

# YUEDONG WANG

## EDUCATION

- 1990-1994 Ph.D., Statistics with Emphasis in Biostatistics.  
Department of Statistics, University of Wisconsin-Madison.  
Advisor: Grace Wahba.
- 1984-1987 M.S., Operations Research.  
Institute of Applied Mathematics, Chinese Academy of Science.
- 1979-1984 B.S., Mathematics.  
University of Science and Technology of China.

## POSITIONS

- 2003-present Professor, Department of Statistics & Applied Probability,  
University of California - Santa Barbara. Department Chair 2008-2012.
- 1999-2003 Associate Professor, Department of Statistics & Applied Probability,  
University of California - Santa Barbara
- 1997-1999 Assistant Professor, Department of Statistics & Applied Probability, UCSB
- 1994-1997 Assistant Research Scientist and Assistant Professor,  
Department of Biostatistics, University of Michigan

## RESEARCH INTERESTS

Biostatistical modeling, bootstrap, circadian rhythm, generalized linear model, longitudinal data, microarray data analysis, mixed-effects models, model selection, smoothing spline, survival analysis.

## REFEREED PAPERS

1. Yuedong Wang (1988), "Failure Distributions of Generalized Shock Models and Their Application", *Chinese Journal of Applied Probability and Statistics*, **3**, 240-247.
2. Yuedong Wang (1988), "Multivariate Shock Models", *J. of the Graduate School, USTC, Academia Sinica*. (In Chinese), **5**, 1-9.
3. Yuedong Wang (1990), "Combined Wear and Shock Failure Model", *Math. Stat. and Appl. Prob.* (In Chinese), **6**, 123-126.
4. Yuedong Wang and Jinhua Cao (1990), "New Kinds of Multivariate IFR Distribution", *Adv. Appl. Prob.*, **22**, 251-253.
5. Jinhua Cao and Yuedong Wang (1990), "Optimal Allocation For a Repairable System", *Microelectronics and Reliability*, **30**, 1091-1093.
6. Qiming He, Yuedong Wang and Daozhi Zhang (1990), "On the First Failure Time of Two-Unit Systems in Two Environments", *Microelectronics and Reliability*, **30**, 1095-1097.

7. Jinhua Cao and Yuedong Wang (1991), "Pure Birth Shock Models In Changing Environments", *Math. Stat. and Appl. Prob.* (In Chinese), **6**, 123-127.
8. Jinhua Cao and Yuedong Wang (1991), "The NBUC and NWUC Classes of Life Distributions", *J. Appl. Prob.*, **28**, 473-479.
9. Jinhua Cao and Yuedong Wang (1992), "Characterization Problem of Superposition of Two Renewal Processes", *Chinese Journal of Applied Probability and Statistics*, **8**, 88-93.
10. Yuedong Wang and Jinhua Cao (1994), "Some Multivariate DMRL and NBUE Definitions Based on Conditional Stochastic Order", *Acta Mathematicae Applicatae Sinica (Engl. Edn.)*, **10**, 328-332.
11. Jinhua Cao and Yuedong Wang (1994), "The NBELC and NWELC Classes of Life Distributions", *Applied Mathematics, A Journal of Chinese Universities (Engl. Edn.)*, **9**, 237-244.
12. Jinhua Cao and Yuedong Wang (1995), "The EBELC and EWELC Classes of Life Distributions", *Microelectronics and Reliability*, **35**, 969-971.
13. Yuedong Wang and Grace Wahba (1995), "Bootstrap Confidence Intervals for Smoothing Spline Estimates and Their Comparison to Bayesian Confidence Intervals". *Journal of Statistical Computation and Simulation*, **51**, 263-279.
14. Grace Wahba and Yuedong Wang (1995), "Behavior Near Zero of the Distribution of the GCV Smoothing Parameter Estimates." *Statistics and Probability Letters*, **25**, 105-111.
15. Yuedong Wang, Grace Wahba, Rick Chappell and Chong Gu (1995), "Simulation Studies of Smoothing Parameter Estimates and Bayesian Confidence Intervals in Bernoulli SS ANOVA Models". *Communications in Statistics: Simulation and Computation*, **24**, 1037-1059.
16. Grace Wahba, Yuedong Wang, Chong Gu, Ronald Klein and Barbara Klein (1995), "Smoothing Spline Analysis of Variance of Data From Exponential Families, With Application to Wisconsin Epidemiology Study of Diabetic Retinopathy". *Annals of Statistics*, **23**, 1865-1895.
17. Yuedong Wang and Morton B. Brown (1996), "A Flexible Model for Human Circadian Rhythms". *Biometrics*, **52**, 588-596.
18. Yuedong Wang (1997), "Odds Ratio Estimation in Bernoulli Smoothing Spline ANOVA Model". *The Statistician*, **46**, 49-56.
19. Yuedong Wang (1997), "GRKPACK: Fitting Smoothing Spline Analysis of Variance Models to Data from Exponential Families", *Communications in Statistics: Simulation and Computation*, **26**, 765-782.
20. Yuedong Wang, Grace Wahba, Chong Gu, Ronald Klein and Barbara Klein (1997), "Using Smoothing Spline ANOVA to Examine the Relation of Risk Factors to the Incidence and Progression of Diabetic Retinopathy". *Statistics in Medicine*, **16**, 1357-1376.

