-2006
- Member, resolution committee, Arkansas Academy of Science, 2001-2006
- Judge, student award competition, Arkansas Academy of Science, 2001-2006
- Member, University International Programs Committee, ASU, 2000-2003
- Member, Board of Trustees Distinguished Faculty Achievement Award Committee, ASU, 2002-3
- Member, Search Committee for the Dean of the College of Sciences and Mathematics, ASU, 2002
- Member, College Radiation Safety Committee, ASU, 2002-2006
- Chair, Physics Faculty Search Committee, ASU, 2000 and 2005
- Member, Physics Programs Committee, 1999-2006
- Coordinator, Physics Program in the Department of Chemistry and Physics, 2003-2006, ASU
- Co-chair, Department Computer Committee, ASU, 2001-2003
- Coordinator, physics seminars, ASU, 1999-2006
- Member, College Committee for Promotion, Tenure and Retention, ASU, 2004-2006

# Teaching Experience

**A) Undergraduate Courses:**
- Thermal Physics (TAMU-Commerce)
- Math Physics (ASU, TAMU-Commerce)
- Classical Mechanics (TAMU-Commerce)
- Current Physics and Astronomy Problems (TAMU-Commerce)
- Quantum Mechanics (ASU, TAMU-Commerce)
- Introduction to Space Science/Astronomy (ASU)
- Nuclear and Particle Physics (ASU)
- Calculus-based University Physics I & II (ASU)
- Algebra-based General Physics I & II (ASU)
- (Integrated Lecture and Lab) Fundamental Physics I & II for Engineers (ASU)
- Calculus-based College Physics I & II (TAMU-College Station)
- Algebra-based General Physics I & II (TAMU-College Station)

**B) Graduate Courses:**
- Math Physics (TAMU-Commerce)
- Introduction to Theoretical Mechanics (TAMU-Commerce)

- Quantum Mechanics
- Graduate seminars 501 (TAMU-Commerce)

## Research Students Advised

- Ph.D. student: Gong-Chan Yong, Institute of Modern Physics, Chinese Academy of Science (received his Ph.D. in 2008, now an associate professor in China)
  Gao-Feng Wei, Xian Jiaotong University, 2011-present

- MS graduate students:
  Guang Song, Texas A&M University, College Station
  Aaron Worley, Joshua Edmondson, Michael Gearheart, WeiKang Lin, Lin-Zhi Cai and Jeff Campbell, TAMU-Commerce
  Xunchao Zhang, MS student, Chinese Academy of Science,
  Xiao Han, Xian Jiaotong University

- Undergraduate research students:
  Joshua Buckley, Mark Bryant, Matt Tilley, Amanda Evens, Charles Teal, Christina Griffis, Gregory Slayton, Hunter Broadway, Lucas Jennings, Michael Clay, Richard Nobra, Joe Hearon, Justin Walker, Joshua Hooker, D'Terrian Johnson, Cleatrick Rodgers, Cory Ward, Jose Carvajal, Zachary Martinot, Jessica Zimmerman

- High school student: Charles Milner (went to Yale University in 2004, now works at Google).

## List of Publications

### (I) *Book*:

1) Isospin Physics in Heavy-Ion Collisions at Intermediate Energies
Eds. **Bao-An Li** and W.U. Schröder
NOVA Science Publishers, Inc. (2001, New York), ISBN 1-56072-888-4.

### (II) *Refereed publications in journals:*

1 76) Empirical values of nucleon isovector potential and neutron-proton effective mass splitting in neutron-rich nucleonic matter at normal density
**Bao-An Li** and Xiao Han,
Submitted to Phys. Rev. Lett. (2013).

1 75) Probing Nuclear Symmetry Energy and its Imprints on Properties of Nuclei, Nuclear Reactions, Neutron Stars and Gravitational Waves
**Bao-An Li,** Lie-Wen Chen, Farrukh J. Fattoyev, William G. Newton and Chang Xu,
Journal of Physics: Conference Series (2013) in Press.

174) Efficacy of crustal superfluid neutrons in pulsar glitch models
J. Hooker, W.G. Newton and **Bao-An Li**
Submitted to MNRAS (2013)

173) Constraining the High-Density Behavior of Nuclear Symmetry Energy with the Tidal Polarizability of Neutron Stars
F. J. Fattoyev, J. Carvajal, W. G. Newton, **Bao-An Li**,
Submitted to Phys. Rev. C (2012)

172) How well do we know the composition of the neutron star crust?
W.G. Newton, Michael Gearheart and **Bao-An Li**,
The Astrophysical Journal (2013) in press.

171) Probing in-medium spin-orbit potential with intermediate-energy heavy-ion collisions
Jun Xu, Bao-An Li, submitted to Phys. Rev. Lett. (2012)

170) Nuclear constraints on non-Newtonian gravity at femtometer scale
Jun Xu, **Bao-An Li**, Lie-Wen Chen and Hao Zheng,
Submitted to Journal of Physics G. (2012).

1 69) Pure Neutron Matter Constraints and Nuclear Symmetry Energy
F. J. Fattoyev, W. G. Newton, Jun Xu, Bao-An Li
Journal of Physics: Conference Series (2012) in Press.

168) Non-Newtonian gravity in finite nuclei
Jun Xu, Bao-An Li, Lie-Wen Chen, Hao Zheng
Journal of Physics: Conference Series (2012) in Press.

167) Disentangling effects of collision geometry and symmetry energy in U+U collisions
Jun Xu, Zachary Martinot, Bao-An Li, Phys. Rev. C86, 044623 (2012).

166) Pure Neutron Matter Constraints on the Relativistic Mean-Field and Skyrme-Hartree-Fock Models
F. J. Fattoyev, W. G. Newton, Jun Xu, **Bao-An Li,**
Physical Review C 86, 025804 (2012)

165) Single-nucleon potential decomposition of the nuclear symmetry energy
Rong Chen, Bao-Jun Cai, Lie-Wen Chen, **Bao-An Li**, Xiao-Hua Li, Chang Xu,
PHYSICAL REVIEW C**85**, 024305 (2012)

164) How sensitive is the neutron star r-mode instability window to the nuclear equation of state?
De-Hua Wen, W.G. Newton and **Bao-An Li**, PHYSICAL REVIEW C**85**, 025801 (2012).

163) Large-mass neutron stars with hyperonization
Wei-Zhou Jiang, **Bao-An Li** and Lie-Wen Chen,
The Astrophysical Journal 756, 56 (2012).

162) Delineating effects of tensor-force on the density dependence of nuclear symmetry energy
Chang Xu, Ang Li and **Bao-An Li**,
Journal of Physics: Conference Series (2012) in Press.

161) Can the maximum mass of neutron stars rule out any equation of state of dense stellar matter before gravity is well understood?
De-Hua Wen, **Bao-An Li** and Lie-Wen Chen, submitted to Phys. Rev. D (2011)

160) Upper limits on the observational effects of nuclear pasta in neutron stars
Michael Gearheart, William G. Newton, Joshua Hooker and **Bao-An Li**,
Monthly Notices of the Royal Astronomical Society, *418, 2343 (2011).*

159) Magnetic effects in heavy-ion reactions at intermediate energies
Li Ou and **Bao-An Li**, Physical Review C84, 064605 (2011).

158) Energy release from hadron-quark phase transition in neutron stars and the axial $w$-mode of gravitational waves
Weikang Lin, **Bao-An Li**, Jun Xu, Che Ming Ko, De-Hua Wen,
Phys. Rev. C83, 045802 (2011).

157) Analytical relations between nuclear symmetry energy and single nucleon potentials in isospin asymmetric nuclear matter

Chang Xu, **Bao-An Li**, Lie-Wen Chen and Che Ming Ko,
Nucl. Phys. A865, 1 (2011).

156) Nuclear symmetry energy and its density slope at normal density extracted from global nucleon optical potentials
Chang Xu, **Bao-An Li** and Lie-Wen Chen, Phys. Rev. C **82**, 054607 (2010).

155) Density Slope of Nuclear Symmetry Energy from the Neutron Skin Thickness of Heavy Nuclei, Lie-Wen Chen, C.M. Ko, **Bao-An Li** and Jun Xu,
Phys. Rev. C82, 024321 (2010).

154) Transition density and pressure in hot neutron stars,
Jun Xu, Che Ming Ko, Lie-Wen Chen and **Bao-An Li,** Phys. Rev. C**81**, 055805 (2010).

153) An isospin and momentum dependent effective interaction for nucleons and hyperons and the hybrid stars
Jun Xu, Che Ming Ko, Lie-Wen Chen and **Bao-An Li,** Phys. Rev. C**81**, 055803 (2010).

152) Understanding the major uncertainties in the symmetry energy at supra-saturation Densities, Chang Xu and **Bao-An Li**, Phys. Rev. C81, 064612 (2010).

151) Improved single particle potential for transport model simulations of nuclear reactions induced by rare isotope beams
Chang Xu and **Bao-An Li**, Phys. Rev. C81, 044603 (2010).

150) Studies of N/Z equilibrium in peripheral collisions using fragment yield ratios
A.L. Keksis, L.W. may, G.A. Souliotis, M. Veselsky, S. Galanopoulos, Z. Kohley, D.V. Shetty, S.N. Soisson, B.G. Stein, R. Tripathy, S. Wuenschel, S.J. Yennello and **Bao-An Li,** Physical Review C**81**, 054602 (2010).

149) Impact Parameter Dependence of the Double Neutron/Proton Ratio of Nucleon Emissions in Isotopic Reaction Systems
Xun-Chao Zhang, **Bao-An Li**, Lie-Wen Chen and Gao-Chan Yong, Chinese Physics Letters, Vol. 26, No: 5, 052502 (2009).

148) Super-soft symmetry energy encountering non-Newtonian gravity in neutron stars
De-Hua Wen, **Bao-An Li** and Lie-Wen Chen, Phys. Rev. Lett. 103, 211102 (2009).

147) Constraining the gravitational binding energy of PSR J0737-3039B using terrestrial nuclear laboratory data
William G. Newton and **Bao-An Li**, Phys. Rev. C80, 065809 (2009).

146) Circumstantial evidence for a soft nuclear symmetry energy at supra-saturation densities
Zhigang Xiao, **Bao-An Li,** Lie-Wen Chen**,** Gao-Chan Yong and Ming Zhang
Phys. Rev. Lett. 102, 062502 (2009).

145) Probing the high-density behavior of the nuclear symmetry energy with the $\pi^-/\pi^+$ ratio in heavy-ion collisions with the same neutron/proton ratio but different masses
Ming Zhang, Z.G. Xiao, **Bao-An Li**, L.W. Chen, G.C. Yong and S.J. Zhu
Physical Review C80, 034616 (2009).

144) Imprint of nuclear symmetry energy on gravitational waves from the axial w-mode of neutron stars, De-Hua Wen, **Bao-An Li** and Plamen G. Krastev
Physical Review C80, 025801 (2009).

143) Higher-order effects on the incompressibility of isospin asymmetric nuclear matter
L.W. Chen, B.J. Cai, C.M. Ko, **Bao-An Li**, C. Shen and J. Xu
Physical Review C**80**, 014322 (2009).

142) Triton-$^3$He relative and differential flows as probes of the nuclear symmetry energy at supra-saturation densities
Gao-Chan Yong, **Bao-An Li**, Lie-Wen Chen, Xun-Chao Zhang,
Physical Review C80, 044608 (2009).

141) Locating the inner edge of neutron star crust with terrestrial nuclear laboratory data
Jun Xu, Lie-Wen Chen, **Bao-An Li** and Hong-Ru Ma,
Phys. Rev. C **79**, 035802 (2009).

140) Nuclear constraints on properties of neutron star crusts
Jun Xu, Lie-Wen Chen, **Bao-An Li** and Hong-Ru Ma
The Astrophysical Journal **697**, 1549 (2009).

139) Effects of matter-induced rho-omega mixing on vector meson masses, symmetry Energy and causality in isospin-asymmetric nuclear matter
Wei-Zhou Jiang and **Bao-An Li**, Phys. Rev. C80, 044322 (2009).

138) Effects of isospin and momentum-dependent interactions on thermal properties of nuclear matter
Jun Xu, Lie-Wen Chen, **Bao-An Li** and Hongru Ma, invited review article, Nuclear Physics Review, Vol. 26, No. 2, 93-101 (2009).

137) Studies of the high density behavior of nuclear symmetry energy
Gao-Chan Yong, **Bao-An Li** and Lie-Wen Chen, invited review article, Nuclear Physics Review, Vol. 26, No. 2, 85-92 (2009).

136) Chiral condensate in nuclear matter with vacuum correction
Wei-Zhou Jiang and **Bao-An Li**,
Modern Physics Letters A, Vol. 23, No. 40 (2008) 3393-3403

135) Nuclear limits on gravitational waves from elliptically deformed pulsars
Plamen G. Krastev, **Bao-An Li** and Aaron Worley, Phys. Lett. B668, 1-5 (2008).

134) Nuclear constraints on the momenta of inertia of neutron stars
Aaron Worley, Plamen G. Krastev and **Bao-An Li**,
The Astrophysical Journal 685, 390 (2008).

133) Recent Progress and New Challenges in Isospin Physics with Heavy-Ion Reactions
**Bao-An Li,** L.W. Chen and C.M. Ko, Physics Reports 464, 113 (2008).

132) Constraining properties of rapidly rotating neutron stars using data from heavy-ion collisions
Plamen G. Krastev, **Bao-An Li**, Aaron Worley,
The Astrophysical Journal 676, 1170 (2008).

131) Symmetry energy effects on bremsstrahlung photons from heavy-ion reactions at intermediate energies
Gao-Chan Yong, **Bao-An Li** and Lie-Wen Chen, Phys. Lett. **B661**, 82 (2008).

130) Constraining properties of neutron stars with terrestrial nuclear laboratory data
**Bao-An Li**, L.W. Chen, C.M. Ko, P. Krastev and A.W. Steiner,
Journal of Phys G**35**, 014044 (2008).

129) Effects of the isospin and momentum dependent interactions on thermal properties of asymmetric nuclear matter
Jun Xu, Lie-Wen Chen, **Bao-An Li** and Hong-Ru Ma,
Phys. Rev. C**77**, 014302 (2008).

128) Neutron-skin thickness of finite nuclei in relativistic mean-field models with chiral limits
Wei-Zhou Jiang, **Bao-An Li**, Lie-Wen Chen, Phys. Rev. C**76**, 054314 (2007).

127) Equation of state of isospin-asymmetric nuclear matter in relativistic mean-field models with chiral limits
Wei-Zhou Jiang, **Bao-An Li**, Lie-Wen Chen, Phys. Lett. **B653**, 184 (2007).

126) Mean free paths and in-medium scattering cross sections of energetic nucleons in neutron-rich nucleonic matter within the relativistic impulse approximation
Wei-Zhou Jiang, **Bao-An Li**, Lie-Wen Chen, Phys. Rev. C**76**, 044604 (2007).

125) Isospin-dependent properties of asymmetric nuclear matter in relativistic mean-field models
Lie-Wen Chen, Che Ming Ko, **Bao-An Li,** Phys Rev. C**76**, 054316 (2007).

124) Differential isospin-fractionation in dilute asymmetric nuclear matter
**Bao-An Li**, Lie-Wen Chen, Hong-Ru Ma, Jun Xu, Gao-Chan Yong,
Phys. Rev. C**76**, 051601 (R) (2007).

123) Probing the Nuclear Symmetry Energy with Heavy-Ion Reactions Induced by Neutron-Rich Nuclei

Lie-Wen Chen, Che Ming Ko, **Bao-An Li**, Gao-Chan Yong, nucl-th/0704.2340
Invited Review Article for Frontiers of Physics in China, 2(3), 327-357 (2007).

122) Probing the balance energy using momentum- and isospin-dependent potential
J.Y. Chen, W. Zuo, L. Ma and **Bao-An Li,**
Chinese Physics Letters 24(1): 76-79 (2007).

121) The neutron/proton ratio of squeezed-out nucleons and the high density behavior of the symmetry energy
Gao-Chan Yong, **Bao-An Li** and Lie-Wen Chen, Phys. Lett. **B650**, 344 (2007).

120) Effects of isospin and momentum dependent interactions on liquid-gas phase transition in hot asymmetric nuclear matter
Jun Xu, Lie-wen Chen, **Bao-An Li** and Hong-Ru Ma, Phys. Lett. **B650**, 348 (2007).

119) Constraining a possible time variation of the gravitational constant G with terrestrial nuclear laboratory data
Plamen Krastev and **Bao-An Li**, Phys. Rev. C**76**, 055804 (2007).

118) Three-body force rearrangement contribution to single nucleon potential in nuclear matter
Wei Zuo, Pei-Yan Luo, **Bao-An Li,** Ji-Yan Chen and U. Lombardo,
High Energy Physics and Nuclear Physics, Vol. 30., No. 9, 848-853 (2006).

117) Isospin flows
M. Di Toro, S.J. Yennello and **Bao-An Li,** Euro. Phys. J. **A30**, 153-163 (2006).

116) Temperature effects on the nuclear symmetry energy and symmetry free energy with an isospin and momentum dependent interaction
Jun Xu, L.W. Chen, **Bao-An Li** and H.R. Ma, Phys. Rev. **C75,** 014607 (2007).

115) Flipped symmetry potential in heavy-ion collisions
Gao-Chan Yong, **Bao-An Li** and Lie-Wen Chen,
Acta Physica Sinica, Vol. 55, No. 10 (2006) 5166.

114) Nuclear symmetry potential in the relativistic impulse approximation
Zeng-Hua Li, L.W. Chen, C.M. Ko, **Bao-An Li** and H.R. Ma,
Phys. Rev. **C74**, 034610 (2006).

113) Evolution of the symmetry energy of hot neutron-rich nuclear matter
**Bao-An Li** and Lie-Wen Chen, Phys. Rev. **C74**, 034610 (2006).

112) Double neutron-proton differential transverse and elliptic flows as probes for the high density behavior of the nuclear symmetry energy
G.C. Yong, **Bao-An Li**, and L.W. Chen, Phys. Rev. **C74**, 064617 (2006)

111) Single and double $\pi^-/\pi^+$ rations in heavy-ion reactions as probes of the high density

behavior of the nuclear symmetry energy
G.C. Yong, L.W. Chen, **Bao-An Li** and W. Zuo,
High Energy Physics and Nuclear Physics, Vol. 30, No.7, 642(2006).

110) Single and double $\pi^-/\pi^+$ rations in heavy-ion reactions as probes of the high density behavior of the nuclear symmetry energy
G.C. Yong, **Bao-An Li**, L.W. Chen and W. Zuo, Phys. Rev. C73, 034603 (2006).

109) Constraining the radii of neutron stars with terrestrial nuclear laboratory data
**Bao-An Li** and A.W. Steiner, nucl-th/0511064, Phys. Lett. **B642**, 436 (2006).

108) Double neutron/proton ratio of nucleon emissions in isotopic reactions as a robust probe of the symmetry energy
**Bao-An Li**, L.W. Chen, G.C. Yong and W. Zuo, Phys. Lett. B**634,** 378 (2006).

107) Probing the isospin dependence of the in-medium nucleon-nucleon cross sections with radioactive beams,
**Bao-An Li**, Pawel Danielewicz and William G. Lynch,
Phys. Rev. C**71**, 054603 (2005).

106) Nuclear matter symmetry energy and the neutron skin thickness of heavy nuclei
L.W. Chen, C.M. Ko and **Bao-An Li,** Phys. Rev. C**72**, 064309 (2005).

105) Nucleon-nucleon cross sections in neutron-rich matter and isospin transport in heavy-ion reactions at intermediate energies
**Bao-An Li** and L.W. Chen, Phys. Rev. C**72**, 064611 (2005).

104) High energy behavior of nuclear symmetry potential in asymmetric matter
L.W. Chen, C. M. Ko and **Bao-An Li**, Phys. Rev. C**72**, 064606 (2005).

103) Isospin diffusion in heavy-ion collisions and the thickness of neutron-skin in $^{208}$Pb
Andrew W. Steiner and **Bao-An Li,** Phys. Rev. C72, 041601(R) (2005).

102) Momentum and density dependence of isospin symmetry potential in asymmetric nuclear matter, W. Zuo, Ji-Yan Chen, **Bao-An Li**, P.Y Luo and U. Lombardo,
High Energy Physics and Nuclear Physics, Vol. 29, 885 (2005).

101) Multiphase transport model for relativistic heavy-ion collisions
Zi-Wei Lin, Che Ming Ko, **Bao-An Li**, Bin Zhang and Subrata Pal,
Phys. Rev. C**72**, 064901 (2005).

100) Determining the EOS of neutron-rich matter with radioactive beams at RIA
**Bao-An Li,** L.W. Chen, C.M. Ko, G.C. Gao and W. Zuo**,**
Acta Phys Hug. A 25 (2-4) (2006) 219-228.

99) Isovector part of nucleon effective mass in neutron-rich matter within the BHF

approach, W. Zuo, L.G. Gao, **Bao-An Li**, U. Lombardo and C.W. Shen, Phys. Rev. C**72**, 014005 (2005).

98) Several observables sensitive to the symmetry energy in heavy-ion collisions induced by high energy radioactive beams
G.C. Yong, **Bao-An Li** and W. Zuo, Chinese Physics, Vol 14, No. 8, 1549 (2005).

97) Isospin dependence of nucleon emission and radial flow in heavy-ion collisions induced by high energy radioactive beams
**Bao-An Li,** G.C. Yong and W. Zuo, Phys. Rev. C**71**, 044604 (2005).

96) Probing stiffness of nuclear symmetry energy with isospin diffusion in heavy-ion collisions
L.W. Chen, C.M. Ko and **Bao-An Li,** Phys. Rev. Lett. **94**, 32701 (2005).

95) Correlation between symmetry energy and collective flow in heavy-ion collisions induced by high energy radioactive beams
G.C. Yong, **Bao-An Li** and W. Zuo, Chinese Physics Letters, 22, 2226-2229 (2005).

94) Near-threshold pion production with radioactive beams
**Bao-An Li**, G.C. Yong and W. Zuo, Phys. Rev. C**71**, 014608 (2005).

93) Pion probe of the nuclear equation of state of neutron-rich matter
G.C. Yong, **Bao-An Li** and W. Zuo,
High Energy Physics and Nuclear Physics Vol. 29, 366 (2005).

92) Effects of momentum-dependent symmetry potential on heavy-ion collisions induced by neutron-rich nuclei.
**Bao-An Li ,** C. B. Das, Subal Das Gupta, C. Gale, Nucl. Phys. **A735**, 563 (2004).

91) Constraining the neutron-proton effective mass splitting in neutron-rich matter
**Bao-An Li**, Phys. Rev. C69, 064602 (2004).

90) Momentum-dependence of nuclear potential and two-particle correlation functions
L.W. Chen, C.M. Ko and **Bao-An Li,** Phys. Rev. C69, 054606 (2004).

89) Equation of state of dense neutron-rich matter
**Bao-An Li,** Nucl. Phys. A734, 593 (2004).

88) Observable effects of symmetry energy in heavy-ion collisions at RIA
**Bao-An Li,** Phys. Rev. C 69, 034614 (2004)

87) Momentum-dependence of symmetry potential and heavy-ion collisions induced by neutron-rich nuclei
**Bao-An Li ,** C. B. Das, Subal Das Gupta, C. Gale, Phys. Rev. C69, 011603 (2004).

86). Probing the high-density behavior of nuclear symmetry energy with high-energy

radioactive beams, **Bao-An Li,** Nucl. Phys. A722, 209 (2003).

85). Isospin-dependence of $\pi^-/\pi^+$ ratio and the density-dependence of nuclear symmetry energy
**Bao-An Li**, Phys. Rev. C 67, 017601 (2003).

84) Light clusters production as a probe to the nuclear symmetry energy
L.W. Chen, C.M. Ko and **Bao-An Li,** Phys. Rev. C68, 017601 (2003).

83). Effects of symmetry energy on two-nucleon correlation functions in heavy-ion collisions induced by neutron-rich nuclei,
L.W. Chen, V. Greco, C.M. Ko and **Bao-An Li,** Phys. Rev. Lett. 90, 162701 (2003).

82). Momentum dependence of symmetry potential in asymmetric nuclear matter for transport model calculations
C. B. Das, Subal Das Gupta, C. Gale and **Bao-An Li,** Phys. Rev. C67, 034611 (2003).

81). Isospin effects on two-nucleon correlation functions in heavy-ion collisions at intermediate energies
L.W. Chen, V. Greco, C.M. Ko and **Bao-An Li,** Phys. Rev. C68, 014605 (2003).

80) Light cluster production in intermediate energy heavy-ion collisions induced by neutron-rich nuclei
L.W. Chen, C.M. Ko and **Bao-An Li,** Nucl. Phys. A729, 809 (2003).

79). Nuclear modification of heavy quark fragmentation and J/psi production in ultra-relativistic heavy-ion collisions
B. Zhang, **Bao-An Li**, A.T. Sustich and C. Teal, Phys. Lett. **B546**, 63 (2002).

78). High density behaviour of nuclear symmetry energy and high energy heavy-ion collisions
**Bao-An Li**, Nucl. Phys. A708, (2002) 365.

77). Precusor of an isospin separation instability in heavy-ion collisions at intermediate, rare-isotope accelerator energies, **Bao-An Li**, Phys. Rev. C66, (2002) 034609.

76). Probing the high density behavior of nuclear symmetry energy with high energy heavy-ion collisions, **Bao-An Li**, Phys. Rev. Lett. 88, 192701 (2002).

75). J/psi supression in ultra-relativistic heavy-ion collisions within a multi-phase transport model
B. Zhang, C.M. Ko, **Bao-An Li**, Z. Lin and S. Pal, Phys. Rev. C65, 054909 (2002)

74). Differential transverse flow in central C-Ne and C-Cu collisions at 3.7 GeV/nucleon.
L. Chkhaidze, T. Djobava, L. Kharkhelauri and **Bao-An Li,**
Phys. Rev. C65, 054903 (2002).

73). Probing mechanical and chemical instabilities in neutron-rich matter
**Bao-An Li**, A.T. Sustich, M. Tilley and B. Zhang, Nucl. Phys. A699, 93 (2002).

72). Multiphase transport model for heavy ion collisions at RHIC
Z. Lin, S. Pal, C.M. Ko, **Bao-An Li** and B. Zhang, Nucl. Phys. A698, 375 (2002).

71). Uranium-on-uranium collisions at relativistic energies
**Bao-An Li** and M.A. Tilley,
Journal of Arkansas Academy of Science, Vol. 55 (2002) 165.

70). Thermodynamical properties of neutron-rich matter
M.A. Tilley and **Bao-An Li**
Journal of Arkansas Academy of Science, Vol. 55 (2002) 148.

69) A multiphase transport study of nuclear collisions
B. Zhang, C.M. Ko, **Bao-An Li**, Z.W. Lin and S. Pal,
Journal of Arkansas Academy of Science, Vol. 55 (2002) 159.

68) Isospin dependence of mechanical and chemical instabilities
**Bao-An Li**, A.T. Sustich, M. Tilley and B. Zhang, Phys. Rev. C64, 051303(R) (2001).

67). Studies of superdense hadronic matter in a relativistic transport model
**Bao-An Li**, C.M. Ko, A.T. Sustich and B. Zhang,
*Topical Review*, Int. Journal of Modern Physics, Vol. 10, Nos. 4 & 5, 267-352 (2001).

66). Isotopic Distributions and the isospin dependent equation of state
W.P. Tan, **Bao-An Li**, R. Donangelo, C.K. Gelbke, T.X. Liu, X.D. Liu,
W.G. Lynch, S. Souza, M.B. Tsang, M-J. Van Goethem, G. Verde, A. Wagner,
H.F. Xi and H.S. Xu, Phys. Rev. C64, R051901 (2001).

65). Proton elliptic differential flow and the isospin dependence of the nuclear equation of state
**Bao-An Li**, A.T. Sustich and B. Zhang, Phys. Rev. C64, 054604 (2001).

64). Charged particle rapidity distribution at RHIC
Z. Lin, S. Pal, C.M. Ko, **Bao-An Li** and B. Zhang, Phys. Rev. C64, 011902 (2001).

63). Probing the isospin-dependence of the nuclear equation of state
**Bao-An Li,** Nucl. Phys. A681, 434 (2001).

62). Neutron-proton differential flow as a probe of isospin-dependence of nuclear equation of state
**Bao-An Li,** Phys. Rev. Lett. 85, 4221 (2000).

61). J/psi suppression in ultrarelativistic nuclear collisions
Bin Zhang, C.M. Ko, **Bao-An Li**, Ziwei Lin, Ben-Hao Sa, Phys. Rev. C62, 054905 (2000).

60). Collective flow of charge-neutral strange particles at AGS
B. Zhang, C.M. Ko, **Bao-An Li** and A.T. Sustich, Journal of Phys. G26, 1665-1670 (2000).

59). Multi-phase transport model for RHIC
B. Zhang, C.M. Ko, **Bao-An Li** and Z.W. Lin, Phys. Rev. C61, 067901 (2000).

58). Uranium on uranium collisions at relativistic energies
**Bao-An Li**, Phys. Rev. C61, 021903(R) (2000).

57). Light particle probes of expansion and temperature evolution:
Coalescence model analysis of heavy-ion collisions at 47A MeV
K. Hagel, R. Wada, J. Cibor, M. Lunardon, N. Marie, R. Alfaro, W. Shen, B. Xiao, Y. Zhao, Z. Majka, J. Li, P. Staszel, **Bao-An Li**, M. Murray, T. Keutgen, A. Bonasera and J.B. Natowitz
Phys. Rev. C62, 034607 (2000).

56). Dynamic evolution and the Caloric Curve for Medium Mass Nuclei
J. Cibor, R. Wada, K. Hagel, M. Lunardon, N. Marie, R. Alfaro, W. Shen, B. Xiao, Y. Zhao, J. Li, **Bao-An Li**, M. Murray, J.B. Natowitz, Z. Majka and P. Staszel,
Phys. Lett. **B473**, 29 (2000).

