

C U R R I C U L U M V I T A E

JIAHUA CHEN

DEGREES

- 1990 Ph.D. Department of Statistics, University of Wisconsin-Madison
On Minimum Aberration Fractional Factorial Designs
Supervisor: C. F. Jeff Wu
- 1985 M.Sc. Institute of Systems Science, Academia Sinica, China
On Asymptotic Efficient Estimations
Supervisor: Ping Cheng
- 1982 B.Sc. University of Science and Technology of China

MAJOR COMMUNITY SERVICES

- President elect of the International Chinese Statistical Association (2005-2006).
- Member of Grant Selection Committee of the Natural Science and Engineering Research Council of Canada. 1999-2002.
- Associate Editor of *Canadian Journal of Statistics*. Feb, 2002–.
- Associate Editor of *Quality Technology and Quantitative Management*. 2003–.

EMPLOYMENT RECORD

Professor	July, 2001 –
Associate Professor	July 1996– June 2001
Assistant Professor	July 1991– June 1996
	Department of Statistics and Actuarial Science University of Waterloo
Visiting Scientist	August 1997– December 1997 Mount Sinai Hospital
Visiting Professor	Jan. 1998 – April 1999 Bowling Green State University

STUDENT SUPERVISION (Ph.D)

- Susko, Edward (1992-1996). (co-supervisor: Jack Kalbfleisch). Thesis: Non-parametric Maximum Likelihood Estimators in Mixture Models. Pierre Robillard Award Winner (1996). Current Position: Associate Professor at Delhousie University, NB, Canada.
- Cadigan, Noel (1994-1999). Thesis: Statistical inference about fish abundance: An approach based on research survey data. Current Position: Scientist at the Department of Fisheries and Oceans, Canada.
- Julie Horrocks (1996-1999). (co-supervisor: Mary Thompson). Thesis: Double Barrier Models for Length of Stay in Hospital. Current position: Assistant Professor at University of Guelph, ON, Canada.
- Fu, Yuejiao (2000-2004). (co-supervisor: Jack Kalbfleisch). Statistical Inference for Mixture Models. Current Position: Assistant Professor at York University, ON, Canada.
- Feng, Zeny (2002-). (co-supervisor: Mary Thompson). Universal Validity of Possible Triangle Constraint of IBD Distribution. Degree Expected: Oct, 2005. Job offered: PostDoctor in a genetic research lab at Yale University, USA.
- Wenyu, Jiang, (1999-). (co-supervisor: Jack Kalbfleisch). Resampling Method for Survival Models and U-Statistics. In progress.
- Pan, Jianmin (2000-). Modified Information Criterion for Change Point Problem. In progress.
- Khalili, Abbas-Ali (2001-). Model Selection and Variable Selection Problems in Finite Mixture Models, In progress.
- Mulayath Variyath, Asokan (2003-). (co-supervisor: Bovas Abraham). Variable Selection in Generalized Linear Models by Empirical Likelihood. In progress.
- Carrillo Garcia, Ivan (2004-). (co-supervisor: Changbao Wu). Just started.
- Li, Pengfei (2004-). Just started.
- Xiong, Xiaoqin (2004-). Just started.

STUDENT SUPERVISION (Master's)

1. Mak Yat Hang (1997-1999). Generalization of Penalized Likelihood Ratio Test for Binomial Mixture models. Current Position: unknown.
2. Wenyu, Jiang, (1998-1999). Hypothesis test for finite mixture models. Current Position: Ph.D student.
3. Yuejiao, Fu, (1999-2000). Finite mixture models. Current Position: Assistant Professor at York University.
4. Romero Hidalgo, Sandra, (1999-2000). Linkage analysis based on sib-pairs. Current Position: unknown.
5. Yang, Ju, (2000-2001). Empirical likelihood and Logistic regression model. Current Position: Statistician/SAS Programmer at SciAn Services Inc. Toronto.
6. Chen, Hong, (2002-2004). Estimate the True Incidence of Hepatitis A in Canada. Current Position: Statistician in General Hospital in Toronto.
7. Zhou, Qian (2004). Just started.

