# Curriculum Vitae

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## I. Education

Ph.D. **Statistics**, Iowa State University, August 2010 (Advisor: Dr. W.Q. Meeker)
Ph.D. **Physics**, Iowa State University, December 2007 (Advisor: Dr. K.M. Ho)
B.S. **Physics**, Xiamen University, Xiamen, China, May 2000

## II. Research and Working Experience

**Adjunct Faculty,** TAMU Commerce (2016-Present)
**Data Scientist,** Wal-Mart Stores, Inc. (2014-Present)
**Research Statistician**, Advanced Analytics Division, SAS Institute (2013-2014)
**Statistical Leader,** Applied Statistics Laboratory, GE Global Research Center (2010-2013)

## III. Academic Community Services

- Officer and Chair, Quality and Productivity Section of American Statistical Association (ASA) (2017)
- Officer and Chair-Elected, Quality and Productivity Section of ASA (2016)
- Chair, Statistics in Physical and Engineering Science (SPES) Award Committee of ASA (2016)
- Officer and Program Chair, Quality and Productivity Section of ASA (2014)
    - Joint Statistical Meetings 2014 Program Committee (2014)
    - Organize one of the four Introductory Overview Lecture for JSM (2014)
- Officer and Program Chair-elected, Quality and Productivity Section of ASA (2013)
    - Joint Statistical Meetings 2013 Round Table event organizer
    - Joint Statistical Meetings 2013 Q&P Section travel award committee chair
    - Invited session organizer and chair, QPRC Conference, Niskayuna, NY (2013)
- Officer, Section of Physical and Engineering Sciences of ASA (2012-2013)
    - Exhibitor Chair, 56$^{th}$ Fall Technical Conference, St. Louis, MO (2012)
    - Exhibitor Chair, 57$^{th}$ Fall Technical Conference, San Antonio, TX (2013)
- President, Capital Region Chapter of Society of Reliability Engineering (2011-2013)

## IV. Teaching and Mentoring

- Mentor, Capstone project for MScA program at Graham School of University of Chicago (2015)
- Founding member for the first Analytics Rotation Program in Wal-Mart Stores, Inc. (2015)
- Instructor and course material developer, *Advanced Analytics Series*, Wal-Mart Stores, Inc. (2014-2015)
- Public webinar for ASQ Reliability Division in areas of Reliability (2013, 2014)
- Instructor, Six Sigma, Reliability and Quality Control related courses, GE Global Research (2010-2013)
- Instructor, *College Physics*, Des Moines Area Community College (Summer 2007)
- Teaching Assistant with Teaching Excellence Award, Iowa State University (2003)

## V. Awards

- Statistics in Physical and Engineering Sciences (SPES) Award, ASA Award & Recognition at JSM (2015)
- Data in Action Award, Hackathon Competition, Walmart Technology (2015)
- Fun Favorite Award, Hackathon Competition, Walmart Technology (2015)
- Walmart Technology Genesis Award for significant contribution (2015)
- Teaching Excellence Award, Iowa State University (2003)

## VI. Publications

1. Hong, Y., Li, M., and Osborn, B. (2015), System Unavailability Based on Window-observed Recurrent Event Data. *Applied Stochastic Models in Business and Industry* 31, 122-136.
2. Li, M., Spencer, F.B., and Meeker, W.Q. (2015), Quantile Probability of Detection: Distinguishing Between Uncertainty and Variability in Nondestructive Testing. *Material Evaluation* 73, 89-95.
3. Li, M., and Doganaksoy, N. (2014), Batch Variability in Accelerated-Degradation Testing. *Journal of Quality Technology* 46, 171-180.