55). Differential flow in heavy-ion collisions at balance energies
**Bao-An Li** and A.T. Sustich, Phys. Rev. Lett. **82**, 5004 (1999) .

54). Excitation function of nucleon and pion elliptic flow in relativistic heavy-ion collisions
**Bao-An Li**, C.M. Ko, A.T. Sustich and Bin Zhang, Phys. Rev. C60, 011901 (1999).

53). Elliptic flow in nuclear reactions at balance energies
Yu-Ming Zheng, C.M. Ko, **Bao-An Li** and B. Zhang, Phys. Rev. Lett. **83**, 2534 (1999).

52). Kaon differential flow in relativistic heavy-ion collisions
**Bao-An Li**, B. Zhang, A.T. Sustich and C.M. Ko, Phys. Rev. C60, 034902 (1999).

51). Isospin dependence of nuclear collective flow
**Bao-An Li** and C.M. Ko, Nuclear Physics A654, 797 (1999).

50). Antikaon production and medium effects in relativistic heavy-ion collisions
G. Song, **Bao-An Li** and C.M. Ko, Nuclear Physics A646, 481 (1999).

49) Probing the softest point in nuclear equation of state
**Bao-An Li** and C.M. Ko, Phys. Rev. C58, 1382 (1998).

48) Isospin physics in heavy-ion collisions at intermediate energies
**Bao-An Li**, C.M. Ko and W. Bauer
Review article, International Journal of Modern Physics E, V7, 147-229 (1998).

47) Isospin relaxation time in heavy-ion collisions at intermediate energies
**Bao-An Li** and C.M. Ko, Phys. Rev. C 57, 2065 (1998).

46) Excitation functions of nuclear stopping power and flow in relativistic heavy-ion collisions

**Bao-An Li** and C.M. Ko, Nuclear Physics A630, 556 (1998).

45) Chemical and mechanical instability in hot, isospin-asymmetric nuclear matter
**Bao-An Li** and C. M. Ko, Nucl. Phys. A618, 498 (1997).

44) Isotopically resolved fragment production in the reaction $^{40}Ca+^{58}Fe$ at $E_{beam}/A$=33 and 45 MeV.
H. Johnston, T. White, **Bao-An Li**, D. Rowland, B. Hurst, D.O'Kelly, F. Gimeno-Nogues, J. Winger and S.J. Yennello, Phys. Rev. C56 (1997) 1972.

43) Equation of state of asymmetric nuclear matter and collisions of neutron-rich nuclei
**Bao-An Li**, C.M. Ko and Zhongzhou Ren, Phys. Rev. Lett. **78** (1997) 1644.

42) Isospin dependence of the balance energy
R. Pak, **Bao-An Li**, W. Benenson, J.A. Brown, O. Bjarki, S.A. Hannuschke, R.A. Lacey, A. Nadasen, E. Norbeck, D.E. Russ, M. Steiner, N.T. B. Stone, A.M. Vander Molen, G.D. Westfall, B. Yang and S.J. Yennello,
Phys. Rev. Lett. **78** (1997) 1026.

41) Isospin dependence of collective transverse flow in nuclear collisions
R. Pak, W. Benenson, J.A. Brown, O.Bjarki, S.A. Hannuschke, R.A. Lacey, **Bao-An Li**, A. Nadasen, E. Norbeck, D.E. Russ, M. Steiner, N.T. B. Stone, A.M. Vander Molen, G.D. Westfall, L.B. Yang and S.J. Yennello,
Phys. Rev. Lett. **78** (1997) 1022.

40) Isospin dependence of transverse flow in heavy-ion collisions at intermediate energies
**Bao-An Li**, Zhongzhou Ren, C.M. Ko and S.J. Yennello, Phys. Rev. Lett. **76** (1996) 4492.

39) Kaon dispersion relation and flow in relativistic heavy-ion collisions.
**Bao-An Li** and C.M. Ko, Phys. Rev. C54 (1996) 3283.

38) Pion flow and antiflow in relativistic heavy-ion collisions
**Bao-An Li** and C.M. Ko, Phys. Rev. C53, R22 (1996).

37) Transverse momentum dependence of collective flow in relativistic heavy-ion collisions
**Bao-An Li**, C.M. Ko and G.Q. Li, Phys. Rev. C54, (1996) 844.

36) Excitation functions in central Au+Au collisions from SIS/GSI to AGS/Brookhaven
**Bao-An Li** and C.M. Ko, Nucl. Phys. A601, 457 (1996).

35) Pion transparency in 500 MeV C($\pi$, $\pi$') scatterings?
**Bao-An Li**, W. Bauer and C.M. Ko, Phys. Lett. **B382**, (1996) 337.

34) Revisit of Coulomb effect on $\pi^+/\pi^-$ ratio in heavy ion collisions
**Bao-An Li**, Phys. Lett. **B346**, (1995) 5.

33) Kaon flow as a probe of the kaon potential in nuclear medium
G.Q.Li, C.M. Ko and **Bao-An Li,** Phys. Rev. Lett. **74**, (1995) 235.

32) Superdense hadronic matter formation in high energy heavy-ion collisions
**Bao-An Li** and C.M. Ko, Phys. Rev. C52, (1995) 2037.

31) Multifragmentation induced by relativistic $\alpha$ projectiles studied with the $4\pi$ setup FASA
V. Lips, **Bao-An Li** and D.H.E. Gross, Nucl. Phys. A583, (1995) 585.

30) Isospin non-equilibrium in heavy-ion collisions at intermediate energies
**Bao-An Li** and S.J. Yennello, Phys. Rev. C52, (1995) R1746

29) Nuclear shadowing effects in relativistic heavy-ion collisions
**Bao-An Li,** Nucl. Phys. A570, (1994) 797.

28) Near-threshold $K^{+}$ production in heavy-ion collisions
**Bao-An Li,** Phys. Rev. C50, (1994) 2144.

27) Effects of N*(1440) resonance on particle production in heavy ion collisions at sub-threshold energies
**Bao-An Li**, C.M. Ko and G.Q. Li, Phys. Rev. C50, (1994) R2675

26) Freeze-out configuration in multi-fragmentation
**Bao-An Li**, D.H.E. Gross, V. Lips and H. Oeschler, Phys. Lett. **B335** (1994) 1.

25) Detailed balance for the production and the re-absorption of baryon resonances and heavy-ion collisions
**Bao-An Li,** Nucl. Phys. A552, (1993) 605.

24) Linear momentum transfer in heavy-ion collisions around the Fermi energy
**Bao-An Li,** Nucl. Phys. A556, (1993) 147.

23) ``Squeeze-out'' of pions in symmetric heavy-ion collisions
**Bao-An Li,** Phys. Lett. **B319**, (1993) 412.

22) In-medium cross section and disappearance of flow
**Bao-An Li**, Phys. Rev. C48 (1993) 2415.

21) Measuring dynamical fluctuations in relativistic heavy-ion collisions
**Bao-An Li,** Phys. Rev. C47, (1993) 693.

20) Pion multiplicity distribution and combinants in relativistic heavy-ion collisions
**Bao-An Li**, Phys. Lett. **B300**, (1993) 14.

19) Energy dependence of intermittency in intermediate energy nuclear reactions
**Bao-An Li** and Marek Ploszajczak, Phys. Lett. **B317** (1993) 300.

18) Nuclear stopping power and recoiling nucleons
**Bao-An Li** and Cheuk-Yin Wong, Physics Scripta V47, (1993) 151.

17) Mass dependence of pion production in heavy-ion collisions near, but below threshold
J. Miller, G.F. Krebs, J. Panetta, L.S. Schrodeer, P.N. Kirk, Z.F. Wang, W. Bauer, W. Benenson, D. Cebra, M. Cronqvist, **Bao-An Li**, R. Pfaff, B. Yong, T. Murakami, T. Suzuki and I. Tanihata, Physics Letter **B314** (1993) 7.

16) Dynamical instability and multifragmentation in BUU model for heavy-ion collisions
**Bao-An Li** and D.H.E. Gross, Nucl. Phys. A554, (1993) 257.

15) Statistical model analysis of ALADIN multifragmentation data
**Bao-An Li**, A.R. DeAngelis and D.H.E. Gross, Phys. Lett. **B303** (1993) 225

14) Unusual behaviour of heavy collision residues ?
**Bao-An Li** and D.H.E. Gross, Phys. Lett. **B318**, (1993) 39.

13) Dynamical fluctuations in pion pseudorapidity distributions at Bevalac energies
**Bao-An Li,** Phys. Lett. **B292**, (1992) 246.

12) Fragmentation, Dissipative Expansion and Freeze-out in Medium Energy Heavy-ion Collisions
D.H.E. Gross, **Bao-An Li** and A.R. DeAngelis, Ann. Phys. (Leipzig) 1, (1992) 467.

11) Two-temperature shape of pion spectra in relativistic heavy-ion collisions
**Bao-An Li** and Wolfgang Bauer, Phys. Lett. B254 (1991) 335.

10) Pion spectra in a hadronic transport model for relativistic heavy-ion collisions
**Bao-An Li** and Wolfgang Bauer, Phys. Rev. C44, (1991) 450.

9) Preferential emission of pions in asymmetric nucleus-nucleus collisions
**Bao-An Li**, Wolfgang Bauer and George F. Bertsch, Phys. Rev. C 44, (1991) 2095.

8) Pion Production with radioactive nuclei
**Bao-An Li,** Mahir S. Hussein and Wolfgang Bauer, Nucl. Phys. A533, (1991) 749.

7) Relativistic transport theory for hadronic matter
Shun-Jin Wang, **Bao-An Li**, Wolfgang Bauer and Jörgen Randrup, Ann. of Phys. (N.Y.) 209 (1991) 251.

6) Pion collectivity in relativistic heavy-ion collisions
George F. Bertsch, Gerald E. Brown, Volker Koch and **Bao-An Li,** Nucl. Phys. A490, (1988) 745.

5) Bubbles and drops in superheated and supercooled nuclear matter

**Bao-An Li**, Scott Pratt and Philip J. Siemens, Phys. Rev. C37 (1988) 1473.

4) Proton and neutron subshells and the interplay between them II, rare earth region
Jing-Ye Zhang, Ji-Quan Zhong, **Bao-An Li** and Mong-Zhong Zhang
Physica Energiae Fortis et Physica Nuclearis V10, No.1, (1986) 92.

3) Proton and neutron subshells and the interplay between them I, A=80-100 region
Jing-Ye Zhang, Ji-Quan Zhong and **Bao-An Li**
Physica Energiae Fortis et Physica Nuclearis V9, No.6, (1985) 736

2) On the property of the yrast band in $^{152}$Dy
Jing-Ye Zhang, Ji-Quan Zhong and **Bao-An Li**
Physica Energiae Fortis et Physica Nuclearis V9, No.3, (1985) 306.

1) Shape coexistence in Kr isotopes.
J. Zhang and **Bao-An Li**, Physica Energiae Fortis et Physica Nuclearis V8, No.5, (1984) 521.

## *(III) Publications in conference proceedings and invited book chapters*

67) Meeting Report: the 11th International Conference on Nucleus-Nucleus Collisions,
J.B. Natowitz and **Bao-An Li**, Nuclear Physics News (2013).

66) THE NUCLEAR SYMMETRY ENERGY, THE INNER CRUST, AND GLOBAL NEUTRON STAR MODELING
W.G. Newton, M. Gearheart, J. Hooker and **Bao-An Li,** Invited chapter in the book "Neutron Star Crust", edited by C. A. Bertulani and J. Piekarewicz (2012).

65) Imprints of Nuclear Symmetry Energy on Properties of Neutron Stars
Bao-An Li, Lie-Wen Chen, Michael Gearheart, Joshua Hooker, Che Ming Ko, Plamen G. Krastev, Wei-Kang Lin, William G. Newton, De-Hua Wen, Chang Xu, Jun Xu,
Invited talk given in the Nuclear Astrophysics session of INPC (International Nuclear Physics Conference), July 4-9, 2010, Vancouver, Canada; arXiv:1103.4652;
Journal of Physics: Conference Series **312** (2011) 042006

64) Constraining the symmetry energy from the neutron skin thickness of Tin isotopes
Lie-Wen Chen, Che Ming Ko, Jun Xu, Bao-An Li, Nuclear Structure in China 2010 - Proceedings of the 13th National Conference on Nuclear Structure in China, arXiv:1103.4718

63) Probing the Equation of State of Neutron-Rich Matter
**Bao-An Li,** Lie-Wen Chen, De-Hua Wen, C. Xu and G.C. Yong, Proceedings of the 10th International Conference on Nucleus-Nucleus Collisions, Aug. 16-21, 2009, Beijing China, Nucl. Phys. **A834**, 509c (2010).

63) Nuclear constraints on the inner edge of neutron star crusts

Lie-Wen Chen, **Bao-An Li**, Hong-Ru Ma and Jun Xu, Proceedings of the 10th International Conference on Nucleus-Nucleus Collisions, Aug. 16-21, 2009, Beijing China, Nucl. Phys. **A834**, 664c (2010).

62) System size and beam energy effcts on probing the high-density behavior of nuclear symmetry energy with pion ratio, Ming Zhang, X=Zhi-Gang Xiao, **Bao-An Li,** Lie-Wen Chen, Gao-Chan Yong and Sheng-Jiang Zhu, Proceedings of the 10th International Conference on Nucleus-Nucleus Collisions, Aug. 16-21, 2009, Beijing China, Nucl. Phys. **A834**, 567c (2010).

61) Nuclear limits on properties of pulsars and gravitational waves
Plamen G. Krastev and Bao-An Li
An invited chapter in the book "Pulsars: Theory, Categories and Applications",
Editor: Alexander D. Morozov, Nova Sciences Publishers Inc. (New York, 2010),
ISBN: 978-1-61668-919-3

60) Nuclear constraints on the core-crust transition density and pressure of neutron stars
L.W. Chen, Bao-An Li, H.R. Ma and J. Xu, Proceedings of the *Compact stars in the QCD phase diagram* II, May 20-24, 2009, KIAA, Peking University, Beijing, China
eConf (Electronic Conference Proceedings Archive at http://www.slac.stanford.edu/econf/).

59-54) are in the Proceedings of the International workshop on nuclear dynamics in heavy-ion reactions and the symmetry energy (IWND09), August 23–25, 2009, Shanghai, China. Int. J. of Modern Phys. E Vol. 19 (2010).

59) Imprints of the nuclear symmetry energy on gravitational waves from deformed pulsars, Bao-An Li and P.G. Krastev,
Int. J. of Modern Phys. E Vol. 19, 1694-1704 (2010).

58) Pion probe of the high density behavior of nuclear symmetry energy
Z.G. Xiao, Bao-An Li, L.W. Chen, G.C. Yong, M. Zhang and S.J. Zhu

57) Triton-he3 relative and differential flow as a probe of the symmetry energy
Gao-Chan Yong, Bao-An Li and L.W. Chen,
Int. J. of Modern Phys. E Vol. 19, 1647-1652 (2010).

56) TRANSITION DENSITY AND PRESSURE AT THE INNER EDGE OF NEUTRON STAR CRUSTS
Jun Xu, L.W. Chen, C.M. Ko, Bao-An Li and H.R. Ma,
Int. J. of Modern Phys. E Vol. 19, 1705-1711 (2010).

55) Higher-order effects on nuclear incompressibility in isospin asymmetric matter
Lie-Wen Chen, Bao-Jun Cai, Che Ming Ko, Bao-An Li, Chun Shen, Jun Xu,
Int. J. of Modern Phys. E Vol. 19, 1675-1685 (2010).

54) Effect of symmetry energy on gravitational waves from axial oscillations

De-Hua Wen, Bao-An Li and Plamen Krastev,
Int. J. of Modern Phys. E Vol. 19, 1712-1719 (2010).

53) Nuclear constraints on the core-crust transition density and pressure of neutron stars, L.W. Chen, B.A. Li, H.R. Ma and J. Xu, page 123-131, Proceedings of the conference on compact stars in the QCD phase diagram II, May 20-24, 2009, Eds. Rachid Ouyed and Renxin Xu, Peking University Press.

52) Zhigang Xiao, Liewen Chen, Fen Fu, Bao-An Li, Genming Jin, Hushan Xu, Gaochan Yong and Ming Zhang, Nuclear matter at HIRFL-CSR energy regime, Plenary talk at Strange Quark Matter 2008, Beijing China, 6-10 October 2008.
J. Phys. G: Nucl. Part. Phys. **36** (2009) 064040 (8pp)

51) Constraining properties of neutron stars with heavy-ion reactions
Proceedings of The Fifth ANL/INT/MSU/JINA FRIB Theory Workshop "Bulk Nuclear Properties", Michigan State University, November 19-22, 2008.
American Institute of Physics Conference proceedings (2009), page 131-143,
Ed. P. Danielewicz

50) Recent progress in isospin physics
Lie-Wen Chen, Che Ming Ko and **Bao-An Li,** International Conference on Nuclear Physics and Astrophysics: From Stable Beams to Exotic Nuclei, June 25-30, 2008, American Institute of Physics Conference proceedings (2008) in press.

49) Constraining the density dependence of nuclear symmetry energy and its astrophysical impact with heavy-ion reactions
Bao-An Li, Lie-Wen Chen, Che-Ming Ko, Plamen Krastev and Aaron Worley,
Proc. 24th Winter Workshop on Nuclear Dynamics - South Padre, Texas,
April 5--12, 2008, Pages 85-91, (EP Systema, Budapest, Hungary, 2008),
Eds. W. Bauer, R. Bellwied, J.W. Harris and C. Market.

48) Heavy-Ion Collisions at the LHC in a Multiphase Transport Model,
L.W. Chen, C.M. Ko, **Bao-An Li**, Z.W. Lin and B. Zhang,
arXiv:0711.0974, Proceedings of CERN Theory Institute workshop on Heavy-Ion Collisions at the LHC-Last Call for Predictions, May 14-June 10, 2007, edited by N. Armesto, N. Borghini, S. Jeon and U.A. Wiedemann,
J. Phys. G: Nucl. Part. Phys. 35 (2008) 054001

47) ISOSPIN AND MOMENTUM DEPENDENCE OF LIQUID-GAS PHASE TRANSITION IN HOT ASYMMETRIC NUCLEAR MATTER,
Jun Xu, Lie-Wen Chen, **Bao-An Li** and HongRu Ma,
Proceedings of the International workshop on nuclear dynamics in heavy-ion reactions and neutron stars, July 10–14, Beijing, China.
International Journal of Modern Physics **E17**, 1917-1926 (2008).

46) Determining the density dependence of the nuclear symmetry energy using heavy-ion

reactions, LIE-WEN CHEN, CHE MING KO, **BAO-AN LI**, and GAO-CHAN YONG, Proceedings of the International workshop on nuclear dynamics in heavy-ion reactions and neutron stars, July 10–14, Beijing, China. International Journal of Modern Physics **E17**, 1825-1837 (2008).

45) Ramifications of the symmetry energy for neutron stars, nuclei and heavy-ion collisions, A. Steiner, **Bao-An Li** and M. Prakash, Proceedings of the EXOCT 2007, Catania, Italy, June 11-15, 2007, U. Lombardo, M. Bardo, F. Burgio, H.J. Schultze, World Scientific page 47 (2008).

44) Effective Interactions In Neutron-Rich Matter
Plamen G. Krastev, Francesca Sammarruca, **Bao-An Li**, Aaron Worley, Proceedings of the Twenty Sixth International Workshop on Nuclear Theory held in Rila Mountains, Bulgaria, 25-30 June, 2007, page 243-252, Ed. S. Dimitrova, ISSN: 1313-2822, BM Trade Ltd, Sofia, Bulgaria.

43) Progress in Isospin Physics with Heavy-Ion Reactions
**Bao-An Li,** Chapter 1, page 1-39, in the monograph "Nuclear Dynamics at Low and Medium Energies and Nuclear Structure", Eds. S. Bhattacharya and S.R. Banerjee, Narosa Publishing House (New Delhi, Chennai, Mumbai and Kolkata), 2008, ISBN 978-81-7319-820-5

42) Temperature dependence of the nuclear symmetry energy and symmetry free energy
Jun Xu, Lie-Wen Chen, **Bao-An Li** and Hong-Ru Ma
Proceedings of the Chinese National Nuclear Structure Conference, Chuang Chun, June, 2006, High Energy Physics and Nuclear Physics (2006).

41) Constraining the Skyrme effective interactions and the neutron skin thickness of heavy nuclei from isospin diffusion data,
Lie-Wen Chen, Che Ming Ko and **Bao-An Li**,
Proceedings of the International conference on Frontiers of Nuclear Structure, Shanghai, China, June 12 - 17, 2006, International Journal of Modern Physics E, Vol. 15, No. 7 (2006) 1385-1395

40) Constraining properties of neutron stars with heavy-ion reactions
**Bao-An Li**, Lie-Wen Chen, Che Ming Ko, Andrew W. Steiner and Gao-Chan Yong, Proceedings of the 6th China-Japan Nuclear Physics Symposium, May 15-20, Shanghai, AIP Conference Proceedings, Vol. 865, pp. 268-275 (2006).

39) Constraining the radii of neutron stars
**Bao-An Li**, Lie-Wen Chen, Che Ming Ko and Andrew W. Steiner, Proceedings of the XXIX Symposium on Nuclear Physics, Cocoyoc, Mexico, Jan. 2-6, 2006, Revista Mexicana de Física S52 (4), 56-61 (2006).

38) Recent progress in constraining the EOS of neutron-rich matter
Bao-An Li, Lie-Wen Chen, Che Ming Ko and Andrew W. Steiner, Proceedings of the 2005 International Workshop on Multifragmentation,

Catania, Italy, Nov. 28-Dedc. 1, 2005, Conference Proceedings of the Italian Physical Society (2006).

37) Probing the equation of State of neutron-rich matter with heavy-ions
**Bao-An Li**, in Gribov Memorial Volume: Quarks, Hadrons, and Strong Interactions *World Scientific (Singapore, 2005).*

36) Proceedings of the 21st Winter Workshop on Nuclear Dynamics, Feb. 5-12, 2005, Breckenridge, Colorado, USA, Eds. W. Bauer, R. Bellwied and S. Panitkin, page 57-66 (EP Systema, Budapest, Hungary, 2005)

35) A transport models for nuclear reactions with radioactive beams
**Bao-An Li**, Lie-Wen Chen, C.B. Das, Subal Das Guopta, C. Gale, C.M. Ko, G.C. Yong and W. Zuo, Proceedings of the 2nd Argonne/MSU/JINA/INT workshop on reactions with radioactive beams, March 9-12, 2005, Michigan State University, Ed. B. Alex Brown, *American Institute of Physics Conference proceedings, Vol. 791, 22-32 (2005).*

34) J/psi production from hot and dense nuclear matter in relativisitc nuclear reactions
Chales Teal, **Bao-An Li**, Andrew T. Sustich, and Bin Zhang
Proceedings of the 2002 Arkansas Undergraduate Research Conference (9th annual), p241-249 April 19-20,2002, Henderson State University, Arkadelphia, Arkansas.

33). J/psi Production and Quark-Gluon Plasma Formation in Relativistic Nuclear Collisions
Charles Teal, **Bao-An Li**, Andrew T. Sustich, and Bin Zhang
Proceedings of The National Conference on Undergraduate Research (NCUR) 2002, April 25-27, 2002, University of Wisconsin-Whitewater.

32) Space Science Lab Manual
Eds: **Bao-An Li** and A.T. Sustich,
Department of Chemistry and Physics, Arkansas State University, Aug., 2001.

31) Isospin equilibrium as a probe of nuclear stopping power
**Bao-An Li** and S.J. Yennello, Chapter 18 in ``Isospin Physics in Heavy-Ion Collisions at Intermediate Energies", Eds. Bao-An Li and W.U. Schröder, NOVA Science Publishers, Inc. (2001, New York), ISBN 1-56072-888-4.

30). Chemical and versus mechanical instability and isospin fractionation in asymmetric nuclear matter
**Bao-An Li** and C.M. Ko, Chapter 6 in ``Isospin Physics in Heavy-Ion Collisions at Intermediate Energies", Eds. Bao-An Li and W.U. Schröder, NOVA Science Publishers, Inc. (2001, New York), ISBN 1-56072-888-4.

29) Probing the isospin-dependence of the nuclear equation of state with RIA
**Bao-An Li,** Proceedings of the RIA 2000 Workshop, Research Triangle Park, NC, July 24-26, 2000, page 400.

28). ART: A Relativistic Transport Model
**Bao-An Li,** Proceedings of RIKEN BNL Research Center Workshop, Eds. Y. Pang and M. Gyulassy, V22, (2000) 114.

27) Physics opportunities with radioactive beams
**Bao-An Li**, Radioactive Ion Beam Physics, CCAST-World Laboratory Workshop Series, Vol. 112, 1-111 (2000).

26). Chemical instability in neutron-rich matter
**Bao-An Li,** Cris2000, Third Catania Relativistic Ion Studies, Acicastello, Italy, May 22-26, 2000.

25). Uranium-on-uranium collisions at relativistic energies
**Bao-An Li,** Proceedings of the Structurs of the Nucleus at the Dawn of the Century, Bologna, Italy, May 29-June 3, 2000. Eds. Giancarlo Bonsignori and Mauro Bruno, World Scientific (Singapore) (2000) p290.

24). Probing the isospin-dependence of the nuclear equation of state
**Bao-An Li,** Seventh International Conference on Nucleus-Nucleus Collisions, Strasbourg, France, July 3-7, 2000, page 256.

23). Coalescence Model Analysis of Reaction Dynamics at 47A MeV
K. Hagel, J. Cibor, R. Wada, M. Lunardon, N. Marie, R. Alfaro, W. Shen, B. Xiao, Y. Zhao, J. Li, **Bao-An Li**, M. Murray, J.B. Natowitz, Z. Majka and P. Staszel
Proceedings of the International Workshop on Gross Properties of Nuclei and Nuclear Excitations, Hirschegg, Austria, January 11, 1999.

22). Dynamic evolution in the disassembly of hot nuclei
J. Cibor, R. Wada, K. Hagel, M. Lunardon, N. Marie, R. Alfaro, W. Shen, B. Xiao, Y. Zhao, J. Li, **Bao-An Li**, M. Murray, J.B. Natowitz, Z. Majka and P. Staszel
Proceedings of the International Winter meeting on nuclear Physics, Bormio (1999).

21). Excitation function of collective flow in relativistic heavy-ion collisions
**Bao-An Li**, C.M. Ko, R.A. Lacey, A.T. Sustich and Bin Zhang
Proceedings of Relativistic Heavy Ion Minisymposium C: Flow,
American Physical Society meeting, March 20-26, 1999, Atlanta, USA.
Atlanta 1999, heavy-ion physics, World Scientific (Singapore), page 73-77.

20). A transport model for heavy-ion collisions at RHIC
Bin Zhang, C.M. Ko, **Bao-An Li** and Ziwei Lin
Proceedings of Relativistic Heavy Ion Minisymposium E: Predictions for RHIC II
American Physical Society meeting, March 20-26, 1999, Atlanta, USA.

19). Isospin dependence of collective flow
**Bao-An Li** and C.M. Ko
International Nuclear Physics Conference, Aug. 24-28, Paris, France, Page 503

18). ART: A relativistic transport model for heavy-ion collisions
**Bao-An Li** and C.M. Ko, Proceedings of the international workshop on Open standards of parton cascade, RIKEN BNL Research Center, Brookhaven National Laboratory, June 23-27, 1997, Ed. M. Gyulassy, Vol. 1 (1997) page 35.

17). Isospin physics in heavy-ion collisions
**Bao-An Li** and C.M. Ko, Advance in Nuclear Dynamics 3: (Proc. of The 13th Winter Workshop on Nuclear Dynamics, Marathon, Florida, USA, Feb. 1-8, 1997), (Plenum, New York), Eds. W. Bauer and A. Mignery, page 171.

16). Excitation functions of flow and compression in central Au+Au collisions
**Bao-An Li** and C.M. Ko, Proceedings of Heavy-ion Physics at AGS'96, Detroit, Michigan, Aug. 22-24, 1996, Eds. C.A. Pruneau et al., p. 193.

15). Kaon flow in relativistic heavy-ion collisions
C.M. Ko, **Bao-An Li** and G.Q. Li
Proceedings of Strangeness'96, Budapest, Hungary, May 15-17, 1996,
Special Issue, Heavy-ion Physics, 4, (1996) 301.

14). Utilization of the available isospin in heavy-ion collisions
S.J. Yennello, H. Johnston, R. Pak, **Bao-An Li**, F. Gimeno-Nogues, D. Rowland and G.D. Westfall, Proceedings of International Workshop on Physics of Unstable Nuclear Beams, Serra Negra, Bazil, Aug. 28-31, 1996 (World Scientific, Singapore), Eds. C.A. Bertulani, L.F. Canto and M.S. Hussein, page 119-126.

13). Excitation functions in heavy-ion collisions from Bevalac/SIS to AGS.
**Bao-An Li** and C.M. Ko, Advance in Nuclear Dynamics 2: (Proc. of The 12th Winter Workshop on Nuclear Dynamics, Snowbird, Utah, USA, Feb. 3-10, 1996.) (Plenum, New York), Eds.\ W. Bauer and G.D. Westfall, page 13-18.

12). Isospin equilibration in reactions of $^{40}Ca,~ ^{40}Ar$ with $^{58}Fe,~^{58}Ni$ at E/A=33 and 45 MeV
S.J. Yennello, H. Johnston, D.J. Rowland, F. Gimeno-Nogues, T. White, B. Hurst, D. O'Kelly, Y.-W. Lui, E. Ramakrishnan, S. Ferro, S. Vasal, J. Winger and **Bao-An Li**, Advance in Nuclear Dynamics 2: (Proc. of The 12th Winter Workshop on Nuclear Dynamics, Snowbird, Utah, USA, Feb. 3-10, 1996.), (plenum, New York), Eds. W. Bauer and G.D. Westfall, page 327-332.