Invited serial lectures

1. Dec 11, 2003-Dec 12, 2004. Department of Statistics, Nankai University. Short course on finite mixture models.
2. Gave 10 lectures to statistical faculty at Bowling Green State University in spring 1998. Topic: Empirical Likelihood method.
3. Gave 3 lectures to statistical faculty at University of Alberta in fall 1995. Topic: Mixture models.

Invited Presentations (from year 2000)

1. September 30, 2004. University of Guelph. "Fish abundance assessment based on scientific surveys".
2. June 2, 2004. Annual meeting of Statistical Society of Canada. Montreal, Canada. "Confidence interval under unequal probability sampling for population with large proportion of zero values".

3. July 21, 2004. International Chinese Statistical Association. Singapore. Modified likelihood in finite mixture models with a structure parameter.
4. July 24, 2004. International Chinese Statistical Association. Singapore. Fish abundance assessment using empirical likelihood.
5. July 16, 2004. International Biometric Conference. Cairns, Australia. Advances in the application of modified likelihood.
6. June 1, 2004. Annual meeting of Statistical Society of Canada at Montreal. Confidence interval under unequal probability sampling when the population contains a large number of zero values.
7. Oct 17, 2003. Department of Statistics and Department of Bio-Statistics, University of Michigan. Modified likelihood ratio test for finite mixture models.
8. Dec 22, 2003. Department of Statistics, Beijing University. Empirical likelihood confidence interval for populations with large proportion of zero values.
9. Dec 23, 2003. Institute of Statistical Science, Academia Sinica; Recent results on mixture models.
10. June 15, 2002. Fourth biennial international conference on statistics, probability and related areas. DeKalb, Illinois. Northern Illinois University. Modified likelihood ratio test for finite mixture models.
11. July 10, 2002. International conference on recent advances in survey sampling. (In honour of professor J.N.K. Rao). Carleton University. Ottawa, Canada. Empirical likelihood confidence interval for populations with large proportion of zero values.
12. June 3, 2002. Workshop on developments and challenges in mixture models, bump hunting and measurement error models. Cleveland, Case Western Reserves University. Empirical likelihood inference in the presence of measurement error.
13. May 29, 2002. Annals meeting of the Statistical Society of Canada, Application of a modified likelihood ratio test to a two sample mixture model.

14. April 28-May 15, 2002. Institute of Statistical Science, Academia Sinica; Tamkang University, University of Taiwan, Tonghua University: Modified likelihood ratio test for two component finite mixture models.
15. March 7, 2002. John Hopkins University, Department of Mathematical Science, Modified likelihood ratio test for two component finite mixture models.
16. Sept 27, 2001. Department of Statistics, University of Manitoba. Modified likelihood ratio test for two component finite mixture models.
17. July 26, 2001. Institute of Systems Science, Academia Sinica. P.R.C. Modified likelihood ratio test for two component finite mixture models.
18. Aug 1, 2001. University of Science and Technology of China, P.R.C. Modified likelihood ratio test for two component finite mixture models.
19. July 22, 2001. Nankai University, P.R.C. Modified likelihood ratio test for two component finite mixture models.
20. Aug 19, 2001. The fifth ICSA international conference. Hong Kong. Sampling weight adjustment and empirical likelihood.
21. July 7, 2001. Statistics 2001. Fourth Canadian Conference in Applied Statistics, Concordia University. Sampling weight adjustment and empirical likelihood.
22. Dec 30, 2000. Joint meeting of IISA and India Statistical Society. Fractional Resolution and Minimum Aberration in Blocked 2^{n-k} Designs.
23. Aug 22, 2000. The 5th Iranian Statistics Conference(Isfahan): Modified likelihood ratio test for finite mixture models.
24. Aug 17, 2000. ASA Annual meeting: Modified likelihood ratio test for finite mixture models.
25. June 2, 2000. ICSA Symposium (NJ, USA): Modified likelihood ratio test for finite mixture models.
26. June, 2000. Case Western Reserve University: Finite mixture models.

