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 Graduate School of Management
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EDUCATION

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|------|-------|---|
| 1983 | Ph.D. | Statistics, University of Minnesota |
| 1978 | M.S. | Mathematics, University of Illinois, Chicago Circle |
| 1974 | B.S. | Mathematics, Tamkang University |

ACADEMIC AND PROFESSIONAL POSITIONS

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|------|---|
| 2012 | Distinguished Professor of Management, University of California, Davis |
| 2012 | Distinguished Visiting Chair Professor, National Taiwan University, Taiwan |
| 2005 | Robert W. Glock Endowed Chair of Managemet, University of California, Davis. |
| 2004 | Specially Invited Guest Professor, Guanghua School of Management, Peking University. |
| 1993 | Professor, Graduate School of Management, University of California, Davis. |
| 1990 | Associate Professor, Graduate School of Management, University of California, Davis. |
| 1988 | Associate Professor, Division of Statistics, University of California, Davis. |
| 1986 | Associate Professor, Department of Statistics & Operations Research, Stern School of Business, New York University. |
| 1985 | Lecturer, Center of Statistical Institute, University of Texas, Austin. |
| 1983 | Assistant Professor, Department of Statistics & Operations Research, Stern School of Business, New York University. |

RESEARCH INTERESTS

Regression analysis, Model Selection, High Dimensional Data, Time Series, Biostatistics, the Application of Statistics to Business.

PUBLICATIONS

Discussions, Letters to the Editor and Essay

Response to the letter to the editor on "The Impact of Model Selection on Influence in Linear Regression," B.M. Potscher, in *Journal of the American Statistician*, 1991, p. 172 (with Clifford M. Hurvich).

Book Reviews

1. Nonlinear Statistical Models, A. R. Gallant, in *Journal of American Statistical Association*, 1989, pp. 336-337.
2. Analysis of Means in Some Non-Standard Situations, J. B. Dijkstra, in *Technometrics*, 1991, pp. 115-116.

Essay

"Teaching with Heart". *BizED*, 2013 (September/October), pp 41-43.

Published and To Appear

1. "Residuals in Nonlinear Regression," with R. D. Cook, *Biometrika*, 1985, pp. 23-29.
2. "Jackknife-Based Estimators and Confidence Regions in Non-linear Regression," with Jeffrey S. Simonoff, *Technometrics*, 1986, pp. 103-112.
3. "Score Test for AR(1) Model with Heteroscedasticity," *Biometrika*, 1986, pp. 455-460.
4. "Bias in Non-Linear Regression," with R. D. Cook and B. C. Wei, *Biometrika*, 1986, pp. 615-623.
5. Discussion of "Assessment of Local Influence," R. D. Cook, *Journal of the Royal Statistical Society, Ser. B.*, 1986, p. 165.
6. Discussion of "Jackknife, Bootstrap and Other Resampling Methods," C. F. J. Wu, in *Anal. of Statistics*, 1986, pp. 1326-1328 (with Jeffrey S. Simonoff).
7. "Calculating the Efficiency of Maximum Quasilikelihood Estimation," with Joe R. Hill, *Journal of the Royal Statistical Society, Ser. C.*, 1988, pp. 219-230.
8. "Power Transformations and Reparametrizations in Nonlinear Regression Model," *Technometrics*, 1988, pp. 441-448.
9. "The Use of Guided Reformulations When Collinearities are Present in Non-linear Regression," with Jeffrey S. Simonoff, *Journal of the Royal Statistical Society, Ser. C.*, 1989, pp. 115-126.