11). Mean field effects in heavy-ion collisions at AGS energies.
**Bao-An Li**, C.M. Ko and G.Q. Li
Advance in Nuclear Dynamics 1: (Proc. of The 11th Winter Workshop on Nuclear Dynamics, Key West, Florida, USA, Feb. 11-18, 1995), (Plenum, New York), Eds.W. Bauer and A. Mignery. P. 195-201.

10). Multifragmentation induced by relativistic $\alpha$ projectiles

V. Lips, **Bao-An Li** and D.H.E. Gross
Proceedings of the International Workshop XXII on Gross Properties of Nuclei and Nuclear Excitations, Hirschegg, Austria Jan. 17-22, 1994,
Eds.\ H. Feldmeier and Wolfgang Nörenberg.

9). Multifragmentation induced by relativistic $\alpha$ projectiles studied with the $4\pi$ setup FASA
V. Lips, **Bao-An Li** and D.H.E. Gross
Proceedings of the Fifth International Conference on Nucleus-Nucleus Collisions, Taormina, Italy, May 30-June 4, 1994, Eds. M. Di Toro, P.Piattelli and P. Sapienza.

8). Intermittent pattern of dynamical fluctuations in relativistic heavy-ion collisions
**Bao-An Li,** Proceedings of the international conference on relativistic heavy-ion collisions, P. 98, ed.: T. Csorgo et. al. KFKI-1993-11/A.

7). Dynamical fluctuations and pion productions at E/A=2.0 GeV
**Bao-An Li,** Proceedings of the Topical Workshop on Mesons from Nuclear Collisions, May 4-8, 1993, GSI Darmstadt, Germany, Ed. E. Grosse.

6). A Hadronic Transport Model and Its Applications in Relativistic Heavy-ion Collisions
**Bao-An Li,** Proceedings of the International School-Seminar on Heavy-ion Physics, May 10-15, 1993, Dubna, Russia, E7-93-126, Eds. R. Kalpakchieva and E.A. Cherepanov, p154.

5). Pion spectra, flow and squeeze-out at Bevalac/SIS energies
**Bao-An Li,** Proceedings of the 9th High Energy Heavy-ion Study Oct. 25-29, 1993 Lawrence Berkeley Laboratory, USA, Eds. A.D. Chacon, M. Justice and H.G. Ritter, LBL-35984, CONF-9310315, UC-414, p177.

4). Pion correlations in proton-induced reactions
W. Bauer, P. Danielewicz, D. Klakow, **Bao-An Li** and P. Schuck
Meson interferometry in relativistic heavy ion collisions Brookhaven National Laboratory, April 16-17, 1993, Report-BNL-48880.

3). Relativistic transport theory and pion production in heavy-ion collisions
Wolfgang Bauer and **Bao-An Li**
Proceedings of the 2nd International Workshop on Relativistic Aspects of Nuclear Physics, Ed.: T. Kodama *et al*, p. 229, (1992) (World Scientific, Singapore).

2). Quantum correlation dynamics and relativistic transport equations for hadronic matter
Shun-Jin Wang, **Bao-An Li**, Wolfgang Bauer and Jörgen Randrup,
Proceedings of the international symposium on heavy-ion physics and application, Eds. W.Q. Shen, Y.X. Luo and J.Y. Liu, p.493, (1991) (World Scientific, Singapore).

1). Two-temperature pion spectra.
Wolfgang Bauer, **Bao-An Li**, Shun-Jin Wang and Jörgen Randrup
Proceedings of the Seventh Winter Workshop on Nucl. Dynamics,
Eds. W. Bauer and J. Kapusta, p.210, (1992), (World Scientific, Singapore).

# List of talks presented by Bao-An Li

224) **Invited talk and session chair**, Nuclear Symmetry Energy and its Astrophysical Impacts
3rd International Workshop on Nuclear Dynamics in Heavy-Ion Reactions, Dec. 16-19, 2012, Shenzhen, China

223) **Colloquium**, Impacts of high-density symmetry energy on properties of neutron stars and gravitational waves
Institute of Modern Physics, Chinese Academy of Science, Dec. 11, 2012

222) **Colloquium,** Probing the Equation of State of Neutron-Rich Nuclear Matter with Terrestrial Nuclear Experiments
Nankai University, TianJin, China, Aug. 20, 2013

221) **Colloquium**, Probing the Equation of State of Neutron-Rich Nuclear Matter with Terrestrial Nuclear Experiments
Southeast University, Nanjing, China, Aug. 14, 2013

220) **Colloquium,** Probing the Equation of State of Neutron-Rich Nuclear Matter with Terrestrial Nuclear Experiments
Shanghai Jiao Tong University, China, Aug. 13, 2013

219) **Session chair and Invited Lecturer,** International Summer School "Dynamics of Open Systems", Predeal, Romania, July 9-20, 2012

218) **Colloquium,** From Earth to Heaven: Constraining Properties of Neutron Stars with Terrestrial Nuclear Reactions, Baylor University, Waco, Texas, Jan. 11, 2012

217) **Colloquium,** what can you do with a degree in nuclear physics, Lanzhou University, Lanzhou, China, Dec. 27, 2011

216) **Colloquium,** Recent progress and new challenges in constraining the density dependence of nuclear symmetry energy, Institute of Modern Physics, Chinese Academy of Science, Dec. 27, 2011

215) **Colloquium,** what can you do with a degree in nuclear physics, Xian Jiao Tong University, Xian, China, Dec. 22, 2011

214) **Colloquium,** Recent progress and new challenges in constraining nuclear symmetry energy, Guangxi Normal University, Guilin, China, Dec. 20, 2011

213) **Colloquium,** what can you do with a degree in nuclear physics, Guangxi Normal University, Guilin, China, Dec. 19, 2011

212) **Invited Talk,** Recent progress and new challenges in constraining nuclear symmetry energy, Topical Workshop on Symmetry Energy and Neutron Stars, Guangzhou, China, Dec. 16-18, 2011

211) **Colloquium,** From earth to heaven: constraining properties of neutron stars with terrestrial nuclear reactions, South China University of Technology, China, Dec. 15, 2011

210) **Invited talk**, International Symposium on Physics of Unstable Nuclei, Hanoi, Vietnam, Nov. 21-28, 2011

209) **Colloquium**, Transport theory for nuclear reactions, Department of Math, Texas A&M University-Commerce, Oct. 19, 2011

208) **Colloquium**, A few new issues regarding the density dependence of nuclear symmetry energy, Cyclotron Institute, Texas A&M University, Aug. 23, 2011

207) **Invited talk**, Probing the Equation of State of Neutron-Rich Matter with Rare Isotopes, ANL/INT/JINA/MSU annual FRIB (Facility for Rare Isotope Beams) workshop, Seattle, WA, Aug. 8-15, 2011

206) **Invited review talk,** Theoretical Overview of Symmetry Energy, 2nd International Symposium on Nuclear Symmetry Energy, Smith College, MA, June 18-21, 2011

205) **Discussion leader and coordinator**, 2011 Gordon Research Conference in Nuclear Chemistry, Colby Sawyer College, NH, June 12-17, 2011

204**) Invited talk**, Determining nuclear symmetry energy with nuclear reactions, Francis P. Garvin-John M. Olin Symposium in Honor of Sherry Yennello, the 241st National Meeting of the ACS, Anaheim California from March 27-31, 2011

203) **Colloquium**, Constraining the EOS of neutron-rich matter with heavy-ion reactions, Department of Physics and Astronomy, Texas A&M University-Commerce, Jan. 20, 2011

202) **Colloquium**, Constraining the EOS of neutron-rich matter with heavy-ion reactions University of Notre Dame, Jan. 19, 2011

201) **Seminar**, Probing the Equation of State of Dense Neutron-Rich Matter, Qinghua University, Beijing, China, Dec. 23, 2010

200) **Seminar**, Probing the Equation of State of Dense Neutron-Rich Matter, Peking University, Beijing, China, Dec. 22, 2010

199) **Session chair and invited speaker,** Topical Workshop on Nuclear Symmetry Energy and Astrophysics, Xian, China, Dec. 17-19, 2010

198) **Invited talk,** Probing the Equation of State of Neutron-Rich Matter and its Astrophysical Impacts with Terrestrial Laboratory Experiments, Pan-American Advanced Studies Institute on Rare Isotopes, Joao Pessoa, Brazil, August 1-13, 2010

197) **Session Chair and Invited Speaker,** Symmetry energy and astrophysics, International Symposium on Nuclear Symmetry Energy,
RIKEN Nishina Center, Wako, Japan, July 26-28, 2010.

196) **Seminar,** Nuclear Astrophysics, Lanzhou University, Lanzhou, China, July 22, 2010

195) **Colloquium,** From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data, Institute of Modern Physics, Lanzhou, China, July 21, 2010

194) **Seminar,** Nuclear Astrophysics, Xian Jiao Tong University, China, July 20, 2010

193) **Colloquium,** From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data, Xian Jiao Tong University, Xian, China, July 19, 2010

192) **Colloquium,** From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data, Beijing Normal University, Beijing, China, July 13, 2010

191) **Invited talk,** Imprints of Nuclear Symmetry Energy on Astrophysical Observables, International Nuclear Physics Conference 2010, Vancouver, Canada, July 4-9, 2010.

190) **Colloquium,** From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data
LeTourneau University, Longview, Texas, USA, April 22, 2010.

189) **Colloquium,** From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data
New Mexico State University, Las Cruces, New Mexico, USA, Feb. 18, 2010

188) **Contributed Talk**: Probing the Equation of State of Neutron-Rich Nuclear Matter with Heavy-Ion Reactions.
The $26^{th}$ Winter Workshop on Nuclear Dynamics, Ocho Rios, Jamaica, Jan. 2-9, 2010.

187) **Nuclear Physics Seminar,** The Equation of State of Neutron-Rich Nuclear Matter, The Ohio State University, Columbus, OH, Nov. 19, 2009

186) **Session Chair and Invited Talk**, Why is the symmetry energy so uncertain at supra-saturation densities
The European Science Foundation Exploration Work on High Density Symmetry Energy, Zagreb, Croatia, Oct. 14-19, 2009

185) **Invited 5-hour lectures on isospin physics** at the World Class University Program, Hanyang University, Seoul, Korea, Oct. 3-11, 2009

184) **Colloquium,** The equation of state of neutron-rich nuclear matter and its impacts on astrophysics and cosmology, Texas A&M University-Commerce, Sept. 3, 2009

183) **Session Chair and Invited Talk**, Imprints of nuclear symmetry energy on gravitational waves
International Workshop on Nuclear Reaction Dynamics and the Symmetry Energy, Shanghai, China, Aug. 22-25, 2009

182) **Session chair and Plenary Invited talk,** $10^{th}$ International Conference on Nucleus-Nucleus Collisions, Beijing, China, Aug. 16-21, 2009.

181) **Invited Talk,** International Workshop on the EOS of Neutron-Rich Matter, European Center of Theoretical Physics, Trento, Italy, Aug. 3-7, 2009

180) **Co-organizer and invited speaker**, Super-heavy nuclei in relativistic mean field models, Kavli Institute of Theoretical Physics, Beijing, China, June 6-20, 2009

179) **Selected contribution for oral presentation,**
Probing properties of neutron stars with heavy-ion reactions,
International Workshop XXXVII on Gross Properties of Nuclei and Nuclear Excitations Hirschegg, Kleinwalsertal, Austria, January 18 - 24, 2009.

178) **Seminar,** Probing the EOS of neutron-rich matter with heavy-ion reactions Cyclotron Institute, Texas A&M University, College Station, Dec. 5, 2008

177) **Invited talk,** Probing the EOS of neutron-rich matter with heavy-ion reactions The Fifth ANL/INT/MSU/JINA FRIB Theory Workshop "Bulk Nuclear Properties" Michigan State University, November 19-22, 2008.

176) **Invited lecture**, Probing properties of neutron stars with terrestrial nuclear reactions NSF/Step program and Science Club, Eastfielf College, Mesquite, Texas, Sept. 24, 2008

175) **Seminar**, Experimental constraints on the symmetry energy and their impacts on astrophysics, National Superconducting Cyclotron Laboratory, Sept. 10, 2008

174) **Invited Talk**, Constraining the nuclear symmetry energy and its astrophysical impacts, International Workshop on the HIRFL-CSR Physics, July 4-8, 2008, Lanzhou, China

171-173) **Seminars,** Constraining the nuclear symmetry energy and its astrophysical impacts

1) June 30, 2008, Shanghai JiaoTung University
2) July 1, 2008, Shanghai Institute of Applied Physics, Chinese Academy of Science
3) July 18, 2008 Tsinghua University, Beijing

170) **Invited Talk,** Constraining the symmetry energy and its impact on astrophysics with heavy-ion reactions,
Gordon Research Conference in Nuclear Chemistry,
June 15-20, 2008, New London, NH, USA

169) **Seminar for Texas region 8 high school science teachers**
A frontier in nuclear astrophysics, June 10, 2008, Commerce, Texas

168) **Invited Talk**, Constraining the EOS of Neutron-Rich Nuclear Matter with Heavy-Ion Reactions
International Workshop on Asymmetric Equation of State of Nuclear Matter,
May 28-30, 2008, Catania, Italy

167) **Invited talk**, Symmetry Energy and Astrophysics
24th International Workshop on Nuclear Dynamics, April 5-12, 2008, South Padre Island, TX, USA

166) **Contributed talk**, Differential Isospin Fractionation in Neutron-Rich Matter
Annual Meeting of the Division of Nuclear Physics, American Physical Society,
Oct. 10-13, 2007, Newport News, Virginia.

165) **Invited talk**, Impacts of Symmetry Energy on Astrophysics
Symposium on Nuclear Structure and Reactions in the Era of Radioactive Beams,
234th American Chemical Society National Meeting, Aug. 19-23, 2007, Boston.

160-164) **Seminars**
1) Recent Progress in Isospin Physics, June 18, 2007, Beijing Normal University
2) Equation of State of Dense Neutron-Rich Matter, June 20, 2007,
Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou
3) Equation of State of Dense Neutron-Rich Matter, June 21, 2007,
Lanzhou University
4) Constraining properties of neutron stars with heavy-ion reactions, June 22, 2007
Northwest Normal University
5) Constraining properties of neutron stars with heavy-ion reactions, June 26, 2007
Shanghai Jiao-Tung University

159) **Selected contribution for oral presentation,** Isospin dependence of the nuclear Equation of State
International Conference on "Nuclear Structure: New Pictures in the Extended Isospin Space", Kyoto, Japan, June 11-14, 2007

158) **Selected contribution for oral presentation,** Constraining properties of neutron stars with heavy-ion reactions,
International Workshop on **"**Nuclear Physics in Astrophysics III",
Dresden, Germany, March 25-31, 2007

157) **Seminar**, Nuclear Astrophysics

Science Club, Eastfield College, Dallas, Texas, March 7, 2007

156) **Invited talk,** physics challenges in studies of dense matter
2007 Town Meeting for the NSAC Long Range Plan for Nuclear Physics, Chicago, Jan. 19-21, 2007.

155) **Invited talk,** Probing the EOS of neutron-rich matter with heavy-ion reactions
In Heaven and On Earth 2006: The Nuclear Equation of State in Astrophysics
July 5-7, 2006, Montreal, Canada

154) **Ganil-LPC joint colloquium,** experimental probes of the symmetry energy
Caen, France, June 27, 2006.

152-153) **Colloquia**, constraining properties of neutron stars with terrestrial nuclear reactions
(1) Institute of Nuclear Physics, Orsay, France, June 19, 2006
(2) Ganil-LPC joint colloquium, Caen, France, June 23, 2006

151) **Invited talk**, Isospin dynamics in heavy-ion reactions
2006 Gordon research conference in nuclear chemistry
June 4-9, 2006, Colby-Sawyer College, NH, USA

150) **Invited Talk,** Constraining properties of neutron stars with terrestrial nuclear reactions
6$^{th}$ China-Japan Joint Nuclear Physics Symposium, Shanghai, May 15-20, 2006

149) **Seminar**, Recent Progress in Isospin Physics
Institute of Modern Physics, Chinese Academy of Science, May 11, 2006.

146-148) **Seminars**, constraining the radii of neutron stars with nuclear reactions in terrestrial labs
(1) China Institute of Atomic Energy, Beijing, May 8, 2006
(2) Northwest Normal University, Lanzhou, May 10, 2006
(3) Lanzhou University, May 12, 2006

145) **Contributed talk,** Temperature and density dependence of the symmetry energy of hot neutron-rich matter and the isoscaling phenomenon in nuclear reactions
Mini-symposium on nuclear matter at abnormal densities, APS meeting, April 22-25, 2006, Dallas, TX.

144) **Contributed talk**, neutron stars and the nuclear equation of state
14$^{th}$ annual Arkansas Space Grant Symposium, Arkansas Tech University, USA

143) **Colloquium,** From Earth to Heaven**:** constraining the radii of neutron stars using terrestrial nuclear reactions
April 11, 2006, Texas A&M University-Commerce, Texas, USA

142) **6 invited lectures** at the 2006 India National School of Nuclear Physics

March 21-25, 2006, Kolkata, India

141) **Colloquium**, EOS of Neutron-Rich Matter and Heavy-Ion Reactions
March 20, 2006, Tata Institute for Fundamental Research, Bumbai, India

140) **Colloquium**, In heaven and on earth: constraining the radii of neutron stars with terrestrial nuclear laboratory data, March 2, 2006, University of Idaho, USA

139) Probing the Equation of State of neutron stars with nuclear reactions induced by radioactive beams in terrestrial labs
**Colloquium**, Jan. 25, 2006, University of Texas at Arlington, Texas, USA

138)Probing the Equation of State of neutron-rich matter with heavy-ion reactions
I**nvited talk**, The XXIX Symposium on Nuclear Physics,
Cocoyoc, Morelos, Mexico, Jan. 3-6, 2006

137) Constraining the radii of neutron stars with terrestrial nuclear laboratory data
**Nuclear theory Seminar**, Dec. 16, 2005, Texas A&M University, College Station, USA

136) Simulation as the third branch of science
**One of the 2 panelists at the panel discussion on transport models for nuclear reactions**
International Workshop on Multifragmentation
Nov. 28-Dec. 2, 2005, Catania, Italy

135) Isospin dynamics in heavy-ion reaction
**Invited talk,** International Workshop on Multifragmentation
Nov. 28-Dec. 2, 2005, Catania, Italy

134) Probing the Equation of State of Neutron Stars in Terrestrial Laboratories
**Colloquium,** Nov. 4**,** 2005**,** NASA-NSSTC (National Space Science and Technology Center)
Huntsville, Alabama, USA

133) Progress and future directions of nuclear reactions
**Invited review talk,** Users workshop of the National Superconducting Cyclotron Laboratory,
Aug. 18-21, 2005, Michigan State University, USA

132) Incompressibility of neutron-Rich matter
**Invited talk**, International Workshop on Nuclear Incompressibility and Equation of State
Joint Institute of Nuclear Astrophysics, University of Notre Dame, July 13-16, 2005.

131) EOS of neutron-rich matter and heavy-ion collisions
**Seminar,** July 8, Shanghai Institute of Applied Physics, Shanghai, China

130) EOS of neutron-rich matter and heavy-ion collisions
**79$^{th}$ lecture of physics frontiers,** Shanghai JiaoTung University, July 7, 2005, China

129) Transport theory for nuclear reactions
**Seminar**, Institute of Modern Physics, Chinese Academy of Science, Lanzhou, China, July 5, 2005.

128) Progress in isospin physics
**Invited talk**, International workshop on Hadron Physics, June 29-July 4, 2005, Lanzhou, China.

127) Nuclear astrophysics and heavy-ion reactions
**Seminar, J**une 28, 2005, Xian Jiao Tung University, Xian, China

126) Equation of State of neutron-rich matter
**Session chair and Invited talk**, International Summer School and Workshop on Relativistic Heavy-Ion Collisions, June 20-24, 2005, Wuhan, China.

125) Determining the symmetry energy at high densities with high energy heavy-ion collisions
I**nvited review talk,** International Workshop on Relativistic Heavy-Ion Collisions, May 25-29, 2005, Split, Croatia

124) Determining the symmetry energy at high densities with high energy heavy-ion collisions
**Invited talk**, May 22-24, 2005, Gribov-75 Memorial Workshop on Quarks, Hadrons and Strong Interactions, Budapest, Hungary.

123) Probing the equation of state of neutron-rich matter with radioactive beams
**Selected contribution for oral presentation:** Nuclear Physics in Astrophysics II, May 16-20, 2005, Debrecen, Hungary

122) Next Steps in determining the symmetry energy
**Organizer and discussion leader,** Workshop on Nuclear Equation of State for Nuclei, Neutron Stars and Supernovae, Arkansas State University, April 14, USA

121) Transport theory for nuclear reactions with radioactive beams
**Invited talk,** 2nd Argonne/MSU/INT/JINA Joint RIA Workshop
March 9-12, 2005, East Lansing, Michigan, USA

120) Probing the equation of state of neutron-rich matter
**Seminar,** Lawrence Livermore National Laboratory, Feb. 21, 2005, Livermore, California, USA

119) Overview of isospin physics
**Session chair and invited review talk,** World consensus initiatives in intermediate energy heavy-ion physics, Feb. 12-16, 2005, College Station, Texas, USA

118) Probing the equation of state of neutron-rich matter at RIA (Rare Isotope Accelerator)
**Session chair and invited speaker**, Winter Workshop on Nuclear Dynamics, Feb. 5-12, 2005,

Beaver Run Resort, Breckenridge, Colorado, USA

117) Probing the isospin, density and momentum dependence of nuclear effective interactions with central reactions at RIA
**Contributed talk,** RIA Theory Workshop, Chicago, Oct. 31, 2004.

116) **Contributed talk**, Determination of the symmetry energy from heavy-ion collisions
Annual meeting of the Division of Nuclear Physics, American Physical Society, Chicago, Oct. 27-30, 2004.

115) **Invited talk**, Nuclear Equation of State for Astrophysics Models
228th National American Chemical Society Meting, Philadelphia, Pennsylvania, USA, August 22-26, 2004.

114) **Co-Chair of the Conference and Panelist in the panel "What are the best strategies to learn about the symmetry energy? What have we learned already"**, 2004 Gordon Conference in Nuclear Chemistry, June 13-18, 2004, Colby-Sawyer College, New London, NH, USA

113) **Seminar,** Isospin Physics: A New Frontier in Nuclear Sciences
Peking University, May 17, 2004, Beijing, China.

111-112) **Seminar,** New Physics Opportunities with Radioactive Beams
1) Institute of Modern Physics, Chinese Academy of Science, Lanzhou, May 13, 2004.
2) Institute of Theoretical Physics, Lanzhou University, Lanzhou, May 14, 2004

110) **Invited talk,** Prospects and Challenges of Isospin Physics
International Workshop on Nuclear Physics, May 8-12, Shanghai, China

107-109) **Session chair and invited speaker,**
**(**1) An overview of open questions in isospin physics
(2) Non-equilibrium in heavy-ion collisions at intermediate energies
(3) isovector part of nucleon effective mass in neutron-rich matter
International Conference on Dynamics and Thermodynamics with Nucleonic Degrees of Freedom, Jan. 19-24, 2004, Catania, Italy

106) New physics opportunities at the Rare Isotope Accelerator
**Seminar,** Argonne National Laboratory, Chicago, Dec. 18, 2003, USA

105) Central Collisions at the Rare Isotope Accelerator
**Invited talk,** RIA Theory Workshop, Nov. 1-3, 2003, Westward Look Resort, Arizona, USA

104-102) Probing the equation of state of dense neutron-rich matter with high energy radioactive beams
(1) **Contributed talk,** American Physical Society meeting, Oct. 30-Nov. 1, 2003, Tucson, Arizona, USA

(2) **Session chair and invited speaker,** International Workshop on Topics in Heavy-Ion Collisions 03, June 24-29, 2003, Montreal, Canada
(3) **Invited talk**, VIII International Conference on Nucleus-Nucleus Collisions, June 15-22, Moscow, Russia

101) Equation of State of Dense Asymmetric Nuclear Matter
**Contributed talk,** 87th Arkansas Academy of Science Annual Meeting, April 4-5, 2003, Fayetteville, Arkansas, USA

109-100) Probing the high density behavior of nuclear symmetry energy with high-energy radioactive bams
(1) **Seminar**, Dec. 23, 2002, Tsinghua University, Beijing, China.
(2) **Seminar**, Dec. 16, 2002, Institute of Modern Physics, Chinese Academy of Science.
(3) **Seminar**, Dec. 13, 2002, Nanjing University, Nanjing, China.
(4) **Seminar**, Dec. 12, 2002, China East Normal University, Shanghai, China.
(5) **Seminar**, Dec. 11, 2002, Shanghai Institute of Nuclear Research, Chinese Academy of science.
(6**) Invited Talk**, International Symposium on Physics of Unstable Nuclei, Nov. 20-25, Ha Long Bay,Vietnam.
(7) **Contributed Talk**, 2002 Fall Meeting of the Division of Nuclear physics of APS, Oct. 9-12, East Lansing, Michigan, USA.
(8) **Invited Review Talk**, International Workshop on Reaction Theory with Radioactive Beams, Sept. 16-20, Seattle, Washington, USA
(9) **Invited Talk**, Symposium on Nuclei and Nuclear Matter at the Limits of Stability, Aug. 18-22, 2002, 224th ACS National Meeting, Boston, USA
(10) **Contributed Talk**, 86th Annual Meeting of the Arkansas Academy of Science, University of Arkansas at Little Rock, April 5-6, 2002, Arkansas, USA.

99).Isospin-dependence of nuclear equation of state and Heavy-ion collisions at intermediate energies
**Seminar,** Dec. 19, 2002, Center for Nuclear Theory, National Laboratory of Heavy-Ion accelerators, Lanzhou, China.

98).Isospin effects as probes of the equation of state of neutron-rich matter
**Invited Talk,** Gordon Research Conference of Nuclear Sciences, June 16-20, 2002, New London, New Hamphsire, USA.

97-94). Probing the EOS of neutron-rich matter
(1) **Coloquium,** June 11, 2002, Texas A&M University, Texas, USA.
(2)**Seminar,** May 16, 2002, McGill University, Montreal, Canada.
(3) **Seminar,** May 7, 2002, University of Rochester, Rochester, New York, USA.
(4) **Invited Talk,** International Conference on Nuclear Reactions, July 13-18, 2001, Beijing, China

93). Chemical and mechanical instabilities in neutron-rich matter
**Contributed Talk,** 86th Annual meeting of the Arkansas Academy of Science, University of Arkansas at Little Rock, April 5-6, 2002, Arkansas, USA.

92) Probing symmetry energy at high densities

**Invited Talk,** International Workshop on Heavy-Ion Reactions and Matter under Extreme Conditions,
Nov. 14-18, 2001, National Superconducting Laboratory, East Lansing, Michigan, USA,

91). Chemical and Mechanical Instability in Neutron-Rich Matter
**Seminar,** July 19, 2001, Institute of Modern Physics, Chinese Academy of Science, Lanzhou, China

90). Formation of superdense matter in relativistic heavy-ion collisions
**Seminar,** July 20, 2001, Center for Theoretical Nuclear Physics, Chinese Academy of Sciences.

89). New physics opportunities with radioactive beams
**Seminar,** July 23, 2001, National Laboratory of heavy-Ion Accelerators, Lanzhou, China

88-84). Uranium-on-uranium collisions at relativistic energies
(1) **Seminar**, Oct. 6, 2000, Cyclotron Institute, Texas A&M University, USA
(2) **Invited Talk,** GSI Workshop on its Future Facility, Oct. 18-21, 2000, Darmstadt, Germany
(3) **Invited Talk**, Bologna2000: Structure of the Nucleus at the Dawn of the Century, May 29-June 3, 2000, Bologna, Italy.
(4) **Contributed Talk,** 85$^{th}$ Annual Meeting of the Arkansas Academy of Science, April 13-14, 2000, Conway, Arkansas, USA.
(5) **Contributed Talk**, Divisiton of Nuclear Physics of American Physical Society Fall Meeting, Oct. 20-23, 1999, Asilomar, California, USA.

83). Isospin effects in nuclear multifragmentation
**Invited Talk**, Symposium on Critical Issues/Questions in Nuclear Dynamics,
221 National Meeting of the American Chemical Society, April 1-5, 2001, San Diego, USA

82). Future directions of nuclear chemistry and physics
**Panelist,** Symposium on Critical Issues/Questions in Nuclear Dynamics,
221 National Meeting of the American Chemical Society, April 1-5, 2001, San Diego, USA

81-78). Isospin-dpendence of the nuclear equation of state
(1) **Invited Talk,** Symposium on Physics with Radioactive Beams, Pacific Chem2000 Congress, Dec. 16-20, 2000, Honolulu, Hawaii, USA
(2) **Seminar**, Nov. 30, 2000, University of Minnesota, Minneapolis, USA.
(3) **Invited Talk**, Nuclear Physics Long Range Plan Town Meeting, Nov. 9-12, 2000, Oakland, California, USA
(4) **Seminar**, April 19, 2000, Michigan State University, East Lansing, Michigan, USA

77) Frontiers in astronomy
Video taped interview**, March 27, 2000, the Astronomy Club of Marmaduke High School, Arkansas, USA.**

76). Quark-Gluon Plasma and the early universe
**Invited Talk,** Jonesboro High School, Nov., 1, 2000, Jonesboro, Arkansas, USA

75). New physics opportunities with the rare isotope accelerator
**Invited Talk,** RIA (Rare Isotope Accelerator) 2000 Workshop
July 24-26, 2000, Research Triangle Park, North Carolina, USA

74). Excitation function of elliptic flow in relativistic heavy-ion collisions
**Selected contribution**, Seventh International Conference on Nucleus-Nucleus Collisions, July 3-7, 2000, Strasbourg, France

73). Towards the Frontiers of Nuclear Sciences
**Panelist,** 2000 Gordon Research Conference on Nuclear Chemistry, June 18-23, 2000, New London, New Hampshire, USA

72) J/psi supression in ultra-relativistic heavy-ion collisions
**Invited Talk,** International Conference on Open Standard Codes and Routines (OSCAR) for Relativistic Heavy-Ion Collisions, June 6-15, 2000, Nantes, France.

