CURRICULUM VITAE

William Li

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Work Experience

- **Professor**, Supply Chain and Operations Department, Carlson School of Management, University of Minnesota (from 2009)

- **Invited Professor**, School of Management, Fudan University (from 2005)

- **Associate Professor,** Operations & Management Science Department, Carlson School of Management, University of Minnesota

- **Assistant Professor**, Operations & Management Science Department, Carlson School of Management, University of Minnesota

- **Reliability Engineer**, Ford Motor Company

Education

- Ph.D. (Statistics):   University of Waterloo
- M. Math (Statistics): University of Waterloo
- B.Sc. (Applied Mathematics): Tsinghua University

Book

- "Applied Linear Statistical Models," (5th edition), by Kutner, Nachtsheim, Neter, and Li, McGraw-Hill Irwin, 2005

Refereed Publications

1. Li, W., Nachtsheim, C.J., Wang, K., Reul, R., and Albrecht, M. (2013), "Conjoint Analysis and Discrete Choice Experiments for Quality Improvement," *Journal of Quality Technology* 45(1), 74–99.
2. Yang, P., and Li, W. (2013), "Blocked $2^{\{k-p\}}$ Semifoldover Designs," *Journal of Statistical Planning and Inference*, to appear.
3. Tichon, J., Li, W., and McLeod, R. (2012), "Generalized Minimum Aberration Two-Level Split-Plot Designs", *Journal of Statistical Planning and Inference*, 142, 1407–1414.
4. Agboto, V., Li, W., and Nachtsheim, C. J. (2011), "A Comparison of Three Approaches for Constructing Robust Experimental Designs," *Journal of Statistical Theory and Practice (special issue on Design of Experiments),* 5, 1–11.
5. Choi, N.H., Li, W., and Zhu, J. (2010), "Variable Selection with the Strong Heredity Constraint and Its Oracle Property," *Journal of American Statistical Association,* 105, 354–364.

6. Agboto, V., Li., W., and Nachtsheim, C.J. (2010), "Screening Designs for Model Discrimination," *Journal of Statistical Planning and Inference*, 140, 766–780.
7. Jones, B., Li, W., and Nachtsheim, C. J., and Ye, K. (2009), "Model-Robust Supersaturated and Partially Supersaturated Designs," *Journal of Statistical Planning and Inference*, 139, 45–53.
8. Sun, D., Li, W., and Ye, K. (2008), "An Algorithm for Sequentially Constructing Non-Isomorphic Designs and its Application," *Statistics and Application (special issue in honor of Professor Dey)*, 6, 144–158.
9. Ye, K., Park, D., Li, W., and Dean, A.M. (2008), "Construction and Classification of Orthogonal Arrays with Small Numbers of Runs," *Statistics and Application (special issue in honor of Professor Dey)*, 6, 1–9.
10. Ye K., K-J. Tsai, and Li, W. (2007), "Optimal Orthogonal Three-Level Factorial Designs for Factor Screening and Response Surface Exploration", *MODA8 conference proceedings*, (refereed,) 2007, 221–227.
11. Jones, B., Li, W., and Nachtsheim, C. J., and Ye, K. (2007), "Model Discrimination – Another Perspective of Model-Robust Designs," *Journal of Statistical Planning and Inference*, 137, 1576–1583.
12. Lu, X., Li, W., and Xie, M. (2006), "A Class of Nearly Orthogonal arrays," *Journal of Quality Technology*, 38(2), 148–161.
13. Li, L., and Li, W. (2005), "Tabu Search and Perturbation Methods in the Construction of Multi-Level Supersaturated Designs," *American Journal of Mathematical and Management Science*, 25.
14. Cheng, S. W., Li, W., and Ye, K. (2004), "Blocked Nonregular Two-Level Factorial Designs," *Technometrics*, 46(3), 269–279
15. Li, W., Lin, D. K. J., and Ye, K. (2003), "Optimal Foldover Plans for Non-Regular Designs," *Technometrics*, 45(3), 347–351.
16. Li, W., and Lin, D. K. J. (2003), "Optimal Foldover Plans for Two-Level Factorial Designs," *Technometrics*, 45(2), 142–149.
17. Ye, K., and Li, W. (2003), "Some Properties of Blocked and Unblocked Foldovers of 2^{k-p} Designs," *Statistica Sinica*, 13, 403–408.
18. Bingham D., and Li, W. (2002), "A Class of Optimal Robust Parameter Designs," *Journal of Quality Technology*, 34(3), 244–259.
19. Li, W., and Nachtsheim, C. J. (2000), "Model-Robust Factorial Design," *Technometrics*, 42, 345–352.
20. Ye, K., Li, W., and Sudjianto, A. (2000), "Algorithmic Construction of Optimal Symmetric Latin Hypercube Designs," *Journal of Statistical Planning and Inference*, 90, 145–159.
21. Shao, X., Cherkassky, C., and Li, W. (2000), "Measuring the VC-Dimension Using Optimized Experimental Design," *Neural Computation*, 12, 1969–1986.
22. Li, W., and Wu, C. F. J. (1999), "An Integrated Method of Parameter Design and Tolerance Design," *Quality Engineering,* 3, 417–425.
23. Li, W., and Wu, C. F. J. (1997), "Columnwise-Pairwise Algorithms with Applications to the Construction of Supersaturated Designs," *Technometrics*, 37, 171–179, 1997.

