

KE-HAI YUAN
CURRICULUM VITAE
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ADDRESS

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EDUCATION

1992-1995 Ph.D. in Mathematics with Concentration in Statistics, UCLA
1985-1988 M.A. in Statistics, Beijing Institute of Technology
1981-1985 B.S. in Mathematics, Beijing Institute of Technology

EMPLOYMENT

2008- Professor, Department of Psychology
 University of Notre Dame
2005-2008 O'Neill III Associate Professor, Department of Psychology
 University of Notre Dame
2001-2005 Associate Professor, Department of Psychology & Lab for Social Research
 University of Notre Dame
1998-2001 Assistant Professor, Department of Psychology
 University of North Texas
1996-1998 Visiting Assistant Professor, Department of Psychology, UCLA
1995-1996 Statistician, Department of Psychology, UCLA
1992-1995 Graduate Student Researcher, Department of Psychology, UCLA
1988-1992 Assistant Professor, Department of Applied Mathematics
 Beijing Institute of Technology

PROFESSIONAL SERVICES

- Associate Editor, Journal of Multivariate Analysis (2008-).
- Member of Editorial Board, Educational and Psychological Measurement (2000-).
- Member of Editorial Board, Structural Equation Modeling (2006-).
- Member of Editorial Board, Sociological Methodology (2007-2009).
- Consulting Editor, Multivariate Behavioral Research (2006-).
- Member of the International Program Advisory Board/International Meeting of the Psychometric Society 2007, Tokyo, Japan.
- Reviewed grant proposals for NSF, Institute of Education Sciences, Spencer Foundation, Research Council of Canada, The Research Grant Council of Hong Kong, books for Lawrence Erlbaum Associates, and Guilford Press, and manuscripts for over twenty journals.

PROFESSIONAL HONORS

- The James McKeen Cattell Sabbatical Award (2005).
- The Raymond B. Cattell Award for Early-Career Outstanding Multivariate Research (2002) from the Society of Multivariate Experimental Psychology.
- Elected member of the Society of Multivariate Experimental Psychology (2002-).

GRANTS AND SPONSORED PROGRAMS

- CTB/McGraw-Hill Grant: (Ying Cheng PI) Correction of calibration error in computerized adaptive testing (\$80,000), 3/01/10-12/31/10.
- The James McKeen Cattell Sabbatical Award (\$32,000), 8/1/05-5/31/06.
- NSF Grant: (Ke-Hai Yuan, PI) Development of statistical modeling methods for analysis of social and behavioral science data with nonignorable nonresponse (\$168,459), 12/01/04-11/30/07.
- NIH Conference Grant: (Michael J. Wenger, PI) Neuroscience, models, and methods in cognitive aging (\$15,000), 5/01/03-4/30/04.
- NIH Conference Grant: (Steven M. Boker, PI) Dynamical systems data analysis (\$18,650), 9/30/02-8/31/03.

RESEARCH INTERESTS

Mean comparison, factor analysis; structural equation modeling; repeated measures and multilevel modeling; mixture model; item response theory; statistical computation; estimating equations; bootstrap and cross-validation; robust methods, missing data and small sample problems in multivariate analysis.

COURSES TAUGHT

Experimental psychology I: Statistics; Psychometric theory; Multivariate statistics; Factor analysis; Structural equation modeling; Multilevel modeling; Computational statistics; Statistical methods; Exploratory data analysis; Missing data analysis.

DOCTORAL DISSERTATIONS DIRECTED

- Wei Zhang, University of Notre Dame (2010): *Estimating latent variable interactions with missing data.*
- Xiaoling Zhong, University of Notre Dame (2010): *Model selection, evaluation and tests of invariance in finite factor mixture modeling using a two stage approach.*
- Summer Zu, University of Notre Dame (2009): *Robust procedures for mediation analysis.*
- Ken Kelley, University of Notre Dame (2005, codirected with Scott Maxwell): *Estimating nonlinear change models in heterogeneous populations when class membership is unknown: Defining and developing the latent classification differential change model.*
- Richard Herrington, University of North Texas (1998): *Simulating statistical power curves with the bootstrap and robust estimation.*
- Current Ph.D student: Laura Lu.