71). Chemical instability in neutron-rich matter
**Invited Talk, T**hird International Conferences on Phase Transitions in Strong Interactions, May 22-26, 2000, Acicastello, Italy

70). Isospin physics in heavy-ion collisions
**Colloquium,** May 17, 2000, Texas A&M University, College Station, Texas, USA

69). Probing the isospin-dependence of the nuclear EOS using radioactive beams
**Invited Talk,** International Workshop on New physics Opportunities at HIRFL-CSR, Aug. 11-13, 1999, Beijing, China.

68). Frontiers of Nuclear Physics
**A Series of 5 Invited Lectures**, China Center of Advance Science andTechnology, Aug. 9-11, 1999, Beijing, China.

67). ART: A relativistic transport model for RHIC
**Invited Talk,** International Workshop on Predictions for RHIC
July 8-16, 1999, Brookhaven National Laboratory, New York, USA

66). A Multi-phase transport model for RHIC
**Selected contribution,** Quark Matter'99, May 10-15, 1999, Turin, Italy.

65). Excitation function of collective flow in relativistic heavy-ion collisions
**Contributed Talk,** Relativistic Heavy Ion Mini-symposium C: Flow,
American Physical Society Meeting, March 20-26, 1999, Atlanta, USA.

64). Science of colliding two gold nuclei at relativistic energies
**Sigama Xi Seminar,** Feb. 18, 1999, Arkansas State University, Jonesboro, Arkansas, USA

63). Isospin physics in heavy-ion collisions

**Selected contribution,** International Nuclear Physics Conference, August 24-28, 1998, Paris, France

62). Teaching science with multimedia technologies
**Colloquium,** April 20, 1998, Fayetteville State University, North Carolina, USA

61). Isospin-dependent nuclear EOS and collisions of neutron-rich nuclei
**Invited talk,** Internatioanl Workshop on isospin dynamics, Oct. 16-19, 1997, Catania, Italy

60). Nuclear reactions with radioactive beams
**Seminar**, Sept. 25, 1997, Shanghai Institute of Nuclear Research, P.R. China

50). Isospin Physics in Nuclear reactions
**Seminar**, Sept. 22, 1997, China Institute of Atomic Energy, Beijing, P.R. China

49). A Relativistic Transport Model for Heavy-ion Collisions
**Seminar,** Sept. 22, 1997, China Institute of Atomic Energy, Beijing, P.R. China

48). Relativistic Heavy-Ion Collisions
**A series of 5 invited lectures,**
Sept. 15-19, 1997, Institute of Modern Physics, Chinese Academy of Science

47). Isospin physics in heavy-ion collisions at intermediate energies
**Invited talk**, International Workshop on radioactive ion beam physics
Sept. 8-12, 1997, Lanzhou, P.R. China.

46). Introduction to OSCAR: Open Standard Codes and Routines
**Seminar,** July 3, 1997, Cyclotron Institute, Texas A&M University, USA.

45). Final state of relativistic heavy-ion collisions
**Invited talk**, Workshop on open standards of parton cascade models
June 22-28, 1997, Brookhaven National Laboratory, New York, USA.

44). Excitation functions of stopping power and flow in relativistic heavy-ion collisions
**Selected contribution**, at 6th International Conference on Nucleus-Nucleus Collisions,
June 1-6,1997, Gatlinburg, Tennessee, USA.

43). Isospin dependence of nuclear equation of state and collisions of neutron-rich nuclei
**Colloquium**, March 4, 1997, Cyclotron Institute, Texas A&M University, USA.

42). Isospin physics in heavy-ion collisions
**Invited talk**, 13th Winter Workshop on Nuclear Dynamics, Feb. 1-8, 1997, Marathon, Florida, USA.

41). Excitation functions in central Au+Au collisions from Bevalac to AGS
**Invited talk**, Heavy-ion Physics at AGS, Aug. 22-24, 1996, Detroit, Michigan, USA.

40). Intermediate energy heavy-ion physics with radioactive beams

**One of six panelists**, Workshop on Heavy-ion Collisions at Intermediate Energies July 12-13, 1996, National Superconducting Cyclotron Laboratory, East Lansing, Michigan, USA

39). Excitation functions in heavy-ion collisions from Bevalac/SIS to AGS
**Invited talk**, The 12th Winter Workshop on Nuclear Dynamics, Feb. 3-10, 1996, Snowbird, Utah, USA

38). Colliding gold on gold to make Quark-Gluon-Plasma
**Seminar,** January 31, 1996, Cyclotron Institute, Texas A&M University, USA

37). Formation of superdense hadronic matter in high energy heavy-ion collisions
**Invited talk**, Symposium on Hot and Expanded Nuclear Matter Aug 21-24, 1995, Division of nuclear chemistry and technology, 210th American Chemical Society National Meeting, Chicago, USA

36). Isospin effects in heavy-ion collisions at intermediate energies
**Invited talk**, Interactive Workshop on Reaction Dynamics in Heavy-ion Collisions, Aug. 16-17, 1995, Texas A&M University, USA

35). Pionic processes in superdense hadronic matter
**Invited talk**, Workshop on Pionic Processes and Transport in Hadronic Matter, July 23-28, 1995, Los Alamos National Laboratory, USA

34). Formation of superdense hadronic matter in relativistic heavy-ion collisions
**Seminar**, June 19, 1995, Michigan State University, USA

33). Several effects of nuclear incompressibility in heavy-ion collisions
**Invited talk**, Interactive Workshop on Nuclear Imcompressibility and Giant Monopole Resonance, May 15-17, 1995, Texas A&M University, USA

32). A relativistic transport model for AGS
**Colloquium**, Feb. 21, 1995, Cyclotron Institute, Texas A&M University, USA

31). Collective flow in heavy-ion collisions at AGS energies: a general view from a relativistic transport model
**Invited talk**, The 11th Winter Workshop on Nuclear Dynamics, Feb. 11-18, 1995, Key West, Florida, USA

30). A relativistic transport model for AGS
**Seminar,** Oct. 27, 1994, National Institute for Nuclear Theory, University of Washington, Seattle, USA

29). Mean field effects in heavy ion collisions at AGS energies
**Seminar**, Oct. 21, 1994, Texas A&M University

28). Dynamical and statistical aspects of nuclear multifragmentation
**Seminar**, Dec. 13, 1993, FZ Rossendorf, Dresden, Germany

27). Dynamical and statistical aspects of nuclear multifragmentation
**Seminar**, Dec. 3, 1993, GSI, Darmstadt, Germany

26). Pion spectra, flow and squeeze-out in relativistic heavy-ion collisions
**Seminar**, Nov. 18, 1993, Argonne National Laboratory, USA

25). Dynamical fluctuations in pion spectra of relativistic heavy-ion collisions
**Seminar**, Nov. 5, 1993, Wayne State University, Detroit, USA

24). Intermittency in relativistic heavy-ion collisions
**Seminar**, Jan. 7, 1993, University of Erlangen, Germany

23). Dynamical instability and multifragmentation in BUU model for heavy-ion Collisions, **Seminar**, Mar. 6, 1993, Hahn-Meitner-Institut, Berlin, Germany

22). Dynamical and statistical aspects of nuclear multifragmentation
**Colloquium**, Mar. 22, 1993, Ganil, Caen, France

21). Dynamical fluctuations and pion productions at E/A=2.0 GeV
**Invited talk**, Topical Workshop on Mesons from Nuclear Collisions,
GSI, Darmstadt, Germany

20). Pion spectra, flow and squeeze-out at Bevalac/SIS energies
**Invited talk**, The 9th High Energy Heavy-ion Study,
Oct. 25-29, 1993, Lawrence Berkeley National Laboratory, USA

19). Dynamical and statistical aspects of nuclear multifragmentation
**Colloquium,** Nov. 1, 1993, Texas A&M University, USA

18). Pion spectra, flow and squeeze-out in relativistic heavy-ion collisions
**Seminar**, Nov. 2, 1993, Texas A&M University, USA

17). Dynamical fluctuations in relativistic heavy-ion collisions
**Invited talk**, Theory Workshop on Dynamical Fluctuations in Heavy-ion Collisions,
Oct. 28, 1992, Ganil, Caen, France

16). Pion production in heavy-ion collisions at 1.0 GeV/nucleon
**Seminar**, Jan. 23, 1992, Argonne National Laboratory, USA.

15). Effects of the detailed balance for the production and the re-absorption of baryon resonances on pion production.
**Seminar,** Jan. 30, 1992, Kent State University, Kent, Ohio, USA.

14). Pion production in heavy-ion collisions at 1.0 GeV/nucleon
**Seminar**, March 9, 1992, Hahn-Meitner-Institut, Berlin, Germany

13). Detailed balance between cross sections for the production and the reabsorption of baryon resonances, **Seminar,** April 8, 1992, Hahn-Meitner-Institut, Berlin, Germany

12). Intermittency in relativistic heavy-ion collisions
**Colloquium**, June 23, 1992, GSI, Darmstadt, Germany

11). Pion production in a hadronic transport model for relativistic heavy-ion collisions
**Colloquium**, June 24, 1992, University of Giessen, Germany

10). Pion production in a hadronic transport model for relativistic heavy-ion collisions
**Seminar**, June 25, 1992, GSI, Darmstadt, Germany

9). Dynamical fluctuations in pion pseudorapidity distributions at Bevalac energies
**Invited talk,** International Workshop on Relativistic Heavy-ion Collisions, Aug. 12, 1992, Budapest, Hungary

8). Pion production in a hadronic transport model for relativistic heavy-ion collisions
**Ganil-Lpc Joint Colloquium,** Oct. 23, 1992, Ganil-Lpc, Caen, France

7). Pion spectra in a hadronic transport model for heavy-ion collisions
**Seminar**, March 9, 1991, Kent State University, Kent, Ohio, USA.

6). Pion spectra in heavy-ion collisions
**Contributed talk**, Spring meeting of the American Physical Society, April 25, 1991, Washington D.C., USA.

5). Pion spectra in relativistic heavy-ion collisions
**Brown Bag Lunch Seminar,** May 11, 1991, Michigan State University, USA.

4). A hadronic transport model for relativistic heavy-ion collisions
**Seminar**, June 20, 1991, Nuclear Physics Summer School, University of Wisconsin, Madison, USA.

3). Preferential emission of pions in asymmetric Nucleus-Nucleus collisions
**Contributed talk**, September 18, 1991, Mid-west Meeting on Nuclear Theory, Indina University, USA.

2). Preferential emission of pions
**Contributed talk**, October 25, 1991, Fall meeting of the nuclear physics division, American Physical Society, East Lansing, Michigan, USA.

1). Pion production in heavy-ion collisions
**Seminar**, Nov. 12, 1991, Oregon State University, Corvallis, Oregon, USA.

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# Kent Alan Montgomery

## Education

**1990-1995 Boston University Boston, MA**

- Ph.D., in Astronomy

**1988-1990 San Diego State University San Diego, CA**

- M.S., in Astronomy

**1981-1987 Montana State University Bozeman, MT**

- B.S., in Mathematics and Physics

Doctoral Thesis: *"Old Stellar Systems: A Study in Stellar and Galactic Evolution"*, Professor Kenneth Janes, Advisor

Master's Thesis: *"Surface Photometry of the Peculiar Galaxy NGC 6239"*, Professor Ronald Angione, Advisor

## Employment

**2005-Present Texas A&M University-Commerce Commerce, TX**

**Planetarium Director and Adjunct Faculty**

- Oversaw installation of planetarium dome, projection, lighting and sound equipment
- Installed and began public and school group performances in planetarium in January 2006
- Hired staff
- Created promotional material for planetarium shows including mailings, brochures, newspaper articles, radio spots.
- Taught many Introductory Astronomy class
- Helped lead 3 week summer teacher workshop in astronomy for area elementary and middle school teachers
- Organized and lead a summer space camp
- Co-PI on grant for $25,000 from the Texas Space Grant Consortium for in-service teachers
- Developed and taught Archaeoastronomy class in spring 2010
- Helped in development of Astronomy minor at the University

**1995–2005 Young Harris College Young Harris, GA**

**Planetarium Director and Professor**

- Managed planetarium with a 40-foot dome; duties included: budgets, personnel, show scheduling, maintenance and operation.
- Teacher of the Year – 2003
- Wrote successful grant proposal and installed new planetarium projector - 2002
- Wrote successful grant then built observatory located just off campus – 2002

- Taught undergraduate astronomy classes.
- Taught undergraduate physics 1996-1997
- Taught undergraduate mathematics 1999-2002.
- Created and administered college web pages Dec. 1996 - Aug. 1997.
- Wrote grant proposal and helped build computer lab for Math and Science building - 1998

**1990-1994 Boston University Boston, MA**

**College Instructor**

- Taught introductory astronomy courses.
- Taught astronomy laboratory sections.
- Researched old open clusters, globular clusters, and elemental abundances.
- Worked with colleague on revising laboratory exercises.
- Awarded Teaching Fellow of the year award -1991

**1988–1990 San Diego State University San Diego, CA**

**College Instructor**

- Taught introductory astronomy courses.
- Taught astronomy laboratory sections.
- Researched peculiar galaxies and binary stars.
- Received award for best service to the department. - 1990

**1987-1988 Terry High School Terry, MT**

**High School Teacher**

- Taught physics and mathematics courses.
- Coached basketball, and track

## Research Experience

**Texas A&M University-Commerce**

- Built small observatory with a number of small telescopes, 8 to 16 inch range and support facilities including a 12-foot dome. The observatory will be used for teaching of classes and undergraduate research involving CCD imaging and broadband filter photometry.

**Young Harris College**

- Built small observatory with a 16-inch Schmidt-Cassegrain telescope housed in a 15-foot dome and a number of smaller telescopes, which are used for public observing and undergraduate research projects.
- Computerized 16-inch telescope and integrated CCD imaging in order to facilitate undergraduate research program.

**Boston University**

- CCD Photometry using 0.9-meter telescope at Cerro Tollolo National Observatory, La Serena, Chile.
- CCD Photometry using 0.9-meter telescope at Kitt Peak National Observatory, Tucson Arizona.

- Objective Prism Spectroscopy using Burrell-Schmidt 1-meter telescope at Kitt Peak National Observatory, Tucson Arizona.

**San Diego State University**

- CCD photometry using 1-meter telescope at Mount Laguna Observatory, San Diego, California.

## Publications

1. Montgomery, Kent. A *"Forum article on the use of the Planetarium to disseminate information"*, 2002, Planetarian, **31**, 22.

2. Montgomery, K. A., Janes, K. A. and Phelps, R. L., *"Reddening, and Metallicitiy of NGC 6791"*, 1994, AJ, **108**, 585.

3. Phelps, R. L., Janes, K. A. and Montgomery, K. A., *"The Development of the Galactic Disk: A Search for the Oldest Open Clusters"*,1994 AJ, **107**, 1079.

4. Montgomery, K. A., Janes, K. A. and Phelps, R. L., *"Reddening, Metallicity, and Age of NGC 6791"*, 1994, Bull. Am. Aston. Soc., **25**, 1454.

5. Janes, K. A., Phelps, R.L., and Montgomery, K. A., *"The Oldest Open Clusters",* 1994, Bull. Am. Aston. Soc., **25**, 1455

6. Montgomery K. A., and Janes, K. A., *"Population II Horizontal Branches: A Photometric Study of Globular Clusters"*, 1994, Hot Stars in the Halo, eds. Adelman, S. J., Upgren, A. and Adelman, C.J., Cambridge University Press, Schenectady, 136.

7. Phelps, R. L., Janes, K. A. and Montgomery, K. A., *"Population I Horizontal Branches Stars: Probing the Halo-to-Disk Transition"*, 1994, Hot Stars in the Halo, eds. Adelman, S. J., Upgren, A. and Adelman, C.J., Cambridge University Press, Schenectady, 175.

8. Montgomery, K. A., Marschall, L.A., Janes, K. A., *"CCD Photometry of the Old Open Cluster M67"*, 1993, AJ, **106**, 181.

9. Janes, K. A., Friel, E., Montgomery, K., Phelps, R. L., and Marschall, L., *"Open Clusters as Standard Candles – The Age Metallicity Relation and Metallicity Gradients"*, 1992, in Memorie della Society Astronomica Italiana, **63**, 283.

10. Montgomery, K., Marschall, L., Janes, K., *"CCD Photometry of the Old Open Cluster M67"*, 1990, Bul. Am. Astron. Soc., **22**, 1288.

## Professional Organizations

Member of the International Planetarium Society
Member of the American Astronomical Society
Member of the Western Association of Planetariums

**Planetarium Productions**

Planetarium shows produced, written and directed:

Cosmic Concert 33
A Tale of Many Suns
Cosmic Concert 34
The Christmas Star
Cosmic Concert 35
Mission Discovery
Cosmic Concert 36
Cosmic Concert 37
Exploring Autumn Skies
Cosmic Concert 38
Cosmology: What Do We Know?
Splendors of the Universe
Cosmic Concert 39
Mars Rediscovered
The Changing Sky
Cosmic Concert 40
Cosmic Concert 41

Planetarium shows adapted and presented:

Cosmic Catastrophes
Endless Horizons
Hubble Vision
Galaxies
Planet Patrol
Our Place in Space
The Story of the Star
Light-years From Andromeda
Comets Are Coming
Questions?
Rusty Rocket
Universe
Earth Whispers
Tis The Season
Invisible Universe
The Light-Hearted Astronomer
Explorers
RingWorld

**References:**

Dr. Kenneth Janes, Boston University (617) 353-2627
Dr. Robert Nichols, Young Harris College (706) 379-3429
Dr. Paul Arnold, Young Harris College (706) 379-3772

# William G. Newton

Department of Physics and Astronomy,
Texas A&M University-Commerce,
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Commerce, TX 75429-3011
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Fax: +1 903 886 5480
email: william.newton@tamuc.edu
website: http://williamnewton.wordpress.com

Born: March 6, 1978—Blackpool, UK
Nationality: UK; US Permanent resident.

## Current position

2012-present *Assistant Professor*, Texas A&M University-Commerce.

## Areas of specialization

nuclear physics, astrophysics, science education

## Appointments held

2008-2009 *Postdoc*, Texas A&M University-Commerce.
2009-2012 *Adjunct Assistant Professor*, Texas A&M University-Commerce.

## Education

2002-2008 DPhil in Physics, University of Oxford
Thesis Title: "The phase transition to uniform nuclear matter in supernovae and neutron stars"
Supervisor: Dr. Jirina Rikovska Stone

2000-2002 MSc in Physics, University of Tennessee
Thesis Title: "Giant resonances in argon isotopes"
Supervisor: Prof. Michael Strayer

1996-2000 MPhys, University of Oxford
Final honours school of natural science: Physics, 2:1
MPhys project: "The diffusion of stars near the sun"
Supervisor: Prof. James Binney

## Funded Grants

2011-2013 "Extracting the Symmetry Energy of Dense Neutron-Rich Nuclear Matter from Astrophysical Observations",
NASA Astrophysics Theory Program, Grant number 10-ATP10-0095
PI: Bao-An Li; Co-PI **W.G. Newton**

## Publications

### Refereed journal articles

2012 "Efficacy of crustal superfluid neutrons in pulsar glitch models",
J. Hooker, **W.G. Newton** and Bao-An Li,
To be submitted to MNRAS

2012 "Constraining the High-Density Behavior of Nuclear Symmetry Energy with the Tidal Polarizability of Neutron Stars",
F. Fattoyev, J. Carvajal, **W.G. Newton** and Bao-An Li,
Submitted to Phys. Rev. C,
arXiv:1210.3402

2012 "A survey of the parameter space of the compressible liquid drop model as applied to the neutron star inner crust",
**W.G. Newton**, M. Gearheart, and Bao-An Li,
Accepted for publication in Astrophysical Journal Supplement,
arXiv:1110.4043

2012 "Generic constraints on the relativistic mean-field and Skyrme-Hartree-Fock models from the pure neutron matter equation of state",
F. Fattoyev, **W.G. Newton**, Jun Xu and Bao-An Li,
Phys. Rev. C86, 025804
arXiv:1205.0857

2012 "Sensitivity of the neutron star r-mode instability window to the density dependence of the nuclear symmetry energy",
De-Hua Wen, **W.G. Newton**, and Bao-An Li,
Phys. Rev. C85, 025801
arXiv:1110.5985

2011 "Upper limits on the observational effects of nuclear pasta in neutron stars",
M. Gearheart, **W.G. Newton**, J. Hooker and Bao-An Li,
MNRAS 418, 2343
arXiv:1106.4875

2009 "Constraining the gravitational binding energy of PSR J0737-3039B using terrestrial nuclear data",
**W.G. Newton** and Bao-An Li,
Phys. Rev. C80, 065809
arXiv:0908.1731

2009 "Modeling nuclear "pasta" and the transition to uniform nuclear matter with the 3D Skyrme-Hartree-Fock method at finite temperature: Core-collapse supernovae",
**W.G. Newton** and J.R. Stone,
Phys. Rev. C79, 055801
arXiv:0904.4714

2005 "The double pulsar J0737-3039: Testing the neutron star equation of state",
Ph. Podsiadlowski,J.D.M. Dewi,P. Lesaffre,J.C. Miller,**W.G. Newton**,J.R. Stone,
MNRAS 361, 1243
astro-ph/0506566

2004 "Giant resonances from TDHF",
P.D. Stevenson,M.R. Strayer,J. Rikovska-Stone,**W.G. Newton**,
Int. Journ. Mod. Phys. E13, 181,
nucl-th/0310020

## Book Chapter

2011 "The nuclear symmetry energy, the inner crust, and global neutron star modeling",
**W.G. Newton**, M. Gearheart, J. Hooker, Bao-An Li,
To appear as a chapter in the book "Neutron Star Crust", edited by C. A. Bertulani and J. Piekarewicz
arXiv:1112.2018

## Selected conference proceedings

2012 "Applying the snowplow model for pulsar glitches to constrain nuclear symmetry energy",
J. Hooker, **W.G. Newton**, Bao-An Li
To appear in the NN2012 Proceedings in Journal of Physics: Conference Series (JPCS)

2012 "Constraints on the symmetry energy from neutron star observations",
**W.G. Newton**, M. Gearheart, De-Hua Wen and Bao-An Li
To appear in the NN2012 Proceedings in Journal of Physics: Conference Series (JPCS)
arxiv:1212.4539

2012 "Probing Nuclear Symmetry Energy and its Imprints on Properties of Nuclei, Nuclear Reactions, Neutron Stars and Gravitational Waves",
Bao-An Li, Lie-Wen Chen, F. Fattoyev, **W.G. Newton**, Chang Xu,
A lecture given at the International Summer School for Advanced Studies "Dynamics of Open Nuclear Systems", July 9-20, 2012, Predeal, Romania
arxiv:1212.1178

2012 "Pure Neutron Matter Constraints and Nuclear Symmetry Energy",
F. Fattoyev, **W.G. Newton**, Jun Xu and Bao-An Li,
To appear in the NN2012 Proceedings in Journal of Physics: Conference Series (JPCS)
arxiv:1209.2718

2011 "Imprints of nuclear symmetry energy on properties of neutron stars",
Bao-An Li, Lie-Wen Chen, M. Gearheart, J. Hooker, Che Ming Ko, P.G. Krastev, Wei-Kang Lin, **W.G. Newton**, De-Hua Wen, Chang Xu and Jun Xu,
INPC2010, July 4-9, 2010, Vancouver, Canada
Journal of Physics: Conference Series 312, 042006,
arxiv:1103.4652

2009 "Modeling nuclear pasta and the phase transition to uniform nuclear matter with the 3D-Skyrme-Hartree-Fock method",
**W.G. Newton**,
Proceedings of the 5th Facility of Rare Isotope Beams (FRIB) Workshop on Bulk Nuclear Properties, Michigan State University,
AIP Conf. Proc. 1128, 154,
arxiv:0903.1464

2007 "A new study of the transition to uniform nuclear matter in neutron stars and supernovae",
**W.G. Newton**,
Physics of Particles and Nuclei, 39, 7, 1173,
arXiv:0708.3212

2007 "From microscales to macroscales in 3D: Self-consistent equation of state for supernova and neutron star models",
**W.G. Newton**, J.R. Stone, and A. Mezzacappa,
Journal of Physics: Conference Series 46, 408,
arXiv:0708.3197

2006 "Sub-nuclear matter in neutron stars and supernovae: nuclear pasta and beyond",
**W.G. Newton**,
Proceedings of RAGtime 6/7: Workshop on Black Holes and Neutron Stars,
Editors S. Hledk and Z. Stuchlk, Silesian University in Opava, Czech Republic, ISBN 80-7248-334-X, pp.119

## Presentations

### Invited Talks, Seminars and Colloquia

Oct 2012 "Measuring nuclear interactions at $10^{20}$ paces",
Seminar, Department of Physics, University of Surrey, UK

Mar 2012 "Measuring nuclear interactions at $10^{20}$ paces",
Colloquium, Department of Physics and Astronomy, Texas A&M University-Commerce, USA

Oct 2011 "Why do pulsars glitch?",
Colloquium, Department of Physics and Astronomy, Texas A&M University-Commerce, USA

Oct 2011 "How deep does a pulsar crust go? Using terrestrial experiments to explore the outer layers of a neutron star",
Fall Joint Meeting of APS and AAPT and Zone 13 SPS,
Texas A&M University-Commerce, USA.

Jul 2011 "Inner crust composition and transition densities",
INT Program INT-11-2b:Astrophysical transients: multi-messenger probes ofnuclear physics,
Seattle, USA.

Jul 2011 "Nuclear symmetry energy and neutron stars",
Seminar, Quarks and Hadrons Group, University of Maryland, USA.

Jun 2011 "The neutron star inner crust: symmetry energy dependence of observable properties",
NuSYM11: International symposium on nuclear symmetry energy,
Smith College, USA.

Oct 2010 "The physics and observable consequences of neutron star crust-core boundary",
Seminar, Argonne National Laboratory, USA.

Oct 2010 "The physics and observable consequences of neutron star crust-core boundary",
Seminar, Michigan State University, USA.

Apr 2009 "Nuclear pasta and the transition to uniform nuclear matter",
Seminar, Los Alamos National Laboratory, USA.

Apr 2007 "Complex microscopic structure in neutron stars and supernovae",
Department of Astronomy, University of Central Lancashire, UK

Jan 2007 "Exploring complex microscopic structure in neutron stars and supernovae with 3D Hartree-Fock",
Seminar, Institut de Physique Nuclaire dOrsay, Paris, France.

Feb 2006 "Complex fluids in a neutron star inner crust",
Seminar, Department of Applied Mathematics, University of Southampton, UK.

## Selected Conference Talks

June 2012 "Symmetry energy aspects of neutron star modeling",
Compstar 2012: The physics and astrophysics of compact stars
Tahiti, French Polynesia

May 2012 "Combining terrestrial experiments and neutron star observations to constrain the equation of state of asymmetric nuclear matter",
NN2012
San Antonio, Texas, USA

May 2011 "The neutron star inner crust: upper limits on the observational consequences of nuclear pasta",
Compstar 2011: Gravitational waves and electromagnetic radiation from compact stars,
INFN Catania, Italy.

Aug 2010 "Constraining the gravitational binding energy of PSR J0737-3039B",
Pan American Study Institute on the physics and astrophysics of rare isotopes,
Joao Pessoa, Brazil.

Feb 2009 "Modeling nuclear pasta and the phase transition to uniform matter with Skyrme-Hartree-Fock",
Compstar 2009: The crust of compact stars and beyond,
Universidade de Coimbra, Portugal.

Nov 2008 "Modeling nuclear pasta with Skyrme-Hartree-Fock",
5th FRIB workshop on bulk nuclear properties,
Michigan State University, USA.

Feb 2008 "The transition from homogeneous to inhomogeneous matter in the neutron star crust",
Compstar 2008: The complex physics of neutron stars,
Ladek Zdroj, Portugal.

Sept 2006 "Matter at sub-nuclear densities and the inner crust of neutron stars",
Understanding neutron stars workshop,
University of Alicante, Spain.

Aug 2006 "Sub-nuclear matter in neutron stars and supernovae",
Helmholtz International Summer School: Dense matter in heavy ion collisions and astrophysics,
Dubna, Russia.

Jan 2006 "Sub-nuclear matter in core collapse supernovae",
Workshop on supernovae,
International School for Advanced Studies (SISSA), Trieste, Italy.

Sept 2005 "The structure of the neutron star inner crust",
RAGtime 7: Workshop on black holes and neutron stars,
Opava, Czech Republic.

Aug 2004 "Self-consistent equation of state for hot, dense matter",
Symposium on nuclear equation of state used in astrophysics models,
Philadelphia, Pennsylvania, USA.

## Supervisory Experience

2009-present Texas A&M University-Commerce
Co-supervised two Masters students (one graduated) on projects related to symmetry energy effects on neutron star models; two published papers, two submitted papers and a book chapter have resulted to date.

