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Education

2008	Ph.D. of Quantitative Psychology	University of Virginia
2005	Master of Quantitative Psychology	University of Virginia
2003	Master of Statistics	Renmin University of China
2000	Bachelor of Statistics	Renmin University of China

Employment

2020–Current	Professor	University of Notre Dame
2016–Current	Fellow	Institute for Educational Initiatives
2015–2020	Associate Professor	University of Notre Dame
2010–2015	Assistant Professor	University of Notre Dame
2008–2010	Research Assistant Professor	University of Notre Dame

Honors and Awards

2021–Current	Editor, Journal of Behavioral Data Science
2020–Current	Associate Editor (Editorial Board), Neurocomputing
2019	Tanaka Award for Best Article in Multivariate Behavioral Research
2019	Elected Fellow, American Psychological Association
2018–Current	President, International Society for Data Science and Analytics
2018	SMEP Early Career Research Award, Society of Multivariate Experimental Psychology
2016–Current	Associate Editor, Multivariate Behavioral Research
2016	Elected member, Society of Multivariate Experimental Psychology
2007–2008	Dissertation Award, Society of Multivariate Experimental Psychology
2007–2008	Dissertation Year Presidential Fellowship, University of Virginia
2007	Young Scientists Scholarship, Annual Meeting of the Psychometric Society
2006, 2007	Travel Award, American Psychological Association

2005, 2006, 2007   Robert J. Huskey Travel Award, University of Virginia
2005, 2007   Travel Award, Society of Multivariate Experimental Psychology
2003–2007   Presidential Fellowship, University of Virginia Graduate School

Selected Grants and Sponsored Programs

<u>External (funded)</u>

1. *Methods and Software for Handling Network Data and Text Data in Structural Equation Modeling.*
   Begin-End Dates: 2021–2024
   Funding source: Institute of Education Sciences
   Role: PI (Co-PI: Ke-Hai Yuan, Lijuan Wang)
   Amount: $861,354

2. *Structural Equation Modeling with Small N and Large p*.
   Begin-End Dates: 2015–2018
   Funding source: National Science Foundation
   Role: Co-PI
   PI: Ke-Hai Yuan, University of Notre Dame
   Amount: $430,725

3. *A General Framework for Statistical Power Analysis with Non-normal and Missing Data through Monte Carlo Simulation.*
   Begin-End Dates: 2014–2018
   Funding source: Institute of Education Sciences
   Role: PI (Co-PI: Ke-Hai Yuan)
   Amount: $573,097

<u>Internal</u>

1. *Machine Learning Methods for Handling Nonlinear Relationships in Psychometric Models*
   Begin-End Dates: 2022-2023
   Funding source: Lucy Family Institute
   Role: PI (Co-PI: Meng Jiang, Jun Li)
   Amount: $33,000

2. *A Longitudinal Social Network Approach to Understanding the Relationship between Friendship and Alcohol Use among College Students*
   Begin-End Dates: 2020-2023
   Funding source: Asia Research Collaboration Grant
   Role: PI
   Amount: $17,415

3. *A Web Interface for Drawing Path Diagrams for Structural Equation Modeling*.
   Begin-End Dates: 2012–2013
   Funding source: Center for Creative Computing & Institute for Scholarship in the Liberal Arts
   Role: PI
   Amount: $4,000 & $2,500
   Note: The project was jointly funded by CCC and ISLA that allowed us

4. *A General Bayesian Estimation Method for Structural Equation Modeling*.
   Begin-End Dates: 2009–2010
   Funding source: Faculty Research Grants
   Role: PI
   Amount: $10,000

5. *Seed Grants for Cooperative Projects: Daily Religious Research*.
   Begin-End Dates: 2009–2010
   Funding source: Institute for Scholarship in the Liberal Arts
   Role: PI