Book Chapter

- Li, W. (2006), "Screening Designs for Model Selection," In *Screening: Methods for Experimentation in Industry, Drug Discovery and Genetics*, Editors: Dean, A. M. and Lewis, S. M, Chapter 10, Springer Verlag.

Proceeding and Miscellaneous Papers

- Li, W., "Foldover Designs," in *Encyclopedia of Statistics in Quality and Reliability*, Ruggeri, F., Kenett, R. and Faltin, F. W. (eds). John Wiley & Sons Ltd, Chichester, UK, pp 691–695, 2007.
- Li, W., "Optimal Designs Using CP Algorithms," *Proceedings for 2nd World Conference of the International Association for Statistical Computing*, 130–139, 1997.

Selected Presentations

- (06/2012) (**Invited**) "Discrete Choice Experiments in the Presence of Respondent Fatigue," The 2nd International Conference on the Interface between Statistics and Engineering, Taiwan.
- (09/2011) (**Invited**) "Assessing the Efficiencies of "Optimal" Discrete Choice Experiments in the Presence of Respondent Fatigue", Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
- (05/2011) (**Invited**) "Screening Designs for Discrete Choice Experiments Over Model Uncertainty", International Conference on Design of Experiments, Memphis, Tennessee
- (12/2010) (**Invited**) "A Class of Optimal Discrete Choice Experiments Designs for Quality Improvement", The Eighth ICSA International Conference, Guangzhou, China
- (12/2010) (**Invited**) "Optimal Discrete Choice Experiments Design Under Model Uncertainty", International Conference on Applied Statistics and Financial Mathematics, Hong Kong.
- (07/2010) (**Invited**) "Optimal Discrete Choice Experiments Design Under Model Uncertainty," International Symposium on Business and Industrial Statistics, Slovenia.
- (07/2009) (**Plenary**) "Fatigue Effect on Internet-Based Non-Linear Choice Designs," 2009th Annual Meeting of the Chinese Association of Applied Statistics, Shanghai, China
- (07/2009) (**Invited**) "Design Considerations for Discrete Choice Experimentation," 1st International Conference on the Interface between Statistics and Engineering, Beijing, China
- (05/2009) (**Invited**) "Impact of Fatigue on Designs in Internet-Based Discrete Choice Studies," Spring Research Conference, Vancouver, Canada
- (06/2008) (**Invited**) "Algorithms to Search for Optimal Designs," 2008 Quality and Productivity Research Conference, Madison, Wisconsin
- (05/2008) (**Invited**) "Screening Designs for Model Selection," Joint Meeting of the Statistical Society of Canada and the Societe Francaise de Statistique, Ottawa, Canada
- (05/2008) (**Invited**) "Analyzing Supersaturated Designs Using Model Selection Methods – Do They Work?" Spring Research Conference, Atlanta, Georgia
- (01/2008) (**Plenary**) "Model-Robust and Model-Discriminating Designs," International Conference on Design of Industrial Experiments, Antwerp, Belgium
- (08/2007) "A Class of Optimal Three-Level Response Surface Designs," 2007 Joint Statistical Meetings, Salt Lake City, Utah
- (05/2007) "Screening Designs for Model Discrimination," 2007 Spring Research Conference, Ames, Iowa.
- (06/2006) (**Invited**) "Bayesian Model Robust and Model Discrimination Designs," International Conference on Designs Experiments and Its Applications, Tianjin, China
- (01/2006) (**Invited**) "Near Orthogonal Mixed-Level Arrays with Economic Run Sizes," International Symposium on Business and Industrial Statistics, Lima, Peru
- (11/2005) (**Invited**) "Screening Designs for Model Selections," 2005 Design and Analysis of Experiments Conference, Santa Fe, New Mexico
- (05/2005) (**Invited**) "Optimal Blocking of Mixed-Level Designs," International Conference on Design of Experiments, Memphis, Tennessee