PAPERS IN PRESS

- Bentler, P. M., Liang, J., Tang, M.-L., & Yuan, K.-H. (in press). Constrained ML estimation for two-level mean and covariance structure models. *Educational and Psychological Measurement*.
- Bentler, P. M., & Yuan, K.-H. (in press). Positive definiteness via offdiagonal scaling of a symmetric indefinite matrix. *Psychometrika*.
- Schuster, C., & Yuan, K.-H. (in press). Robust estimation of latent ability in item response models. *Journal of Educational and Behavioral Statistics*.
- Yuan, K.-H., & Schuster, C. (in press). Overview of statistical estimation methods. In Todd Little (Ed.), *The Oxford handbook of quantitative methods* (pp. ??).
- Yuan, K.-H., Wu, R., & Bentler, P. M. (in press). Ridge structural equation modeling with correlation matrices for ordinal and continuous data. *British Journal of Mathematical and Statistical Psychology*.

PUBLICATIONS

- Cheng, Y., & Yuan, K.-H. (2010). The impact of fallible item parameter estimates on latent trait recovery. *Psychometrika*, *75*, 280–291.
- Hayashi, K., & Yuan, K.-H. (2010). Exploratory factor analysis. In N. J. Salkind (Ed.), *Encyclopedia of research design* (pp. 458–465). Thousand Oaks, CA: Sage.
- Lu, Z., & Yuan, K.-H. (2010). Welch's *t* test. In N. J. Salkind (Ed.), *Encyclopedia of research design* (pp. 1620–1623). Thousand Oaks, CA: Sage.
- Yanagihara, H., Himeno, T., & Yuan, K.-H. (2010). GLS discrepancy based information criteria for selecting covariance structure models. *Behaviormetrika*, *37*, 71–86.
- Yuan, K.-H., & Bentler, P. M. (2010). Consistency of normal distribution based pseudo maximum likelihood estimates when data are missing at random. *American Statistician*, *64*, 263–267.
- Yuan, K.-H., & Bentler, P. M. (2010). Two simple approximations to the distributions of quadratic forms. *British Journal of Mathematical and Statistical Psychology*, *63*, 273–291.
- Yuan, K.-H., & Bentler, P. M. (2010). Finite normal mixture SEM analysis by fitting multiple conventional SEM models. *Sociological Methodology*, *40*, 191–245.
- Yuan, K.-H., & Hayashi, K. (2010). Fitting data to model: Structural equation modeling diagnosis using two scatter plots. *Psychological Methods*, *15*, 335–351.
- Yuan, K.-H., Cheng, Y., & Zhang, W. (2010). Determinants of standard errors of MLEs in confirmatory factor analysis. *Psychometrika*, *75*, 633–648.

