

Xuerong Meggie Wen

CONTACT INFORMATION

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RESEARCH INTERESTS

Dimension reduction, variable and model selection, survival analysis, recurrent event data analysis, and statistical modeling in science and engineering.

EDUCATION

June 2005	Ph.D. in Statistics <i>Advisor: R. Dennis Cook</i> University of Minnesota, Twin Cities
July 2000	M.S. in Operation Research and Control Theory <i>Advisor: Hanfu Chen</i> Chinese Academy of Sciences
July 1997	B.S. in Probability and Statistics Beijing (Peking) University

EMPLOYMENT

08/12-- Present	Associate Professor with Tenure, Department of Mathematics and Statistics, Missouri University of Science and Technology.
08/05--08/12	Tenure-track Assistant Professor, Department of Mathematics and Statistics, Missouri University of Science and Technology (formerly, University of Missouri, Rolla).
09/00--05/03	Teaching Assistant, School of Statistics, University of Minnesota.
06/03--06/05	Research Assistant, School of Statistics, University of Minnesota. (Except in Fall 2004 on graduate fellowship)

HONORS AND AWARDS

Fall 2004	Graduate Fellowship, School of Statistics, University of Minnesota
1996	Gangsong Scholarship for Academic Excellence, Beijing University
1995	Scholarship for Excellence in Mathematical Study, Beijing University

SUPPORT AND FUNDING

- Hong Kong Baptist University, “Multi-Population Dimension Reduction”, May 2013, HK \$18,000.
- Missouri Research Board, “*On Partial Dimension Reduction with Applications to Partially Linear model*”, Dec. 2010 – Dec. 2011, \$13,000.
- Hong Kong Baptist University, “*On Inference and Variable Selection for Semiparametric Models with High Dimensional Predictors*”, Dec. 2010 – Jan. 2011, HK\$ 30,000.
- 10th Meeting of New Researchers in Statistics and Probability, Salt Lake City, July 2007, travel fund of \$200.
- ENAR Workshop for Junior Researchers, Arlington, March 2008, travel fund of \$800.
- Missouri University of Science and Technology startup, Aug. 2005 – Aug. 2008, \$5000.
- NSF Grant, “*Model and Methods for Technical Target Setting in Software Quality Function Deployment*”, Dec. 2010 – Dec. 2013, Co-PI (30%), \$499,695, Non-funded.
- NSF Grant, “*Multi-Population Sufficient Dimension Reduction*”, August. 2014 – August. 2016, PI, \$82,600, submitted on Nov. 7, 2013.

PUBLICATIONS

- **Xuerong Meggie Wen**, R. Dennis Cook (2007). Optimal sufficient dimension reduction for regressions with categorical predictors. *Journal of Statistical Planning and Inference*, **137**, 1961--1978.
- **Xuerong Meggie Wen** (2007). A note on sufficient dimension reduction. *Statistics and Probability Letter*, **77**, 817--821.
- **Xuerong Meggie Wen**, R. Dennis Cook (2009). New approaches to bivariate dimension reduction. *Journal of Statistical Planning and Inference*, **139**, 734--748.
- **Xuerong Meggie Wen**, C. Messan Setodji, Akim Adekpedjou (2009). A minimum discrepancy approach to multivariate dimension reduction via K-means inverse regression. *Journal of Statistics and Its Interface*, **2**, 503--511.
- **Xuerong Meggie Wen** (2010). On sufficient dimension reduction for proportional censorship model with covariates. *Computational Statistics and Data Analysis*, **54**, 1975--1982.
- **Xuerong Meggie Wen** (2010). Discussion of “Envelope models for parsimonious and efficient multivariate linear regression”. *Statistica Sinica*, **27**, 987--988.
- Zhou Yu, Li-Xing Zhu, **Xuerong Meggie Wen** (2012). On model-free conditional tests for regressions. *Journal of Multivariate Analysis*, **109**, 61--72.

- Zhenhui Feng, **Xuerong Meggie Wen** (*co-first author and corresponding author*), Zhou Yu, Li-Xing Zhu (2013). On partial sufficient dimension reduction with applications to partially linear models. *Journal of the American Statistical Association*, **108**, 237--246.
- Akim Adekpedjou, Jonathan Quiton, **Xuerong Meggie Wen** (2013). Semiparametric inference with correlated recurrence time data. *Statistical Methodology*, **10**, 1--13.
- Bilin Zeng, **Xuerong Meggie Wen**, Li-Xing Zhu (2013). Sparse group sufficient dimension reduction with applications to gene pathway data. *Submitted*.
- Bilin Zeng, Zhou Yu, **Xuerong Meggie Wen** (2013). A note on cumulative mean estimation. *Submitted*.
- Xiaoming He, Zhu Wang, **Xuerong Meggie Wen**, Xu Zhang (2013). A stochastic collocation method based on sparse grid for Stokes-Darcy model with random hydraulic conductivity. *To be submitted*.
- Xuejing Liu, Zhou Yu, **Xuerong Meggie Wen**, Robert Paige (2013). On testing common indices for two multi-index models: a link-free approach. *Under final preparation*.
- Xuejing Liu, Zhou Yu, **Xuerong Meggie Wen**, Robert Paige (2014). Test for common dimension reduction subspaces for multiple datasets. *Under final preparation*.
- **Xuerong Meggie Wen**, Tao Wang, and Li-Xing Zhu (2014). Sufficient dimension reduction for multi populations. *Under preparation*.