2007 University of Oxford
Co-supervised Masters student on the project "Equation of State of Proto-Neutron Stars"

## Teaching Experience

2009-present Texas A&M University-Commerce. Courses taught:
Integrated science courses IS351 and IS352 (General science classes for education majors)
Astronomy 102
Physics 561 (Astronomy Problems, graduate level; course developed from scratch)
Physics 595 (Independent research)

2008 Oxford Tutors UK
Tutored high school students in physics and math in preparation for their A-level exams (final high school exams)

2003-2008 University of Oxford: College Tutor
Organized and gave tutorials; set and marked tutorial work and exams.
Courses taught by undergraduate year (out of the four-year course):

1st Mathematical Methods; Electromagnetism; Mechanics; Optics

2nd Mathematical Methods; Quantum Mechanics; Thermodynamics

3rd Condensed Matter Physics; Astrophysics; Special and General Relativity

2000-2002 University of Tennessee: Teaching Assistant,
Gave classes on theoretical aspects of a subject; ran practical labs based on that theory. Set and marked mid-term and final exams.
Courses taught: Third-year undergraduate electromagnetism, Astronomy (course meeting science requirements for non-science students):

## Professional Affiliations

American Physical Society
American Astronomical Society
American Association for the Advancement of Science
National Science Teachers Association
American Association of Physics Teachers

## Other Positions Held

2004-2007 Visiting Student Junior Advisor, St. Edmund Hall, University of Oxford:
Organised welcome and social events for students visiting from abroad; responsible for students welfare during the first few weeks of their visit.

2003-2004 Cover Dean, St. Edmund Hall, University of Oxford:
Responsible for student discipline and welfare on college site.

**Charles H. Rogers**

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Departments of Physics and Computer Science
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## ACADEMIC DEGREES

University of Arkansas, Fayetteville, Arkansas, 1972-1973, Ph.D. in physics, 1973.
University of Arkansas, Fayetteville, Arkansas, 1967-68, M.S. in physics, 1969.
University of Arkansas, Fayetteville, Arkansas, 1962-1966, B.S. in physics 1967.

## PROFESSIONAL EXPERIENCE

Professor of Physics and Computer Science, Texas A&M University-Commerce, Commerce, Texas, 1989-present.
Associate Professor of Physics and Computer Science, East Texas State University, Commerce, Texas, 1980-1989.
Assistant Professor of Physics, Southern Arkansas University, Magnolia, Arkansas 1969-1975.
Instructor of physics, University of Arkansas at Little Rock, Little Rock, Arkansas, 1968-69.

## FACULTY TEACHING LOAD (past five years)

**Spring 2012:**
Digital Logic and Circuitry - Physics 332 and 332 labs - 4 credit hours
Integrated Science - IS-1415 and labs - 4 credit hours
Advanced Microelectronics - Computer Science/Physics 432 - 3 credit hours
Advanced Microelectronics - Computer Science/Physics 552 - 3 credit hours
Advanced Physics Laboratory - Physics 441 - 2 credit hours

**Summer 2012:**
Advanced Microelectronics - Computer Science/Physics 552 - 3 credit hours
Micro Instr and Control - Computer Science 542 - 3 credit hours
College Physics II - Physics 1402 and lab - 4 credit hours
Honors Thesis - Physics 418
Research Lit & Techniques - Physics 595

**Fall 2012:**
Integrated Science I - IS 1415 and labs- 4 credit hours – (two sections taught)
Instrumentation and Control - Physics 492 / CSci 497 - 3 credit hours
Micro Instr and Control - Physics 542 and Computer Science 542 - 3 credit hours

**Spring 2011:**
Digital Logic and Circuitry - Physics 332 and 332 labs - 4 credit hours
Advanced Electricity and Magnetism - Physics 412- 3 credit hours
Advanced Microelectronics – Physics 432 – 3 credit hours

Advanced Microelectronics - Physics 552 - 3 credit hours
Advanced Microcontroller Electronics - Computer Science 552 - 3 credit hours (2 sections of 552)
Advanced Physics Laboratory - Physics 441 - 2 credit hours
Classical Mechanics – Physics 489 – 3 credit hours

**May-Mini 2011**
Physics 597 – Optics – 3 credit hours

**Summer 2011:**
Advanced Optics – Physics 597 – 3 credit hours
Micro Instr and Control - Computer Science 542 - 3 credit hours
College Physics II - Physics 112 and 332 labs - 4 credit hours
Thesis – Physics 519 and Computer Science 518

**Fall 2011:**
Integrated Science I - IS 1415 - 4 credit hours
Instrumentation and Control - Physics 492 / CSci 497 - 3 credit hours
Micro Instr and Control - Physics 542 and Computer Science 542 - 3 credit hours
Advanced Physics Laboratory - Physics 441 - 2 credit hours

**Spring 2010:**
Digital Logic and Circuitry - Physics 332 and 332 labs - 4 credit hours
Advanced Mechanics - Physics 411 - 3 credit hours
Advanced Microelectronics - Physics 552 - 3 credit hours
Advanced Microcontroller Electronics - Computer Science 552 - 3 credit hours (2 sections of 552)
Advanced Physics Laboratory - Physics 441 - 2 credit hours

**Summer 2010:**
College Physics II - Physics 112 and 332 labs - 4 credit hours
Theses – Physics 519 and Computer Science 518

**Fall 2010:**
Wave Motion, Acoustics, and Optics - Physics 333 and 333 Lab - 4 credit hours
Instrumentation and Control - Physics 492 / CSci 497 - 3 credit hours
Micro Instrumentation and Control -
Physics 542 and Computer Science 542 - 3 credit hours (2 sections total)
Advanced Physics Laboratory - Physics 441 - 2 credit hours
Theses - CSci 518 and Honors 418

**Fall 2009:**
Instrumentation and Control - Physics 492 – 3 credit hours
Micro Instrumentation and Control - Physics 542 and Computer Science 542 – 3 credit hours (3 sections total)
Theoretical Mechanics – Physics 511 – 3 credit hours

**Spring 2009:**
Digital Logic and Circuitry - Physics 332 and 332 labs – 4 credit hours
Optics – Physics 430 – 3 credit hours

Advanced Microelectronics - Physics 552 – 3 credit hours
Advanced Microcontroller Electronics - Computer Science 552 – 3 credit hours (2 sections of 552)
Advanced Physics Laboratory – Physics 441 – 2 credit hours

**Summer 2009:**
Parallel Computing - Physics 489, Physics 572, and Computer Science 572 – 3 credit hours
GPU Processing – Computer Science 589 – 3 credit hours
Thesis – Physics 518

**Fall 2009:**
Instrumentation and Control - Physics 492 – 3 credit hours
Micro Instrumentation and Control - Physics 542 and Computer Science 542 – 3 credit hours (3 sections total)
Theoretical Mechanics – Physics 511 – 3 credit hours

## SERVICE ACTIVITIES

Serving as the Physics Undergraduate Student Advisor
Served as a departmental instructor on the Project STEEM.
Served as chair or as a member of student thesis/dissertation committees
Served on the new Department of Physics Head selection committee.
Chair or member of faculty promotion committees.
Played a key role in the development of the advanced physics laboratory for upper-level undergraduates.
Submitted HEF funds request for Advanced Lab, Electronics Labs, and Signal and Systems Lab.
Served as departmental representative on the Operation Spark wind tunnel project.
Provided aerial photographs of the recent changes to the university campus including the new science building.
Consulting with our faculty and local and area businesses.
Relocation of the department to the new science building required many meetings within the department and with facility personnel. Selecting and ordering new equipment for this move also required considerable effort. Moving my office, research laboratory and teaching laboratories to the new science building and preparing for the building dedication ceremonies.
Member of the University Studies Committee
Member of the University Hearing Committee
Member of the Science Building Committee
Developed a new course in astrophotography.
Provided campus aerial photographs to the TAMU-C Office of Planning and Institutional Effectiveness for inclusion with federal grant applications from this campus.
Participated as cinematographer at the Dallas Technological Exposition, Dallas Convention Center.
Participated as cinematographer at the Winston Science Events at Fair Park in Dallas.
Promoted astronomical education by hosting local observation sessions for the total lunar eclipse and the annual/special meteor displays.
Consulted on a meteorite search near Paris, Texas.

Recognized by the Greenville Christian School for assisting in a GalileoTower of Piza experiment with the science students.
Continued working on HP-UX and Linux X-applications.
Continued development of networking applications on microcomputer running various operating systems.
Member of the University's Academic Computing Advisory Committee
Continued consulting activity with the public and area businesses.
Sponsored a trip to UNT to participate in NSF funded program for advanced laboratory experiments for the physics 441 class.
Regional Science Fair Judge, Kilgore Junior College.
Member of Student Grievance Hearing Committee appointed by the Dean of Arts & Sciences.
University representative to a joint committee studying potential educational opportunities between E-Systems and the Texas A&M System.
Chairman of the Faculty Senate's Academic Practice Committee.
Member of the Academic Computing Advisory Committee.
Member of the University Studies Committee beginning in 1981.
Member of the University Computer Resources Planning Committee.
Served as a member of Faculty Senate.
Served as a member of Presidential Inaugural Forum Committee
Member of Graduate Council's Committee on Graduate Faculty, Research and Instruction.
Provided continuous scientific and technical consultation with area public schools and industry.
Assisted many faculty members and their students in technical matters related to microcomputer and associated hardware, software, and interfacing for applications in teaching and research.
Member of the Departmental Computer Resources Planning Committee.
Served as a judge at local, regional, and international science fairs and have supported many local student participants in their research activities.
Served as past sponsor of the Society of Physics Students and Sigma Pi Sigma - Physics Honor Society faculty sponsor.
Constructed a new poster presentation for the department.
Developed new lecture demonstrations
Performed image processing for students and faculty.
Promoted astronomical events for students and the public.
Member of the College of Arts and Sciences' University Reorganization Committee
Member of the college Tenure and Promotion Committee
Member of SACS Compliance Committee
Treasurer for TAMU-Commerce Sigma Xi chapter.

**PROFESSIONAL ASSOCIATION MEMBERSHIPS**

American Association of Physics Teachers.
Institute of Electrical and Electronics Engineers
American Society for Engineering Education

**PROFESSIONAL ASSIGNMENTS, ACTIVITIES (NON TEACHING)**

Design and fabrication team member for a $75K high vacuum thin film deposition system.
Design and fabrication team member for a laboratory cleanroom.
Advisor/mentor for four REU projects.
Acquired stabilized lasers and fiber optic positioners worth $30k with HEF funds.
Acquired a $100K class robotic system from Texas Instruments and the Science Place.
Participated in several research projects pertaining to speech waveform analysis, speech recognition, speech enhancement, and the development of high quality low bit-rate speech data compression algorithms and including speech quality testing. Work has been funded through E-Systems, and is a team effort involving three colleagues and numerous undergraduate and graduate students. This group has also developed several new fast algorithms and special digital signal processing systems. Present interests center on the development of new methods for characterizing speech signals for use in detecting fundamental perceptual information.,
Research of two topics in communication for E-Systems. These were (1) low angle electromagnetic propagation in the atmosphere and its dependence on meteorological hydrometers, and (2) secure spread spectrum communication techniques. Both areas are expected to be of increasing importance for future microwave and laser communication systems.
Participated in E-Systems research on theory and signal processing applications for several of the neural network models.
Started campus research group on (1) of vector subspace direction finding algorithms and (2) high resolution spectral analysis for infrared spectroscopy.
Recent research conducted in neural network processing of speech and vision signals. Presently in the process of developing algorithms for pre-processing signals for neural network input and neural networks capable of recognizing temporal patterns and enhancing speech signals.
Principal/Co-Investigator to (1) four research projects within academic institutions (2) four research projects for industry, and (3) eight industrially sponsored academic research projects. These have received total funding of approximately $500,000.
Advanced lab class activity at UNT's accelerator laboratory.
NSF ILI grant ($100k including federal, state, and industrial matching monies) submitted and funded for the physics advanced undergraduate laboratory.
Attended a NSF grant writing workshop in Washington DC.
Set up Web server and published first web page.
PVDF material grant donated for an electret project.
$500 semiconductor devices grant from Dallas Semiconductor.
$2,000 power supply denoted from Texas Instruments & the Science Place for a robotic mechanism
RF components denoted by a Dallas-based telecommunications industry for use in an array of microwave receivers for radio astronomy.
Industry matching grant submitted to Micron to support NSF-ILI grant.
Device grant from Analog Devices for MEM sensors, electrometers, ADCs, IF-Detectors.
Device grant from Motorola for MEM sensors.
Device grant from ZMD funded.
Device grant from Tech-Tools funded.
FEM code written for digitizing surfaces.
MEMS sensor applications with RISC microcontrollers.
Workshop on PLD applications and VHDL coding.
$10,000 equipment grant of AMD Athlon processors for a supercomputing cluster project.

$5,000 equipment grant from Agilent Technologies (formerly HP) to supplement the new oscilloscopes.
$8,000 Organized Research Grant (ORG) from A&M-Commerce Graduate School.
$15,000 equipment grant from Northrop-Grumman Electro-Optical Systems to support the above ORG.
Co-Investigator for a Texas A&M University – Regents Initiative grant.
Equipment Request for Electronics Instruction with the Junior Colleges written for computer science.
Co-Investigator for a $10,000 Toyota Tapestry grant to CPISD.

**PUBLICATIONS**

"A Michelson-Morley Experiment for the Advanced Physics Lab" by Charles Rogers and Richard Selvaggi, The National Conference on the Advanced Laboratory, University of Michigan, July 2009.

"An Eye in the Sky" presented with Jan Elmore at NSTA National Convention in Dallas, March 31, 2005.

"Major Martian Dust Storm Images" with Joe Bockemehl published in MarsWatch – David Klassen editor of the 2005-2006 Apparition of Mars, October 28, 2005.

KAP photograph of the campus for the 2005 graduate catalog cover.

An article entitled "Kite-Borne RC Photography" describing my KAP system was published in Fly RC Magazine, July 2004.

Article on my KAP efforts by the A&M System, Texas

Another article on my KAP activities in the A&M-Commerce Pride

Photographs and text for an exhibit on the exploration of Blanchard Caverns, OIRM August 2003.

Photographs in "Special Report: 2001 Leonid Meteor Shower" published by the Space Holding Corporation, December 2001.

NSF invited paper reporting data acquisition techniques at the national ASEE meeting in St. Louis, June 2000.

Provided field data and assistance for the AllTopoMaps GPS accuracy and Datum Shift report in July 2000.

Annual report to NSF for the ILI grant in June 1999.

Astronomical images of comet Hale-Bopp published on NASA's website spring 1997.

High Resolution Spectral Analysis presentation and paper in the proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing, Detroit, Michigan, 1995.

"Adaptive Analysis of Interferograms using a Neural Network and LMS", presentation and paper with PD. Young, E-Systems, Greenville Division, in Proceedings of the Thirteenth Ideas in Science and Electronics, pp 163-171, 1991.

"Self-Organization by Artificial Neural Networks", presentation at the NSF Chautauqua Short Course on Self-Organization, University of Texas at Austin, March, 1990.

"Application of the Computer printer Port for the Acquisition of Laboratory Data" presentation with R. Neal at the APS/AAPT/SPS joint fall meeting in San Antonio, October 1989.

"Neural Network Enhancement for a Two Speech Separation System", (including spatio-temporal processing) presentation and paper on the work in progress with D. Chien, M. Featherston, and K. S. Min published for the proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, Glasgow, UK, May 1989.

"Speech Separation with Artificial Neural Networks", presentation and paper with D. Featherston, and K.S. Min, in International Neural Network Society's Neural Networks, 1. S1, p.294, September 1988. (an extended abstract published in this journal for our poster presentation).

"Hardware Implementation of an Artificial Neural Network" paper with R.A. McClain and W.J.B. Oldham in the proceedings of the conference of the Society of Photo-Optical Instrumentation, Los Angeles, January 1988.

"Isolated Word Recognition with an Artificial Neural Network", presentation and paper with W.J.B. Oldham for the Education National Conference. Appears in ASE Conference Proceedings, 5, pp. 2045-2055, Portland, June 1988, (editors: L.P. Grayson and J.M. Biedenbach).

"A Fast Triangular Transform and Its Applications", K.S. Min, J. Carlisle, B. M. Doughty, C.E. Jones, and C. H. Rogers, IEEE International Conference on Acoustics, Speech, and Signal Processing – Dallas, Conference, Proceedings, 3, pp. 1811-1814, April, 1987 (editor: P.E. Papamichalis).

"Isolated Word Recognition with an Artificial Neural Network", C. H. Rogers, and W. J. B. Oldham, IEEE International Conference on Neural Networks – San Diego, Conference Proceedings, 4, pp. 435-443, June 1987 (editors: M. Caudill and C. Bulter).

Digital Speech Storage, Compression, and Synthesis – co-author with C.E. Jones, B.M. Doughty, and K.S. Min on monthly and annual reports for sub-contract research projects funded by E-Systems Greenville Division. These are as follows:

1. Technical Report Number 7901-ARXX, 1983.
2. Technical Report Number 7901-ARXX, 1984.
3. Technical Report Number 7902-DRRG, 1985.
4. Technical Report Number 7902-DRRG, 1986.
5. Technical Report Number 7902-DRRG, 1987.
6. Technical Report Number 7901-Multiple 1988.
7. Technical Report Number 7902-DCCB, 1989.

8. Technical Report Number 7902-DCCB, 1990.

"Multiple Signal Classification Techniques for a Specialized Antennae Array", presentation at E-Systems Garland Division, August 1990.

Speech Word Recognition with a Neural Network, IR&D Technical Report No. G3864.1401B, 160 pages, E-Systems Greenville Division, February 1987.

The Stimulated Annealing Technique with Applications to the Optimal Design of Electronic Circuits and Neural Networks, IR&D Technical Report No. G6012.00.07, 155 pages, E-Systems Greenville Division, June 1986.

Air Quality Monitoring of an Industrialized Community in Southwest Arkansas, C.H. Rogers and H. Johnson, Title I Project Report No. 75-018-008, 1975.

The Structural Determination of Simple Molecular Liquids, Doctoral Dissertation, University of Arkansas, 1972.

**PAPERS PRESENTED**

"Optical Foucault Pendulum" with Dr. Richard Selveggi Fall Joint APS/AAPT/SPS Meeting at Texas Tech University, Lubbock, Texas, October 2012

"Mapping the Double-slit Diffraction Pattern" with Richard Selvaggi, and Clay Richardson, Fall Joint APS/AAPT/SPS Meeting at the University of Texas at San Antonio, October 2010

"A Reconfigurable Stepping Motor" by Charles Rogers and Richard Selvaggi, Texas Section Joint AIP-AAPT-SPS meeting, Tarleton State University, Stephenville, TX, April 2009.

"Replicating the Michelson-Morley Experiment" by Charles Rogers and Richard Selvaggi, Texas Section Joint AIP-AAPT-SPS meeting, Texas State University, San Marcos, TX, October 2009.

"3D Animation of Frenel's Equations" a presentation by my optics class of the first python animation of Fresnel's laws of reflection with an interactive graphical user interface at the at the Texas Section Joint AIP-AAPT-SPS meeting, Tarleton State University, April 2009. This presentation was awarded a monetary prize for a best paper.

Poster paper on robotic mechanisms presented with Hao-Liang Chen at the Texas Section Joint AIP-AAPT-SPS meeting at Tarleton State University, April 2009

"A Mathematical Model to Derive the Lorentz Factor, Zero Velocity, and Length Contraction (Finding a Privileged Reference Point)" with Richard Selvaggi at the Fall Joint Meeting of the Texas Sections of the AAPT and APS, Texas A&M University, October 2007.

"Using Zero Velocity to Explain the Michelson-Morley and 2007 Rogers-Selvaggi-Chen Experiment" with Richard Selvaggi at the Fall Joint Meeting of the Texas Sections of the AAPT and APS, Texas A&M University, October 2007.

“A One-way Light Beam Experiment” with Richard Selvaggi and Hao-Liang Chen at the Fall Joint Meeting of the Texas Sections of the AAPT and APS, Texas A&M University, October 2007.

A paper entitled “A Mobile Robot for Embedded System Instruction” presented at the Texas Region APS/AAPT/SPS meeting at Stephenville, April 2004.

A paper entitled “A New Linear Actuator” was presented at the Texas Region APS/AAPT/SPS meeting at Southwest Texas State University, March 2003.

A paper entitled “Surveying Sunsets” was presented at the Texas Region APS/AAPT/SPS meeting at Southwest State Texas University, March 2003.

A paper on a three-axis numerically controller router with Michael Carew, Chris Salch, Charles Smith, and Lucaci Vaczlavik at the Texas Region APS/AAPT/SPS meeting at SFAU, March 2002.

A new remote control system for aerial observations. Several versions of this work presented in local newspapers, two regional television broadcasts, an A&M-Commerce website news article, the Winter 2002 issue A&M-C Pride, the Nov-Dec issue of the A&M System newsletter, the December 2002 Board of Regents meeting, and the Signal and Systems Laboratory website.

Contributed Campus and Dallas photographs for the Graduate School’s new Website spring 2003.

Stereoscopic digital video observational data for the 2002 Leonid Meteor Storm collected and was the subject of the winning poster presentation at the spring 2003 Sigma Xi Research Forum.

A paper on a 21-node Beowulf Cluster with Chris Salch at the Texas Region APS/AAPT/SPS meeting in Fort Worth, October 2001.

Presentation of a 21-node Beowulf Cluster with Chris Salch at the Raytheon-Greenville Division, November 2001.

Press release with considerable interest published on the web, regional newspapers, and A&M System newsletter on a parallel computer constructed in the summer of 2001.

A paper on thermal diffusion in solids with Dinh Truong at the Texas Region AAPT/SPS meeting in Tyler, March, 1999.

A paper on MCA design with a DAQ1200 card with Andrew Wolverton at the Texas Region AAPT/SPS meeting in Tyler, March, 1999.

A paper on advanced laboratory design at the Texas Region AAPT/SPS meeting in Tyler March, 1999.

A paper on embedded computing with NI’s LabVIEW at the national AAPT summer meeting in San Antonio, August, 1999.

A paper on the theory of thermal diffusion in solids with Richard Martin at the TAMU-Commerce Sigma Xi Fifth Research Forum, April 1998.

A paper on the experimental measurement of thermal diffusion in solids with Aaron George and Dinh Truong at the TAMU-Commerce Sigma Xi Fifth Research Forum, April 1998.

A paper on instrumentation and control with Abidin Yildirim at the TAMU-Commerce Sigma Xi Fifth Research Forum, April 1998 which won top paper of the forum. This work helped Mr. Yildirim gain full-time employment in instrumentation and control, and later to enter the Ph.D. program at the University of Alabama.

A paper presented on campus with Richard Goodrich on the design of the multichannel digitizer for the rootop array radio-telescope not reported last year.

A paper on a new process for tri-color imaging with Richard Martin and John Yarborough at 1996 Fall Joint APS/AAPT/SPS meeting held at UNT, October 1997.

A paper on design of a rooftop array radio-telescope with Darin McIntier, Steve Dotson, and the Physics 418 class at 1996 Fall Joint APS/AAPT/SPS meeting held at UNT, October 1997.

A paper in signal processing presented with Casey Qualls, Graduate Assistant at 1996 Fall Joint APS/AAPT meeting held at UNT Arlington, October 1996. The paper was judged top paper of the meeting. The version of this paper was also presented for a local physics seminar in November 1996.

An abstract for a paper in signal processing was submitted with Kenneth Hunt, Graduate Assistant, for the Fall Joint APS/AAPT, UT Arlington in October 1996.

“Cold Nuclear Fusion Prospects” presentation given to Greenville Rotary Club luncheon, April, 1989. “Speech Separation with Artificial Neural Networks”, an expanded version of the presentation given at INN Boston in September 1988. Given with K.S. Min to the Speech Steering Committee, E-Systems, Greenville Division, November 1988.

“A Fast Triangular Transform and Its Applications” presented with K.S. Min, J. Carlisle, B.M. Doughty, and C.E. Jones, IEEE ICASSP, April 1987.

“Isolated Word Recognition with an Artificial Neural Network” presented with W.J.B. Oldham, IEEE, CNN, June 1987 and also to the E-Systems Corporate IR&D, July 1987.

“Constructing a 32-bit Workstation for Scientific Computing” presented with B.M. Doughty,C.E. Jones, and K.S. Min, AIP Texas Section spring meeting, UTD, March 1986.

“A transportable TMS-32010 Signal Processing System” presented with K.S. Min, S. Speier, and J. Whitson, IEEE ICASSP, Martch 1985.

“Modeling Neural Networks” presented with W.J.B. Oldham, AIP Texas Section, Texas A&M University, November, 1985.

“Design and Construction of a Signal Averager for Applications in Surface Science Spectroscopy”, presented with B.J. Wang and D.R. Chopra, AIP Texas Section Fall Meeting, TAMU, November 1985.

“Correlation of Objective Quality Measures to Subjective Intelligibility of Processed Speech” presented with C.E. Jones, B.M. Doughty, and K.S. Min, AIP Texas Section fall meeting, November 1985.

“The Application of Orthogonal Transforms to the Compression of Speech Signals”, presented with J.A. Carlisle, K.S. Min, B.M. Doughty, and C.E. Jones, AIP Texas Section Fall Meeting, 1985.

“Objective Speech Quality Measurements” presented with B.M. Doughty, C.E. Jones, and K.S. Min, AIP Texas Section spring meeting, San Antonio, Texas, January 1984.

“Development of a Digital Speech Processing System” presented with B.M. Doughty,C.E. Jones, and K.S. Min, American Physical Society, Texas Section fall meeting, Denton, Texas, November 1983.

“A Case Study of an Industrially Sponsored Academic Research Project” presented with C.E. Jones, B.M. Doughty, and K.S. Min, AIP Texas Section fall meeting, NTSU, November 1983.

“Interfacing Microcomputers” several seminars presented to groups at East Texas State University, Stephen F. Austin University, and Lone Star Steel Incorporated, 1980-82.

“Data Acquisition with Microcomputers” National AAPT Summer Meeting, Las Cruces, New Mexico, June 1979.

