Curriculum vitae

KEYING YE, Ph.D.

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EDUCATION
8/85 to 8/90:	Ph.D. in Statistics, Purdue University, West Lafayette, Indiana,
9/82 to 1/85:	MS in Mathematics, Institute of Applied Mathematics, Academia Sinica, Beijing, People's Republic of China,
10/78 to 7/82:	BS, Mathematics, Fudan University, Shanghai, People's Republic of China,

PROFESSIONAL EXPERIENCES
8/05 to present:	Professor, Department of Management Science and Statistics, University of Texas at San Antonio, San Antonio, TX 78249.
9/07 to 08/17:	Adjunct Professor, Department of Biostatistics, University of Texas Health Science Center at San Antonio, San Antonio, TX 28229.
8/90 to 8/05:	Assistant and associate professor, Department of Statistics, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061-0439.
8/85 to 8/90:	Graduate assistant, Department of Statistics, Purdue University, West Lafayette, IN 47907.
1/85 to 8/85:	Instructor, Department of Applied Mathematics, Shanghai Jiao Tong University, Shanghai, China.

AWARDS AND HONORS
- Elected Fellow, American Statistical Association, 2015
- Teaching Honor Roll, College of Business, UTSA, 2015
- Dean's Distinguished Fellow, College of Business, UTSA, 2013-2015
- The E. Lou Curry Teaching Excellence Award, College of Business, UTSA, 2011
- Excellence in promoting academic integrity, intelligent living, and meaningful learning, by the Honors Alliance and the University of Texas at San Antonio, 2010
- Certificate of Teaching Excellence, College of Arts and Science, Virginia Tech, 2003
- David Ross Fellowship, Purdue University, 1988-1989, and 1989-1990
- Member of Mu Sigma Rho national statistical honor society
- Fudan Fellowships, Fudan University, Shanghai, China; 78-79, 79-80, and 81-82

RESEARCH INTERESTS
- Bayesian inference and modeling; Statistical inference and machine learning; Statistical decision theory; Statistical optimal design, sequential experimentations, and adaptive design; Data Mining and Bayesian computation in applications; Statistical applications to the computational biology, biostatistics, clinical trials, cyber security, environmental, ecological, geological sciences, industrial and quality improvement

SELECTED PUBLICATIONS

- Yang, Xiaobin, Ji, Ying, Wang, Min, and Ye, Keying, A system for determining maximum tolerated dose in phase I clinical trial, (2020) under review.
- Zhang, Duo, Wu, Liucang, Ye, Keying, and Wang, Min, Bayesian quantile semiparametric mixed-effects double regression models, (2020) under review.
- Ye, Keying, Han, Zifei, Duan, Yuyan, and Bai, Tianyu, Normalized Power Prior Bayesian Analysis, (2020) under review.
- Chen, Fang, Ye, Keying, and Wang, Min (2019), The minimum Bayes factor hypothesis test for correlations and partial correlations, *Communications in Statistics – Theory and Methods,* DOI: 10.1080/03610926.2019.1667397.
- Walpole, R.E. Myers, R.H. and Myers, S.L. and Ye, K., *Probability and Statistics for Engineers and Scientists, MyLab Statistics Update*, 9th edition rev, 2018.
- Lien, Donald, Stroud, Christopher, and Ye, Keying (2016), Comparing VaR approximation methods which use the first four moments as inputs, *Communications in Statistics—Simulation and Computation*, **45**, 491-503.
- Yang, Xiaobin ,Ye, Keying and Wang, Yanping (2015), A Study of the Probit Model with Latent Variables in Phase I Clinical Trials, *Journal of Statistical Computation and Simulation*, **85**, 1621-1633.
- Xu, Li, Zhan Zhenxin, Xu, Shouhui, and Ye, Keying (2014), An Evasion and Counter-Evasion Study in Malicious Websites Detection, proceedings of *IEEE CNS* 2014 conference, 265-273.
- Zhang, Ying and Ye, Keying (2014), Bayesian *D*-Optimal Designs for Poisson Regression Models, *Communication in Statistics-Theory and Methods*, *43*, 1234-1247.
- Lien, Donald, Yang, Xiaobin and Ye, Keying (2013), Alternative Approximations to Value-at-Risk: a Comparison, *Communication in Statistics-Simulation and Computation*, **43,** 2225-2240.
- Xu, L., Zhan, Z., Xu, S., Ye, K., Han, K., and Born, F. (2013). Cross-Layer Detection of Malicious Websites, *Proceedings of the third ACM conference on Data and application security and privacy*, 141-152.
- Walpole, R.E. Myers, R.H. and Myers, S.L. and Ye, K. *Essentials of Probability and Statistics for Engineers and Scientists*, 1st edition, Pearson, 2012.
- Yang, Xiaobin and Ye, Keying (2012). A Phase I Dose-Finding Study Based on Polychotomous Toxicity Responses, *Statistics and Its Inference*, **5**, 451-461.
- Walpole, R.E. Myers, R.H. and Myers, S.L. and Ye, K. *Probability and Statistics for Engineers and Scientists*, 9th edition, Prentice Hall, 2011.
- Chen, Younan and Ye, Keying (2011). A Bayesian hierarchical approach to dual response surface modeling, *Journal of Applied Statistics*, **38**, 1963-1975.
- Walpole, R.E. Myers, R.H. and Myers, S.L. and Ye, K. *Essentials of Probability and Statistics for Engineers and Scientists*, 1st edition, Pearson, 2012.
- Chen, M.H., Dey, Dipak, Mueller, P., Sun, D. and Ye, K. (editors), *Frontiers of Statistical Decision Making and Bayesian Analysis*, Springer, 2010.
- Lipkovich, Ilya, Ye, Keying and Smith, Eric (2010), An Assessment of the Performance of Bayesian Model Averaging in the Linear Model, in *Frontiers of Statistical Decision Making and Bayesian Analysis*, Chen, M.H., Dey, D., Mueller, P., Sun, D. and Ye K. eds., 146-155, Springer.