- Zhong, X., & Yuan, K.-H. (2010). Weights. In N. J. Salkind (Ed.), *Encyclopedia of research design* (pp. 1617–1620). Thousand Oaks, CA: Sage.
- Zu, J., & Yuan, K.-H. (2010). Local influence and robust procedures for mediation analysis. *Multivariate Behavioral Research*, *45*, 1–44.
- Zu, J., & Yuan, K.-H. (2010). Serial correlation. In N. J. Salkind (Ed.), *Encyclopedia of research design* (pp. 1352–1358). Thousand Oaks, CA: Sage.
- Bentler, P. M., Satorra, A., & Yuan, K.-H. (2009). Smoking and cancers: Case-robust analysis of a classic data set. *Structural Equational Modeling*, *16*, 382–390.
- Kelly, A. E., & Yuan, K.-H. (2009). Clients secret-keeping and the working alliance in adult outpatient therapy. *Psychotherapy Theory, Research, Practice, Training*, *46*, 193–202.
- Savalei, V., & Yuan, K.-H. (2009). On the model-based bootstrap with missing data: Obtaining a *p*-value for a test of exact fit. *Multivariate Behavioral Research*, *44*, 741–763.
- Yuan, K.-H. (2009). Normal distribution based pseudo ML for missing data: With applications to mean and covariance structure analysis. *Journal of Multivariate Analysis*, *100*, 1900–1918.
- Yuan, K.-H. (2009). Identifying variables responsible for data not missing at random. *Psychometrika*, *74*, 233–256.
- Hayashi, K., Bentler, P. M., & Yuan, K.-H. (2008). Structural equation modeling. In C. R. Rao, J. P. Miller, & D. C. Rao (Eds.), *Handbook of statistics 28: Epidemiology and medical statistics* (pp. 395–428). Amsterdam: North-Holland.
- Yuan, K.-H. (2008). Noncentral chi-square versus normal distributions in describing the likelihood ratio statistic: The univariate case and its multivariate implication. *Multivariate Behavioral Research*, *43*, 109–136.
- Yuan, K.-H. (2008). Effect sizes for testing not missing at random mechanism. In K. Shigemasa, A. Okada, T. Imaizumi, & T. Hoshino (Eds.), *New trends in psychometrics* (pp. 559–583). Tokyo: Universal Academy Press.
- Yuan, K.-H., & Chan, W. (2008). Structural equation modeling with near singular covariance matrices. *Computational Statistics & Data Analysis*, *52*, 4842–4858.
- Yuan, K.-H., Kouros, C. D., & Kelley, K. (2008). Diagnosis for covariance structure models by analyzing the path. *Structural Equational Modeling*, *15*, 564–602.
- Yuan, K.-H., & Lu, L. (2008). SEM with missing data and unknown population using two-stage ML: Theory and its application. *Multivariate Behavioral Research*, *62*, 621–652.
- Yuan, K.-H., & Zhong, X. (2008). Outliers, leverage observations and influential cases in

- factor analysis: Minimizing their effect using robust procedures. *Sociological Methodology*, *38*, 329–368.
- Zu, J., & Yuan, K.-H. (2008). Abstract: Local influence and robust methods for mediation models. *Multivariate Behavioral Research*, *43*, 661.
- Hayashi, K., Bentler, P. M., & Yuan, K.-H. (2007). On the likelihood ratio test for the number of factors in exploratory factor analysis. *Structural Equation Modeling*, *14*, 505–526.
- Yuan, K.-H., & Bentler, P. M. (2007). Multilevel covariance structure analysis by fitting multiple single-level models. *Sociological Methodology*, *37*, 53–82.
- Yuan, K.-H., & Bentler, P. M. (2007). Robust procedures in structural equation modeling. In S.-Y. Lee (Ed.), *Handbook of latent variable and related models* (pp. 367–397). Neitherland: Elsevier.
- Yuan, K.-H., & Bentler, P. M. (2007). Structural equation modeling. In C. R. Rao & S. Sinharay (Eds.), *Handbook of statistics 26: Psychometrics* (pp. 297–358). Amsterdam: North-Holland.
- Yuan, K.-H., Hayashi, K., & Bentler, P. M. (2007). Normal theory likelihood ratio statistic for mean and covariance structure analysis under alternative hypotheses. *Journal of Multivariate Analysis*, *98*, 1262–1282.
- Yuan, K.-H., Hayashi, K., & Yanagihara, H. (2007). A class of population covariance matrices in the bootstrap approach to covariance structure analysis. *Multivariate Behavioral Research*, *42*, 261–281.
- Zhao, C., Elishaev, E., Yuan, K.-H., Yu, J., & Austin, R. M. (2007). Very low human papillomavirus DNA prevalence in mature women with negative computer-imaged liquid-based pap tests. *Cancer Cytopathology*, *111*, 292–297.
- Yuan, K.-H., & Bentler, P. M. (2006). Asymptotic robustness of standard errors in multilevel structural equation models. *Journal of Multivariate Analysis*, *97*, 1121–1141.
- Yuan, K.-H., & Bentler, P. M. (2006). Mean comparison: Manifest variable versus latent variable. *Psychometrika*, *71*, 139–159.
- Yuan, K.-H., & Hayashi, K. (2006). Standard errors in covariance structure models: Asymptotics versus bootstrap. *British Journal of Mathematical and Statistical Psychology*, *59*, 397–417.
- Bentler, P. M., Liang, J., & Yuan, K.-H. (2005). Some recent advances in two-level structural equation models: Estimation, testing and robustness. In J. Fan & G. Li (Eds.), *Contemporary multivariate analysis and design of experiments: In celebration of Prof. Kai-Tai Fang's 65th birthday* (pp. 99–120). NJ: World Scientific.