21. Yuedong Wang (1998), "Sample Size Calculations for Smoothing Splines Based on Bayesian Confidence Intervals". *Statistics and Probability Letters*, **38**, 161-166.
22. Yuedong Wang (1998), "Mixed-Effects Smoothing Spline ANOVA". *Journal of the Royal Statistical Society B*, **60**, 159-174.
23. Yuedong Wang (1998), "Smoothing Spline Models With Correlated Random Errors". *Journal of the American Statistical Association*, **93**, 341-348.
24. J. M. Bowen, G. E. Dahl, N. P. Evans, L. A. Thrun, Yuedong Wang, Morton B. Brown, F. J. Karsch (1998), "Importance of the GnRH Surge for Induction of the Preovulatory LH Surge of the Ewe: Dose-Response Relationship and Excess in GnRH". *Endocrinology*, **139**, 588-595.
25. Yuedong Wang and Wahba, G. (1998), "Discussion of 'Smoothing Spline Models for the Analysis of Nested and Crossed Samples of Curves' by Brumback and Rice", *Journal of the American Statistical Association*, **93** 976-980.
26. SW Guo, FM Shen, Yuedong Wang, CJ Zheng (1998), "Threshold distribution of phenylthiocarbamide (PTC) in the Chinese population". *The Annals of the New York Academy of Sciences*, **855**, 810-812.
27. Wensheng Guo, Yuedong Wang and Morton B. Brown (1999), "A Signal Extraction Approach to Modeling Hormone Time Series with Pulses and Changing Baseline". *Journal of the American Statistical Association*, **94** 746-756.
28. Yuedong Wang, Wensheng Guo and Morton B. Brown (2000), "Spline Smoothing For Bivariate Data With Applications To Association Between Hormones". *Statistica Sinica*, **10**, 377-397.
29. Peter Karcher and Yuedong Wang (2001), "Generalized Nonparametric Mixed Effects Models". *Journal of Computational and Graphical Statistics*, **10**, 641-655.
30. J.D. Opsomer, Y. Wang and Y. Yang (2001), "Nonparametric regression with correlated errors". *Statistical Science*, **16**, 134-153.
31. Chunlei Ke and Yuedong Wang (2001), "Semi-parametric Nonlinear Mixed Effects Models and Their applications" (with discussion). *Journal of the American Statistical Association*, **96** 1272-1298.
32. Yuedong Wang, Chunlei Ke and Morton B. Brown (2003), Shape Invariant Modelling of Circadian Rhythms with Random Effects and Smoothing Spline ANOVA Decomposition. *Biometrics*, **59**, 804-812.
33. Yuedong Wang and Sunwei Guo (2004), Statistical Methods for Detecting Genomic Alterations Through Array-Based Comparative Genomic Hybridization (CGH). *Frontiers in Bioscience*, **9** 540-549.
34. Anna Liu and Yuedong Wang (2004), Hypothesis Testing in Smoothing Spline Models. *Journal of Statistical Computation and Simulation*, **74** 581-597.
35. Chunlei Ke and Yuedong Wang (2004), Smoothing Spline Nonlinear Nonparametric Regression Models. *Journal of the American Statistical Association*, **99** 1166-1175.