- (10/2004) (**Invited**) "Blocked Nonregular Two-Level Factorial Designs," 2004 Fall Technical Conference, Roanoke, Virginia
- (08/2004) (**Invited**) "Optimal Foldover Plans for Two-Level Factorial Designs," 2004 Joint Statistics Meeting, Toronto, Canada
- (05/2004) (**Invited**) "A Class of Model Discriminating Designs," 2004 Quality and Productivity Conference, Durham, North Carolina
- (10/2003) (**Invited**) "Efficient Model Discriminating Designs," International Conference on Statistics, Combinatorics and Related Areas, Portland, Maine
- (08/2003) "Optimal Foldover Plans for Non-Regular Designs," Joint Statistical Meeting, San Francisco
- (05/2003) (**Invited**) "Optimal blocking of non-regular factorial designs," Design and Analysis of Experiments II, Chicago, May 2003
- (11/2001) (**Invited**) "Efficient Screening Experiments for Six-Sigma Quality Improvement," INFORMS Annual Meeting, Miami Beach, Florida
- (06/2001) (**Invited**) "Optimal Foldover Plans for Two-Level Fractional Factorial Designs," Spring Research Conference, Roanoke, Virginia
- (06/2001) (**Invited**) "Non-regular Robust Parameter Designs," The Joint Meeting of SSC/WNAR/IMS, Vancouver, Canada
- (10/2000) (**Invited**) "Constructing Optimal Exact Designs," Fall Technical conference, Minneapolis
- (05/2000) (**Invited**) "Model-Robust Factorial Designs," First Midwest Conference for New Directions in Experimental Design, Columbus
- (10/1998) (**Invited**) "Optimal Experimental Design With Application in Industry," 3M Statistical Practitioner's Forum, St. Paul, Minnesota
- (05/1998) (**Invited**) "An Integrated Method of Parameter Design and Tolerance Design," Annual Quality and Productivity Research Conference, Santa Rosa, California
- (02/1998) (**Invited**) "Optimal Latin Hypercube Designs," Bell Labs, Lucent Technologies, Murray Hill, New Jersey
- (01/1998) (**Invited**) "Computer Experiments and Latin Hypercube Designs," School of Statistics, University of Minnesota
- (07/1997) (**Invited**) "Optimal Experimental Designs With Applications in Industry," the 60th IMS Annual Meeting, Park City, Utah
- (02/1997) (**Invited**) "Optimal Designs Using CP Algorithms," 2nd World Conference of the International Association for Statistical Computing, Pasadena, California
- (06/1995) (I**nvited**) "An Integrated Method of Parameter Design and Tolerance Design," (with C.F.J. Wu) Spring Research Conference, Waterloo, Canada
- (06/1995) (I**nvited**) "Algorithmic Construction of Optimal Balanced Designs," Spring Research Conference, Waterloo, Canada