**HONORS AND AWARDS RECEIVED**

Eagle Scout and Vigil Honor from the Order of the Arrow as an Explorer Scout of America
Pi Mu Epsilon, Mathematics Honor Society
Sigma Pi Sigma, Physics Honor Society
Sigma Xi, Scientific Research Society
Phi Delta Kappa, Professional Society in Education
National Teaching Fellow, a federal award for college teaching
Recognition as a pioneering cave explorer of Blanchard Springs Caverns, August 2003

**Dr. Kurtis A. Williams**
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(903) 886-5516
kurtis.williams@tamuc.edu

## Education

University of California Santa Cruz, Santa Cruz, CA
Ph.D., 2002, Astronomy & Astrophysics
M.S., 1999, Astronomy & Astrophysics

The Pennsylvania State University, University Park, PA
B.S., 1996, with highest distinction and Honors, Astronomy & Astrophysics
B.S., 1996, with highest distinction, Physics

## Employment

| | |
|---|---|
| 2010–present | Assistant Professor, Texas A&M Univ. – Commerce, Commerce, TX |
| 2009–2010 | Postdoctoral Researcher, Univ. of Texas, Austin, TX |
| 2006–2009 | NSF Postdoctoral Fellow, Univ. of Texas, Austin, TX |
| 2003–2006 | Research Associate, Steward Observatory, Tucson, AZ<br>Supervisor: Prof. Ann Zabludoff |

## Grants

*Awarded:*

| | | |
|---|---|---|
| 2012–2013 | Texas Space Grant Consortium (PI)<br>*Development of an On-Line Introductory Astronomy Course* | $13k |
| 2011–2013 | GALEX Cycle 6 GI Program (PI)<br>*Time Series Observations of the Mysterious Carbon Atmosphere White Dwarfs* | $65k |
| 2008–2010 | HST Cycle 16 E/PO HST16-456 (PI)<br>*White Dwarfs in the Open Star Cluster NGC 188:*<br>*A Professional Development Experience for Teachers* | $20k |
| 2007–2010 | HST Cycle 16 Program GO-11141 (PI)<br>*White Dwarfs in the Open Star Cluster NGC 188* | $133k |
| 2006–2009 | NSF Postdoctoral Fellowship AST-0602288 (PI)<br>*A Large, Homogeneous Open Cluster White Dwarf Sample* | $201k |
| 2003–2008 | NSF 3-Year Award AST-0307492 (CoI)<br>*White dwarfs in open clusters* | $195k |

## Research In Progress

- Determining the mass dividing stars that form white dwarfs and stars that go supernove
- Measuring the age spread of white dwarfs in the Galactic thick disk and halo
- Exploring the unknown origins of white dwarfs with carbon atmospheres
- Characterizing the environments of strong gravitational lenses

## Awards & Fellowships

| | | |
|---|---|---|
| 2006–2009 | NSF Astronomy & Astrophysics Postdoctoral Fellowship | 3-year fellowship |
| 2005 | Steward Observatory Lucas Award | $5000 research grant |
| 2000–2001 | ARCS Foundation Scholarship | $10,000 graduate fellowship |
| 1999 | Albert P. Whitford Prize | 2nd-year graduate student award |
| 1997–2000 | NSF Graduate Research Fellowship | |
| 1996–1997 | Fulbright Fellowship | Ludwig-Maximilians-Universität Munich, Germany |

## Related Activities

2012 Invited Speaker, *18th European Workshop on White Dwarfs*
2011 Participant, *AAPT Workshop For New Physics and Astronomy Faculty*
2011 Participant, Training, *CAE/CATS Astro 101 Teaching Excellence Workshop, Tier 1*
2010 Participant, *Building Astronomy in Texas Symposium*
2010 Speaker, *17th European Workshop on White Dwarfs*
2009 Invited Speaker, KITP Conference, *Stellar Death and Supernovae*
2008 Invited Keynote Speaker, Royal Astronomical Society Specialist Discussion, *Super-AGB Stars and the Fine Line Between White Dwarf or Supernova*
2007 Co-chair, 2008 NSF Astronomy & Astrophysics Postdoctoral Fellows Symposium
2007 Co-chair, SOC, *New Horizons in Astronomy: Frank N. Bash Symposium 2007*
2007 Invited Speaker, KITP Conference, "Paths to Exploding Stars"

## Teaching Experience

| *Semester* | *Course Number & Title* | *Enrollment* |
|---|---|---|
| Fall 2012 | Astr 1411: *Astronomy of the Solar System* | 80 |
| | Astr 1412: *Stars and the Universe* | 58 |
| | Astr 1412W: *Stars and the Universe Online* | 38 |
| Spring 2012 | Astr 337: *Introduction to Astrophysics* | 15 |
| | Astr 1412: *Stars and the Universe* | 80 |
| | Phys 201: *Problem Solving in Mechanics* | 11 |
| | Phys 2425: *University Physics I* | 33 |
| Fall 2011 | Astr 1412: *Stars and the Universe* | 75 |

*Continued on next page*

| *Semester* | *Course Number & Title* | *Enrollment* |
|---|---|---|
| | Phys 201: *Problem Solving in Mechanics* | 21 |
| | Phys 2425: *University Physics I* | 56 |
| Spring 2011 | Astr 1412: *Stars and the Universe* | 74 |
| | Astr 337: *Introduction to Astrophysics* | 13 |
| Fall 2010 | Astr 1412: *Stars and the Universe* | 55 |
| | Phys 201: *Problem Solving in Mechanics* | 11 |
| | Phys 2425: *University Physics I* | 37 |
| Summer 2007 | Ast w293G: *Graduate Observing Techniques in Astronomy* | 10 |

## Other Educational and Public Outreach Activities

| | |
|---|---|
| 2004–present | Creator and manager, "Professor Astronomy" website `http://blog.professorastronomy.com` |
| 2004–present | Contributor, "Ask Astro" column, Astronomy magazine |
| 2009 | Co-coordinator, UT Library International Year of Astronomy Celebration |
| 2009 | Invited Speaker, McDonald Observatory Board of Visitors Meeting |
| 2006–2009 | Co-coordinator/Facilitator, "White Dwarfs and the Age of the Galaxy Teacher Development Workshop" at McDonald Observatory |
| 2006 | Lecturer, Steward Observatory Public Evening Lecture Series |

## Service Activities

*Professional & University Service*

| | |
|---|---|
| 2010–present | Advisor, Society for Physics Students |
| 2012 | Member, A&M-Commerce Faculty Credential Committee |
| 2012 | Member, Physics & Astronomy Faculty Search Committee A&M-Commerce |
| 2012 | Judge, Chambliss Award, Winter Meeting of the American Astronomical Society |
| 2011 | Session Chair, Fall Meeting of the Texas Section of the American Physical Society |
| 2011 | Department Representative for Mane Event |
| 2008 | Review Panel Member, GALEX GR4 Panel Review |
| 2003–present | Peer Reviewer for numerous articles in the Astrophysical Journal, Astronomical Journal, Astronomy & Astrophysics, and Monthly Notices of the Royal Astronomical Society |
| 1997–present | Member, American Astronomical Society |

*Student Advising*

| | |
|---|---|
| 2011 – 2013 | Honors Thesis Committee, Andrew Dahir, *Interstellar Navigation With Pulsar Timing* |
| 2012 | Advisor, Research Experience for Undergraduates, Misa Fioretto & Kevin Schultes |
| 2011 – 2012 | Undergraduate Student Research Advisor, Caitlin Jayroe, *White Dwarfs in Southern Hemisphere Open Clusters* |
| 2011 | Advisor, Research Experience for Undergraduates, Michael Bierwagon & Joshua Crittenden |
| 2010 – 2012 | Graduate Student Rick Navarro, Thesis Topic: Modeling White Dwarf Luminosity Functions |

**Refereed Publications**

1. "Photometric variability in a warm, strongly magnetic DQ white dwarf, SDSS J103655.39+652252.2," **Williams, Kurtis A.** et al. 2013, submitted to the Astrophysical Journal
2. "Time-resolved Spectroscopy of the Polar EU Cancri in the Open Cluster Messier 67," **Williams, Kurtis A.** et al. 2013, submitted to the Astronomical Journal
3. "A Gravitational Redshift Determination of the Mean Mass of White Dwarfs: DBA and DB Stars," Falcon, R. E., Winget, D. E., Montgomery, M. H., & **Williams, Kurtis A.** 2012, The Astrophysical Journal, 757, 116
4. "Further investigation of white dwarfs in the open clusters NGC 2287 and NGC 3532," Dobbie, P.D. et al. (**Williams, K. A.** as 3rd author) 2012, Monthly Notices of the Royal Astronomical Society, 423, 2815–2828
5. "Discovery of a ZZ Ceti in the Kepler Mission Field", Hermes, J. J., et al (**Williams, Kurtis A.** as 4th Author), 2011, The Astrophysical Journal, 741, L16
6. "The Effect of Environment on Shear in Strong Gravitational Lenses", Wong, K. C., Keeton, C. R., **Williams, Kurtis A.**, Momcheva, I. G., and Zabludoff, A. I. 2011, The Astrophysical Journal, 726, 84
7. "A Detailed Model Atmosphere Analysis of Cool White Dwarfs in the Sloan Digital Sky Survey", Kilic, M., et al. (**Williams, Kurtis A.** as 8th author) 2010, Astrophysical Journal Supplements, 190, 77
8. "Discovery of a Nova-Like Variable Star in the Kepler Mission Field", **Williams, Kurtis A.**, et al. 2010, The Astronomical Journal, 139, 2587
9. "Discovery of a GeV blazar shining through the Galactic plane", Vandenbroucke, J., et al. (**Williams, Kurtis A.** as 22nd author), 2010, The Astrophysical Journal, 718, L166
10. "Visitors fromt the Halo: 11 Gyr old White Dwarfs in the Solar Neighborhood", Kilic, M., Munn, J. A., **Williams, Kurtis A.**, et al. 2010, The Astrophysical Journal, 715, L21
11. "The Mean Mass of White Dwarfs From Gravitational Redshift", Falcon, R. E., Winget, D. E., Montgomery, M. H., & **Williams, Kurtis A.** 2010, The Astrophysical Journal, 712, 585
12. "Probing the Lower Mass Limit for Supernova Progenitors and the High-Mass End of the Initial-Final Mass Relation from White Dwarfs in the Open Cluster M35 (NGC 2168)", **Williams, Kurtis A.**, Bolte, M., & Koester, D. 2009, The Astrophysical Journal, 693, 355
13. "A new detailed examination of white dwarfs in NGC 3532 and NGC 2287", Dobbie, P. D., et al. (**Williams, K. A.** as 4th author) 2009, MNRAS, 395, 2248
14. "The Physics of Crystallization From Globular Cluster White Dwarf Stars in NGC 6397", Winget, D. E., et al. (**Williams, Kurtis A.** as 7th author) 2009, The Astrophysical Journal Letters, 693, L6
15. "SDSS J142625.71+575218.3: The First Pulsating White Dwarf with a Large Detectable Magnetic Field," Dufour, P., Fontaine, G., Liebert, James, **Williams, Kurtis**, and Lai, David K. 2008, The Astrophysical Journal Letters, 683, 167

16. "The White Dwarf Population in NGC 1039 (M34)," Rubin, Kate H. R., **Williams, Kurtis A.**, Bolte, M., & Koester, Detlev 2008, The Astronomical Journal, 135, 2163

17. "SDSS J142625.71+575218.3, a Prototype for a New Class of Variable White Dwarf," Montgomery, M. H., **Williams, Kurtis A.**, Winget, D. E., Dufour, P., DeGennaro, S., & Liebert, J. 2008, The Astrophysical Journal Letters, 678, 51

18. "A Photometric and Spectroscopic Search for White Dwarfs in the Open Clusters NGC 6633 and NGC 7063," **Williams, Kurtis A.**, & Bolte, Michael 2007, The Astronomical Journal, 133, 1490

19. "Oph 1622−2405: Not a Planetary-Mass Binary," Luhman, K. L., et al. (**Williams, K. A.** as 5th author) 2007, The Astrophysical Journal, 659, 1629

20. "The Pre-Cataclysmic Binary HS 1136+6646 May Have a Companion," Liebert, James, **Williams, Kurtis A.**, Holberg, J. B., & Sing, D. K. 2006, Publications of the Astronomical Society of the Pacific, 118, 1528

21. "First Results From a Photometric Survey of Strong Gravitational Lens Environments," **Williams, Kurtis A.**, Momcheva, Ivelina, Keeton, Charles R., Zabludoff, Ann I., & Lehár, J. 2006, The Astrophysical Journal, 646, 85 (Erratum: 2008, The Astrophysical Journal, 672, 733)

22. "A Hot DQ White Dwarf in the Open Star Cluster M35," **Williams, Kurtis A.**, Liebert, James, Bolte, Michael, & Hanson, Robert B. 2006, The Astrophysical Journal Letters, 643, L127

23. "A Spectroscopic Study of the Environments of Gravitational Lens Galaxies," Momcheva, Ivelina, **Williams, Kurtis A.**, Keeton, Charles R., & Zabludoff, Ann I. 2006, The Astrophysical Journal, 641, 169

24. "The White Dwarf Luminosity Function from SDSS Imaging Data," Harris, Hugh C., et al. (**Williams, Kurtis A.** as 5th author) 2006, The Astronomical Journal, 131, 571

25. "Cool White Dwarfs in the Sloan Digital Sky Survey," Kilic, Mukremin, et al. (**Williams, Kurtis A.** as 6th author) 2006, The Astronomical Journal, 131, 582

26. "The Age and Progenitor Mass of Sirius B," Liebert, James, Young, Patrick A., Arnett, David, Holberg, J. B., & **Williams, Kurtis A.** 2005, The Astrophysical Journal Letters, 630, L69

27. "The Open-Cluster Initial-Final Mass Relationship and the High-Mass Tail of the White Dwarf Distribution," Ferrario, Lilia, Wickramasinghe, Dayal, Liebert, James, & **Williams, Kurtis A.** 2005, Monthly Notices of the Royal Astronomical Society, 361, 1131

28. "An Empirical Initial-Final Mass Relation From Hot, Massive White Dwarfs in NGC 2168," **Williams, Kurtis A.**, Bolte, M., & Koester, Detlev 2004, The Astrophysical Journal Letters, 615, L49

29. "Spectroscopic Identification of Faint White Dwarf Candidates in the Praesepe Open Star Cluster," **Williams, Kurtis A.**, Liebert, James W., & Bolte, Michael 2004, The Astronomical Journal, 128, 1784

30. "The Impact of Unresolved Binaries on Searches for White Dwarfs in Open Clusters," **Williams, Kurtis A.** 2004, The Astrophysical Journal, 601, 1067

31. "The White Dwarf Deficit in Open Clusters: Dynamical Proceses," Fellhauer, M., Lin, D. N. C., Bolte, M., Aarseth, S. J., & **Williams, K. A.** 2003, The Astrophysical Journal, 595, 53

32. "Determination of the Dark Matter Profile of A2199 From Integrated Starlight," Kelson, D., Zabludoff, A., **Williams, K. A.**, Trager, S. C., Mulchaey, J. S., & Bolte, M. 2002, The Astrophysical Journal, 576, 720

33. "Serendipitous Discovery of a Cluster of Galaxies with a Peculiar Central Galaxy," **Williams, K. A.** 2001, The Astronomical Journal, 122, 55

34. "The Velocity Function of Galaxies," Gonzalez, A. H., **Williams, K. A.**, Bullock, J. S., Kolatt, T. S., & Primack, J. R. 2000, The Astrophysical Journal, 528, 145

35. "The Large-Scale Diffuse X-ray Emission Surrounding Quasars: An Investigation Using the Scaling-Index Method," **Williams, K. A.**, Brinkmann, W., & Wiedenmann, G. 1998, Astronomy & Astrophysics, 340, 343

**Selected Non-Refereed Publications**

1. "Lessons Learned from the 'Age of the Milky Way' Teacher Professional Development Workshop Evaluation," Hemenway, M. K. et al. (**Williams, K.** as 6th author) 2012, ASP Conference Series Volume 431: Science Education and Outreach, 431, 160

2. "White Dwarfs in the HET Dark Energy Experiment," Castanheira, B. G. et al., (**Williams, K.** as 3rd author) 2010, AIP Conf. Proc.: 17th European White Dwarf Workshop, 1273, 160

3. "Reports on New Discoveries," Degennaro, S., **Williams, K.**, Montgomery, M. 2008, International Bulletin on Variable Stars, 5800, 8

4. "A New Look at the Empirical Initial-Final Mass Relation," **Williams, K. A.** 2007, ASP Conf. Ser. 372: 15th European Workshop on White Dwarfs, 372, 85

5. "Galaxy Evolution in Poor Groups Discovered Around Strong Gravitational Lenses," Momcheva, I. G., **Williams, K. A.**, Zabludoff, A. I., & Keeton, C. R. 2006, IAU Symposium, S235

6. "A Spectroscopic Study of the Environments of Gravitational Lens Galaxies," Momcheva, I., **Williams, K.**, Keeton, C., & Zabludoff, A. 2006, EAS Publications Series: Mass Profiles and Shapes of Cosmological Structures, 20, 289

7. "Minor Planet Observations [696 Whipple Observatory, Mt. Hopkins]," Hergenrother, C. W., Spahr, T. B., **Williams, K. A.**, Berlind, P., & Calkins, M. 2005, MPC, 54975, 8

8. "Initial Results from the Lick-Arizona White Dwarf Survey," **Williams, K. A.** & Bolte, M. 2005, ASP Conf. Ser. 334: 14th European Workshop on White Dwarfs, 334, 8

9. "Detecting Poor Groups Using Strong Lensing," **Williams, K. A.**, Momcheva, I., Keeton, C. K., & Zabludoff, A. I. 2003, Star and Structure Formation: From First Light to the Milky Way, ETH Zurich

10. "The Initial-Final Mass Relation and Supernova Mass Limit," **Williams, K. A.**, & Bolte, M. 2003, White Dwarfs: Galactic and Cosmologic Probes, IAU Joint Discussion 5, 28

11. "White dwarfs in open clusters: The initial-final mass limit, the supernova mass limit, and the white dwarf deficit," **Williams, K. A.** 2002, Ph.D. Thesis

# CURRICULUM VITAE


**Name:** Matthew A. Wood

**Address:** Department of Physics and Astronomy
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**Education:**

| | |
|---|---|
| Ph.D., Astronomy: | The University of Texas at Austin, May 1990 |
| M.A., Astronomy: | The University of Texas at Austin, Dec. 1985 |
| B.Sci., Physics: | Iowa State University, May 1983 |

**Work Experience:**

| | |
|---|---|
| 8/12 – Present | Deptartment Head & Professor<br>Department of Physics and Astronomy<br>Texas A&M University–Commerce |
| 8/04 – 7/12 | Professor<br>Department of Physics & Space Sciences<br>Florida Institute of Technology |
| 8/96 – 7/04 | Associate Professor<br>Florida Institute of Technology |
| 6/91 – 7/96 | Assistant Professor<br>Florida Institute of Technology |
| 6/90 – 5/91 | NSF–NATO Postdoctoral Fellow<br>Département de Physique<br>Université de Montréal |

**Societies:** American Astronomical Society
International Astronomical Union
Royal Astronomical Society
Sigma Pi Sigma
Florida Academy of Sciences

**Visiting Scientist:** International Ultraviolet Explorer Satellite (NASA/Goddard)
Kitt Peak National Observatory
Mauna Kea Observatory
Keck Observatory
Hubble Space Telescope
McDonald Observatory

**Proposal Reviewer:** NSF / NASA / NOAO / NOVA (Dutch NSF)

**Referee:** *The Astrophysical Journal (Main Journal and Letters)*
*Monthly Notices of the Royal Astronomical Society*
*Astronomy and Astrophysics*
*SCIENCE*
*Publications of the Astronomical Society of the Pacific*
*Astrophysics and Space Science*

**Major Grants:** PI on grants totaling USD $1.9 million. Selected recent:

NASA Kepler Mission (PI)
"*Cataclysmic Variables in the Kepler Field*"
2012-2013 ($29,522)

NSF Stellar Astronomy & Astrophysics (PI)
"*Kepler Field Cataclysmic Variables and the Nature of Astrophysical Plasma Viscosity*"
2011-2014 ($224,720)

NSF REU SARA Site Program (PI)
"*The Southeastern Association for Research in Astronomy REU Summer Intern Program*"
2010-2012 ($385,858)

NSF REU SARA Site Program (PI) "*The Southeastern Association for Research in Astronomy REU Site Program*"
2006-2010 ($478,180)

NSF Major Research Instrumentation (Co-PI) "*Acquisition of a Small Telescope for Astron. Research: Florida Tech's 'Rising STAR Project'*"
2004-2005 ($347,000)

**Courses Taught:**
Physics 1 and 2
Computational Physics
Introduction to Space Sciences
Methods & Instrumentation in Astronomy
Astrophysics 1: Stellar Structure and Evolution
Astrophysics 2: Galactic Structure and Cosmology
Introduction to Plasma Physics
Physics of the Atmosphere
White Dwarfs and Accretion Phenomena in Astrophysics (Graduate)
Astrophysics 1: Stellar Structure and Evolution (Graduate)
Astrophysics 2: Galactic Structure and Cosmology (Graduate)

**Other:**
Coordinator and Host: Florida Tech Astronomy Public Lecture Series, 2005-2012 (visit youtube.com/fitastro)
Chair of Southeastern Assoc. for Research in Astron. (SARA) 1998-2000
Program Director, SARA-REU Summer Site Program, 1998-2012
Editor and founder of *JSARA*, a journal featuring undergraduate research results (visit www.jsara.org)
SARA Board Member, 1995-1998, 2000-2005
Florida Tech Space Sciences Curriculum Coordinator, 1993-2012
Florida Tech Chair of Comprehensive Exam Committee

**Publications:** Total Refereed: **78** Non-Refereed: **79** h-index: **31**

Full NASA ADS Listing at: http://bit.ly/d7W3iG

**Refereed Publications*:**

Note: In the interest of space, I list papers with more than 8 authors as "FirstAuthor et al. (includes Wood, M.A.)".

1) Wood, M.A., Winget, D.E., Nather, R.E., Hessman, F.V., Liebert, J. Kurtz, D.W., Wesemael, F., and Wegner, G. "The Exotic Helium Variable PG 1346+082", 1987, *ApJ* **313**, 757.

2) Robinson, E.L., Shafter, A.W., Hill, J.A., Wood, M.A., and Mattei, J.A. "Detection of Superhumps and Quasi-Periodic Oscillations in the Light Curve of the Dwarf Nova SW Ursae Majoris", 1987, *ApJ* **313**, 772.

3) Winget, D.E., et al. (includes Wood, M.A.) "Discovery of a Massive Non-Luminous Orbital Companion to the White Dwarf G29-38", 1990 *ApJ* **357**, 630.

4) Tamanaha, C.M., Silk, J., Wood, M.A., and Winget, D.E. "The White Dwarf Luminosity Function: A Possible Probe of the Galactic Halo", 1990 *ApJ* **358**, 164.

5) Wood, M.A. "White Dwarf Stars and the Age of the Galactic Disk", 1990 *J. Can. Roy. Ast. Soc.*, **84**, 150.

6) Winget, D.E., et al. (includes Wood, M.A.) "Asteroseismology of the DOV Star PG1159–035 with the Whole Earth Telescope", 1991 *ApJ* **378**, 326.

7) Kepler, S.O., et al. (includes Wood, M.A.) "A Measurement of the Evolutionary Timescale of the Cool White Dwarf G117-B15A with the Whole Earth Telescope", 1991, *ApJ Letters*, **378**, L45.

8) Wood, M.A. "Constraints on the Age and Evolution of the Galaxy from the White Dwarf Luminosity Function", 1992, *ApJ* **386**, 539.

9) Clemens, J.C., et al. (includes Wood, M.A.) "Whole Earth Telescope Observations of V471 Tauri - The Nature of the White Dwarf Variations" 1992, *ApJ* **391**, 773.

10) Bradley, P.A., Winget, D.E., and Wood, M.A. "Maximum Rates of Period Change for DA White Dwarf Models with Carbon and Oxygen Cores" 1992, *ApJ Letters*, **391**, L33.

11) Wood, M.A., and Oswalt, T. D. "The Binary System L151-81: a Test of Accretion Theory" 1992, *ApJ Letters*, **394**, L53.

12) Bradley, P.A., Winget, D.E., and Wood, M.A. "The Potential for Asteroseismology of DB White Dwarf Stars" 1993, *ApJ* **406**, 661.

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* Key: *ApJ = Astrophysical Journal; MNRAS = Monthly Notices of the Royal Astronomical Society; A&A = Astronomy & Astrophysics; PASP = Publications of the Astronomical Society of the Pacific*

13) Winget, D. E., et al. (includes Wood, M.A.) "Whole Earth Telescope Observations of the DBV White Dwarf GD 358" 1994, *ApJ* **430**, 839.

14) Bergeron, P., Wesemael, F., Beauchamp, A., Wood, M.A., Lamontagne, R., Fontaine, G., and Liebert, J. 1994, "A Spectroscopic Analysis of DAO and Hot DA White Dwarfs: The Implications of the Presence of Helium and The Nature of DAO Stars" *ApJ* **432**, 305.

15) Kleinman, S.J., et al. (includes Wood, M.A.) "Observational Limits on Companions to G29–38" 1994, *ApJ* **436**, 875.

16) Breger, M.A., et al. (includes Wood, M.A.) "The $\delta$ Scuti star FG Vir. I. Multiple pulsation frequencies determined with a combined DSN/WET campaign" 1995, *A&A*, **297**, 473.

17) Muslimov, A.G., Van Horn, H.M., and Wood, M.A. "Magnetic Field Evolution in White Dwarfs: Complexity of the Magnetic Field and Hall Effect" 1994, *Ap.J.*, **442**, 758.

18) Provencal, J.L., et al. (includes Wood, M.A.) "The Unusual Helium Variable AM CVn" 1995, *Ap.J.*, **445**, 927.

19) Kepler, S.O., et al. (includes Wood, M.A.) "Whole Earth Telescope Observations of the DAV White Dwarf G226-29" 1995, *Ap.J.*, **447**, 874.

20) Kawaler, S.D., et al. (includes Wood, M.A.) "Whole Earth Telescope Observations and Seismological Analysis of the Pre–White Dwarf PG 2131+066" 1995, *Ap.J.*, **450**, 350.

21) Breger, M., et al. (includes Wood, M.A.) "The $\delta$ Scuti star FG Vir. II. A search for high pulsation frequencies" 1996, *A.&A.*, **309**, 197.

22) Simpson, J. C., & Wood, M. A. "Classical Kinetic Theory Simulations Using Smoothed Particle Hydrodynamics" 1996, *Phys. Rev. E*, **54**, 2077.

23) Oswalt, T.D., Smith, J.A., Wood, M. A., and Hintzen, P. "A Lower Limit of 9.5 Gyr on the Age of the Galactic Disk from the Oldest White Dwarf Stars" 1996, *Nature*, **382**, 692.

24) Handler, G., et al. (includes Wood, M.A.) "New Whole Earth Telescope observations of CD-24 7599: steps towards $\delta$ Scuti star seismology" 1997, *MNRAS*, **286**, 303.

25) Provencal, J.L., et al. (includes Wood, M.A.) "Whole Earth Telescope Observations of the Helium Interacting Binary PG1346+082 (CR Boo)" 1997, *Ap.J.*, **480**, 383.

26) Richer, H.B., et al. (includes Wood, M.A.) "White Dwarfs in Globular Clusters: HST Observations of M4" 1997, *Ap.J.*, **484**, 741.

27) Kleinman, S.J., et al. (includes Wood, M.A.), "Understanding the Cool DA White Dwarf Pulsator, G29–38", 1998, *Ap.J.*, **495**, 424.

28) O'Brien, M. S., et al. (includes Wood, M.A.), "Whole Earth Telescope Observations of the Pulsating Pre-White Dwarf PG0122+200: a Star Cooled by Neutrinos" 1988, *Ap.J.*, **495**, 458.

29) Wood, M.A., , & Oswalt, T.D. "White Dwarf Cosmochronometry, I: Monte Carlo Simulations of Proper-Motion- and Magnitude-Limited Samples Using Schmidt's $1/V_{\rm max}$ Estimator" 1998, *Ap.J.*, **497**, 870.

30) Simpson, J.C., & Wood, M.A. "Time-Series Energy Production in SPH Accretion Disks: Superhumps in the AM CVn Stars", 1998, *Ap.J.*, **506**, 360.

31) Montgomery, M.H., Klumpe, E.W., Winget, D.E., & Wood, M.A. "Evolutionary Calculations of Phase Separation in Crystallizing White Dwarf Stars", 1999, *Ap.J.*, **525**, 482-491.

32) Wood, M.A., Montgomery, M.M., & Simpson, J.C. "Smoothed Particle Hydrodynamics Simulations of Apsidal and Nodal Superhumps", 2000, *ApJ Letters*, **535**, L39.

33) Vuille, F., et al. (includes Wood, M. A.) "Normal modes and Discovery of High-Order Cross-Frequencies in the DBV White Dwarf GD 358", 2000, *MNRAS*, **314**, 689.

34) Handler, G., et al. (includes Wood, M. A.) "Delta Scuti Network Observations of XX Pyx: Detection of 22 Pulsation Modes and of Short-Term Amplitude and Frequency Variations", 2000, *MNRAS*, **318**, 511.

35) Handler, G, et al. (includes Wood, M.A.) "Time series photometry of the $\delta$-Scuti Star XX Pyxis", 2000, *J. Astrophys. Data*, **6**, 4A.

36) Wood, M.A., Oswalt, T.D., & Claver, C.F "Time series photometry of the $\delta$-Scuti Star XX Pyxis: G. SARA 0.9-m Observations", 2000, *J. Astrophys. Data*, **6**, 4G.

37) Silvestri, N. M., Oswalt, T. D., Wood, M. A., Smith, J. A., Reid, I. N., & Sion, E. M. "White Dwarfs in Common Proper Motion Binary Systems: Mass Distribution and Kinematics", *A.J.*, 2001, 121, 503.

38) Breger, M., Garrido, R., Wood, M.A., Shobbrook, R.R., Handler, G., Bishof, K.M., Rodler, F., Stankov, A., Martinez, P., O'Donoghue, D., Szabo, R., Gray, R., and Kaye, A. 2002 "29 Frequencies for the $\delta$ Scuti Variable BI CMi: Results of the 1997-2000 Multisite Campaigns", *MNRAS*, **329**, 531-542.

39) Kurtz, D.K. et al. (includes Wood, M.A.) "Discovery of the Missing Mode in HR 1217 by the Whole Earth Telescope", 2002, *MNRAS*, **330**, 57-61

40) Vauclair, G. et al. (includes Wood, M.A.) "Asteroseismology of RXJ 2117+3412, the hottest pulsating PG 1159 star", 2002, *A&A*, **381**, 122-150.

41) Wood, M.A., Casey, M. J. Garnavich, P.M., & Haag, B. "Superhumps in The Helium Dwarf Nova KL Draconis", 2002, *MNRAS*, **334**, 87–93.

42) Handler, G., Metcalf, T.S., & Wood, M. A. "The Asteroseismological Potential of the Pulsating DB White Dwarf Stars CBS 114 and PG1456+103", 2002, *MNRAS*, **335**, 698-706.

43) Patterson, J., et al. (includes Wood, M. A.) "Superhumps in Cataclysmic Binaries. XXIII V442 Ophiuchi and RX J1643.7+3402", 2002, *PASP*, **114**, 1364-1381.

44) Handler, G. et al. (includes Wood, M. A.) "Amplitude and Frequency Variability of the Pulsating DB White Dwarf Stars KUV 05134+2605 and PG 1654+160 Observed with the Whole Earth Telescope" 2003, *MNRAS*, **340**, 1031-1038

45) Schuh, S.L., et al. (includes Wood, M. A.) "2MASS J0516288+260738: Discovery of the First Eclipsing Late K+Brown Dwarf Binary System?" 2003, *A&A*, **410**, 649-661

46) Kepler, S.O. et al. (includes Wood, M. A.) "The Everchanging Pulsating White Dwarf GD358" 2003, *A&A*, **401**, 639-654

47) Mukadam, A. S. et al. (includes Wood, M. A.) "Constraining the Evolution of ZZ Ceti" 2003, *ApJ*, **594**, 961-970.

48) Reed, M. D. et al. (includes Wood, M. A.) "The Evolution of a Hot Subdwarf: Observations of the Pulsating Subdwarf B Star Feige 48" 2004, *MNRAS*, **348**, 1164-1174.

49) Castanheira, B. G. et al. (includes Wood, M. A.) "Observations of the Pulsating White Dwarf G 185-32" 2004, *A&A*, **413**, 623.

50) Kurtz, D. W et al. (includes Wood, M. A.) "Pushing the ground-based limit: 14-$\mu$mag photometric precision with the definitive Whole Earth Telescope Asteroseismic Data Set for the Oscillating Ap star HR 1217" 2005, *MNRAS*, **358**, 651.

