

Jianwei Chen

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EDUCATION

- 08/1996-12/1999: Ph.D. in Statistics. The Chinese University of Hong Kong (CUHK), Hong Kong. Ph.D. Dissertation: "Local quasi-likelihood estimation and optimal Bayesian sampling plans for censoring data". Advisors: Professor Jianqing Fan, Princeton University, <http://orfe.princeton.edu/~jqfan/>, Professor Kim-Hung Li, CUHK
- 08/1994-07/1996: M.S. in Statistics. The Chinese University of Hong Kong, Hong Kong. Advisor: Professor Yeh Lam, CUHK
- 12/1991-06/1992: Studying M.S. Courses in Economics. The Chinese University of Hong Kong, Hong Kong. Advisor: Professor Winlin Chou, CUHK,

EXPERIENCE

- 08/2007-present: Assistant Professor. Department of Mathematics and Statistics, San Diego State University, CA
- 08/2003-08/2007: Research fellow in Biostatistics/Statistics. Department of Biostatistics and Computational Biology, University of Rochester School of Medicine and Dentistry, Rochester, NY
- 12/2002-08/2003: Research Associate in Biostatistics. Frontier Science & Technology Research Foundation, Harvard School of Public Health, Boston, MA
- 02/2000-12/2002: Postdoctoral Research Associate in Biostatistics. Department of Biostatistics, School of Public Health, University of North Carolina at Chapel Hill, NC
- 04/1996-08/1999: Research Assistant in Economics. Department of Economics, Chinese University of Hong Kong, Hong Kong
- 04/1994-08/1999: Teaching Assistant in Statistics. Department of Statistics, Chinese University of Hong Kong, Hong Kong

RESEARCH INTERESTS

- Dynamic modeling, simulation and prediction " Statistical inference for nonlinear differential equation models with applications to HIV/AIDS infections
- Nonparametric and semi-parametric regression

- Measurement error and missing data problems
- Nonlinear mixed effects models in longitudinal data analysis
- Bayesian methods, MCMC and computational statistics
- Operations research

PROFESSIONAL SKILL

- *Computer Platform:* UNIX and Windows
- *Software:* SPLUS, MATLAB, SAS, R, Fortran and C. Proficient use of C and MATLAB
- *Self-developed Packages:*
 - 1) One-step local quasi-likelihood estimation with application to pollution problems
 - 2) Nonparametric smoothing modeling with missing data and measurement errors
 - 3) Linear and generalized linear mixed models with auxiliary covariates
 - 4) Two-step estimation of the GLMM with surrogate information
 - 5) Outcome dependent sample design with application to epidemiologic studies
 - 6) Modeling short-term and long-term HIV dynamics with application to HIV infections
 - 7) Statistical estimation and inference for differential equations with application to bio-defense immune modeling
 - 8) Designing optimal acceptant sampling schemes for life testing with Type I, Type II, mixed, and random censoring
 - 9) Sample size calculation for random group clinical trial design
 - 10) Bayesian computation and adaptive control for a linear dynamic system

PROFESSIONAL AFFILIATIONS

- American Statistical Association
- International Chinese Statistical Society
- Sigma Xi Society of International Engineers

REFEREE FOR JOURNALS

- The Annals of Statistics
- Journal of American Statistical Association
- Biometrics
- Statistica Sinica
- Annals of the Institute of Statistical Mathematics

- Scandinavian Journal of Statistics
- Computational Science and Its Applications (ICCSA)
- European Journal of Operational Research
- Journal of Econometrics

PAST GRANT SUPPORT

- Co-investigator of NIH center grant, No1-AI-50020 "Bio-defense Immune Modeling," \$10,000,000, principal investigator, Wu, H., 2005-2010
- Co-investigator of the NIH competitive grant, RFA-HL-04-006 "Images of a Health Works," \$2,262,093, principal investigator, Fernandez, I., 2004-2009
- Investigator of NIH competitive grant "Statistical Methods for Outcome-Dependent Sampling," \$640,000, principal investigator, Zhou, H., 2003-2006
- Principal investigator of the NSF Grant of Fujian Province, China, 1993-1995
- Co-principal investigator of the NSF Grant of National Educational Board, China, 1991-1993

SELECTED PUBLICATIONS

1. Huang, L. and **Chen, J.** (2008). Analysis of variance, coefficient of determination, and an F-test for local polynomial regression. *The Annals of Statistics*, to appear.
2. **Chen, J.** and Wu, H. (2008). Estimating differential equation models with measurement errors. *Statistica Sinica*, to appear.
3. **Chen, J.** and Chou, W. (2008). A comparison of the local quadratic hedging model with a convenient parametric model with application to the Hong Kong index futures. *Model Assisted Statistics and Application*, to appear.
4. **Chen, J.** and Wu, H. (2008). Efficient local estimation for time-varying coefficients in deterministic dynamic models with applications to HIV-1 dynamics. *Journal of the American Statistical Association*, in press.
5. **Chen, J.**, Li, K. and Feng, C. (2008). Bayesian computation and adaptive control for dynamic linear system. *The International Journal of Contemporary Mathematical Sciences*, **3**, 269-284.
6. Zhou, H., **Chen, J.**, Rissanen, T., Korrick, S., Hu, H., Salonen, J. and Longnecker, M. (2007). Outcome dependent sampling: An efficient sampling and inference procedure for studies with a continuous outcome. *Epidemiology*, **18**, 461-468.
7. Zhang, J. and **Chen, J.** (2007). Statistical inference for functional data. *The Annals of Statistics*, **35**, 1052-1079.
8. **Chen, J.**, Li, K. and Lam, Y. (2007). Bayesian double sampling acceptance plans for Weibull distribution with censoring. *European Journal of Operational Research*, **117**, 1062-1073.