10. "Jackknifing and Bootstrapping Quasilikelihood Estimation," with Jeffrey S. Simonoff, *Journal of Statistical Computation and Simulation*, 1988, pp. 213-232.
11. "Bias in Nonlinear Regression with Heteroscedastic or AR(1) Error Structure," *Statistics & Probability Letters*, 1989, pp. 167-170.
12. "Regression and Time Series Model Selection in Small Samples," with Clifford M. Hurvich, *Biometrika*, 1989, pp. 297-307.
13. "Transformations and Dynamic Linear Models," with Peter J. Lenk, *Journal of Forecasting*, 1990, pp. 219-232.
14. "Differential Geometry of ARMA Models," with N. Ravishanker and E. L. Melnick, *Journal of Time Series Analysis*, 1990, pp. 259-274.
15. "Model Selection for Least Absolute Deviations Regression in Small Samples," with Clifford M. Hurvich, *Statistics and Probability Letters*, 1990, pp. 259-265.
16. "The Impact of Model Selection on Inference in Linear Regression," with Clifford M. Hurvich, *The American Statistician*, 1990, pp. 214-217.
17. "Diagnostics in Transformation and Weighted Regression," with Xizhi Wu, *Technometrics*, 1990, pp. 315-322.
18. "Diagnostics for Assessing Accuracy of Normal Approximations in Exponential Family Nonlinear Models," with R. D. Cook, *Journal of the American Statistical Association*, 1990, pp. 770-777.
19. "Improved Estimators of Kullback-Leibler Information for Autoregressive Model Selection in Small Samples," with Clifford M. Hurvich and Robert Shumway, *Biometrika*, 1990, pp. 709-719.
20. "Comparisons Between First Order and Second Order Approximations in Regression Diagnostics," with Xizhi Wu, *Directions in Robust Statistics and Diagnostics, (Part II)*, Springer-Verlag, 1991, pp. 279-295.
21. "Assessing the Influence of Individual Observations On a Goodness-Of-Fit Test Based On Nonparametric Regression," with Jeffrey S. Simonoff, *Statistics and Probability Letters*, 1991, pp. 9-17.
22. "Higher Order Effects in Log-Linear and Log-Nonlinear Models for Contingency Tables with Ordered Categories," with Jeffrey S. Simonoff, *Journal of the Royal Statistical Society, Ser. C.*, 1991, pp. 449-458.
23. "Bias of the Corrected AIC Criterion for Underfitted Regression and Time Series Models," with Clifford M. Hurvich, *Biometrika*, 1991, pp. 499-509.

24. "Transformation Model Diagnostics," with Xizhi Wu, *Technometrics*, 1992, pp. 197-202.
25. "Assessing Local Influence for the Linear Regression Model with First-Order Autoregressive or Heteroscedastic Error Structure," with Xizhi Wu, *Statistics and Probability Letters*, 1992, pp. 247-252.
26. "Regression Model Diagnostics," with A.C. Davison, *International Statistical Review*, 1992, pp. 337-353.
27. "Diagnostics for Binomial Response Models Using Power Divergence Statistics," with Edward J. Bedrick, *Computational Statistics and Data Analysis*, 1993, pp. 381-392.
28. "A Corrected Akaike Information Criterion for Vector Autoregressive Model Selection," with Clifford M. Hurvich, *Journal of Time Series*, 1993, pp. 271-279.
29. "Autoregression Model Selection in Small Samples Using a Bias-Corrected Version of AIC," with Clifford M. Hurvich, *Proceeding of the First U.S./Japan Conference on the Frontiers of Statistical Modeling*, Kluwer Academic, 1994, pp. 137-157.
30. "Model Selection for Multivariate Regression in Small Samples," with Edward J. Bedrick, *Biometrics*, 1994, pp. 226-231.
31. "Improved Tests for Nonconstant Variance in Regression Based on the Modified Profile Likelihood," with Jeffrey S. Simonoff, *Journal of the Royal Statistical Society, Ser. C.*, 1994, pp. 357-370.
32. "A Note on Jorgensen's Iteratively Defined Statistics," *Biometrika*, 1994, pp. 781-786.
33. "A Nonparametric Regression Approach for Model Checking on the Two-Phase Regression Problem," with A. S. Azari, *Journal of Applied Statistics*, 1995, pp. 597-606.
34. "Relative Rates of Convergence for Efficient Model Selection Criteria in Linear Regression," with Clifford M. Hurvich, *Biometrika*, 1995, pp. 418-425.
35. "Model Selection for Extended Quasi-Likelihood Models in Small Samples," with Clifford M. Hurvich, *Biometrics*, 1995, pp. 1077-1084.
36. "Estimating Linear Measurement Error Models via M-Estimator," with Chi-Lun Cheng, *Symposia Gaussiana, Conf. B*, 1995, pp. 247-259.
37. "Improved Tests for the First-Order Autoregressive Model with Heteroscedasticity," with John Lyon. *Journal of Statistical Computation and Simulation*, 1995, pp. 71-83.
38. "The Impact of Unsuspected Serial Correlations on Model Selection in Linear Regression," with Clifford M. Hurvich. *Statistics and Probability Letters*, 1996, pp. 115-126.