Journal Articles

1. *Wilcox, K. T., Jacobucci, R., Zhang, Z., & Ammerman, B. A. (in press). Supervised Latent Dirichlet Allocation with Covariates: A Bayesian Structural and Measurement Model of Text and Covariates. *Psychological Methods*.
2. *Mai, Y., *Xu, Z., Zhang, Z., & Yuan, K.-H. (in press). An Open Source WYSIWYG Web Application for Drawing Path Diagrams of Structural Equation Models. *Structural Equation Modeling: A Multidisciplinary Journal*. https://doi.org/10.1080/10705511.2022.2101460
3. Liu, X., Wang, L., & Zhang, Z. (In press). Bayesian hypothesis testing of mediation: Methods and the impact of prior odds specifications. *Behavior Research Methods*. https://doi.org/10.3758/s13428-022-01860-1
4. *Xu, Z., +Hai, J., +Yang, Y., & Zhang, Z. (In press). Comparison of Methods for Imputing Social Network Data. *Journal of Data Science*. https://doi.org/10.6339/22-JDS1045
5. Krettenauer, T., Lefebvre, J. P., Hardy, S. A., Zhang, Z., & Cazzell, A. R. (2022) Daily moral identity: Linkages with integrity and compassion. *Journal of Personality*, *90*(5), 663-674. https://doi.org/10.1111/jopy.12689
6. *Liu, H. ., *Qu, W., Zhang, Z., & Wu, H. (2022). A New Bayesian Structural Equation Modeling Approach with Priors on the Covariance Matrix Parameter. *Journal of Behavioral Data Science, 2*(2), 23–46. https://doi.org/10.35566/jbds/v2n2/p2
7. Lu, L., & Zhang, Z. (2022). How to Select the Best Fit Model among Bayesian Latent Growth Models for Complex Data. *Journal of Behavioral Data Science, 2*(1), 35–58. https://doi.org/10.35566/jbds/v2n1/p2
8. Lu, Z. (Laura)*, & Zhang, Z. (2021). Bayesian Approach to Non-ignorable Missingness in Latent Growth Models. *Journal of Behavioral Data Science, 1*(2), 1–30. https://doi.org/10.35566/jbds/v1n2/p1

9. Zhang, Z. (2021). A Note on Wishart and Inverse Wishart Priors for Covariance Matrix. Journal of Behavioral Data Science, 1(2), 119–126. https://doi.org/10.35566/jbds/v1n2/p2

10. *Liu, H., Jin, I.-H., Zhang, Z., & Yuan, Y. (2021). Social network mediation analysis: A latent space approach. *Psychometrika, 86*(1), 272-298. https://doi.org/10.1007/s11336-020-09736-z

11. Che, C.*, Jin, I.-K., & Zhang, Z. (2021). Network Mediation Analysis Using Model-based Eigenvalue Decomposition. Structural Equation Modeling, 28(1), 148-161. https://doi.org/10.1080/10705511.2020.1721292

12. Zhang, Z. & *Zhang, D. (2021). What is Data Science? An Operational Definition based on Text Mining of Data Science Curricula. *Journal of Behavioral Data Science 1*(1), 1-16. https://doi.org/10.35566/jbds/v1n1/p1

13. *Liu, H. & Zhang, Z. (2021). Birds of a Feather Flock Together and Opposites Attract: The Nonlinear Relationship Between Personality and Friendship, *Journal of Behavioral Data Science 1*(1), 34-52. https://doi.org/10.35566/jbds/v1n1/p3

14. *Kuang, Y., Zhang, Z., Duan, B., & Zhang, P. (2020). Fuzzy Cognitive Maps-based Switched-Mode Power Supply Design Assistant System. *IEEE Access*, *8*, 183014-183024. https://doi.org/10.1109/ACCESS.2020.3029090

15. *Tong, X., & Zhang, Z. (2020). Robust Bayesian approaches in growth curve modeling: Using Student's t distributions versus a semiparametric method. *Structural Equation Modeling, 27*(4), 544-560*. https://doi.org/10.1080/10705511.2019.1683014