- Schuster, C., & Yuan, K.-H. (2005). Factor analysis. In K. Kempf-Leonard (Ed.), *Encyclopedia of social measurement, Volume 2* (pp. 1–8). NY: Elsevier.
- Yanagihara, H., & Yuan, K.-H. (2005a). Four improved statistics for contrasting means by correcting skewness and kurtosis. *British Journal of Mathematical and Statistical Psychology, 58*, 209–237.
- Yanagihara, H., & Yuan, K.-H. (2005b). Three approximate solutions to the multivariate Behrens-Fisher problem. *Communications in Statistics: Simulation and Computation, 34*, 975–988.
- Yuan, K.-H. (2005). Fit indices versus test statistics. *Multivariate Behavioral Research, 40*, 115–148.
- Yuan, K.-H., & Bentler, P. M. (2005). Asymptotic robustness of the normal theory likelihood ratio statistic for two-level covariance structure models. *Journal of Multivariate Analysis, 94*, 328–343.
- Yuan, K.-H., Bentler, P. M., & Zhang, W. (2005). The effect of skewness and kurtosis on mean and covariance structure analysis: The univariate case and its multivariate implication. *Sociological Methods & Research, 34*, 249–258.
- Yuan, K.-H., & Chan, W. (2005). On nonequivalence of several procedures of structural equation modeling¹. *Psychometrika, 70*, 791–798.
- Yuan, K.-H., & Hayashi, K. (2005). On Muthén’s maximum likelihood for two-level covariance structure models. *Psychometrika, 70*, 147–167.
- Yuan, K.-H., & Maxwell, S. (2005). On the post hoc power in testing mean difference. *Journal of Educational and Behavioral Statistics, 30*, 141–167.
- Yuan, K.-H., & Bentler, P. M. (2004a). On the asymptotic distributions of two statistics for two-level covariance structure models within the class of elliptical distributions. *Psychometrika, 69*, 437–457.
- Yuan, K.-H., & Bentler, P. M. (2004b). On chi-square difference and z tests in mean and covariance structure analysis when the base model is misspecified. *Educational and Psychological Measurement, 64*, 737–757.
- Yuan, K.-H., Bentler, P. M., & Chan, W. (2004). Structural equation modeling with heavy tailed distributions. *Psychometrika, 69*, 421–436.
- Yuan, K.-H., Fung, W. K., & Reise, S. (2004). Three Mahalanobis-distances and their role in assessing unidimensionality. *British Journal of Mathematical and Statistical Psychology, 57*, 151–165.

¹According to Brian Junker (the editor of *Psychometrika*), this paper is one of the ten most-viewed articles on line in 2006.

- Yuan, K.-H., Lambert, P. L., & Fouladi, R. T. (2004). Mardia's multivariate kurtosis with missing data. *Multivariate Behavioral Research, 39*, 413–437.
- Yuan, K.-H., & Marshall, L. L. (2004). A new measure of misfit for covariance structure models. *Behaviormetrika, 31*, 67–90.
- Hayashi, K., & Yuan, K.-H. (2003). Robust Bayesian factor analysis. *Structural Equation Modeling, 10*, 525–533.
- Yuan, K.-H., & Bentler, P. M. (2003). Eight test statistics for multilevel structural equation models. *Computational Statistics and Data Analysis, 44*, 89–107.
- Yuan, K.-H., Guarnaccia, C. A., & Hayslip, B. J. (2003). A study of the distribution of sample coefficient alpha with the Hopkins Symptom Checklist: Bootstrap versus asymptotics. *Educational and Psychological Measurement, 63*, 5–23.
- Yuan, K.-H., & Hayashi, K. (2003). Bootstrap approach to inference and power analysis based on three statistics for covariance structure models. *British Journal of Mathematical and Statistical Psychology, 56*, 93–110.
- Yuan, K.-H., Marshall, L. L., & Bentler, P. M. (2003). Assessing the effect of model misspecifications on parameter estimates in structural equation models. *Sociological Methodology, 33*, 241–265.
- Yuan, K.-H., & Bentler, P. M. (2002a). On robustness of the normal-theory based asymptotic distributions of three reliability coefficient estimates. *Psychometrika, 67*, 251–259.
- Yuan, K.-H., & Bentler, P. M. (2002b). On normal theory based inference for multilevel models with distributional violations. *Psychometrika, 67*, 539–561.
- Yuan, K.-H., & Bushman, B. J. (2002). Combining standardized mean differences using the method of maximum likelihood. *Psychometrika, 67*, 589–607.
- Yuan, K.-H., & Chan, W. (2002). Fitting structural equation models using estimating equations: A model segregation approach. *British Journal of Mathematical and Statistical Psychology, 55*, 41–62.
- Yuan, K.-H., Marshall, L. L., & Bentler, P. M. (2002). A unified approach to exploratory factor analysis with missing data, nonnormal data, and in the presence of outliers. *Psychometrika, 67*, 95–122.
- Yuan, K.-H., Marshall, L. L., & Weston, R. (2002). Cross-validation through downweighting influential cases in structural equation modeling. *British Journal of Mathematical and Statistical Psychology, 55*, 125–143.
- Yuan, K.-H., & Bentler, P. M. (2001a). Effect of outliers on estimators and tests in covariance structure analysis. *British Journal of Mathematical and Statistical*