36. Guo SW, Wu Y, Strawn E, Basir Z, Wang Y, Halverson G, Montgomery K, Kajdacsy-Balla A. (2004). Genomic Alterations in the endometrium may be a proximate cause for endometriosis. *Eur J Obstet Gynecol Reprod Biol.*, **116** 89-99.
37. Marron, JS, Muller HG, Rice J, Wang JL, Wang NY, Wang Y (2004). Discussion of nonparametric and semiparametric regression. *Statistica Sinica*, **14** 615-621.
38. Anna Liu, Wendy Meiring and Yuedong Wang (2005), Testing Generalized Linear Models Using Smoothing Spline Methods. *Statistica Sinica*, **15** 235-256.
39. Tiejun Tong and Yuedong Wang (2005), Estimating residual variance in nonparametric regression using least squares. *Biometrika*, **92**, 821-830.
40. Yuedong Wang, Chunlei Ke and Morton B. Brown (2005), Rejoinder to "On Analyzing Circadian Rhythms Data Using Non-linear Mixed Models With Harmonic Terms". *Biometrics* **61** 1120-1122.
41. Wu Y, Kajdacsy-Balla A, Strawn E, Basir Z, Halverson G, Jailwala P, Wang Y, Wang X, Ghosh S, Guo SW (2006), Transcriptional Characterizations of Differences between Eutopic and Ectopic Endometrium. *Endocrinology* **147(1)** 232-246.
42. Yu-Chieh Yang, Anna Liu and Yuedong Wang (2006), Detecting Pulsatile Hormone Secretions Using Nonlinear Mixed Effects Partial Spline Models. *Biometrics* **62** 230-238.
43. Wu Y, Strawn E, Basir Z, Wang Y, Halverson G, Jailwala P, Guo SW (2006), Genomic alterations in the ectopic and eutopic endometrium of women with endometriosis. *Gynecologic and Obstetric Investigation*, **62**, 148-159.
44. Guo SW and Wang Y (2006), The prevalence of endometriosis in women with chronic pelvic pain. *Gynecologic and Obstetric Investigation*, **62** 121-130.
45. Guo SW and Wang Y (2006), Sources of Heterogeneities in the Estimation of Prevalence of Endometriosis in Infertile and Previously Fertile Women. *Fertility and Sterility*, **86**, 1584-1595.
46. Anna Liu and Yuedong Wang (2006), Modeling of Hormone Secretion-Generating Mechanisms With Splines: A Pseudo-Likelihood Approach. *Biometrics*, **63**, 201-208.
47. Tiejun Tong and Yuedong Wang (2007), Optimal Shrinkage Estimation of Variances with Applications to Microarray Data Analysis. *Journal of the American Statistical Association*, **102**, 113-122.
48. Anna Liu, Tiejun Tong and Yuedong Wang (2007), Smoothing Spline Estimation of Variance Functions. *Journal of Computational and Graphical Statistics*, **16**, 312-329.
49. Sun-Wei Guo, Yuedong Wang, Xishi Liu and David L. Olive (2008), Laterality and Asymmetry of Endometriotic Lesions. *Fertility and Sterility*, **89**, 33-41.
50. Raymond J Carroll and Yuedong Wang, Nonparametric variance estimation in the analysis of microarray data: a measurement error approach. *Biometrika*, **95**, 437-449.
51. Tiejun Tong, Anna Liu and Yuedong Wang (2008), Relative errors of difference-based variance estimators in nonparametric regression. *Communications in Statistics - Theory and Methods*, **18**, 2890-2902.