- Chen, Younan and Ye, Keying (2009). Bayesian Hierarchical Modeling on Dual Response Surfaces in Partially Replicated Designs, *Quality Technology and Quality Management* **6**, 371-389.
- Tyler, Brett M., Jiang, Rays H.Y., Zhou, Lecong, Tripathy, Sucheta, Dou, Daolong, Torto-Alalibo, Trudy, Li, Hua, Mao, Yongcai, Liu, Bing, Vega-Sanchez, Miguel, Mideros, Santiago X., Hanlon, Regina, Smith, Brian M., Krampis, Konstantinos, Ye, Keying, St. Martin, Steven, Dorrance, Anne E., Hoeschele, Ina and Maroof , M.A. Saghai (2008). Functional Genomics and Bioinformatics of the *Phytophthora sojae* Soybean Interaction, in *Genomics of Disease*, Gustafson, J.P., Taylor, J. and Stacey, G. editors, 67-78, Springer.
- Yan, Mingjin and Ye, Keying (2007). Determining the number of clusters using the weighted gap statistic, *Biometrics*, **63**, 1031-1037.
- Wang, Yanping, Myers, Raymond H., Smith, Eric P. and Ye, Keying (2006). D-optimal designs for Poisson regression models in toxicological and medical studies, *Journal of Statistical Planning and Inference*, **136**, 2831-2845.
- Duan, Yuyan, Smith Eric P. and Ye, Keying (2006), Using power priors to improve the binomial test in water quality, *Journal of Ag., Biol. and Envir. Stat.*, **11**, 151-168.
- Boone, Edward L., Ye, Keying and Smith, Eric P. (2005), Assessment of two approximation methods for computing posterior model probabilities, *Computational Statistics and Data Analysis*, **48**, 221-234.
- Bing, N., Hoeschele, I., Ye, Keying, and Eilertsen, K.J. (2005) Finite mixture model analysis of microarray expression data on samples of uncertain biological type with application to reproductive efficiency, *Veterinary Immunology and Immunopathology*, **105,** 187-196.
- Yang, Xiao and Ye, Keying. (2004), On Efficiency of Experimental Designs for Single Factor cDNA Microarray Experiments, in *Data Mining and Knowledge Management, Lecture Notes in Computer Science*, 119-127, Springer-Verlag, New York.
- Noble, Robert, Smith, Eric P. and Ye, Keying (2004) Model Selection in Canonical Correlation Analysis (CCA) using Bayesian Model Averaging, *Environmetrics*, **15**, 291-311.
- Mendes, Pedro, Sha, Wei and Ye, Keying (2003), Artificial gene networks for objective comparison of analysis algorithms, *Bioinoformatics,* **19**, ii122-ii129.
- Su, Chenting, Fern, Edward and Ye, Keying (2003), A temporal dynamic model of spousal family purchase-decision, *Journal of Marketing Research*, **40,** 268-281.
- Ye, Keying and Smith, Eric (2002). A Bayesian approach to evaluating site impairment, *Environmental and Ecological Statistics*, **9**, 379-392.
- Eno, Dan and Ye, Keying (2001). Probability matching priors for an extended statistical calibration model. *Canadian Journal of Statistics*, **29**, No 1, pp.19-35.
- Smith, Eric P., Ye, Keying, Hughes, Chris and Shabman, Leonard (2001), Statistical Assessment of Violations of Water Quality Standards under Section 303(d) of the Clean Water Act, *Environmental Science and Technology*, **35**, 606-612.
- Sun, Dongchu and Ye, Keying (1999), Reference priors for a product of normal means when variances are unknown, *Canadian Journal of Statistics*, **27**, 97-103.
- Ye, Keying (1998), Estimating a ratio of the variances in a balanced one-way random effects model, *Statistics and Decisions*, 163-180.
- Lu, Ying, Ye, Keying, Mathur, Ashwini K., Hui, Sui, Fuerst, Thomas P. and Genant, Harry K. (1997), Comparative calibration without a gold standard, *Statistics in Medicine,* **16**, 1889-1905.