39. "Selection of a Multistep Linear Predictor for Short Time Series," with Clifford M. Hurvich. *Statistica Sinica*, 1997, pp. 395-406.
40. "A Comparison of Tests for Heteroscedasticity," with John Lyon. *Journal of the Royal Statistical Society, D*, 1996, pp. 337-349
41. "A Note on Model Selection Criterion AICc," with Allan McQuarrie and Robert Shumway. *Statistics and Probability Letters*, 1997, pp. 285-292.
42. "The Examination of Residual Plots," with Zongwu Cai and Xizhi Wu. *Statistica Sinica*, 1998, pp. 445-466.
43. "Smoothing Parameter Selection in Nonparametric Regression Using an Improved AIC Criterion," with Clifford M. Hurvich and Jeffrey S. Simonoff. *Journal of the Royal Statistical Society, Ser. B*, 1998, pp.271-293.
44. "Score Tests for Heteroscedasticity in Wavelet Regression," with Zongwu Cai and Clifford M. Hurvich. *Biometrika*, 1998, pp. 229-234.
45. "A Cross-Validatory AIC for Wavelet Thresholding in Spatially Adaptive Function Estimation," with Clifford M. Hurvich. *Biometrika*, 1998, pp. 701-710.
46. "Model Selection for Causal Models: Exchange Rate and Interest Rate Causality," with Shyan-Yuan Lee. *Global Finance Journal*, 1998, pp. 205-223.
47. "A Note on the Unification of the Akaike Information Criterion," with Peide Shi. *Journal of the Royal Statistical Society, Ser. B*, 1998, pp. 551-558.
48. "The Assessment of Model Adequacy for Markov Regression Time Series Models," with Larry F. Leon. *Biometrics*, 1998, pp. 1165-1175.
49. "Improving Methods for Tests of Long-Run Abnormal Stock Returns," with Brad M. Barber and John D. Lyon. *Journal of Finance*, 1999, pp. 165-201.
50. "Semiparametric and Additive Model Selection Using an Improved AIC Criterion," with Jeffrey Simonoff . *Journal of Computational and Graphical Statistics*, 1999, pp. 22-40.
51. "Diagnostics for Nonlinearity in Generalized Linear Models," with Zongwu Cai. *Computational Statistics and Data Analysis*, 1999, pp. 445-469.
52. "Semiparametric Regression Model Selections," with Peide Shi. *Journal of Statistical Planning and Inference*, 1999, pp. 119-139.
53. "Controlling Measurement Errors in Models of Advertising Competition," with Prasad Naik. *Journal of Marketing Research*, 2000, pp. 113-124.
54. "Model Selection in Orthogonal Regression," with Allan McQuarrie. *Statistics and*