52. Xishi Liu, Lei Yuan, Yuedong Wang, Fanghua Shen and Sun-Wei Guo (2008), Risk Factors For Dysmenorrhea and Its Severity in Women with Ovarian Endometriomas. *Gynecologic and Obstetric Investigation*, **66**, 169-177.
53. Fanghua Shen, Yuedong Wang, Yuan Lu, Xishi Liu and Sun-Wei Guo (2008), Immunoreactivity of progesterone receptor isoform B and nuclear factor kappa-B as biomarkers for recurrence of ovarian endometriomas. *American Journal of Obstetrics and Gynecology*, **199**, 486.e1-486.e10.
54. Li Qin and Yuedong Wang (2008), Nonparametric Spectral Analysis With Applications to Seizure Characterization Using EEG Time Series. *Annals of Applied Statistics*, **2**, 1432-1451.
55. Yuedong Wang, Yanyuan Ma and Raymond J Carroll (2009), Variance Estimation in the Analysis of Microarray Data, *Journal of the Royal Statistical Society B*, **71**, 425-445.
56. Yuedong Wang and Chunlei Ke (2009), Smoothing Spline Semi-parametric Nonlinear Regression Models, *Journal of Computational and Graphical Statistics*, **18**, 165-183.
57. Pang Du, Yihua Jiang, Yuedong Wang (2011), Smoothing spline ANOVA frailty model for recurrent event data, *Biometrics*, **67**, 1330-1339.
58. Xiaoyan Mao, Yuedong Wang, Drew Carter, Xuechu Zhen, Sun-Wei Guo (2011), The Retardation of Myometrial Infiltration, Reduction of Uterine Contractility and Alleviation of Generalized Hyperalgesia in Mice with Induced Adenomyosis by Levotetrahydropalmatine (l-THP) and Andrographolide, *Reproductive Sciences*, **18**, 1025-1037.
59. Zaixing Li, Yuedong Wang, Ping Wu, Wangli Xu and Lixing Zhu (2012), Tests for Variance Components in Varying Coefficient Mixed Models, *Statistica Sinica*, **22**, 123-148.
60. Tiejun Tong, Homin Jang and Yuedong Wang (2012), "James-Stein Type Estimators of Variances", *Journal of Multivariate Analysis*, **107**, 232-243.
61. Roger Ingham, Anne Bothe, Yuedong Wang, Krystal Purkhiser and Anneliese New (2012), "Phonation interval modification and speech performance quality during fluency-inducing conditions by adults who stutter", *Journal of Communication Disorders*, **45**, 198-211.
62. Nikolay Bliznyuk, Raymond Carroll, Marc Genton and Yuedong Wang, "Variogram Estimation in the Presence of Trend", *Statistics and Its Interface*, **5**, 159-168.
63. Tiejun Tong, Yanyuan Ma and Yuedong Wang (2012), "Optimal variance estimation without estimating the mean function", *Bernoulli*.
64. Jeffrey C. Sklar, Junqing Wu, Wendy Meiring, and Yuedong Wang (2012), " Non-parametric Regression with Basis Selection from Multiple Libraries", *Technometrics*, **55**, 189-201.
65. Len A. Usvyat, Yosef S. Haviv, Michael Etter, Jeroen Kooman, Daniele Marcelli, Cristina Marelli, Albert Power, Ted Toffelmire, Yuedong Wang, and Peter Kotanko (2013), "The MONitoring Dialysis Outcomes (MONDO) Initiative", *Blood Purification*, **35**, 37-48.