CONFERENCE PRESENTATIONS

- Optimal sufficient dimension reduction for regressions with categorical predictors. 2004 Joint Statistical Meetings, Toronto, August 2004.
- A new method for partial sufficient dimension reduction by using intra-slice information. 2005 Joint Statistical Meetings, Minneapolis, August 2005.
- Generalized K-means inverse regression. 2007 Joint Statistical Meetings, Salt Lake City, August 2007.
- The generalized inverse K-means regression. Tenth Meeting of New Researchers in Statistics and Probability, University of Utah, Salt Lake City, July 2007.
- Bivariate dimension reduction and variable selection when $n < p$. 2008 ENAR Meeting, Arlington, March 2008.
- Sufficient dimension reduction for proportional censorship model with covariates. 2009 Joint Statistical Meetings, Washington D.C., August 2009.
- Dimension reduction with categorical predictors via likelihood approach. 2010 Joint Statistical Meetings, Vancouver, August 2010.

- On partial sufficient dimension. 2011 Joint Statistical Meetings, Miami, August 2011.

INVITED PRESENTATIONS

- Optimal sufficient dimension reduction for regressions with categorical predictors. Department of Statistics, University of Virginia, Charlottesville, February 2005.
- Optimal sufficient dimension reduction for regressions with categorical predictors. Department of Mathematics, University of Toledo, Toledo, March 2005.
- Introduction to dimension reduction for regressions. 2005 Microarray Research Coordination Network by UAB, New York, September 2005.
- Sufficient dimension with applications to survival analysis. Department of Mathematics and Statistics, Missouri University of Science and Technology, December 2010.
- On partial sufficient dimension reduction with applications to partially linear models. Department of Statistics, School of Management, Fudan University, Shanghai, June 2012.
- On partial sufficient dimension reduction with applications to partially linear models. School of Finance and Business, East China Normal University, June 2012.
- Multi population sufficient dimension reduction. Department of Mathematics, Hong Kong Baptist University, May 2013.
- Multi population sufficient dimension reduction. Institute for Financial Studies, Shandong University, May 2013.

STUDENTS

Doctoral Students

- Bilin Zeng
Current Position: Tenure-track Assistant Professor, California State University, Bakersfield.
Dissertation Topic: *Dimension Reduction with Applications to Gene Pathway Analysis*, July 2013.
- Xuejing Liu (Co-adviser: Robert Paige)
Dissertation Topic: *Dimension Reduction for Multiple Datasets*.
Anticipated completion: July 2014.

Master Students

- Xuejing Liu
May 2011. Continuing for Ph.D degree.

TEACHING

Missouri University of Science and Technology

Instructor for the following courses:

Stat 457	Advanced Mathematical Statistics (I)
Stat 458	Advanced Mathematical Statistics (II)
Stat 444	Design and Analysis of Experiments
Math 410-2B	Graduate Seminar
Stat 401	Special Problems (Categorical Data Analysis)
Stat 343	Probability and Statistics (with online distance learning session)
Stat 344	Mathematical Statistics
Stat 346	Regression Analysis
CS 366	Co-listed with Stat 346
Stat 215	Engineering Statistics
Stat 217	Introduction to Probability and Statistics

University of Minnesota

Teaching Assistant for the following courses:

Stat 3021	Introduction to Probability and Statistics
Stat 5021	Statistical Analysis

PROFESSIONAL ACTIVITIES

Appointments

- **Chapter Vice President**, Mid-Missouri Chapter of the ASA. January 2011 to present.
- **Chapter Officer**, Mid-Missouri Chapter of the ASA. January 2008 to 2010.

Grant Reviewing

- The Missouri Research Board, 2007 – present.

Journal Referee

- Australian & New Zealand Journal of Statistics (2010 – 2011)
- Statistica Sinica (2006, 2011)
- Statistical Analysis and Data Mining (2010)
- Journal of Statistical Computation and Simulation (2007 – present)
- Mathematical Reviews (2008 – present)
- Journal of Multivariate Analysis (2011 – present)
- Statistics and Probability Letter (2012)

- Journal of Computational and Graphical Statistics (2013)

SERVICES AND CONSULTING

- Department New Faculty Hiring Committee, 2006, 2008, 2010, 2011.
- Consulting service to **Missouri S & T**: Ph.D students – Hong Wang, Walter Casquino; Faculty – Steve Gao, Xiaoping Du, Rosa Zhang, Joon-Ho Choi; **University of Minnesota**: served at Statistical Clinic in Fall 2003.
- Member of Department Policy Committee, Member of University Library Committee.
- Co-organizer of Department Graduate Student Seminar, Fall 2007, Spring 2008.
- Assisting DGS in evaluating graduate assistantship applicants from China.

CONTINUING EDUCATION (post-doctoral)

- University Missouri System New Faculty Teaching Scholars, Fall 2006--Spring 2007.
- 10th Meeting of New Researchers in Statistics and Probability, Salt Lake City, July 2007.
- ENAR Workshop for Junior Researchers, Arlington, March 2008.