- Probability Letters*, 1999, pp. 341-349.
55. "A New Dimension Reduction Approach for Data-Rich Marketing Environments: Sliced Inverse Regression," with Prasad Naik and Michael Hagerty. *Journal of Marketing Research*, 2000, pp. 88-101.
 56. "Denoised Least Squares Estimators," with Zongwu Cai and Prasad Naik. *Statistica Sinica*, 2000, pp. 1231-1241.
 57. "The Effects of Quality of Life on National Elections: A Multi-Country Analysis," with Prasad Naik and Michael Hagerty. *Journal of Social Indicators Research*, 2000, pp. 347-362.
 58. "Partial Least Squares Estimator for Single-Index Models," with Prasad Naik. *Journal of the Royal Statistical Society, Ser. B*, 2000, pp. 763-771.
 59. "Optimal Multi-criteria Designs for Fourier Regression Models," with Peide Shi and Kai-Tai Fang. *Journal of Statistical Planning and Inference*, 2001, pp. 387-401.
 60. "Single-Index Model Selections," with Prasad Naik. *Biometrika*, 2001, pp. 821-832.
 61. "Two Conflict Potentials During IS Development," with Quey-Jen Yeh. *Journal of Information & Management*, 2001, pp. 135-149.
 62. "Score Tests for the Single-Index Model," with Jeffrey Simonoff. *Technometrics*, 2002, pp. 142-151.
 63. "Regression Model Selection-A Residual Likelihood Approach," with Peide Shi. *Journal of the Royal Statistical Society, Ser. B*, 2002, pp. 237-252.
 64. "Outlier Detections in AR Models," with Allan McQuarrie. *Journal of Computational and Graphical Statistics*, 2003, pp. 450-471.
 65. "Comparisons of Tests for AR(1) Parameter in Regression Model with Autocorrelated Errors," with Nalini Ravishanker. *Journal of Probability and Statistical Science*, 2003, pp. 89-100.
 66. "Comment: Improved, Corrected, and Profiled Information Criteria," *Journal of the American Statistical Association*, 2003, pp 928-930.
 67. "An Omnibus Test and Functional Form Test for Cox's Proportional Hazards Model," with Larry Leon. *Biometrics*, 2004, pp. 75-84.
 68. "Residual Information Criterion for Single-Index Model Selections," with Prasad Naik. *Journal of Nonparametric Statistics*, 2004, pp. 187-195.
 69. "Estimating High-Dimensional Models for Database Marketing," with Prasad Naik.

- Journal of Computational Statistics and Data Analysis*, 2004, pp. 775-790.
70. "Score Tests for Heteroscedasticity or Autocorrelation in Measurement Error Models," with Chi-Lun Cheng. *Journal of the American Statistical Association*. 2004, pp. 805-809.
 71. "A Joint Regression Variable and Autoregressive Order Selection Criterion," with Peide Shi. *Journal of Time Series*, 2004, pp. 923-941.
 72. "Robust Estimation and Testing in Nonlinear Regression Models," with Ruei-Che Liu and Marianthi Markatou. *International Journal of Pure and Applied Mathematics*, 2005, pp. 525-552 .
 73. "Constrained Inverse Regression for Incorporating Prior Information," with Prasad Naik. *Journal of the American Statistical Association*, 2005, pp. 204-211.
 74. "Shrinkage Sliced Inverse Regression," with Liqiang Ni and Dennis R. Cook. *Biometrika*, 2005, pp. 242-247.
 75. "Tree-augmented Cox Proportional Hazards Models," with Xiaogang Su. *Biostatistics*, 2005, pp. 486-499.
 76. "Markov-switching Model Selection Using Kullback-Leibler Divergence," with Aaron Smith and Prasad Naik. *Journal of Econometrics*, 2006, pp. 553-577.
 77. "Treed Variance," with Xiaogang Su and Xin Yan. *Journal of Computational and Graphical Statistics*, 2006, pp. 356-371.
 78. "Smoothing Parameter Selection in Quasi-Likelihood Models," with Jeng-Min Chiou. *Journal of Nonparametric Statistics*, 2006, pp. 307-314.
 79. "Extending the Akaike Information Criterion to Mixture Regression Models," with Prasad Naik and Peide Shi. *Journal of the American Statistical Association*, 2007, pp. 244-254.
 80. "Regression Coefficient and Autoregressive Order Shrinkage and Selection via the lasso," with Hansheng Wang and Gudong Li. *Journal of the Royal Statistical Society, Ser. B*, 2007, pp. 63-78.
 81. "Partial Inverse Regression," with Lexin Li and R. D. Cook. *Biometrika*, 2007, pp. 615-625.
 82. "Longitudinal Data Model Selection," with Rahman Azari and Lexin Li. *Journal of Computational Statistics and Data Analysis*, 2006, pp. 3053-3066.
 83. "An Improved Akaike Information Criterion for Generalized Log-gamma Regression Models," with Xiaogang Su. *International Journal of Biostatistics*, 2006, vol. 2, issue 1.