16. *Wen, Q., *Liu, H., & Zhang, Z. (2020). Generating multivariate non-normal random numbers with specified multivariate skewness and kurtosis. *Behavior Research Methods*, 52, 939–946. https://doi.org/10.3758/s13428-019-01291-5

17. *Wilcox, L.T., Jacobucci, R. & Zhang, Z. (2019). Bayesian Supervised Topic Modeling with Covariates (Abstract). *Multivariate Behavioral Research*. https://doi.org/10.1080/00273171.2019.1695568

18. *Du, H., Edwards, M., & Zhang, Z. (2019). Bayes factor in one-sample tests of means with a sensitivity analysis: A discussion of separate prior distributions. *Behavior Research Methods*, *51*(5), 1998–2021. https://doi.org/10.3758/s13428-019-01262-w

19. Serang, S., Grimm, K. J., & Zhang, Z. (2019). On the correspondence between the latent growth curve and latent change score models. *Structural Equation Modeling*, *26*(4), 623-635. https://doi.org/10.1080/10705511.2018.1533835

20. *Cain, M. K., & Zhang, Z. (2019). Fit for a Bayesian: An evaluation of PPP and DIC for structural equation modeling. *Structural Equation Modeling*, *26*(1), 39–50. https://doi.org/10.1080/10705511.2018.1490648

21. Yuan, K., Zhang, Z., & Deng, L. (2019). Fit indices for mean structures with growth curve models. *Psychological Methods*, *24*(1), 36-53. https://doi.org/10.1037/met0000186

22. *Liu, H., Jin, I. K., & Zhang, Z. (2018). Structural equation modeling of social networks: Specification, estimation, and application. *Multivariate Behavioral Research, 53*(5), 714–730. https://doi.org/10.1080/00273171.2018.1479629

23. ^Mai, Y., Zhang, Z., & Wen, Z. (2018). Comparing exploratory structural equation modeling and existing approaches for multiple regression with latent variables. *Structural Equation Modeling*, *25*(5), 737–749. https://doi.org/10.1080/10705511.2018.1444993

24. ^Mai, Y., & Zhang, Z. (2018). Review of software packages for Bayesian multilevel modeling. *Structural Equation Modeling*, *25*(4), 650–658. https://doi.org/10.1080/10705511.2018.1431545

25. *Cain, M. K., Zhang, Z., & Bergeman, C. S. (2018). Time and other considerations in mediation design. *Educational and Psychological Measurement*, *78*(6), 952–972. https://doi.org/10.1177/0013164417743003

26. *Ke, Z., & Zhang, Z. (2018). Testing autocorrelation and partial autocorrelation: Asymptotic methods versus resampling techniques. *British Journal of Mathematical and Statistical Psychology*, *71*(1), 96–116. https://doi.org/10.1111/bmsp.12109

27. *Tong, X., & Zhang, Z. (2017). Outlying observation diagnostics in growth curve modeling. *Multivariate Behavioral Research*, *52*(6), 768–788. https://doi.org/10.1080/00273171.2017.1374824

28. Zhang, Z., Jiang, K., *Liu, H., & Oh, I.-S. (2017). Bayesian meta-analysis of correlation coefficients through power prior. *Communications in Statistics: Theory and Methods*, *46*(24), 11988–12007. https://doi.org/10.1080/03610926.2017.1288251

29. *Cain, M. K., Zhang, Z., & Yuan, K. (2017). Univariate and multivariate skewness and kurtosis for measuring nonnormality: Prevalence, influence and estimation. *Behavior Research Methods*, *49*(5), 1716–1735. https://doi.org/10.3758/s13428-016-0814-1

30. *Liu, H., & Zhang, Z. (2017). Logistic regression with misclassification in binary outcome variables: A method and software. *Behaviormetrika*, *44*(2), 447–476. https://doi.org/10.1007/s41237-017-0031-y