- Sun, Dongchu and Ye, Keying (1996), Frequentist validity of posterior quantiles for a two-parameter exponential family, *Biometrika*, **83**, *pp*.55-65.
- Sun, Dongchu and Ye, Keying (1995). Reference prior Bayesian analysis for normal mean products, *Journal of the American Statistical Association*, **90,** 589-597.
- Ye, Keying (1994). Bayesian reference prior analysis on the ratio of variances for the balanced one-way random effects model, *Journal of Statistical Planning and Inference,* **41,** 267-280.
- Ye, Keying (1993). Reference priors when the stopping rule depends on the parameter of interest, *Journal of the American Statistical Association,* **88,** 360-363.
- Ye, Keying and Berger, James O. (1991). Noninformative priors for inferences in exponential regression models, *Biometrika,* **78,** 645-656.

SELECTED FUNDING ACTIVITIES
- Ye, Keying (05/2013-08/2014). College of Business, UTSA, Dean's research fellow, amount awarded: $20,000.
- Ruan, Jianhua, Wang, Xiaodu and Ye, Keying (06/2010-12/2011). Tissue Remodeling, Stromal Estrogen Production, and Age-Related Breast Cancer Risk, San Antonio Life Sciences Institute (SALSI), amount awarded: $108,000.
- Tu, Zhijian, Ye, Keying and Biedler, Jim (08/2006-08/2008). Characterization and expression of microRNA genes in anopheles gambiae, as a co-PI of the proposal granted by National Institute of Health, amount awarded: $409,921.
- Tu, Zhijian, Myles, Kevins, Adelman, Zach and Ye, Keying (01/2006-12/2006). microRNA, blood feeding, and gene regulation in mosquitoes, as a subcontractor of the proposal granted by the Institute for Biomedical and Public Health Sciences of Virginia Tech, amount awarded: $44,889.
- Prisley, Stephen, Carstensen, Lawrence W. Jr., Ye, Keying and Smith, Eric P. (08/2005-07/2008). Application of spatial uncertainty models to automate and enhance data fusion, as a co-PI of the proposal granted by National Geospatial Intelligence Agency, amount awarded: $449,643.00.
- Tyler, B., Maroof, S., Buss, G.R., Hoeschele, I., Kruzelock, R., Schlaugh, K. and Ye, K. (10/2002-09/2007). Dissecting Soybean Resistance to Phytophthora by QTL Analysis of Host and Pathogen Expression Profiles, as a co-PI of the grant by *National Science Foundation*, amount awarded $6,764,465.00.
- Ye, Keying and Smith Eric P. (07/2001-06/2002). Statistical Analyses in Water Resource Monitoring, PI of the grant by *Virginia Water Resource Research Center*, amount awarded $19,405.
- Ye, Keying (2001-2002) Bayesian method for assessing sample size in *E.Coli* sampling, by *FDA*, amount awarded $8,000.
- Jarrott, Shannon and Ye, Keying (2001-2002). Dementia care mapping: a validity test, as a Co-PI of the awarded *Aspires* grants by Virginia Tech, amount awarded $41,852.
- Smith. Eric P. and Ye, Keying (2000-2002). Assessing effects of multiple stressors in environmental monitoring programs, by EPA/NSF, amount awarded: $266,388.