51) Wood, M. A. et al. "DQ Herculis in Profile: Whole Earth Telescope Observations and Smoothed Particle Hydrodynamics Simulations of an Edge-on Cataclysmic Variable System" 2005, *ApJ* **634**, 570-584

52) Dolez, N., et al. (includes Wood, M. A.) "Whole Earth telescope observations of the ZZ eti Star HL Tau 76" 2006, *A&A*, **446**, 237

53) Wood, M. A., Dolence, J., & Simpson J. C., "FITDisk: A Cataclysmic Variable Accretion Disk Demonstration Tool," 2005, *PASP*, **118**, 442

54) Vuckovic, M., et al. (includes Wood, M. A.) "Whole Earth Telescope Observations of the Pulsating Subdwarf B Star PG0014+067" 2006, *ApJ* **646**, 1230

55) Hynes, R.I., et al. (includes Wood, M. A.) 'Further Evidence for Variable Synchrotron Emission in XTE J1118+480 in Outburst," 2006, *ApJ* **651**, 401

56) Fu, J.-N., et al. (includes Wood, M. A.) "Asteroseismology of the PG 1159 star PG 0122+200," 2007, *A&A*, **467**, 237

57) Wood, M. A. & Burke, C. J. "The Physical Origin of Negative Superhumps in Cataclysmic Variables", 2007, *ApJ* **661**, 1042

58) Vaccaro, T. R.; Rudkin, M.; Kawka, A.; Vennes, S.; Oswalt, T. D.; Silver, I.; Wood, M.; Smith, J. Allyn "LP 133-373: A New Chromospherically Active Eclipsing dMe Binary with a Distant, Cool White Dwarf Companion,", 2007, *ApJ* **661**, 1112

59) Rodriguez, E., et al. (includes Wood, M. A.) "$\delta$ Sct stars in eclipsing binaries: the case of Y Cam," 2007, *Comm. Asteroseismology*, **150**, 63

60) Nitta, A., et al. (includes Wood, M. A.) "Doubling the number of DBVs and a closer look at their Instability Strip," 2007, *Comm. Asteroseismology*, **150**, 249

61) Sullivan et al. (includes Wood M. A.) "Whole Earth Telescope observations of the hot helium atmosphere pulsating white dwarf EC20058-5234", 2008, *MNRAS*, **387**, 137

62) Costa et al. (inludes Wood, M. A.) "The Pulsation modes of the Pre-White Dwarf PG 1195-035", 2008, *A&A*, **477**, 627

63) Dolence, J., Wood, M. A., & Silver, I. M. "Smoothed Particle Hydrodynamics Simulations of Direct Impact Accretion in AM CVn Stars", 2008, *ApJ* **683**, 375

64) Handler, G., Romero-Colmenero, E., Provencal, J. L., Sanchawala, K., Wood, M. A., Silver, I., & Chen, W.-P. "The pulsating DA white dwarf star EC14012-1446: results from four epochs of time-resolved photometry", 2008, *MNRAS*, **388**, 1444

65) Wood, M. A., "Synthetic direct impact light curves of the ultracompact AM CVn binary systems V407 Vul and HM Cnc", 2009, *MNRAS*, **395**, 378

66) Wood, M. A., Thomas, D. M., & Simpson, J. C. "SPH simulations of negative (nodal) superhumps: a parametric study", 2009, *MNRAS*, **298**, 2110

67) Still, M., Howell, S. B., Wood, M. A., Cannizzo, J. K., & Smale, A. P. "Quiescent Superhumps Detected in the Dwarf Nova V344 Lyrae by Kepler", 2010, ApJL, **717**, L113

68) Rodriguez, E., et al. (includes Wood, M. A.) "$\delta$ Sct-type pulsations in Eclipsing Binary Systems: Y Cam", 2010, *MNRAS*, **408**, 2149

69) Cannizzo, J. K., Still, M., Howell, S. B., Wood, M. A., Cannizzo, J. K., & Smale, A. P. "The Kepler Light Curve of V344 Lyrae: Constraining the Thermal-Viscous Limit Cycle Instability", 2011, *ApJ*, **725**, 1393

70) Redaelli, M., et al. (includes Wood, M. A.) "The Pulsations of PG 1351+489", 2011, *MNRAS*, **415**, 1220

71) Vauclair, G., et al. (includes Wood, M. A.) "The period and amplitude changes in the coolest GW Virginis variable star (PG 1159-type) PG 0122+200", 2011, *A&A*, **528**, A5

72) Vican, Laura, et al. (includes Wood, M.A.) "A Thousand Hours of GW Librae: The Eruption and Aftermath", 2011, *PASP*, **123**, 1156-1168

73) Wood, M. A., Still, M., Smale, A. P., Howell, S. B., Cannizzo, J. K. "V344 Lyrae: An SU UMa Cataclysmic Variable in the Kepler Field", 2011, *ApJ*, **741**, 105

74) Wood, M. A. "Numerical Techniques in Astrophysics", 2012, Planets, Stars, and Stellar Systems (Springer) in press (book chapter)

75) van Haaften, L. M., Nelemans, G., Voss, R., Wood, M. A., & Kuijpers, J. "The Evolution of Compact X-Ray Binaries", 2012, *A&A*, **537**, A104

76) Cannizzo, J. K., Smale, A. P., Wood, M. A., Still, M. D., & Howell, S. B. "The Kepler light curves of V1504 Cygni and V344 Lyrae: A study of the Outburst Properties", 2012, *ApJ*, 747, 117

77) Provencal, J. L., et al. (includes Wood, M. A.) "Empirical Determination of Convection Parameters in White Dwarfs. I. Whole Earth Telescope Observations of EC14012-1446", 2012, *ApJ*, 751, 91

78) Ramsay, G. Cannizzo, J. K., Howell, S. B., Wood, M. A., Still, M., Barclay, T., Smale, A. "Kepler observations of V447 Lyr: an eclipsing U Gem Cataclysmic Variable", 2012, *MNRAS*, **425**, 1479

**Non-Refereed Publications:**

1) Wood, M.A., Winget, D.E., Nather, R.E., Liebert, J., Wesemael, F., and Wegner, G. "PG 1346+082: An Interacting Binary White Dwarf System", 1987, in *Stellar Pulsation*, ed. A.N. Cox and W.M. Sparks (New York: Springer-Verlag), p. 348.

2) Shafter, A.W., Hill, J.A., Robinson, E.L., Szkody, P., Thorstensen, J.R., and Wood, M.A. "The Ultrashort Period Dwarf Nova SW Ursae Majoris", 1986, in *IAU Coll. #93: Cataclysmic Variables — Recent Multi-Frequency Observations and Theoretical Developments*, ed. H. Drechsel, (Dordrecht: Reidel), *Astr. & Sp. Sci.*, **130**, 125.

3) Wood, M.A., Winget, D.E., and Van Horn, H.M. "A Comparative Study of White Dwarf Evolution", 1987, in *IAU Coll. #95: The Second Conference on Faint Blue Stars*, eds. A.G. Davis Philip, Donald S. Hayes and James W. Liebert (New York: L. Davis Press), p. 639.

4) Wood, M.A., and Winget, D.E. "ZZ Ceti Mode Trapping Revisited", 1988, in *Multimode Stellar Pulsation*, eds. G. Kovács, L. Szabados, and B. Szeidl (Konkoly Observatory · Kultura: Budapest) p. 199.

5) Wood, M.A., and Winget, D.E. "A Variational Approach to Understanding White Dwarf Evolution", 1988, in *IAU Coll. #114: White Dwarfs*, ed. G. Wegner (Berlin: Springer-Verlag) p. 282.

6) Provencal, J.L., et al. (includes Wood, M.A.) "The Time Dependence of the Phases of the Harmonics Relative to the 1490 sec Fundamental in PG1346+082", 1988, in *IAU Coll. #114: White Dwarfs*, ed. G. Wegner (Berlin: Springer-Verlag), p. 296.

7) Bradley, P.A., Winget, D.E., and Wood, M.A. "The Effect of Varying Helium and Hydrogen Layer Masses on the Pulsation Properties of White Dwarf Models", 1988 in *IAU Coll. #114: White Dwarfs*, ed. G. Wegner (Berlin: Springer-Verlag), p. 286.

8) Wood, M.A. "The Age and Formation of the Galaxy: Clues from the White Dwarf Luminosity Function", 1991 in *Proceedings of the 7$^{th}$ European Workshop on White Dwarfs*, eds. G. Vauclair and E. M. Sion (Kluwer Academic Publ.: The Netherlands), p. 89.

9) Kepler, S.O., et al. (includes Wood, M.A.) "A Measurement of the Evolutionary Timescale of the Cool White Dwarf G117–B15A with WET", 1991 *Proceedings of the 7$^{th}$ European Workshop on White Dwarfs*, eds. G. Vauclair and E. M. Sion (Kluwer Academic Publ.: The Netherlands), p. 143.

10) Fontaine, G., Brassard, P., Wesemael, F., Kepler, S.O., and Wood, M.A. "On the Interpretation of the $dP/dt$ Measurement in G117–B15A", 1991 *Proceedings of the 7$^{th}$ European Workshop on White Dwarfs*, eds. G. Vauclair and E. M. Sion (Kluwer Academic Publ.: The Netherlands), p. 153.

11) Oswalt, T.D., et al. (includes Wood, M.A.) 1992, in *A.S.P. Conf Series Vol. 28: Automated Telescopes for Photometry and Imaging*, eds. S.J. Adelman, R.J. Dukes, Jr., and C. J. Adelman (San Francisco: Astron. Soc. Pacific), p. 111.

12) Oswalt, T.D., et al. (includes Wood, M.A.) "The SARA Kitt Peak 0.9-m Telescope Project: Collaborative Research in Astronomy," 1992, *Council on Undergraduate Research Newsletter*, **13**, 53.

13) Bradley, P.A., and Wood M.A., 1993, "An Example Demonstrating the Potential for Asteroseismology of DB White Dwarf Stars", in *IAU Coll. 139, New Perspectives on Stellar Pulsation & Pulsating Variable Stars*, eds. J. Nemec & J.M. Matthews, (Cambridge: Cambridge Univ. Press), p. 116.

14) Clemens, J.C., et al. (includes Wood, M.A.) 1993, "Whole Earth Telescope Observations of the DBV White Dwarf PG1115+158: Preliminary Results" in *White Dwarfs: Advances in Observation and Theory*, ed. M. A. Barstow (Dordrecht: Kluwer) p. 515

15) Wood, M. A. "New Model Sequences from the White Dwarf Evolution Code" 1994, in *IAU Coll. 147: The Equation of State in Astrophysics*, eds. G. Chabrier and E. Schatzmann (Cambridge U. Press: Cambridge) p. 612.

16) Wood, M.A. "Theoretical White Dwarf Luminosity Functions: DA Models" 1995, in *Proceedings of the 9$^{th}$ European Workshop on White Dwarfs*, eds. D. Koester and K. Werner (Berlin: Springer-Verlag) p. 41.

17) Handler, G., et al. (includes Wood, M.A.) "New WET observations of the $\delta$ Scuti star CD-24 7599: amplitude variability and discovery of 13 pulsation modes" 1995, in *IAU Coll. 155: Astrophysical Applications of Stellar Pulsation*, eds. R.S. Stobie, and S.P.A. Whitelock, (PASPC), p. 331.

18) Kepler, S.O., Giovannini, O., Kanaan, A., Wood, M.A., and Claver, C. F. "Non-Variable Stars Inside the ZZ Ceti Instability Strip" 1995, *Baltic Astronomy*, **4**, 157.

19) Kepler, S.O., et al. (includes Wood, M.A.) "Study of the Periodicities of the DAV White Dwarf G117–B15A with the Whole Earth Telescope" 1995, *Baltic Astronomy*, **4**, 221.

20) Wood, M.A., , and Simpson, J. C. "A 3-D SPH Model of Helium Accretion Disks in the Interacting Binary White Dwarf Systems AM CVn and EC15330–1403" 1995, *Baltic Astronomy*, **4**, 402.

21) Breger, M., et al. (includes Wood, M.A.) "The Delta Scuti star FG Vir. II. A search for high pulsation frequencies" 1995, *Delta Scuti Star Newsletter*, **9**, 3-4

22) Fahlman, G. G., et al. (includes Wood, M.A.) "Hubble Space Telescope Observations of the Globular Cluster M4" 1996, *Proceedings of IAU Colloquium #174: Dynamical Evolution of Star Clusters*, eds. J. Makino and P. Hut (Kluwer: Dordrecht) p 39–48.

23) Pryor, C., et al. (includes Wood, M.A.) "Searches for Binary Stars in Blobular Clusters" 1996, *Proceedings of IAU Colloquium #174: Dynamical Evolution of Star Clusters*, eds. J. Makino and P. Hut. (Kluwer: Dordrecht) p. 193–202.

24) Ahrens, T.J., Oswalt, T.D, Smith, J.A., and Wood, M.A., "White Dwarfs in Wide Binaries: Calibrating the Age of the Galaxy", 1996, *IAPPPC*, **64**, 22.

25) Wood, M. A. "Monte Carlo Simulations of the White Dwarf Population and Luminosity Function" 1997, in *White Dwarfs*, eds. J. Isern, M. Hernanz and E. Garcia-Berro (Kluwer), p. 105.

26) Miller, N. A., Simpson, J. C., & Wood, M. A., 1997 "Visualizing an SPH Model of Short-Period Binary Accretion Disks" *IAPPP Communications*, 66, 64.

27) Wood, M.A. (invited review) "White Dwarf Cooling Curves and Searches for White Dwarfs" in *Highlights of Astronomy Vol. 11B, as presented at the XXIIIrd General Assembly of the IAU, 1997* ed. Johannes Andersen. (Kluwer: Dordrecht), 427.

28) Oswalt, T.D., Smith, J.A., and Wood, M.A. "Wide Binaries: Probes of the Galaxy's Dark Matter Content" in *Highlights of Astronomy Vol. 11B, as presented at the XXIIIrd General Assembly of the IAU, 1997* ed. Johannes Andersen. (Kluwer: Dordrecht), 436.

29) Oswalt, T.D., Smith, J.A., and Wood, M.A. "Wide Binaries and the Age of the Galaxy" in *IAU Simposium 183: Cosmological Parameters and the Evolution of the Universe*, (Kluwer: Dordrecht), 162.

30) Simpson, J.C., Wood, M. A., & Burke, C.J. "The Effects of Inclination Angle on Superhump Pseudo-Lightcurves", 1998, *Baltic Astronomy* **7** 255-267.

31) Burke, C.J, Wood, M.A., & Simpson, J.C. "Aspect-Dependent SPH Simulation Lightcurves of Cataclysmic Variable Accretion Disks", 1998, *IAPPP Communications*, **71**, 44.

32) Patterson, J.D., Blatt, J.H., Moldwin, M.B., Oswalt, T.D., Rassoul, H.K., & Wood, M.A. "A Plan for Small Physics Department for the Twenty First Century" 1998, *Proceedings of the 35$^{th}$ Space Congress*, (CCTS: Cape Canaveral).

33) Kuehn, K., & Wood, M.A. "Taking the Pulse of SU UMa Stars" 1999, *IAPPP Communications*, **73**, 51

34) Baker-Branstetter, S., & Wood, M.A. "The Effects of Mass Ratio in Stable Superhumping Cataclysmic Variable Systems Using Smoothed Particle Hydrodynamics", 2000, *IAPPP Comm.*, **76**, 31-40.

35) Arentoft, T., et al. (includes Wood, M.A.) "First Results of the 17th DSN Campaign: Photometry of XX Pyx", 2000, in *The Impact of Large-Scale Surveys on Pulsating Star Research*, *ASP Conf. Series Vol 203, IAU Coll #176*, eds. L. Szabados and D. Kurtz, p 469-470.

36) Wood, M. A., et al. "Whole Earth Telescope Observations and Smoothed Particle Hydrodynamics Simulations of DQ Herculis", 2000, *Baltic Astronomy*, **9**, 211.

37) Wood, M. A. "DQ Herculis", 2000, *Encyclopedia of Astronomy and Astrophysics*, IOP Publishing, Ltd..

38) Silvestri, N. M., Oswalt, T. D., Wood, M. A., Smith, J. A., Reid, I. N., & Sion, E. M. 2001, "The Mass Distribution and Kinematics of White Dwarfs in Wide Binary Systems", in *12$^{th}$ European Workshop on White Dwarf Stars*, ASP Conference Series Vol. 226, Eds. J. L. Provencal et al. p 246.

39) Jones, K. & Wood, M. A. 2001, "IDL Visualization of $q = 0.075$ SU UMa Dwarf Novae", *IAPPP Comm.*, in press.

40) Casey, M., & Wood, M. A. 2002, "Discovery of Superhumps in the Helium Dwarf KL Draconis", *IAPPP Comm.*, in press.

41) Gobeille, D. & Wood, M. A. 2002, "Monte Carlo Simulations to Generate Luminosity Functions for White Dwarfs in Open and Globular Clusters", *IAPPP Comm.*, in press.

42) Oswalt, T. D. & Wood, M. A. 2002, "Research in a Virtual Astronomy Department: The Southeastern Association for Research in Astronomy (SARA) and the Future of Small Telescopes", in *The Future of Small Telescopes*, ed. T. Oswalt.

43) Perrine, R. P. & Wood, M. A. 2002, "Parallelizing an SPH Code", *IAPPP Comm.*, in press.

44) Zima, W. et al. (includes Wood, M.A.) 2002, "The Delta Scuti Network: Steps Towards Successful Asteroseismology of Delta Scuti Stars", *ASP Conf. Ser. 259: IAU Colloq. 185: Radial and Nonradial Pulsations as Probes of Stellar Physics*, 598

45) Handler, G., Wood, M. A., Nitta, A., & Collaborators, T. W. E. T. N. O. 2002, "Towards Ensemble Asteroseismology of the Pulsating DB White Dwarf Stars", *ASP Conf. Ser. 259: IAU Colloq. 185: Radial and Nonradial Pulsationsn as Probes of Stellar Physics*, 608

46) Wood, M. A. 2002, "SARA: A Node in the Whole Earth Telescope and Delta Scuti Networks", *IAPPP Comm.*, in press.

47) Schuh, S.L. et al. (includes Wood, M. A.) 2003, in *White Dwarfs: NATO Science Series II*, **105**, 263.

48) Smith, J. A., Oswalt, T. D., and Wood, M. A. 2003, in *White Dwarfs: NATO Science Series II*, **105**, 399.

49) Castanheira, B.G., et al. (includes Wood, M.A.) 2003, "WET Observations of the DAV G185-32", *Baltic Astronomy*, **12**, 39-44.

50) Kepler, S.O., et al. (includes Wood, M.A.) 2003, "WET Observations of GD 358 in 2000", *Baltic Astronomy*, **12**, 45-53.

51) Schuh, S.L., et al. (includes Wood, M.A.) 2003, "PG 1605+072 in WET XCov22: Support for the Multi-Site Spectroscopic Telescope", *Baltic Astronomy*, **12**, 55-70.

52) Mukadam, A.S., et al. (includes Wood, M.A.) 2003, "Constraining the Evolution of ZZ Ceti", *Baltic Astronomy*, **12**, 71-103.

53) Kurtz, D.W., et al. (includes Wood, M.A.) 2003, "High Precision with the Whole Earth Telescope: Lessons and Some Results From XCov20 for the roAp Star HR 1217", *Baltic Astronomy*, **12**, 105-117.

54) Oswalt, T. D. & Wood, M. A. "Research in a Virtual Astronomy Department: The Southeastern Association for Research in Astronomy (SARA) and the Future of Small Telescopes" 2003, in *The Future of Small Telescopes, Vol II, ed. T. D. Oswalt (Kluwer: Dordrecht) p. 219*

55) Robertson, J. R. & Wood, M. A. 2003, *IAPPP Comm.*

56) von Hippel, T., Winget, D. E., Kilic, M., Jefferyes, B., Saumon, D., & Wood, M. A. 2003, "White Dwarfs and the Star Formation History of the Galaxy," in White Dwarfs: Galactic and Cosmologic Probes, 25th meeting of the IAU, Joint Discussion 5, 16-17 July 2003, Sydney, Australia, 5, 21

57) Smith, J. A., Oswalt, T. D., Wood, M. A., & Silvestri, N. M. 2003, "Age of Local Galactic Disk from the WDLF for CPMBs", in White Dwarfs: Galactic and Cosmologic Probes, 25th meeting of the IAU, Joint Discussion 5, 16-17 July 2003, Sydney, Australia, 5, 27

58) Homewood, A., Hartmann, D. H., & Wood, M. 2005, "GRB 050505: SARA Observations," GRB Circular Network, 3398, 1

59) von Hippel, T., et al. 2005, "The White Dwarf Luminosity Function: The Shape of Things to Come," ASP Conf. Ser. 334: 14th European Workshop on White Dwarfs, 334, 3

60) Nitta, A., et al. 2005, "New DBVs from the SDSS," ASP Conf. Ser. 334: 14th European Workshop on White Dwarfs, 334, 585

61) Wood, M.A., Van Hamme, W., & Wilkat, V. 2006, "New Eclipse Timings and Preliminary Analysis of USNO-A2.0 1425-05691757" JAAVSO, **49**, 1.

62) Foing, B. H., et al. (includes Wood, M. A.) 2006, *LPI Contributions*, **1327**, 9

63) Updike, A. C., Puls, J., Hartmann, D. H., Wood, M., Cardenzana, J., Pederson, S. "GRB 070612A: continued SARA observations," 2007, *GRB Coordinates Network*, **6530**, 1

64) Updike, A. C., Milne, P. A., Williams, G. G., Puls, J., Hartmann, D. H., Wood, M., Cardenzana, J., Pederson, S, "SWIFT J195509.6+261406 (GRB 070610): further observations,", 2007, *GRB Coordinates Network*, **6536**, 1

65) Ehrenfreund, P., et al. (includes Wood, M. A.) "SMART-1 Impact Ground-based Campaign," 2007, *Lunar and Planetary Institute Conference Abstracts*, *38*, 2446

66) Sullivan, D., et al (includes Wood, M. A.) "The Hottest IKnown DBV White Dwarf," 2007, *Astronomical Society of the Pacific Conference Series*, **372**, 629

67) Vauclair, G., et al. (includes Wood, M. A.) "Abell 43 and PG 0122+200: a Look at the Beginning and at the End of the PG 1159 Instability Strip," 2007, *Astronomical Society of the Pacific Conference Series*, **372**, 641

68) Teichgraeber, C., Wood, M. A., Patterson, J. Monard, B., Rea, R., & Kemp, J., "Updates on Two New Cataclysmic Variable Systems: 1RXS J173021.5-55933 and1RXS J180340.0+401214,", 2007, *JSARA*, **1**, 24

69) Cardenzana, J. V., and Wood, M. A. "Synthetic Time Series Emission Line Profiles of Negatively Superhumping Cataclysmic Variable Stars", 2008, *JSARA*, **2**, 35

70) Vauclair, G., et al. (includes Wood, M. A.) "Rate of change of the pulsation periods in the PG 1159 star PG 0122+200", 2008, IAU Symposium, **252**, 157

71) Handler, G., et al. (includes Wood, M. A.) "Constraining convection parameters from the light curve shapes of pulsating white dwarf stars: the cases of EC 14012-1446 and WD 1524-0030", 2008, Journal of Physics Conference Series, **118**, 012057

72) Nelemans, G., Wood, M. A., et al. "The Astrophysics of Altra-Aompact Ainaries", 2009, Astro2010: The Astronomy and Astrophysics Decadal Survey, 2010, 221

73) Provencal, J. L., et al. (includes Wood, M. A.) "Preliminary XCOV26 results for EC14012-1446", 2009, Journal of Physics Conference Series, **172**, 012061

74) Schwieterman, E. W., Wood, M. A., et al. "Time-Series Photometry of GW Librae One Year After Outburst", 2010, JSARA, **3**, 6

75) Piwowar, D. T., Wood, M. A., & Schwieterman, E. W. " Time Series Photometry of the Cataclysmic Variable Systems VY Aquarii and V2491 Cygni", 2010, Journal of the Southeastern Association for Research in Astronomy, **3**, 11

76) Kreidberg, L. R., Wood, M. A., & Wetzstein, M. "Modeling Cataclysmic Variable Accretion Disks with VINE", 2010, JSARA, **4**, 38

77) Baez, W. D., Wood, M. A., & Silver, I. M. "Hydrodynamic Simulation of the Direct Impact Accretion Model with PLUTO", 2010, JSARA, **4**, 42

78) Tutchton, R. M., Wood, M. A., et al., "Sonification of of Kepler Field SU UMa Cataclysmic Variable Stars V344 Lyr and V1504 Cyg", 2012, JSARA, **5**, 21

79) Vauclair, G., et al. (includes Wood, M. A.), "Period and Amplitude Changes in the GW Vir Variable Star PG 0122+200: Evidence for Resonant Coupling", 2012, in rogress in Solar/Stellar Physics with Helio- and Asteroseismology, ASP Conf. Proc. 462, 160

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**903 468 8650 (ofc) 903 468 8651 (fax)**

## Education — Texas A&M University-Commerce

| | | |
|---|---|---|
| ➢ Ed.D.* | Supervision Curriculum & Instruction in Higher Education: Educational Leadership<br>Minor in Science | *2013<br>(ABD 2012) |
| ➢ Master of Science | Broadfield Science focus in Physics | 2005 |
| ➢ Bachelor of Science | Interdisciplinary Studies major in Science | 2002-2004 |
| ➢ Teacher Certification<br>Composite Science | | |
| Dissertation | Mathematics and Science Education Attrition, Retention, Migration: A Study of Three Urban School Districts in the State of Texas | |
| Masters Research | K-12 Curriculum alignment differential between NSES & TEKS | |

## Professional Experience

➢ **Texas A&M University-Commerce** **2005-present**
**Assistant Planetarium Director**

- Adjunct Instructor Science Education Courses
  - IS 351
  - IS 451
  - PHYS 489
- Astronomy lab coordinator/instructor
  - ASTR 1411
  - ASTR 260
  - ASTR 310
  - ASTR 101
  - ASTR 102
- NASA Texas Space Grant Representative (TSGC)
- TSGC Scholarship Committee
- TSGC Grant Reviewer
- Columbia Crew Scholarship Committee TAMU-C
- SARA Consortium

**Grants, Research, and Special Projects**

- Faculty Search Committee-Math Department 2013
-
- Region 8 Service Center-Teacher Professional Development (Exo Planets)
- Noyse Scholars-Summer 2012 Program
- Faculty Search Committee-Math Department 2012
- Metroplex Technology Business Council Committee
- REU Research Summer 2012
- Organizing Committee for the 11th International Conference on Nucleus-Nucleus Collisions
- Project Dream 2012
- Region 8 Service Center Teacher Development Collaboration 2012 (Celestial Mechanics)
- Photometry and Lightcurve Analysis of Asteroids
- Region 8 Service Center Teacher Development Collaboration 2011 (Astronomy)
- Texas Section, American Physical Society Conference Coordinating Committee
- NSF Conference
- Project Dream 2011
- Consultant for development/managing of a new planetarium facility and staff
- Co-coordinator APS Conference-Texas Section
- Region 8 Service Center Teacher Development Collaboration 2010
- Photometry and Lightcurve Analysis of Asteroids-Feasibility Study 2010-current
- *Aerospace Educational Services Project-AESP Grant-Explorations of the Solar System* Funded through the National Space Grant Foundation (Award $28,888) 2010
    - *Undergraduate/Graduate level course developed for preservice/inservice science teachers-focus: delivery methods and astronomy content*
- *Math, Science and Technology Teacher Academy (MASTA)* Grant funded through the Texas Higher Education Coordinating Board (Award $685,000) 2009-2010 Senior member, Instructor, site visits
    - *Undergraduate/Graduate level course developed for preservice/inservice teachers-focus: pedagogy, mathematics and science content*
- *Aerospace Educational Services Project-AESP Grant-Lunar Exploration* Funded through the National Space Grant Foundation (Award $25,314) 2009
    - *Graduate level course developed for inservice science teachers with a focus on delivery methods and astronomy content*
- Grant PI, instructor, curriculum development, on-site school visits, exhibit procurement
- Organize and facilitate *Space Camp* for middle school students
    - Project co-administrator
    - Curriculum development
    - Instruction

**Job requirements**

- Planetarium operations
  - Contract negotiations, promotional material, public relations and media releases, public speaking engagements, special programs coordinator, computer programming and show development, hire/manage/train staff, equipment procurement, presenter for live planetarium shows
  - Special programs: Boy Scouts, Girl Scouts, Girls in Science
- STARLAB—portable planetarium system, school visits and presentations, instruction for inservice teachers to facilitate use of the STARLAB
- Observatory Operations
  - Construction
  - Observatory facilitation: Astronomical CCD Imaging, Astronomical computer programs: Maxtor, MaxIm DL, SBIG, Meade, InFocus, the Sky6, astronomical observation with astronomy students, host public open houses, photometric research analysis, feasibility study, labs
- Instructor-science education courses, curriculum development, pedagogical standards, assessments and outcomes, testing strategies
- Instructor astronomy labs, content development, astronomical imaging, developed user manuals for the observatory and imaging equipment
- Student projects: radio/TV

- GISD 2005
  - Junior High Science Teacher, Longevity study for NOVA course development: Interviews, Committee Observations
  - Mentor students in the career development program at New Horizons for GISD graduating students who were interested in teaching as a profession
  - BETA Sponsor

- Texas A&M University-Commerce 2003-2005
  - GA-Dr. Gilbert Naizer—MLED & ELED Department: Assistant, Technology
  - TA-Dr. Keith West—Physics Department: TA Science Education Courses, Co-taught courses Integrated Science-351 & Integrated Science 451, NOVA course development
  - Coordinator-NASA trip for preservice science teachers, training and content development

- CISD 1999-2004
  - Junior High Science Teacher
  - Alternative Education Program: Instructor (grades 1-12), Program Development, Collaboration for area school districts utilizing CISD's AEP Program
  - SPED: Facilitate resource and SPED for grades 7-12 serviced all subjects areas with a focus in math and science, ARD meetings, and IEP's
  - BETA Sponsor
  - Student Council Sponsor

**Professional Associations**

- NASA Texas Space Grant Consortium Representative (2006-current)
  - University representative
  - Business meetings, bi-annual
  - Project reviewer
  - Annual reviewer of grant proposals: New Investigations, Higher Education Programs, K-12 Educational Programs
  - Scholarship reviews and promotion