- Psychology*, 54, 161–175.
- Yuan, K.-H., & Bentler, P. M. (2001b). A unified approach to multigroup structural equation modeling with nonstandard samples. In G. A. Marcoulides & R. E. Schumacker (Eds.), *Advanced structural equation modeling: New developments and techniques* (pp. 35–56). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bentler, P. M., & Yuan, K.-H. (2000). On adding a mean structure to a covariance structure model. *Educational and Psychological Measurement*, 60, 326–339.
- Yuan, K.-H., & Bentler, P. M. (2000a). Inferences on correlation coefficients in some classes of nonnormal distributions. *Journal of Multivariate Analysis*, 72, 230–248.
- Yuan, K.-H., & Bentler, P. M. (2000b). Robust mean and covariance structure analysis through iteratively reweighted least squares. *Psychometrika*, 65, 43–58.
- Yuan, K.-H., & Bentler, P. M. (2000c). On equivariance and invariance of standard errors in three exploratory factor models. *Psychometrika*, 65, 121–133.
- Yuan, K.-H., & Bentler, P. M. (2000d). Three likelihood-based methods for mean and covariance structure analysis with nonnormal missing data. *Sociological Methodology*, 30, 167–202.
- Yuan, K.-H., Chan, W., & Bentler, P. M. (2000). Robust transformation with applications to structural equation modeling. *British Journal of Mathematical and Statistical Psychology*, 53, 31–50.
- Yuan, K.-H., & Jennrich, R. I. (2000). Estimating equations with nuisance parameters: Theory and applications. *Annals of the Institute of Statistical Mathematics*, 52, 343–350.
- Bentler, P. M., & Yuan, K.-H. (1999a). Structural equation modeling with small samples: Test statistics. *Multivariate Behavioral Research*, 34, 181–197.
- Bentler, P. M., & Yuan, K.-H. (1999b). Structural equation models. In S. Kotz, C. B. Read, & D. L. Banks (Eds.), *Encyclopedia of statistical sciences: Update volume 3* (pp. 716–721). NY: Wiley.
- Yuan, K.-H., & Bentler, P. M. (1999a). On normal theory and associated test statistics in covariance structure analysis under two classes of nonnormal distributions. *Statistica Sinica*, 9, 831–853.
- Yuan, K.-H., & Bentler, P. M. (1999b). On asymptotic distributions of normal theory MLE in covariance structure analysis under some nonnormal distributions. *Statistics & Probability Letters*, 42, 107–113.
- Yuan, K.-H., & Bentler, P. M. (1999c). F-tests for mean and covariance structure analysis. *Journal of Educational and Behavioral Statistics*, 24, 225–243.
- Bentler, P. M., & Yuan, K.-H. (1998). Tests for linear trend in the smallest eigenvalues of