Presentations Invited by Institutions

- (2003 – 2011) Cambridge University, University of Palermo, Georgia Tech University, University of Southampton, University of Manitoba, University of Winnipeg, Chinese University of Hong Kong, Fudan University, ID Analytics, Simon Fraser University, Lingnan College (University)
- (1996 – 2002) Beijing University; Penn State University; Hong Kong Baptist University; HNC Inc., Tsinghua University; University of Washington; University of Minnesota (Dept. of Statistics); University of Minnesota (Dept. of Biostatistics), 3M, Ford

Teaching Experience

- 2001–date, Executive MBA courses in China
- 2002–date, Executive MBA course in Warsaw
- May 2002, Executive MBA course in Vienna
- 1996–date, PhD, MBA, Undergraduate courses at U. of Minnesota

Award

- 2006 Excellence in Teaching Award of the Carlson School of Management of the University of Minnesota
- 1996 Customer Driven Quality Award for the Durability CAE and Reliability project at Ford Motor Company, Feb. 1997

Professional Consulting and Corporate Training

- 1998: Consultant for TCF Financial Corp.
- 1996–2000: Consultant for Ford Motor Company
- 1994–1995: Industrial consultant for Ford Motor Company and Chrysler Corp.
- 2003: Instructor of the course of Operations Management for the EMBA program of two Chinese corporations

Grants

- "Efficient Designs for Discrete Choice Experiments," in the amount of $2,500, Dean's Office Small Research Grant, University of Minnesota, June 2012 – May 2013
- "Optimal Blocking Scheme and Complete Sets of Three-Level Designs," in the amount of $10,439, McKnight– Business and Econometrics Research Grant at the University of Minnesota, May–June 2002
- "Optimal Foldover and Semi-Foldover Plans," in the amount of $19,552, McKnight– Business and Econometrics Research Grant at the University of Minnesota, July–Aug. 2001
- "Model-Robust Supersaturated Designs," in the amount of $10,711, McKnight–Business and Econometrics Research Grant at the University of Minnesota, July–Aug. 2000
- "Model-Robust Response Surface Design," in the amount of $22,003, Mc McKnight– Business and Econometrics Research Grant at the University of Minnesota, July–Aug. 1999
- "Computer-Aided Optimal Designs and Application," in the amount of $19,407, Grant-in-Aid of research, Artistry and Scholarship at the University of Minnesota, July 1998–Dec. 1999
- "Business Case Development for CSOM Statistics Courses," in the amount of $6,000, teaching grant from the CSOM Dean's Office, Jan.–May 1999

Editorial Boards

- Associate Editor: *Technometrics* (from 2010)
- Associate Editor: *Applied Stochastic Models in Business and Industry*.
- Associate Editor: *Journal of Statistics Education*

Professional Services

- Program committee: International Conference on Applied Statistics and Financial Mathematics, Hong Kong, 2010
- Session Organizer and Chair: 1st International Conference on the Interface between Statistics and Engineering, Beijing, China, 2009
- ICSA Program Committee, 2005–2007
- Organization Committee for the 2005 Quality and Productivity Conference, Minneapolis

- Local Organization Committee Chair for ICSA at JSM 2005, Minneapolis, 2005
- Session Chair: Quality and Productivity Conference, Minneapolis, 2005
- Session Chair: Quality and Productivity Conference, North Carolina, 2004
- Awards Chair: Section on Physical and Engineering Sciences, ASA, 2001–2004
- Session Organizer: 2002 Design and Analysis of Experiments, June 2002, Vancouver, Canada
- Session Chair: JSM2001 (of ASA/IBS/IMS/SSC), Atlanta, Georgia, Aug. 2001
- Session Organizer/Chair: 1997 ICSA Applied Statistics Symposium, Rutgers University, New Jersey, June 1997
- Session Chair: Sprint Research Conference on Statistics in Industry and Technology, Chapel Hill, North Carolina, June 1994