84. "On the Consistency of SCAD Tuning Parameter Selector," with Hansheng Wang and Runze Li. *Biometrika*, 2007, pp. 553-568.
85. "Tobit Model Estimation and Sliced Inverse Regression," with Lexin Li and Jeffrey S. Simonoff. *Statistical Modelling*, 2007, pp. 107-123.
86. "Improving Dimension Reduction via Contour-Projection," with Hansheng Wang and Liqiang Ni. *Statistica Sinica*, 2008, pp.299-311.
87. "Constrained Regression Model Selection," with Lexin Li. *Journal of Statistical Planning and Inference*, 2008, pp. 3939-3949.
88. "Clarification: Regression Model Selection-A Residual Likelihood Approach," with Chenlei Leng and Peide Shi. *Journal of the Royal Statistical Society, Ser. B*, 2008, p. 1067.
89. "On Mixture Regression Shrinkage and Selection via the MR-LASSO," with Ronghua Luo and Hansheng Wang. *International Journal of Pure and Applied Mathematics*, 2008, pp. 403-414.
90. "Extracting Forward-looking Information From Security Prices-A New Approach" with Prasad Naik and Dan Weiss. *The Accounting Review*, 2008, pp.1101-1124.
91. "Tree-structured Model Diagnostics for Linear Regression," with Xiaogang Su and Morgan C. Wang. *Machine Learning*, 2009, pp. 111-131.
92. "Tree-structured Subgroup Analysis," with Xiaogang Su, Hansheng Wang, D. M. Nickerson and B. Li. *Journal of Machine Learning Research*, 2009, pp. 141-158.
93. "Contour Projected Dimension Reduction," with Ronghua Lo and Hansheng Wang. *Annals of Statistics*, 2009, pp. 3743-3778.
94. "Tail Index Regression," with Hansheng Wang. *Journal of the American Statistical Association*, 2009, pp. 1233-1240.
95. "Does a Bayesian Approach Generate Robust Forecasts? Evidence from Applications in Portfolio Investment Decisions," with Hansheng Wang and Ning Zhu. *Annals of the Institute of Statistical Mathematics*, 2009, pp. 109-116.
96. Discussion of "model selection for generalized linear models with factor-augmented predictors (T. Ando and R. S. Tsay)" with Hansheng Wang. *Applied Stochastic Models for Business and Industry*, 2009, pp. 241-242.
97. "Prior Consequences and Subsequent Risk Taking: New Field Evidence from the Taiwan Futures Exchange," with Yu-Jane Liu, Ming-Chun Wang, and Ning Zhu. *Management Science*, 2010, pp. 606-620.

98. "Regularization Parameter Selections via Generalized Information Criterion," with Yiyun Zhang and Runze Li, *Journal of the American Statistical Association*, 2010, pp. 312-323.
99. "Estimation and Testing for Partially Linear Single-Index Models," with Hua Liang, Xiang Liu, and Runze Li. *Annals of Statistics*, 2010, pp. 3811-3836.
100. "Outlier Detection," with Xiaogang Su. *WIREs Data Mining and Knowledge Discovery*, 2011, pp. 261-268.
101. "A Bayesian Information Criterion for Portfolio Selection," with Wei Lan and Hansheng Wang. *Computational Statistics and Data Analysis*, 2012, pp.88-99.
102. "Profiled Forward Regression for Ultra-High Dimensional Variable Screening in Semiparametric Partially Linear Models," with Liang Hua and Hansheng Wang. *Statistica Sinica*, 2012, pp. 531-554.
103. "Linear Regression Overview," with Xiaogang Su and Xin Yan. *Wiley Interdisciplinary Reviews (WIREs): Computational Statistics*, 2012, pp. 275–294.
104. "Functional Random Effects with Time-Varying Coefficient Model for Longitudinal Data," with Jeng-Min Chiou and Yanyuan Ma. *STAT*. 2012, pp. 75–89.
105. "Penalized Profiled Semiparametric Estimating Functions," with Lan Wang, Bo Kai, and Cedric Heuchenne. *Electronic Journal of Statistics*. 2013, pp. 2656-2682.
106. "A Hybrid Bootstrap Approach to Unit Root Tests," with Gudong Li and Chenlei Leng. *Journal of Time Series Analysis*. 2014, pp. 299-321.
107. "Testing Covariates in High-Dimensional Regression," with Wei Lan and Hansheng Wang. *Annals of the Institute of Statistical Mathematics*, 2014, pp. 279-301.
108. "Partially Linear Single Index Models for Repeated Measurements," with Shujie Ma and Hua Liang. *Journal of Multivariate Analysis*, 2014, pp. 354-375.
109. "Quantil Correlations and Quantile Autoregressive Modeling," with Gudong Li and Yang Li. *Journal of the American Statistical Association*, 2015, pp. 246-260.
110. "Testing the Diagonality of a Large Covariance Matrix in Regression Setting," with Wei Lan, Ronghua Luo, Hansheng Wang, and Yunhong Yang. *Journal of Business & Economic Statistics*, 2015, pp. 76-86.
111. "Parameter Estimations for a Generalized Semiparametric Model with Repeated Measurements," with Shujie Ma and Zijian Huang. *Annals of the Institute of Statistical Mathematics*, 2016, pp. 725-764.
112. "Covariance Matrix Estimation via Network Structure," with Wei Lan, Zheng Fang, and Hansheng Wang. *Journal of Business & Economic Statistics*. To appear.