31. Yuan, K.-H., Zhang, Z., & Zhao, Y. (2017). Reliable and more powerful methods for power analysis in structural equation modeling. *Structural Equation Modeling*, *24*(3), 315–330. https://doi.org/10.1080/10705511.2016.1276836

32. *Cheung, R. Y. M., Cummings, E. M., Zhang, Z., & Davies, P. (2016). Trivariate modeling of interparental conflict and adolescent emotional security: An examination of mother-father-child dynamics. *Journal of Youth and Adolescence*, *45*(11), 2336–2352. https://doi.org/10.1007/s10964-015-0406-x

33. *Liu, H., Zhang, Z., & Grimm, K. J. (2016). Comparison of inverse-Wishart and separation-strategy priors for Bayesian estimation of covariance parameter matrix in growth curve analysis. *Structural Equation Modeling*, *23* (3), 354–367. https://doi.org/10.1080/10705511.2015.1057285

34. Zhang, Z. (2016). Modeling error distributions of growth curve models through Bayesian methods. *Behavior Research Methods*, *48*(2), 427–444. https://doi.org/10.3758/s13428-015-0589-9

35. Zhang, Z. & Yuan, K.-H. (2016). Robust coefficients alpha and omega and confidence intervals with outlying observations and missing data: Methods and software. *Educational and Psychological Measurement*, *76*(3), 387–411. https://doi.org/10.1177/0013164415594658

36. Serang, S., Zhang, Z., Helm, J., Steele, J. S., & Grimm, K. J. (2015). Evaluation of a Bayesian approach to estimating nonlinear mixed-effects mixture models. *Structural Equation Modeling*, *22*(2), 202–215. https://doi.org/10.1080/10705511.2014.937322

37. Yuan, K.-H., *Tong, X., & Zhang, Z. (2015). Bias and efficiency for SEM with missing data and auxiliary variables: Two-stage robust method versus two-stage ML. *Structural Equation Modeling*, *22*(2), 178–192. https://doi.org/10.1080/10705511.2014.935750

38. Bernard, K., Peloso, E., Laurenceau, J-P, Zhang, Z., & Dozier, M. (2015). Examining change in cortisol patterns during the 10-week transition to a new childcare setting. *Child Development*, *86*(2), 456–71. https://doi.org/10.1111/cdev.12304

39. Merluzzi, T.V., Philip, E.J., Zhang, Z., & Sullivan, C. (2015). Perceived discrimination, coping, and quality of life for African-American and Caucasian persons with cancer. *Cultural Diversity and Ethnic Minority Psychology*, *21*(3), 337–344. https://doi.org/10.1037/a0037543

40. Zhang, Z., Hamagami, F., Grimm, K. J., & McArdle, J. J. (2015). Using R package RAMpath for tracing SEM path diagrams and conducting complex longitudinal data analysis. *Structural Equation Modeling*, *22*(1), 132–147. https://doi.org/10.1080/10705511.2014.935257

41. Hardy, S. A., Zhang, Z., Skalski, J. E., Melling, B. S., & Brinton, C. T. (2014). Daily religious involvement, spirituality, and moral emotions. *Psychology of Religion and Spirituality*, *6*(4), 338–348. http://doi.org/10.1037/a0037293

42. *Tong, X., Zhang, Z., & Yuan, K.-H. (2014). Evaluation of test statistics for robust structural equation modeling with nonnormal missing data. *Structural Equation Modeling*, *21*, 553–565. https://doi.org/10.1080/10705511.2014.919820

43. Zhang, Z. (2014a). WebBUGS: Conducting Bayesian analysis online. *Journal of Statistical Software*, *61*(7), 1–30. http://doi.org/10.18637/jss.v061.i07

44. Zhang, Z. (2014b). Monte Carlo based statistical power analysis for mediation models: Methods and software. *Behavior Research Methods*, *46*(4), 1184–1198. https://doi.org/10.3758/s13428-013-0424-0