66. Len A Usvyat, Claudia Barth, Inga Bayh, Michael Etter, Gero D von Gersdorff, Aileen Grassmann, Adrian M Guinsburg, Maggie Lam, Daniele Marcelli, Cristina Marelli, Laura Scatizzi, Mathias Schaller, Adam Tashman, Ted Toffelmire, Stephan Thijssen, Jeroen P Kooman, Frank M van der Sande, Nathan W Levin, Yuedong Wang and Peter Kotanko (2013), "Interdialytic weight gain, systolic blood pressure, serum albumin, and C-reactive protein levels change in chronic dialysis patients prior to death", *Kidney International*, **84**, 149-157.
67. Johanna Kuipers, Len A. Usvyat, Jurjen K. Oosterhuis, Judith J. Dasselaar, Paul E. de Jong, Ralf Westerhuis, Jeffrey J. Sands, Yuedong Wang, Peter Kotanko, and Casper F.M. Franssen (2013), "Variability of pre-, intra-, and post-dialytic blood pressures in the course of a week: a study in Dutch and US chronic hemodialysis patients", *American Journal of Kidney Disease*, **62**, 779-788.
68. RJ Ingham, Y Wang, JC Ingham, AK Bothe and ST Grafton (2013), "Regional brain activity change predicts responsiveness to treatment for stuttering in adults", *Brain and Language*, **127**, 510-519.
69. GD von Gersdorff, L Usvyat, D Marcelli, A. Grassmann, C. Marelli, M. Etter, JP Kooman, A. Power, T Toffelmire, YS Haviv, A Guinsburg, C Barth, M Schaller, I Bayh, L Scatizzi, A Tashman, S Thijssen, NW Levin, FM van der Sande, C Pusey, Y Wang and P Kotanko (2013), "Monitoring Dialysis Outcomes across the World - The MONDO Global Database Consortium", *Blood Purification*, **36**, 165-172.
70. Len A Usvyat, Jeroen P Kooman, Frank M van der Sande, Yuedong Wang, Franklin W Maddux, Nathan W Levin and Peter Kotanko (2014), "Dynamics of hospitalizations in hemodialysis patients: results from a large US provider", *Nephrology Dialysis Transplantation*, **29**, 442-448.
71. Y Chen, P Du and Y Wang (2014), "Variable selection in linear models", *Wiley Interdisciplinary Reviews: Computational Statistics*, **6**, 1-9.
72. T Cornelis, LA Usvyat, JH Tordoir, Y Wang, M Wong, KM Leunissen, FM van der Sande, P Kotanko, JP Kooman (2014), "Vascular Access Vulnerability in Intensive Hemodialysis: a Significant Achilles' Heel?", *Blood Purification*, **37**, 222-228.
73. T Tong, C Wang and Y Wang (2014), "Estimation of variances and covariances for high-dimensional data: a selective review", *Wiley Interdisciplinary Reviews: Computational Statistics*, **6**, 255-264.
74. RJ Ingham, JC Ingham, AK Bothe, Y Wang and M Kilgo (2015), "Efficacy of the Modifying Phonation Intervals (MPI) Stuttering Treatment Program With Adults Who Stutter", *American Journal of Speech-Language Pathology*, to appear.
75. LA Bainbridge, C Stavros, M Ebrahimian, Y Wang and RJ Ingham (2015), "The Efficacy of Stuttering Measurement Training: Evaluating Two Training Programs", *Journal of Speech, Language, and Hearing Research*, **58**, 278-286.
76. D Marcelli, Len A Usvyat, P Kotanko, I Bayh, B Canaud, M Etter, E Gatti, A Grassmann, Y Wang, C Marelli, L Scatizzi, A Stopper, F M. van der Sande, and J Kooman (2015), "Body Composition and Survival in Dialysis Patients: Results from an International Cohort Study", *Clin J Am Soc Nephrol*, **10**.