- the correlation matrix. *Psychometrika*, *63*, 131–144.
- Yuan, K.-H., & Bentler, P. M. (1998a). Robust mean and covariance structure analysis. *British Journal of Mathematical and Statistical Psychology*, *51*, 63–88.
- Yuan, K.-H., & Bentler, P. M. (1998b). Normal theory based test statistics in structural equation modeling. *British Journal of Mathematical and Statistical Psychology*, *51*, 289–309.
- Yuan, K.-H., & Bentler, P. M. (1998c). Structural equation modeling with robust covariances. *Sociological Methodology 1998*, *28*, 363–396.
- Yuan, K.-H., & Jennrich, R. I. (1998). Asymptotics of estimating equations under natural conditions. *Journal of Multivariate Analysis*, *65*, 245–260.
- Bentler, P. M., & Yuan, K.-H. (1997). Optimal unbiased equivariant factor score estimators. In M. Berkane (Ed.), *Latent variable modeling and applications to causality* (pp. 259–281). New York: Springer-Verlag.
- Yuan, K.-H. (1997). A theorem on uniform convergence of stochastic functions with applications. *Journal of Multivariate Analysis*, *62*, 100–109.
- Yuan, K.-H., & Bentler, P. M. (1997a). Mean and covariance structure analysis: Theoretical and practical improvements. *Journal of the American Statistical Association*, *92*, 767–774.
- Yuan, K.-H., & Bentler, P. M. (1997b). Improving parameter tests in covariance structure analysis. *Computational Statistics and Data Analysis*, *26*, 177–198.
- Yuan, K.-H., & Bentler, P. M. (1997c). Finite sample distribution-free test statistics for nested structural models. *Behaviormetrika*, *24*, 19–26.
- Yuan, K.-H., & Bentler, P. M. (1997d). Generating multivariate distributions with specified marginal skewness and kurtosis. In W. Bandilla & F. Faulbaum (Eds.), *SoftStat'97—Advances in statistical software 6* (pp. 385–391). Stuttgart, Germany: Lucius & Lucius.
- Yuan, K.-H., Bentler, P. M., & Kano, Y. (1997). On averaging variables in a confirmatory factor analysis model. *Behaviormetrika*, *24*, 71–83.
- Bentler, P. M., & Yuan, K.-H. (1996). Test of linear trend in eigenvalues of a covariance matrix with application to data analysis. *British Journal of Mathematical and Statistical Psychology*, *49*, 299–312.
- Yuan, K.-H., & Bentler, P. M. (1996). Mean and covariance structure analysis with missing data. In A. Gupta & V. Girko (Eds.), *Multidimensional statistical analysis and theory of random matrices: Proceedings of sixth Eugene Lukacs symposium* (pp. 307–326). Utrecht, Netherlands: VSP.

- Yuan, K.-H., & Bentler, P. M. (1994). Test of linear trend in eigenvalues of K covariance matrices with applications in common principal components analysis. *Communication in Statistics—Theory and Methods*, 23, 3141–3156.
- Fang, K.-T., Yuan, K.-H., & Bentler, P. M. (1994). Applications of number-theoretic methods to quantizers of elliptically contoured distributions. In T. W. Anderson, K. T. Fang, & Ingram Olkin (Eds.), *Multivariate analysis and its applications, IMS lecture notes-monograph series* (pp. 211-225). Hayward, CA: Institute of Mathematical Statistics.
- Fang, K.-T., & Yuan, K.-H. (1993). The limiting distributions of some subclasses of the generalized non-central t-distribution. *Acta Mathematicae Applicatae Sinica, English Series*, 9, 71–81.
- Fang, K.-T., Yuan, K.-H., & Bentler, P. M. (1992). Applications of sets of points uniformly distributed on a sphere to testing multinormality and robust estimation. In Z. P. Jiang, S. J. Yan, P. Cheng, & R. Wu (Eds.), *Probability and statistics* (pp. 56–73). Singapore: World Scientific.
- Fang, K.-T., & Yuan, K.-H. (1990). A unified approach to maximum likelihood estimation. *Chinese Journal of Applied Probability and Statistics, English Series*, 6, 412–418.