45. Song, H., & Zhang, Z. (2014). Analyzing multiple multivariate time series data using multilevel dynamic factor models. *Multivariate Behavioral Research*, *49*(1), 67–77. https://doi.org/10.1080/00273171.2013.851018

46. *Lu, Z., & Zhang, Z. (2014). Robust growth mixture models with non-ignorable missingness: Models, estimation, selection, and application. *Computational Statistics and Data Analysis*, *71*, 220–240. https://doi.org/10.1016/j.csda.2013.07.036

47. *Tong, X., & Zhang, Z. (2014). Abstract: Semiparametric Bayesian modeling with application in growth curve analysis. *Multivariate Behavioral Research*, *49*, 299–299. https://doi.org/10.1080/00273171.2014.912928

48. Zhang, Z. (2013). Bayesian growth curve models with the generalized error distribution. *Journal of Applied Statistics*, *40*(8), 1779–1795. https://doi.org/10.1080/02664763.2013.796348

49. Grimm, K. J., Kuhl, A. P., & Zhang, Z. (2013). Measurement models, estimation, and the study of change. *Structural Equation Modeling*, *20*(3), 504–517, DOI: http://doi.org/10.1080/10705511.2013.797837

50. Philip, E. J., Merluzzi, T. V., Zhang, Z. & Heitzmann, C. (2013). Depression and cancer survivorship: Importance of coping self-efficacy in post-treatment survivors. *Psycho-Oncology*, *22*(5), 987–994. https://doi.org/10.1002/pon.3088

51. Grimm, K. J., Zhang, Z., Hamagami, F., & Mazzocco, M. (2013). Modeling nonlinear change via latent change and latent acceleration frameworks: Examining velocity and acceleration of growth trajectories. *Multivariate Behavioral Research*, *48*, 117–143. https://doi.org/10.1080/00273171.2012.755111

52. Zhang, Z., *Lai, K., *Lu, Z., & *Tong, X. (2013). Bayesian inference and application of robust growth curve models using Student's t distribution. *Structural Equation Modeling*, *20*(1), 47–78. https://doi.org/10.1080/10705511.2013.742382

53. Zhang, Z., & Wang, L. (2013). Methods for mediation analysis with missing data. *Psychometrika*, *78*(1), 154–184. https://doi.org/10.1007/s11336-012-9301-5

54. Yuan, K.-H., & Zhang, Z. (2012). Robust structural equation modeling with missing data and auxiliary variables. *Psychometrika*, *77*(4), 803–826. https://doi.org/10.1007/s11336-012-9282-4

55. *Tong, X., and Zhang, Z. (2012). Diagnostics of robust growth curve modeling using Student's t distribution. *Multivariate Behavioral Research*, *47*(4), 493–518. https://doi.org/10.1080/00273171.2012.692614

56. Yuan, K.-H., & Zhang, Z. (2012). Structural equation modeling diagnostics using R package semdiag and EQS. *Structural Equation Modeling: An Interdisciplinary Journal*, *19*(4), 683–702. https://doi.org/10.1080/10705511.2012.713282

57. Zhang, Z., & Wang, L. (2012). A note on the robustness of a full Bayesian method for non-ignorable missing data analysis. *Brazilian Journal of Probability and Statistics*, *26*(3), 244–264. https://doi.org/10.1214/10-BJPS132

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60. Wang, L. & Zhang, Z. (2011). Estimating and testing mediation effects with censored data. *Structural Equation Modeling*, *18*(1), 18–34. http://doi.org/10.1080/10705511.2011.534324

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67. Zhang, Z., & Wang, L. (2009). Statistical power analysis for growth curve models using SAS. *Behavior Research Methods*, *41*(4), 1083–1094. https://doi.org/10.3758/BRM.41.4.1083

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71. Zhang, Z., Davis, H. P., Salthouse, T. A., & Tucker-Drob, E. A. (2007). Correlates of individual, and age-related, differences in short-term learning. *Learning and Individual Differences*, *17*(3), 231–240. https://doi.org/10.1016/j.lindif.2007.01.004