SELECTED PRESENTATIONS

- "Similarity Scores for Mixed Types of Data with Applications in Real Estate Properties." Invited presentation in the 3rd International Conference on Econometrics and Statistics, June, 2019, Taichung, Taiwan.
- "Functional Tail Dependence Coefficients for Copula." Invited presentation in 2019 Taiwan South District Meeting, June, 2019, Taichung, Taiwan.
- "Normalized Power Prior Bayesian Analysis." Invited presentation at the Academia Sinica, June 20, 2019, Taipei, Taiwan.
- "A Phase I Dose-finding Study Based on Polychotomous Toxicity Responses." Invited presentation at the Second Joint Biostatistics Symposium, July 9, 2012, Beijing, China.
- "Normalized Power Prior Bayesian Analysis with Applications in Ecology." Invited presentation at the International of Chinese Statistics Association Conference, December 22, 2010, Guangzhou, China.
- "Some Thoughts on Continual Reassessment Methods." Invited talk at the Annual Chinese Statistics meeting and International Statistics Conference, December 16, 2010, Jhong-Li, Taiwan.
- "Data Mining and Cluster Analysis." Invited talk at the Department of Applied Mathematics, Shanghai University of Finance and Economics, December 15, 2009, Shanghai, China.
- "Bayesian Hierarchical Modeling on Dual Response Surfaces." Invited talk at the Conference of Texas Statisticians, March 28, 2008, San Antonio, Texas.
- "Normalized Power Prior Analysis." Invited talk at the Department of Statistics, Penn State University, April 24, 2008.
- "Normalized Power Prior Analysis." Department of Mathematical Sciences, University of Texas at Dallas, November 13, 2007.
- "Determining the Number of Clusters Using Weighted Gap Statistic." Department of Management Science and Statistics, UTSA, September 14, 2007.
- "Bayesian One- and Two-Stage Design for Generalized Linear Models." Invited speaker for the 2007 Taipei International Statistical Symposium and ICSA International Conference, Academia Sinica, Taipei, Taiwan, June 27, 2007.
- "A Bayesian Hierarchical Approach to Dual Response Surface Modeling." Invited speaker for Forum for Interdisciplinary Mathematics on the Interdisciplinary Mathematical and Statistical Techniques, May 21, 2007.
- "Bayesian Applications to the Environmental Study." Colloquium. Department of Mathematics, Southeastern Louisiana University, February 23, 2007.
- "Bayesian Power Prior Approach in Environmental Studies." Invited speaker for the International Chinese Statistical Association Symposium, June 14-17, 2006.
- "On Efficiency of Experimental Designs for Single Factor cDNA Microarray Experiments." Invited talk in *Chinese Academy of Sciences Symposium on Data Mining and Knowledge Management*, Beijing, China, July 12-14, 2004.
- "Some Statistical Issues in cDNA Microarray Experiments." Invited talk in Department of Applied Mathematics, Shanghai Jiaotong University, December 24, 2003.

- "Some Statistical Issues in cDNA Microarray Experiments." Invited talk at Department of Statistics, University of Missouri, Columbia, Missouri, March, 2003.
- "Hierarchical spatial modeling to ecological data." *The International Environmetrics Society conference*, Portland, Oregon, August, 2001.
- "Bayesian Two-Stage Experimental Designs under Model Uncertainty." Invited talk at the Graduate Institute of Statistics, National Central University, Chung-li, Taiwan, October 26, 1999.
- "On confidence intervals associated with the usual and adjusted likelihoods." Invited discussant at the International Workshop on Objective Bayesian Methodology, Valencia, Spain, June 13, 1999
- "A Bayesian analysis to repeated measurement model." Invited presentation at the 4th annual meeting of International Society for Bayesian Analysis, University of Cape Town, South Africa, December 16-19, 1996.
- "Reference prior Bayesian analysis." Invited presentation at the 3rd annual world meeting of the International Society for Bayesian Analysis, Oaxaca, Mexico, September 29-30, 1995.
- "Estimation for the ratio of variances in a balanced one-way random effects model," in Second annual meeting of International Society for Bayesian Analysis, Alicante, Spain, June 11-June 12, 1994.
- "Reference priors for a random effects model," in First annual world meeting of the International Society for Bayesian Analysis, San Francisco, California, August 6-7, 1993.
- "Reference prior analysis on the ratio of variances for one-way random-effects model," in Fifth Purdue International Symposium on Statistical Decision Theory and Related Topics, West Lafayette, Indiana, June 14-19, 1992.
- "Reference prior Bayesian analysis." Department of Statistics, Virginia Polytechnic Institute and State University, March, 1990.
- "Noninformative prior Bayesian analysis." Business School, University of Chicago, February, 1990.

SELECTED PROFESSIONAL SERVICES
- Serving as Associate Editor, *Bayesian Analysis*, 2010 - present.
- Serving as Vice President, ASA San Antonio Chapter, 2018-2019.
- Served as webmaster, ASA San Antonio Chapter, 2011- 2016.
- Served as an Associate Editor for the *Journal of Statistical Computation and Simulation*, 2000 - 2016.
- Served as President, ASA San Antonio Chapter, 2011-2012.
- Served as Vice President, ASA San Antonio Chapter, 2010-2011.

MEMBERSHIP IN PROFESSIONAL SOCIETIES
Member of the American Statistical Association
Member of ASA, San Antonio Chapter
Life-time Member of the Institute of Mathematical Statistics
Life-time Member of the International Society of Bayesian Analysis
Life-time Member of the International Chinese Statistics Association