4. Li, M., Meeker, W.Q., and Thompson, R.B. (2014), Physical Model Assisted Probability of Detection in Nondestructive Evaluation for Detecting of Flaws in Titanium Forgings. *Technometrics* 56, 78-91.
5. Li, M., and Meeker, W.Q. (2014), Application of Bayesian Methods in Reliability Data Analyses. *Journal of Quality Technology* 46, 1-23.
6. Li, M., Nakagawa, N., Larson, B.F., and Meeker, W.Q. (2013), Statistical Assessment of Probability of Detection for Automated Eddy Current Nondestructive Evaluation Inspection. *Research in Nondestructive Evaluation* 24, 89-104.
7. Li, M., Meeker, W.Q., and Hovey, P. (2012), Joint Estimation of NDE Inspection Capability and Flaw-size Distribution for In-service Aircraft Inspections. *Research in Nondestructive Evaluation* 23, 104-123.
8. Li, M., Holland, S.D., and Meeker, W.Q. (2011), Quantitative Multi-inspection-site Comparison of Probability of Detection for Vibrothermography Nondestructive Evaluation Data. *Journal of Nondestructive Evaluation* 30, 172-178.
9. Holland, S.D., Uhl, C., Ouyang, Z., Bantel, T., Li, M., Meeker, W.Q., Lively, J., Brasche, L., and Eisenmann, D. (2011), Quantifying the Vibrothermographic Effect. *Nondestructive Testing and Evaluation International*, 44, 775-782.
10. Mao, D., Leung, W., Li, M., Ho, K.M., and Dong, L. (2011), Photonic-Plasmonic Integration Through the Fusion of Photonic Crystal Cavity and Metallic Structure. *Journal of Nanophotonics* 5, 059501.
11. Li, M., Holland, S. D., and Meeker, W. Q. (2010), Statistical Methods for Automatic Crack Detection Based on Vibrothermography Sequence-of-Images Data (with discussion). *Applied Stochastic Models in Business and Industry*, 26, 481-495.
12. Ye, Z., Hu, X., Li, M., Ho, K.M., Cao J. and Miyawaki, M. (2009), Localized Optical Orbital Approach to Study Localized States of Light in Photonic Crystals. *Physical Review B* 80, 035111.
13. Stieler, D., Barsic, A., Tuttle, G., Li, M., and Ho, K.M. (2009), Effects of Defect Permittivity on Resonant Frequency and Mode Shape in the Three-dimensional Woodpile Photonic Crystal. *Journal of Applied Physics* 105, 103109.
14. Hu, X., Li, M., Ye, Z., Leung, W., Ho, K.M., and Lin, S. (2008), Design of Midinfrared Photodetectors Enhanced by Resonant Cavities with Subwavelength Metallic Gratings. *Applied Physics Letter* 93, 241108.
15. Kohli, P., Chatterton, J., Stieler, D., Tuttle, G., Li, M., Hu, X., Ye, Z. and Ho, K.M. (2008), Fine Tuning Resonant Frequencies for a Single Cavity Defect in Three-dimensional Layer-by-layer Photonic Crystal. *Optics Express* 16, 19844-19849.
16. Lee, J.H., Lee, J.C.W., Leung, W., Li, M., Constant, K., Chan, C.T., and Ho, K.M. (2008), Polarization Engineering of Thermal Radiation Using Metallic Photonic Crystals. *Advanced Materials* 20, 3244-3247.
17. Li, M., Hu, X., Ye, X., Ho, K.M., Cao, J. and Miyawaki, M. (2008), Perfectly Matched Layer Absorption Boundary Condition in Planewave Based Transfer-scattering Matrix Method for Photonic Crystal Device Simulation. *Optics Express* 16, 11548-11554.
18. Hu, X., Cao, J., Li, M., Ye, Z., Miyawaki, M., and Ho, K.M. (2008), Modeling of Three-dimensional Photonic Crystal Lasers in a Frequency Domain: A Scattering Matrix Solution. *Physical Review B* 77, 205104.
19. Ye, Z., Hu, X., Li, M., Ho, K.M. and Yang, P. (2006), Propagation of Guided Modes in Curved Nanoribbon Waveguides. *Applied Physics Letters* 89, 241108.
20. Li, M., Hu, X., Ye, X., Ho, K.M., Cao, J. and Miyawaki, M. (2006), Higher-order Incidence Transfer Matrix Method Used in Three-dimensional Photonic Crystal Coupled-resonator Array Simulation. *Optics Letters* 31, 3498-3500.
21. Hu, X., Chan, C.T., Zi, J., Li, M., and Ho, K.M., Diamagnetic Response of Metallic Photonic Crystals at Infrared and Visible Frequencies. *Physical Review Letters* 96, 223901.
22. Li, M., Hu, X., Ye, X., Ho, K.M., Cao, J. and Miyawaki, M. (2006), High-efficiency Calculations for Three-dimensional Photonic Crystal Cavities. *Optics Letters* 31, 262-264.