72. Zhang, Z., Hamagami, F., Wang, L., Grimm, K. J., & Nesselroade, J. R. (2007). Bayesian analysis of longitudinal data using growth curve models. *International Journal of Behavioral Development*, *31*(4), 374–383. https://doi.org/10.1177/0165025407077764

73. Zhang, Z., & Nesselroade J. R. (2007). Bayesian estimation of categorical dynamic factor models. *Multivariate Behavioral Research*, *42*(4), 729–756. https://doi.org/10.1080/00273170701715998

Books and Monographs

74. Jacobucci, R., Grimm, K. J., & Zhang, Z. (2023). *Exploratory data mining for social and behavioral scientists*. New York, NY: Guilford.

75. Zhang, Z., Yuan, K.-H., Wen, Y., & Tang, J. (Eds.). (2020). *New developments in data science and data analytics: Proceedings of the 2019 meeting of the International Society for Data Science and Analytics*. Granger, IN: ISDSA Press. https://doi.org/10.35566/isdsa2019. To order: https://www.amazon.com/gp/product/1946728039

76. Zhang, Z., & Yuan, K.-H. (Eds.). (2018). *Practical statistical power analysis using Webpower and R*. Granger, IN: ISDSA Press. To order: https://www.amazon.com/gp/product/1946728020. Free E-book: https://bit.ly/32ybdzQ

77. Zhang, Z. & Wang, L. (2017). *Advanced statistics using R*. Granger, IN: ISDSA Press. Retrievable from https://advstats.psychstat.org/.

Refereed Publications in Proceedings and Books

78. Yuan, K.-H., & Zhang, Z. (2023). Statistical and Psychometric Properties of Three Weighting Schemes of the PLS-SEM Methodology. In *Partial Least Squares Path Modeling - Basic Concepts, Methodological Issues and Applications*. Springer-Nature.

79. Lu, Z. L., Zhang, Z. (2022). Pooled Autoregressive Models for Categorical Data. In: Wiberg, M., Molenaar, D., González, J., Kim, JS., Hwang, H. (eds) *Quantitative Psychology. IMPS 2021*. Springer Proceedings in Mathematics & Statistics, vol 393. Springer, Cham. https://doi.org/10.1007/978-3-031-04572-1_14

80. Zhang, Z., Qu, W. (2020). Kurtosis. Dana S. Dunn (Ed.) *Oxford Bibliographies in Psychology*. New York: Oxford University Press.

81. *Qu, W. & Zhang, Z. (2020). An application of aspect-based sentiment analysis on teaching evaluation. *New Developments in Data Science and Data Analytics: Proceedings of the 2019 Meeting of the International Society for Data Science and Analytics*. Granger: ISDSA Press.

82. *Qu, W., *Liu, H., & Zhang, Z. (2020). Permutation test of regression coefficients in social network data analysis. *Quantitative Psychology. IMPS 2019. Springer Proceedings in Mathematics & Statistics*, 322. Springer, Cham. DOI:10.1007/978-3-030-43469-4 28..

83. Zhang, Z., [+]Ye, M., [+]Huang, Y., & [+]Sun, N. (2018). A longitudinal social network clustering method based on tie strength. *Proceedings of 2018 IEEE international conference on big data* (pp. 1690–1697).

84. Zhang, Z., & *Liu, H. (2018). Sample size and measurement occasion planning for latent change score models through Monte Carlo simulation. In E. Ferrer, S. M. Boker, and K. J. Grimm (Eds.), *Advances in longitudinal models for multivariate psychology: A festschrift for Jack McArdle* (pp. 189–211). New York, NY: Routledge.

85. ^Mai, Y., & Zhang, Z. (2017). Statistical power analysis for comparing means with binary or count data based on analogous ANOVA. In L. A. van der Ark, M. Wiberg, S. A. Culpepper, J. A. Douglas, and W.-C. Wang (Eds.), *Quantitative psychology–The 81st annual meeting of the psychometric society* (pp. 381–393). Springer Proceedings in Mathematics & Statistics. New York, NY: Springer.