113. "Variable screening via quantile partial correlation," with Shujie Ma and Runze Li. *Journal of the American Statistical Association*. To appear.
114. "Covariance Regression Analysis," with Wei Lan, Tao Zhu, and Hansheng Wang. *Journal of the American Statistical Association*. To appear.
115. "Testing a Single Regression Coefficient in High Dimensional Linear Models," with Wei Lan, Ping-Shou Zhong, Runze Li, and Hansheng Wang. *Journal of Econometrics*. To appear.
116. "Tests for Covariance Structures with High-Dimensional Repeated Measurements," with Ping-Shou Zhong, Wei Lan, and Peter X. K., Song. *Annals of Statistics*. To appear.
117. "Sequential Model Averaging for Predictions in High Dimensional Data," with Wei Lan, Ying Ying Ma, Junlong Zhao, and Hansheng Wang. *Statistica Sinica*. To appear.

BOOK

"Regression And Time Series Model Selection," with Allan McQuarrie. *World Scientific*, 1998.

SUBMITTED AND REVISED

1. "Sentiment, Market Order Choice, and Returns," with Matthew Chang, Rebecca Chung-Fern Wu, and Ning Zhu, 2016.
2. Testing Alphas in Conditional Time-Varying Factor Models with High Dimensional Assets," with Shujie Ma, Wei Lan, and Liangjun Su, 2016.

HONORS

Fellow of the American Association for the Advancement of Science, 2015

Elected Member of the International Statistical Institute, 2015

Who's Who in the America and Who's Who in the World, 2000

2000 Outstanding Intellectuals of the 20th Century, International Biographical Centre, 2000

Who's Who in the West and Who's Who in Science and Engineering, 1998

Fellow of the American Statistical Association, 1996

Appeared on the list of the 100 most prolific authors published in statistical journals (1988-93) surveyed by the National Sciences and Engineering Council of Canada

AWARDS

Teacher of the Year, 1991, 1995, 1997, 1998, 1999, 2001, 2002, 2003, 2004, 2006, 2007, 2009, 2010, 2011 and 2016, Graduate School of Management, University of California, Davis.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Statistical Association

Institute of Mathematical Statistics

International Statistical Institute

Royal Statistical Society

International Chinese Statistical Association

EDITORIAL WORK

Associate Editor, *Statistica Sinica*, 1992-2000

Review for:

Annals of Statistics

Applied Statistics

Technometrics

Biometrics

Biometrika

JASA

JRSS.B.

The Statistician

Scandinavian Journal of Statistics

Bulletin of Economic Research

Research Grants Council of Hong Kong

IEEE Transactions on Signal Processing

Journal of Econometrics

Australian Journal of Statistics

Communication in Statistics

Journal of Forecasting

Statistics and Probability Letters

National Science Foundation

Foundation for Research Development (South Africa)

Chapman and Hall

Journal of Statistical Planning and Inference

Journal of Multivariate Analysis

Computational Statistics & Data Analysis

Statistica Sinica

Test

Bernoulli