MANUSCRIPTS UNDER REVIEW

- Yuan, K.-H. (2010). Expectation-robust algorithm and estimating equation for means and covariances with missing data.
- Yuan, K.-H., & Chan, W. (2010). Biases and standard errors of standardized regression coefficients.
- Zhong, X., & Yuan, K.-H. (2010). Bias and efficiency in structural equation modeling: Maximum likelihood versus robust methods.
- Cheng, Y., Yuan, K.-H., & Liu, C. (2009). How to retain information–relations of three reliability measures.
- Yuan, K.-H., Wallentin, F., & Bentler, P. M. (2009). ML versus MI for missing data with violation of distribution conditions.
- Ninomiya, Y., Yanagihara, H., & Yuan, K.-H. (2008). Selecting the number of factors in exploratory factor analysis via locally conic parameterization.
- Yanagihara, H., & Yuan, K.-H. (2008). Edgeworth expansions of functions of the sample covariance matrix with an unknown population.
- Jamshidian, M., & Yuan, K.-H. (2007). Data driven sensitivity analysis to detect missing data mechanism with applications to structural equation modeling.

Yanagihara, H., Yuan, K.-H., Fujisawa, H., & Hayashi, K. (2007). A class of cross-validators model selection criteria.

RECENT PRESENTATIONS

Yuan, K.-H., & Bentler, P. M. (2010, October). Consistency and biases in parameter estimates and their SEs by ML and MI when data are missing at random. Annual Meeting of the Society of Multivariate Experimental Psychology. Atlanta.

Yuan, K.-H., Wu, R., & Bentler, P. M. (2010, July). Ridge structural equation modeling with correlation matrices for ordinal and continuous data. Seventh Conference of the International Test Commission. Hong Kong.

Yuan, K.-H., Wu, R., & Bentler, P. M. (2010, August). Ridge structural equation modeling with correlation matrices for ordinal and continuous data. Joint Statistical Meeting. Vancouver, Canada.

Yuan, K.-H., & Hayashi, K. (2009, August). Structural equation model diagnosis using two scatter plots. Joint Statistical Meetings in Washington. DC.

Schuster, C., & Yuan, K.-H. (2009, July). Robust estimation of latent ability in item response models. The 74th Annual Meeting and the 16th International Meeting of the Psychometric Society. Cambridge, UK.

Yuan, K.-H., & Hayashi, K. (2009, June). Fitting data to model: SEM diagnosis using two scatter plots. Invited colloquium talk at South China Normal University. Guangzhou, China.

Yuan, K.-H. (2009, June). Structural equation modeling. Invited colloquium talk at Qingdao University. Qingdao, China.

Yuan, K.-H. (2009, May). Finite normal mixture SEM analysis by fitting multiple conventional SEM models. Invited colloquium talk at University of Uppsala. Uppsala, Sweden.

Yuan, K.-H. (2009, May). Structural equation modeling. Invited colloquium talk at Yantai University. Yantai, China. Invited colloquium talk at Yantai University. Yantai, China.

Zu, J., & Yuan, K.-H. (2008, September). Local influence and robust methods for mediation models. Annual Meeting of the Society of Multivariate Experimental Psychology. Montreal, Canada.

Yuan, K.-H. (2007, September). Outliers, leverage observations and influential cases in structural equation models: Minimizing their effect using robust procedures. Invited talk at the Eighth Meeting of the Quantitative Psychology Section of the German Psychological Association. Giessen, Germany.

- Yuan, K.-H. (2007, July). Identifying variables responsible for data not missing at random. Invited talk at the International Meeting of the Psychometric Society. Tokyo, Japan.
- Yuan, K.-H., & Chan, W. (2007, July). Structural equation modeling with near singular covariance matrices. Invited talk at the International Meeting of the Psychometric Society. Tokyo, Japan.
- Yuan, K.-H., & Zhong, X. (2007, July). Outliers, leverage observations and influential cases in factor analysis: Minimizing their effect using robust procedures. Invited talk at the International Meeting of the Psychometric Society. Tokyo, Japan.
- Yuan, K.-H., & Chan, W. (2007, June). Structural equation modeling with near singular covariance matrices. Invited colloquium talk at Beijing Institute of Technology. Beijing, China.