77. R Fan, B Zhu and Y Wang (2014), “Stochastic Dynamic Models and Chebyshev Splines”, *Canadian Journal of Statistics*, **42**, 610-634.
78. J Raimann, B Canaud, M Etter, J Kooman, N Levin, D Marcelli, C Marelli, A Power, N Duncan, F van der Sande, S Thijssen, X Xu, L Usvyat, Y Wang, and P Kotanko, “Relationship between pre hemodialysis serum sodium concentration and blood pressure: Results from a retrospective analysis from the international Monitoring Dialysis Outcomes (MONDO) initiative”, *Journal of Human Hypertension*, to appear.
79. AM Guinsburg, LA Usvyat, M Etter, X Xu, S Thijssen, D Marcelli, B Canaud, C Marelli, C Barth, Y Wang, FM van der Sande, P Kotanko and JP Kooman, “Seasonal variations in mortality and clinical indicators in international hemodialysis populations from the MONDO registry”, *BMC Nephrology*, to appear.

## **BOOKS**

1. Shuangge Ma and Yuedong Wang (2009), *Frontiers of Biostatistics and Bioinformatics*, University of Science and Technology of China Press, Hefei, China.
2. Yuedong Wang (2011), *Smoothing Splines: Methods and Applications*, Chapman & Hall/CRC Monographs on Statistics & Applied Probability, London.

## **BOOK CHAPTERS**

1. Grace Wahba, Yuedong Wang, Chong Gu, Ronald Klein and Barbara Klein (1993), “Structured Machine Learning for ‘Soft Classification’ with Smoothing Spline ANOVA and Stacked Tuning, Testing and Evaluation”, *Advances in Neural Information Processing 6*, Cowan, J.D., Tesauro, G. and Alspector, J. (eds.), San Francisco, CA: Morgan Kaufmann Publishers, 415-422.
2. Grace Wahba, Chong Gu, Yuedong Wang and Rick Chappell (1994), “Soft Classification, a.k.a. Risk Estimation, Via Penalized Log Likelihood and Smoothing Spline Analysis of Variance”, *The Mathematics of Generalization, Santa Fe Institute Studies in the Science of Complexity*, Vol. XX, 329-360, D. Wolpert, eds, Santa Fe Institute Studies in the Sciences of Complexity, Addison Wesley.
3. Yuedong Wang (2004), Model Selection. ”Handbook of Computational Statistics (Volume I)”, J. Gentle, W. Härdle, Y. Mori (eds), Springer, 437-466.
4. Yuedong Wang and Sunwei Guo (2005), Array CGH Data Analysis. ”DNA Microarrays”, U. Nuber (eds), BIOS Scientific Publishers, 281-289.
5. Jeff Sklar, Wendy Meiring and Yuedong Wang, Flexible Statistical Methods for Array-based Comparative Genomic Hybridization Analysis. “Progress in Genome Research”, C. R. Williams eds, Nova Science Publishers.
6. Johnson, T. D. and Wang, Y. (2007), Recent Advances in the Analysis of Episodic Hormone Data. *Statistical Advances in the Biomedical Sciences: Clinical Trials, Epidemiology, Survival Analysis and Bioinformatics*, A. Biswas, S. Datta, J. Fine and M. Segal (eds), Wiley.