- Professional Organizations
  - American Astronomical Society (AAS)
  - American Physical Society (APS)
  - ASCD-Association for Supervision and Curriculum Development
  - Association of Texas Professional Educators (ATPE)
  - Digistar Users Group (DUG)
  - International Planetarium Society (IPS)
  - National Science Teachers Association (NSTA)
  - Science Teachers Association of Texas (STAT)
  - NASA Texas Space Grant Consortium (TSGC)
  - Metroplex Technology Business Council

**Awards and Publications**

- Texas A&M Commerce President's Meritorious Service Award 2011
- NASA Texas Space Grant Fellowship, 2010
- AESP Grant-Explorations of the Solar System 2010
- MASTA Grant, 2009-2010
- Texas Space Grant Fellowship, 2009
- AESP Grant-Lunar Explorations, 2009
- Texas Space Grant Fellowship, 2008
- TxCept Grant Recipient, 2004
- A National Study of Baccalaureate Degree Completions in the Sciences: An Overview of Institutional Success by Public, Private, and Proprietary, Academic Leadership, Volume 7 - Issue 4, Dec 7, 2009

**PAMELA ANN HENDERSON**

Adjunct Instructor, Department of Physics and Astronomy

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Phone: (903)-886-5488

E-Mail: Pamela.Henderson@tamuc.edu

**Appointments:**

| | |
|---|---|
| 2008 – present | Adjunct instructor, Department of Physics & Astronomy; Texas A&M-Commerce |
| 2004-2007 | Instructor, Department of Physics ; Texas A&M-Commerce |
| 2000-2004 | Instructor, Department of Biological, Earth & Environmental Sciences; Texas A&M –Commerce |
| 1998-2000 | Graduate Assistant, Department of Biological, Earth & Environmental Sciences; Texas A&M-Commerce; 18 graduate hours in biology |
| 1995-1997 | Graduate Assistant, Depart of Earth Sciences; Texas A&M-Commerce |

**Synergistic Activities:**

Departmental advisor & mentor to pre service teacher

Chair of Nolan McWhirter Scholarship Committee

Member of Education Conference Committee

Member of Greater Texas Foundation Grant Committee

CAST mini grants

TxCETP faculty mentor

Faculty Advisor, Geological Society

Faculy Senate

Member of Academy for Educator Development

Biological & Earth Science Departmental Committees: Education Curriculum Development; Facilities & Schedule Planning, Chair; Assessment

# Curriculum Vita
# Fall 2010

**Instructor:** Dale Loughmiller, Adjunct Professor
**Academic Department: Physics**

**Address:** Dale Loughmiller
690 20TH ST NE
Paris, Texas 75460-1419

**Phone: 903-905-2248**
**E-Mail Address: daleloughmiller@mac.com**

## EDUCATION

**Education**:
Master of Science in Physics, Texas A&M University – Commerce, Commerce, Texas
May 2008

Master of Science in Educational Computing, Texas A&M University – Commerce, Commerce, Texas
August 2001

Bachelor of Science in Political Science, Texas A&M University – College Station, College Station, Texas
May 1993

## EXPERIENCE

Fall 1997 – Spring 2001 - Teacher (Physics and Integrated Physics and Chemistry
Chisum High School, Paris Texas

September 2001 – December 2008 Consultant (Science and Technology)
Region VIII Education Service Center, Mount Pleasant, Texas

August 2002 – present
Northeast Texas Community College, Adjunct Instructor
Departments (Physics and Technology)

January 2009 – present
Director of Technology, Paris ISD, Paris Texas

August 2002 – present
Northeast Texas Community College, Adjunct Instructor
Departments (Physics and Technology)

September 2010 – present
Texas A&M University - Commerce, Adjunct Instructor
Departments (Physics)

# Appendix B: Faculty Credential Inventory

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 15 October 2012

**2. Name:** Carlos Bertulani **3. CWID:** 50028534 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Physics & Astronomy

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **Ph.D** | **Nuclear Physics** | **1987** | **University of Bonn, Germany** |
| **7b. Master's Degree** | **M.S.** | **Nuclear Physics** | **1983** | **Federal University of Rio de Janeiro, Brazil** |
| **7c. Undergraduate Degree** | **B.S.** | **Physics** | **1980** | **Federal University of Rio De Janeiro, Brazil** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. PHYS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b. PHYS** | ☐ UG ☑ Grad | ☐ | ☑ | ☐ | ☐ | ☐ |
| **8c. ASTR** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8d. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Carlos Bertulani **10. CWID:** 50028534

**11. Rank:**
- ☑ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☐ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☑ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☐ **Not Applicable**

**13. Graduate Faculty Status:**
- ☑ **Graduate Faculty Member**
- (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☐ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| | |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials*) Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 15 October 2012

**2. Name:** Anil Chourasia **3. CWID:** 10129567 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Physics & Integrated Science

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **PhD** | **Physics** | **1986** | **Nagpur University, India** |
| **7b. Master's Degree** | **MS** | **Physics** | **1978** | **Nagpur University, India** |
| **7c. Undergraduate Degree** | **B.Sc.** | **Physics, Mathematics, Chemistry** | **1975** | **Nagpur University, India** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. PHYS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b. PHYS** | ☐ UG ☑ Grad | ☐ | ☑ | ☐ | ☐ | ☐ |
| **8c. ASTR** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8d. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Anil Chourasia **10. CWID:** 10129567

**11. Rank:**
- ☑ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☐ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☑ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☐ **Not Applicable**

**13. Graduate Faculty Status:**
- ☑ **Graduate Faculty Member**
- (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☐ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| | |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 15 October 2012

**2. Name:** Bao-An Li **3. CWID:** 50013168 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Physics & Astronomy

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **Ph.D** | **Physics** | **1991** | **Michigan State University** |
| **7b. Master's Degree** | | | | |
| **7c. Undergraduate Degree** | **B.S.** | **Physics** | **1983** | **Lanzhou University, China** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a.** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b.** | ☐ UG ☑ Grad | ☐ | ☑ | ☐ | ☐ | ☐ |
| **8c.** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8d.** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Bao-An Li **10. CWID:** 50013168

**11. Rank:**
- ☑ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☐ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☑ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☐ **Not Applicable**

**13. Graduate Faculty Status:**
- ☑ **Graduate Faculty Member**
  (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☐ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| | |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials*) Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 15 October 2012

**2. Name:** Kent Montgomery **3. CWID:** 35233716 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Physics & Astronomy

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **Ph.D** | **Astronomy** | **1995** | **Boston University, Boston, MA** |
| **7b. Master's Degree** | **M.S.** | **Astronomy** | **1990** | **San Diego State University, San Diego, CA.** |
| **7c. Undergraduate Degree** | **B.S.** | **Mathematics & Physics** | **1987** | **Bozeman, MT** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. PHYS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b. PHYS** | ☐ UG ☑ Grad | ☐ | ☑ | ☐ | ☐ | ☐ |
| **8c. ASTR** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8d. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Kent Montgomery **10. CWID:** 35233716

**11. Rank:**
- ☑ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☐ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☐ **Tenured**
- ☐ **Tenure Track**
- ☑ **Professional Track**
- ☐ **Not Applicable**

**13. Graduate Faculty Status:**
- ☑ **Graduate Faculty Member**
  (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☐ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| | |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 15 October 2012

**2. Name:** William Newton **3. CWID:** 50044116 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Integrated Science / Physics / Astronomy

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **DPhil** | **Astrophysics** | **2007** | **University of Oxford** |
| **7b. Master's Degree** | **MSc**<br>**MS** | **Nuclear Physics**<br>**Physics** | **2002**<br>**2000** | **University of Tennessee**<br>**University of Oxford** |
| **7c. Undergraduate Degree** | | | | |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. PHYS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b. PHYS** | ☐ UG ☑ Grad | ☐ | ☑ | ☐ | ☐ | ☐ |
| **8c. ASTR** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8d. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** William Newton **10. CWID:** 50044116

**11. Rank:**
- ☐ **Professor**
- ☐ **Associate Professor**
- ☑ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☐ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☐ **Tenured**
- ☑ **Tenure Track**
- ☐ **Professional Track**
- ☐ **Not Applicable**

**13. Graduate Faculty Status:**
- ☑ **Graduate Faculty Member**
- (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☐ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| | |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 15 October 2012

**2. Name:** Charles Rogers **3. CWID:** 10023565 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Physics / Astronomy / Integrated Science

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **Ph.D** | **Physics** | **1973** | **University of Arkansas, Fayetteville, Arkansas** |
| **7b. Master's Degree** | **M.S.** | **Physics** | **1969** | **University of Arkansas, Fayetteville, Arkansas** |
| **7c. Undergraduate Degree** | **B.S.** | **Physics** | **1967** | **University of Arkansas, Fayetteville, Arkansas** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. PHYS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b. PHYS** | ☐ UG ☑ Grad | ☐ | ☑ | ☐ | ☐ | ☐ |
| **8c. ASTR** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8d. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Charles Rogers **10. CWID:** 10023565

**11. Rank:**
- ☑ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☐ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☑ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☐ **Not Applicable**

**13. Graduate Faculty Status:**
- ☑ **Graduate Faculty Member**
  (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☐ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| | |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials*) Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 15 October 2012

**2. Name:** Kurtis Williams **3. CWID:** 50071166 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Astronomy / Physics

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **Ph.D.** | **Astronomy & Astrophysics** | **2002** | **University of California Santa Cruz** |
| **7b. Master's Degree** | **M.S.** | **Astronomy & Astrophysics** | **1999** | **University of California Santa Cruz** |
| **7c. Undergraduate Degree** | **B.S.**<br>**B.S.** | **Astronomy & Astrophysics**<br>**Physics** | **1996**<br>**1996** | **The Pennsylvania State University** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. PHYS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b. PHYS** | ☐ UG ☑ Grad | ☐ | ☑ | ☐ | ☐ | ☐ |
| **8c. ASTR** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8d. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Kurtis Williams **10. CWID:** 50071166

**11. Rank:**
- ☐ **Professor**
- ☐ **Associate Professor**
- ☑ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☐ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☐ **Tenured**
- ☑ **Tenure Track**
- ☐ **Professional Track**
- ☐ **Not Applicable**

**13. Graduate Faculty Status:**
- ☑ **Graduate Faculty Member**
- (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☐ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| | |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 15 October 2012

**2. Name:** Matthew A. Wood **3. CWID:** 50106866 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Physics & Astronomy

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **Ph.D.** | **Astronomy** | **1990** | **U. Texas at Austin** |
| **7b. Master's Degree** | **M.S** | **Astronomy** | **1985** | **U. Texas at Austin** |
| **7c. Undergraduate Degree** | **B.S.** | **Physics** | **1983** | **Iowa State University** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. PHYS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b. PHYS** | ☐ UG ☑ Grad | ☐ | ☑ | ☐ | ☐ | ☐ |
| **8c. ASTR** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8d. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Matthew A. Wood **10. CWID:** 50106866

**11. Rank:**
- ☑ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☐ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☑ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☐ **Not Applicable**

**13. Graduate Faculty Status:**
- ☑ **Graduate Faculty Member**
- (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☐ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| | |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 12 Oct 2012

**2. Name:** Margaret Cheri Davis **3. CWID:** 10059147 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Integrated Science

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | **EdD** | **Supervision, Curriculum and Instruction-HIED** | **2013** | **Texas A&M University-Commerce** |
| **7b. Master's Degree** | **MS** | **Broadfield Science-focus in physics** | **2005** | **Texas A&M University-Commerce** |
| **7c. Undergraduate Degree** | **BS** | **Interdisciplinary Studies-focus in science** | **2004** | **Texas A&M University-Commerce** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8c.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8d.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** M. Cheri Davis **10. CWID:** 10059147

**11. Rank:**
- ☐ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☑ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☐ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☑ **Not Applicable**

**13. Graduate Faculty Status:**
- ☐ **Graduate Faculty Member**
  (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☑ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| B.S. | Interdisciplinary Studies-focus in Science |

**15. Graduate Courses – Related Degree(s)**
**MS-Broadfield Science-focus in Physics**
**EdD-Supervision, Curriculum and Instruction-HIED**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| EdD | Supervision, Curriculum and Inst-HIED (currently ABD) |
| M.S. | Broadfield Science-physics focus |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**
**EdD-Physics and Astronomy**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | *Texas Educator Certification- Composite Science 4-8<br>* Experience teaching in public school<br>* 28.0 Credit hours-graduate science courses in physics and astronomy<br>*Undergraduate research group for differential photometry of asteroids |

Department Head (*Verification of Credentials*) Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status*)

College Dean Date

# Texas A&M University-Commerce

## *Faculty Credential Inventory Supplemental Qualifications – Form 2*

**Documentation of other qualifications and accomplishments for faculty lacking a terminal degree in a teaching discipline.**

**1. Date: 10/15/2012**

**2. Name:** M. Cheri Davis **3. CWID: 10059147**

**4. College:** ☐ **CBE** ☐ **COEHS** ☐ **CHSSA** ☑ **CoSEA** **5. Department:** Physics & Astronomy

**6. Rank:**
- ☐ Professor
- ☐ Associate Professor
- ☐ Assistant Professor
- ☐ Instructor
- ☐ Clinical Faculty
- ☑ Adjunct
- ☐ TA

7. **Series:**
- □ Tenured
- □ Tenure Track
- □ Professional Track
- ☑ Not Applicable

**8. Education – Graduate Degrees (official transcripts for all graduate degrees required)**

| Degree | Major | Institutions |
|---|---|---|
| EdD | Supervision, Curriculum and Instruction-HIED, Ed Admin and Leadership (Expected May 2013) | Texas A&M University-Commerce |
| MS | Broadfield Science-focus in Physics | Texas A&M University-Commerce |
| BS | Interdisciplinary Studies-focus in Science | Texas A&M University-Commerce |

**9. List Graduate Hours in the Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)**

| Course Number | Title | Institutions |
|---|---|---|
| PHYS 512 | Class Elec Magnetism | Texas A&M University-Commerce |
| PHYS 526 | Modern Physics | Texas A&M University-Commerce |
| PHYS 595 | Research Lit and Techniques | Texas A&M University-Commerce |
| PHYS 589 | Physics Discipline | Texas A&M University-Commerce |
| PHYS 589 | Astronomical Imaging | Texas A&M University-Commerce |
| ASTR 589 | Astronomical Research | Texas A&M University-Commerce |
| ASTR 589 | Photometry | Texas A&M University-Commerce |

**10. List Graduate Hours Related to Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)**

| Course Number | Title | Institutions |
|---|---|---|
| CHEM 521 | Thermodynamics | Texas A&M University-Commerce |
| CHEM 536 | Organometallic Chem | Texas A&M University-Commerce |
| ENVS 589 | Plant Biology | Texas A&M University-Commerce |
| ELED 529 | Inquiry Science Camp | Texas A&M University-Commerce |
| ELED 558 | Sci Curriculum Grades 1-8 | Texas A&M University-Commerce |

| | | |
|---|---|---|
| SHED 614 | Supervis Ed | Texas A&M University-Commerce |
| HIED 528 | Philosophy of Ed | Texas A&M University-Commerce |
| HIED 650 | Adv Pract Supervision & Curr | Texas A&M University-Commerce |
| HIED 651 | Curric Dev HIED | Texas A&M University-Commerce |
| HIED 697 | Publishing in HIED | Texas A&M University-Commerce |
| HIED 617 | Stat Proc for Edu & Research | Texas A&M University-Commerce |
| COUN 613 | Adv Statistical Technique | Texas A&M University-Commerce |
| HIED 697 | HIED Reform in the US & TX | Texas A&M University-Commerce |
| HIED 656 | HIED & Law | Texas A&M University-Commerce |
| HIED 621 | Eff Tch/Learning HIED | Texas A&M University-Commerce |
| HIED 637 | Inst Eff & Outcomes Assessments | Texas A&M University-Commerce |
| HIED 696 | Advanced Research Meth; Interp Inq | Texas A&M University-Commerce |
| HIED 627 | History in HIED | Texas A&M University-Commerce |
| HIED 695 | Research Methodology | Texas A&M University-Commerce |
| HIED 710 | Research Colloquium | Texas A&M University-Commerce |



**11. Exceptional scholarly or creative activities (documentation required)**

Texas Space Grant Representative (TSGC)
TSGC Scholarship Committee
TSGC Grant Reviewer
Columbia Crew Scholarship Committee TAMU-C
Search Committee-Mathematics

**12. Exceptional professional experience (documentation required)**

Construction of TAMUC observatory
Consulting for construction of new planetarium
Co-coordinator for APS-Texas Section Conference
Organizing committee for 11th International conference for Nucleus-Nucleus Collisions
American Astronomical Society (AAS)
American Physical Society (APS)
ASCD-Association for Supervision and Curriculum Development
Association of Texas Professional Educators (ATPE)
Digistar Users Group (DUG)
International Planetarium Society (IPS)
National Science Teachers Association (NSTA)
Science Teachers Association of Texas (STAT)
NASA Texas Space Grant Consortium (TSGC)
Metroplex Technology Business Council

**13. Certifications, Licenses, Awards, & Recognitions (documentation required)**

Texas A&M Commerce President's Meritorious Service Award 2011
NASA Texas Space Grant Fellowship, 2010
AESP Grant-Explorations of the Solar System 2010
MASTA Grant, 2009-2010
Texas Space Grant Fellowship, 2009
AESP Grant-Lunar Explorations, 2009
Texas Space Grant Fellowship, 2008
TxCept Grant Recipient, 2004

A National Study of Baccalaureate Degree Completions in the Sciences: An Overview of Institutional Success by Public, Private, and Proprietary, Academic Leadership, Volume 7 - Issue 4, Dec 7, 2009

**14. Other Exceptional Qualifications (documentation required)**

Please see attached CV

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** Oct. 15, 2012

**2. Name:** Dale Loughmiller **3. CWID:** 10095384 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics & Astronomy **6. Primary Teaching Discipline:** Integrated Science

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | | | | |
| **7b. Master's Degree** | **MS** | **Physics** | **2008** | **Texas A&M University –Commerce** |
| | **MS** | **Educational Computing** | **2001** | **Texas A&M University -Commerce** |
| **7c. Undergraduate Degree** | **BS** | **Political Science** | **1993** | **Texas A&M University-College Station** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8c.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8d.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Dale Loughmiller **10. CWID:** 10095384

**11. Rank:**
- ☐ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☑ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☐ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☑ **Not Applicable**

**13. Graduate Faculty Status:**
- ☐ **Graduate Faculty Member**
  (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☑ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| IS | MS Physics, TAMU-Commerce<br>MS Edu. Computing, TAMU-Commerce |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| | |

Department Head (*Verification of Credentials*) Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce

## *Faculty Credential Inventory Supplemental Qualifications – Form 2*

**Documentation of other qualifications and accomplishments for faculty lacking a terminal degree in a teaching discipline.**

**1. Date:** 15 October 2012

**2. Name:** Dale L. Loughmiller

**3. CWID: 10095384**

**4. College:** ☐ **CBE** ☐ **COEHS** ☐ **CHSSA** ☑ **CoSEA**

**5. Department:** Physics and Astronomy

**6. Rank:**
- ☐ Professor
- ☐ Associate Professor
- ☐ Assistant Professor
- ☐ Instructor
- ☐ Clinical Faculty
- ☑ Adjunct
- ☐ TA

7. **Series:**
- □ Tenured
- □ Tenure Track
- □ Professional Track
- ☑ Not Applicable

**8. Education – Graduate Degrees (official transcripts for all graduate degrees required)**

| Degree | Major | Institutions |
|---|---|---|
| M.S. | Physics | Texas A&M University - Commerce |
| | | |
| | | |

**9. List Graduate Hours in the Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)**

| Course Number | Title | Institutions |
|---|---|---|
| PHYS 514 | Statistical Physics | Texas A&M University - Commerce |
| PHYS 526 | Modern Physics | Texas A&M University - Commerce |
| PHYS 597 | Spec. Topics: Global Sciences | Texas A&M University - Commerce |
| PHYS 597 | Spec. Topics: Nuclear Astrophysics | Texas A&M University - Commerce |
| PHYS 523 | Electricity and Magnetism for Tchrs | Texas A&M University - Commerce |
| PHYS 589 | Ind. Studies in Space Sciences | Texas A&M University - Commerce |
| PHYS 561 | Astronomy Problems | Texas A&M University - Commerce |
| PHYS 542 | Micro Instrument Control | Texas A&M University - Commerce |
| PHYS 597 | Astronomy Topics | Texas A&M University - Commerce |
| PHYS 595 | Research Lit & Techniques | Texas A&M University - Commerce |

**10. List Graduate Hours Related to Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)**

| Course Number | Title | Institutions |
|---|---|---|
| ETEC 562 | Graphics for Med Presentation | Texas A&M University - Commerce |
| ETEC 627 | Comptr-Asstd Instr Education | Texas A&M University - Commerce |
| ETEC 626 | Computers Education Management | Texas A&M University - Commerce |
| ETEC 567 | Multimedia Production | Texas A&M University - Commerce |
| ETEC 624 | Computer Operating Systems | Texas A&M University - Commerce |

| | | |
|---|---|---|
| ETEC 561 | Learning & Technology | Texas A&M University - Commerce |
| ETEC 578 | Inst Design and Development | Texas A&M University - Commerce |
| ETEC 579 | Adm Media Tech Program | Texas A&M University - Commerce |
| SHED 595 | Research Methodologies | Texas A&M University - Commerce |



**11. Exceptional scholarly or creative activities (documentation required)**

**12. Exceptional professional experience (documentation required)**

**13. Certifications, Licenses, Awards, & Recognitions (documentation required)**

**14. Other Exceptional Qualifications (documentation required)**

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 10/16/2012

**2. Name:** John L Hickman **3. CWID:** 50013643 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics and Astronomy **6. Primary Teaching Discipline:** Integrated Science

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | | | | |
| **7b. Master's Degree** | **M.S.** | **Physics** | **2010** | **Texas A&M University - Commerce** |
| **7c. Undergraduate Degree** | **B.S.** | **Physics** | **2008** | **Texas A&M University - Commerce** |
| **7d. Other** | **A.S.** | **Physics** | **2006** | **Paris Junior College** |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8c.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8d.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** John L. Hickman **10. CWID:** 50013643

**11. Rank:**
- ☐ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☑ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☐ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☑ **Not Applicable**

**13. Graduate Faculty Status:**
- ☐ **Graduate Faculty Member**
  (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☑ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| IS | M.S. Physics TAMUC |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| IS | 2 years teaching experience |

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce

## *Faculty Credential Inventory Supplemental Qualifications – Form 2*

**Documentation of other qualifications and accomplishments for faculty lacking a terminal degree in a teaching discipline.**

**1. Date:** 10/16/2012

**2. Name:** John L. Hickman

**3. CWID:** 50013643

**4. College:** ☐ **CBE** ☐ **COEHS** ☐ **CHSSA** ☑ **CoSEA**

**5. Department:** Physics and Astronomy

**6. Rank:**
☐ Professor
☐ Associate Professor
☐ Assistant Professor
☐ Instructor
☐ Clinical Faculty
☑ Adjunct
☐ TA

7. **Series:**
□ Tenured
□ Tenure Track
□ Professional Track
☑ Not Applicable

**8. Education – Graduate Degrees (official transcripts for all graduate degrees required)**

| Degree | Major | Institutions |
|---|---|---|
| M.S. | Physics | Texas A&M University - Commerce |
| | | |
| | | |

**9. List Graduate Hours in the Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)**

| Course Number | Title | Institutions |
|---|---|---|
| PHYS 501 | Graduate Seminar | Texas A&M University - Commerce |
| PHYS 517 | Principles of Mathematical Physics | Texas A&M University - Commerce |
| PHYS 523 | Advanced Atomic Physics | Texas A&M University - Commerce |
| PHYS 597 | Sci Computing & Visualization | Texas A&M University - Commerce |
| PHYS 526 | Modern Physics | Texas A&M University - Commerce |
| PHYS 552 | Advanced Micro Electronics | Texas A&M University - Commerce |
| PHYS 511 | Intro Theoretical Mechanics | Texas A&M University - Commerce |
| PHYS 520 | Intro Quantum Mechanics | Texas A&M University - Commerce |
| PHYS 550 | Nuclear Physics | Texas A&M University - Commerce |

**10. List Graduate Hours Related to Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)**

| Course Number | Title | Institutions |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

**11. Exceptional scholarly or creative activities (documentation required)**

**12. Exceptional professional experience (documentation required)**

Two (2) years integrated science teaching experience.

**13. Certifications, Licenses, Awards, & Recognitions (documentation required)**

**14. Other Exceptional Qualifications (documentation required)**

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce
## *Faculty Credential Inventory – Form 1*

Form 1

**1. Date:** 10/16/2012

**2. Name:** Pamela A. Henderson **3. CWID:** 10155080 **4. College:** ☐ CBE ☐ COEHS ☐ CHSSA ☑ CoSEA

**5. Department:** Physics and Astronomy **6. Primary Teaching Discipline:** Integrated Science

**7. Degrees Earned Information**

| Level | Type of Degree (PhD, EdD, etc.) | Discipline | Year Awarded | Institution Awarding Degree |
|---|---|---|---|---|
| **7a. Doctorate Degree** | | | | |
| **7b. Master's Degree** | **M.S.** | **Earth Sciences** | **1997** | **Texas A&M University - Commerce** |
| **7c. Undergraduate Degree** | **B.S.** | **Earth Sciences** | **1995** | **Texas A&M University - Commerce** |
| **7d. Other** | | | | |

**8. Qualification Measure**

| Discipline Prefix or Specific Course Faculty is Qualified to Teach *(MATH, ENG, ART, PHYS 1401, etc.)* | Course Level *(Select one per line)* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree in the teaching discipline or a related discipline* | Qualification: ***Graduate teaching assistants:*** *Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline* | Qualification: ***General education or baccalaureate courses:*** *Doctorate or master's degree outside teaching discipline with other qualifications.* | Qualification: ***Graduate and post-baccalaureate courses:*** *Earned doctorate/terminal degree outside teaching discipline with other qualifications.* |
|---|---|---|---|---|---|---|
| **8a. IS** | ☑ UG ☐ Grad | ☑ | ☐ | ☐ | ☐ | ☐ |
| **8b.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8c.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8d.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8e.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8f.** | ☐ UG ☐ Grad | ☐ | ☐ | ☐ | ☐ | ☐ |

**9. Name:** Pamela A. Henderson **10. CWID:** 10155080

**11. Rank:**
- ☐ **Professor**
- ☐ **Associate Professor**
- ☐ **Assistant Professor**
- ☐ **Instructor**
- ☐ **Clinical Faculty**
- ☑ **Adjunct**
- ☐ **TA**

**12. Series:**
- ☐ **Tenured**
- ☐ **Tenure Track**
- ☐ **Professional Track**
- ☑ **Not Applicable**

**13. Graduate Faculty Status:**
- ☐ **Graduate Faculty Member**
  (***Approved by the Graduate Council***)
- ☐ **Temporary Status**
- ☑ **Not a member the Graduate Faculty**

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

**14. Undergraduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Master's and Doctorate degrees, majors, institutions)* |
|---|---|
| IS | M.S. Earth Sciences, TAMU-Commerce |

**15. Graduate Courses – Related Degree(s)**

| Prefix or Course | Academic Degree(s) *(Doctorate/terminal degree, major, institution)* |
|---|---|
| | |

**16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15**

| Prefix or Course | Description Summary *(# Related graduate hours, related experiences, certifications/licenses, publications etc.)* |
|---|---|
| IS | 3 years teaching experience |

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date

# Texas A&M University-Commerce

## *Faculty Credential Inventory Supplemental Qualifications – Form 2*

**Documentation of other qualifications and accomplishments for faculty lacking a terminal degree in a teaching discipline.**

**1. Date: 15 October 2012**

**2. Name:** Pamela Henderson **3. CWID: 10155080**

**4. College:** ☐ **CBE** ☐ **COEHS** ☐ **CHSSA** ☑ **CoSEA** **5. Department:** Physics & Astronomy

**6. Rank:**
- ☐ Professor
- ☐ Associate Professor
- ☐ Assistant Professor
- ☐ Instructor
- ☐ Clinical Faculty
- ☑ Adjunct
- ☐ TA

7. **Series:**
- □ Tenured
- □ Tenure Track
- □ Professional Track
- ☑ Not Applicable

**8. Education – Graduate Degrees (official transcripts for all graduate degrees required)**

| Degree | Major | Institutions |
|---|---|---|
| MS | Earth Sciences | Texas A&M University-Commerce |
| BS | Earth Sciences | Texas A&M University-Commerce |

**9. List Graduate Hours in the Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)**

| Course Number | Title | Institutions |
|---|---|---|
| | | |
| | | |

**10. List Graduate Hours Related to Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)**

| Course Number | Title | Institutions |
|---|---|---|
| ESCI 314 | Weather and Climate | Texas A&M University-Commerce |
| ESCI 589 | Ind Stud.: Earth Science Research | Texas A&M University-Commerce |
| ESCI 510 | Earth: Origin and History | Texas A&M University-Commerce |
| ESCI 555 | Sel Topics Oceanography | Texas A&M University-Commerce |
| ESCI 597 | Spec. Topics: Field Geology | Texas A&M University-Commerce |
| ESCI 529 | Science Workshop | Texas A&M University-Commerce |
| ESCI 572 | Rocks & Minerals | Texas A&M University-Commerce |
| ESCI 314 | Weather and Climate | Texas A&M University-Commerce |
| ESCI 589 | Ind Stud.: Earth Science Research | Texas A&M University-Commerce |
| ESCI 595 | Research Lit and Techniques | Texas A&M University-Commerce |
| ESCI 597 | Sp. Topics: Research Geosciences | Texas A&M University-Commerce |

**11. Exceptional scholarly or creative activities (documentation required)**

**12. Exceptional professional experience (documentation required)**

Has taught Integrated Science courses for 3 years.

**13. Certifications, Licenses, Awards, & Recognitions (documentation required)**

**14. Other Exceptional Qualifications (documentation required)**

Department Head (*Verification of Credentials)* Date

Dean of Graduate Studies Date
(*Verification of Graduate Faculty Status)*

College Dean Date