9. **Chen, J.**, Fan, J., Li, K. and Zhou, H. (2006). Local quasi-likelihood estimation with the data missing at random. *Statistica Sinica*, **16**, 1071-1101.
10. Wu, X., Zou, G. and **Chen, J.** (2006). Unbiased invariant minimum norm estimation in generalized growth curve model. *Journal of Multivariate Analysis*, **97**, 1718-1741.
11. **Chen, J.**, Zhang, J. and Wu, H. (2005). Discretization approach and nonparametric modeling for long-term HIV dynamic model. *Lecture Notes in Computer Science*. Springer-Verlag, 3483, 519-527.
12. **Chen, J.**, Zhou, H. and Cai, J. (2004). Two-step estimation of the generalized linear mixed model with auxiliary covariates. *Statistica Sinica*, **14**, 597-612.
13. **Chen, J.**, Chou, W., Wu, H. and Zhou, H. (2004). Designing acceptant sampling schemes for life testing with mixed censoring. *Naval Research Logistics*, **51**, 361-376.
14. **Chen, J.**, Choy, S.T.B. and Li, K. (2004). Optimal Bayesian sampling acceptance plan with random censoring. *European Journal of Operational Research*, **155**, 683-694.
15. **Chen, J.** and Chou, W. (2002). Hedging with the Hong Kong Index Futures: The local Quadratic Hedging Model. Direct Connection to Developing Countries, Newsletter for Operational Research in Developing Countries, 9.
16. Zhou, H., **Chen, J.** and Cai, J. (2002). Random effects logistic regression analysis with auxiliary covariates. *Biometrics*, **58**, 352-360.
17. Zhou, H. and **Chen, J.** (2002). Outcome dependent sampling design and their application in epidemiologic study. *Proc. International Conference on Statistics*, Hawaii, 1-10.
18. **Chen, J.** (2001). Decision theory approach to acceptance plans with censoring. *Journal of the Operation Research and Management Science*, **5**, 24-31.
19. **Chen, J.** and Lam, Y. (2000). Comparing sampling acceptance plans for mixed and Type I censoring under the Weibull distribution. *Operation Research Transactions*, **3**, 25-37.
20. Fan, J. and **Chen, J.** (1999). One-step local quasi-likelihood estimation. *Journal of the Royal Statistical Society. B*, **61**, 927-943.
21. **Chen, J.** (1999). Some developments of local quasi-likelihood estimation and Bayesian decision theory with censoring. Ph.D Dissertation, The Chinses University of Hong Kong.
22. **Chen, J.** (1999). Bayes estimation of parameters in mixed censoring and its distribution function. *J. Huaqiao Univ. Nat. Sci. Ed.*, **20**, 329-334.
23. **Chen, J.** and Lam, Y. (1999). Bayesian sampling acceptance plans for a general life distribution with Type I censoring. *Operation Research Transactions*, **2**, 29-45.
24. **Chen, J.** and Lam, Y. (1999). Bayesian variable sampling plan for the Weibull distribution with Type I censoring. *Acta Math. Appl, Sinica*, **3**, 269-280
25. **Chen, J.** (1996). Bayesian approach to variable sampling plans for the Weibull distribution with censoring. Master Thesis, The Chinese University of Hong Kong, 1996.
26. **Chen, J.** (1994). Bayes estimation of parameters for Gamma units. *J. Huaqiao Univ. Nat. Sci. Ed.*, **15**, 244-247.

27. **Chen, J.** (1993). The consistency of rank-regression-model for by BIC modeling and applications in weather forecast. *J. Huaqiao Univ. Nat. Sci. Ed.*, **14**, 383-389.
28. **Chen, J.** (1993). Stein estimate of the parameters in two seemingly unrelated regression systems. *J. Huaqiao Univ. Nat. Sci. Ed.*, **14**, 120-126.
29. *Chen, J.* and Wu, S. (1992). A stepwise regression optimal prediction method with freedom of distribution and slide coefficient. *J. Huaqiao Univ. Nat. Sci. Ed.*, **13**, 1-9.
30. **Chen, J.** (1992). Bayesian estimation of Reliability for constant stress accelerated life testing under the nonquadratic loss function. *J. Huaqiao Univ. Nat. Sci. Ed.*, **13**, 159-164.
31. **Chen, J.** (1991). Parametric Bayes estimation of trinomial distribution with growing reliability. *J. Huaqiao Univ. Nat. Sci. Ed.*, **12**, 8-15.
32. **Chen, J.** (1991). The analysis of the macro-combination-models for special personnel. *Statistics and Management*, **1**, 24-27.
33. **Chen, J.** and Choy, Y. (1991). Simultaneous dynamic model of mixed regression and its use in the prediction of special personnel. *The Fourth China-Japan symposium on statistics*, 24-27.
34. **Chen, J.** (1991). Bayesian estimation of reliability for gamma units under the non-quadratic loss function. *Journal of Operations Research*, **2**, 61-64.
35. **Chen, J.** (1991). Timely interval forecasting of stationary time series and its application in weather forecast. *Applied Mathematics Journal of Chinese Universities*, **4**, 494-498.

SUBMITTED/REVISED PAPERS

1. **Chen, J.** (2008). Optimal Bayesian sampling acceptance plans with mixed censoring. *Submitted.*
2. **Chen, J.** Fan, J. and Huang, L. (2008). Comparing optimal sampling acceptance plans for mixed, Type I and Type II censoring. *Submitted.*
3. **Chen, J.** (2008). Bayesian computation for a geometric process in maintenance problems. *Submitted.*
- 4 **Chen, J.** (2007). Bayesian variable sampling plan for exponential distribution with mixed censoring. *Under revision.*