## **PAPERS IN PROCEEDINGS**

1. Yuedong Wang (1987), “Laplace Transformation For Some Classes of Multivariate Life Distributions”, *Reliability Theory and Applications*, Proceedings of the China-Japan Reliability Symposium, 391-401.
2. Yuedong Wang and Morton B. Brown (1996), “Optimal Experimental Designs for Calibrations with Heterogeneous Error Variances”, *Proceedings of the Biopharmaceutical Section, ASA*, 276-281.
3. Wensheng Guo, Yuedong Wang and Morton B. Brown (1997), “Multiprocess State-Space Model for Hormone Time Series with Pulses and a Changing Baseline”, *Proceedings of the Biopharmaceutical Section, ASA*, 276-281.
4. Chunlei Ke and Yuedong Wang (2000), “Flexible Models for Repeated Measurement Data”, *Computing Science and Statistics*, Vol. 32.
5. Peter Karcher and Yuedong Wang (2000), “Smoothing Spline Analysis of Variance for Correlated Non-Gaussian Data”, *Computing Science and Statistics*, Vol. 32.
6. Peter Karcher and Yuedong Wang (2000), “GNMMPack: Software for Fitting Generalized Non-parametric Mixed Effects Models”, *Proceedings of the Statistical Computing Section, ASA*, 75-80.
7. Yuedong Wang and Chunlei Ke (2002), ASSIST: A Suite of S-plus functions Implementing Spline smoothing Techniques. *Proceedings of the Hawaii International Conference on Statistics*.
8. Yuedong Wang and Chunlei Ke (2002), A S-Plus Function for Fitting Smoothing Spline Models, 2002 Proceedings of the American Statistical Association, Statistical Computing Section [CD-ROM], Alexandria, VA: American Statistical Association.
9. Tiejun Tong, Anna Liu and Yuedong Wang (2005), Asymptotics of the Covariate-Matched U-Statistic Residual Variance Estimator, 2005 Proceedings of the American Statistical Association, ASA Section on Nonparametric Statistics [CD-ROM], Alexandria, VA: American Statistical Association.
10. Anna Liu and Yuedong Wang (2005), Modeling of Hormone Secretion with Marked Nonhomogeneous Poisson Process, 2005 Proceedings of the American Statistical Association, ASA Section on Statistics in Epidemiology [CD-ROM], Alexandria, VA: American Statistical Association.
11. Yu-Chieh Yang, Anna Liu and Yuedong Wang (2005), PULSE: A Suite of R Functions for Detecting Pulsatile Hormone, 2005 Proceedings of the American Statistical Association, ASA Biometrics Section [CD-ROM], Alexandria, VA: American Statistical Association.

## **BOOK REVIEW**

1. Yuedong Wang (2002), “Interpolating Cubic Splines” by G. D. Knott, *Journal of the American Statistical Association*, **97**, 366-366.



## SOFTWARE

- *GRKPACK*: a software package for analysis of binary, binomial, Poisson and Gamma data using smoothing spline ANOVA. Posted to `statlib` and `netlib`.
- *ASSIST*: a suite of S functions for fitting many non-parametric/semi-parametric linear/non-linear fixed/mixed models, including many well-known models such as polynomial splines, periodic splines, spherical splines, thin-plate splines, l-splines, generalized additive models, smoothing spline ANOVA models, projection pursuit models, multiple index models, varying coefficient models, functional linear models, and self-modeling nonlinear regression models as special cases. Posted to <http://cran.r-project.org>.
- *PULSE*: a suite of R functions for hormone pulse detection and estimation.
- *BSML*: a suite of R functions for Basis Selection from Multiple Libraries.

## GRANTS

- 1996-1999 Principal investigator on subcontract of the NIH Grant R01 EY09946, \$64,231 “New Statistical Methods for Demographic Data Analysis”, principal investigator: Grace Wahba, Department of Statistics, University of Wisconsin.
- 1998-2003 Principal investigator on NIH grant R01 GM58533, \$786,840, “Flexible Statistical Models for Physiological Data”.
- 2007-2009 Principal investigator on NSF grant DMS-0706886, \$150,448
- 2015-2018 Principal investigator on NSF grant DMS-1507620, \$228,108