Outside Ph.D. students (external examiner)

1. Lu, Wen Wilson. Confidentiality and Variance Estimations in Complex Surveys. Department of Statistics and Actuarial Science, Simon Fraser University, 2004.
2. Masoud Asgharian Dastenaiei. Modeling Covariance in Multi-Path Change Point Problems. Department of Mathematics and Statistics, McGill University, Montreal. 1998.
3. Zhong, C.X.B. Empirical Likelihood of Inference for Finite Populations with Auxiliary Information Using Stratified Random Sampling. Department of Mathematics and Statistics, Carleton University, Ottawa. 1997.
4. Bingham, D. R. Some theoretical results for fractional factorial split-plot designs. Department of Mathematics and Statistics, Simon Fraser University. 1998.

Thesis Committee: Ph.D. students

1. Yanmin Sun (System's Design, Ph.D). Classification with Imbalanced Class Distribution. Proposal Febuary, 2004.
2. Jiang, Ju (System's Design Ph.D). Cooperating Team of Reinforcement Learning Agents. Proposal Oct 2003.
3. Sun, Wei (Electrical Engineering Ph.D). Multiple-Access Digital Watermarking Systems: Information-Theoretic Analysis. Proposal April 2004).
4. Denise Babineau. Goodness of Fit Tests for Event History Models when Responses are Interval Censored or Truncated. Proposal July 2003.
5. Zhang, Yuedong (Geography). Water Management System in China. Defense Aug. 2002.
6. Xu, Jiaqiong (Statistics). Multivariate Outlier Detection and Process Monitoring. Defence Jan, 2004.

7. He, Xiang (Systems Design). Generalized Attributed Hypergraph for Automatic Dynamic 3D Scene Modeling. Proposal Aug. 1999. Defence Aug. 2002.
8. Niu, Peiyi (Systems Design). 3-D Model Building by Information-directed Structure Light. Proposal Aug. 1999. Defence Aug. 2002.
9. Zhu, Hongmei (Applied Math). Courant's Nodal Line Theorem and its Discrete Counterparts. 2000.
10. Yang, Zejiang (Statistics). Multiple Roots of Estimating Functions and Applications. 2000.
11. Gao, Jianghong (Electrical and Computer Engineering). Analysis and Design of Lossless Image Coding Systems. Aug. 1, 2000.
12. Ling, Chi Hung Alan (C & O). Pairwise Balanced Designs and Related Codes. 1997.
13. Qin, Jing (Statistics). Empirical Likelihood and Semi-parametric Models. 1993.
14. Sun, Xiaodong (Statistics). Estimation Capacity and Related Topic in Experimental Designs. 1993.
15. El-Haddad, John (Statistics). Outliers and Time Series Modeling. 1992.
16. Chen, Xiaoming (Statistics). Properties of Models for Computer Experiments. 1996.
17. Newcombe, Pat (Statistics). Issues in the Use of Double Exponential Autoregressive (1) Models. 1995.
18. Yang Wong (systems design). High-order Pattern Discovery and Analysis of Discrete-valued Data Sets. 1997.

Master's students:

1. Eleanor Bingyan Huang (Chemistry). Statistical Experimental Design for Optimization and Understanding of Supercritical Fluid Extraction of Organic Contaminants from Soil Samples. 1994.

2. Dickson, Robert, J. (Statistics). The Estimation of Lyapunov Exponents for Systems Undergoing Occasional Random Shocks. 1994.

MEMBERSHIPS

Institution of Mathematical Statistics
American Statistical Association
Statistical Society of Canada
International Chinese Statistical Association
International Statistical Institute.

Updated Oct 12, 2004