## Ph.D. STUDENTS

1. Peter Karcher (2000). His thesis won the student paper competition of the ASA Statistical Computing Section. Project Manager for Data Mining and Statistics, Yellostrom GmbH.
2. Chunlei Ke (2000). His thesis won Gani prize in the Department of Statistics and Applied Probability at UCSB. Biostatistics Director, Amgen.
3. Yuchieh Yang (2002). His thesis won the Gani prize. Chair of the Department of Statistics, National Taichung Institute of Technology.
4. Tatiana Khariton (2003). Modeling & Simulations Scientist, Forest Laboratories.
5. Jeff Sklar (2003, joint with Wendy Meiring). Associate Professor, Department of Statistics, California Polytechnic State University, San Luis Obispo.
6. Anna Liu (2004). Her thesis won Gani prize. Associate Professor, Department of Mathematics and Statistics, University of Massachusetts, Amherst.
7. Tiejun Tong (2005). His thesis won Gani prize. Associate Professor, Department of Mathematics, Hong Kong Baptist University.
8. Yihua Jiang (2009), Senior Data Scientist, Netflix.

9. Homin Jang (2009)
10. Junqing Wu (2011), Data Scientist, Microsoft.
11. Yan Xu (2011), Quantitative Associate, Bank of America.
12. Mee-Kyung Kim (2012), Senior Biostatistician, Allergan.
13. Chi Yang Chiu (2015), Postdoctoral Fellow, NIH.

## **PROFESSIONAL SERVICE**

- *Refereeing.* Reviewed papers for American Journal of Physiology, Annals of the Institute of Statistical Mathematics, Annals of Statistics, Biometrical Journal, Biometrics, Biometrika, Biostatistics, BMC Bioinformatics, Canadian Journal of Statistics, Computational Statistics and Data Analysis, Fertility and Sterility, Forest Science, IEEE Transactions on Signal Processing, Inverse Problems, Journal of Agricultural, Biological and Environmental Statistics, Journal of Applied Probability, Journal of Computational and Graphical Statistics, Journal of Econometrics, Journal of Nonparametric Statistics, Journal of Statistical Computation and Simulation, Journal of Statistical Planning and Inference, Journal of the American Statistical Association, Journal of the Royal Statistical Society BC, Neural Computation, Neural Information Processing System (NIPS), Proceedings of the National Academy of Sciences, Statistics and Computing, Statistics and Probability Letters, Statistics in Medicine, Statistical Methods in Medical Research and Statistica Sinica. Reviewed books for Chapman & Hall/CRC Press, Springer and Wiley.
- *Grant panel/review.* Statistics Panel, NSF (2008). Information Technology Research Panel, NSF (2003). Center for Scientific Review Special Emphasis Panel, NIH (Feb 1999, Oct 1999, Feb 2000). Minority Biomedical Research Support review panel, NIH (2002). Center for Scientific Review panel, Biodata Management and Analysis Study Section, NIH (2004, 2005). Center for Scientific Review panel, Biobehavioral Mechanisms of Emotion, Stress and Health Study Section, NIH (2006, 2008). Biostatistics Methods and Research Design (BMRD) study section, NIH (2011, 2014). AAAS panel for King Abdulaziz City for Science and Technology (KACST), 2012. Reviewed grant applications for NSA, NSF and Australian Research Council.
- Directors of International Chinese Statistical Association Board (2007-2009).
- Program Committee, SIAM 2005 Data Mining Conference.
- Associate editor, Journal of Nonparametric Statistics.
- Associate editor, Statistics and Computing.
- Co-Editor, Statistics and Its Interface (2015-?)

## **PROFESSIONAL SOCIETIES**

American Statistical Association (fellow)  
 Royal Statistical Society (fellow)  
 International Statistical Institute (fellow)

Institute of Mathematical Statistics  
International Biometric Society  
International Chinese Statistical Association

**HONOR**

Presidential Fellowship of The George Washington University, 1989 - 1990.

David P. Byar Young Investigator Award from the Biometrics Section of the American Statistical Association, 1997.

Faculty Career Development Award, 1998-1999, University of California-Santa Barbara.

Elected member, International Statistical Institute, elected 2006.

Fellow, American Statistical Association, elected 2006.