86. *Du, H., Zhang, Z., & Yuan, K.-H. (2017). Power analysis for t-test with non-normal data and unequal variances. In L. A. van der Ark, M. Wiberg, S. A. Culpepper, J. A. Douglas, and W.-C. Wang (Eds.), *Quantitative psychology–The 81st annual meeting of the psychometric society* (pp. 373–380). Springer Proceedings in Mathematics & Statistics. New York, NY: Springer.

87. Zhang, Z., Wang, L., & *Tong, X. (2015). Mediation analysis with missing data through multiple imputation and bootstrap. In L. A. van der Ark, D. M. Bolt, W.-C. Wang, J. A. Douglas, & S.-M. Chow (Eds.), *Quantitative psychology research–The 79th annual meeting of the psychometric society* (pp. 341–355). Springer Proceedings in Mathematics & Statistics. New York, NY: Springer.

88. *Lu, Z., & Zhang, Z. (2015). Issues in aggregating time series: Illustration through an AR(1) model. . In L. A. van der Ark, D. M. Bolt, W.-C. Wang, J. A. Douglas, & S.-M. Chow (Eds.), *Quantitative psychology research–The 79th annual meeting of the psychometric society* (pp. 357–370). Springer Proceedings in Mathematics & Statistics. New York, NY: Springer.

89. *Lu, Z., Zhang, Z., & Cohen, A. (2015). Model selection criteria for latent growth models using Bayesian methods. In R. E. Millsap, D. M. Bolt, L. A. van der Ark, & W.-C. Wang (Eds.), *Quantitative psychology research–The 78th annual meeting of the psychometric society* (pp. 319–341).Springer Proceedings in Mathematics & Statistics. New York, NY: Springer.

90. *Lu, Z., Zhang, Z., & Cohen, A. (2013). Bayesian methods and model selection for latent growth curve models with missing data. In R. E. Millsap, L. A. van der Ark, D. M. Bolt, & C. M. Woods (Eds.), *New developments in quantitative psychology* (pp. 275–304). Springer Proceedings in Mathematics & Statistics. New York, NY: Springer.

91. Hamagami, F., Zhang, Z., & McArdle, J. J. (2009). Modeling latent difference score models using Bayesian algorithms. In S.-M. Chow, E. Ferrer, & F. Hsieh

(Eds), *Statistical methods for modeling human dynamics: An interdisciplinary dialogue* (pp. 319–348). New York, NY: Lawrence Erlbaum Associates.

92. Wang, L., Zhang, Z., & Estabrook, R. (2009). Longitudinal mediation analysis of training intervention effects. In S.-M. Chow, E. Ferrer, & F. Hsieh (Eds), *Statistical methods for modeling human dynamics: An interdisciplinary dialogue* (pp. 349–380). New York, NY: Lawrence Erlbaum Associates.

93. Zhang, Z., & Wang, L. (2008). Methods for evaluating mediation effects: Rationale and comparison. In K. Shigemasu, A. Okada, T. Imaizumi, & T. Hoshino (Eds.), *New trends in psychometrics* (pp. 585–594). Tokyo: Universal Academy Press.

Encyclopedia Entries

94. *Liu, H., & Zhang, Z. (2018). Probit transformation. *The SAGE encyclopedia of educational research, measurement, and evaluation* (p. 1300). Thousand Oaks, CA: Sage.

95. Zhang, Z. (2018). Moments of a Distribution. *The SAGE encyclopedia of educational research, measurement, and evaluation* (p. 1084–1085). Thousand Oaks, CA: Sage.

96. *Cain, M., & Zhang, Z. (2018). Posterior. *The SAGE encyclopedia of educational research, measurement, and evaluation* (p. 1274–1275). Thousand Oaks, CA: Sage.

Book Review

97. Zhang, Z. (2018). Psychometrics from a Bayesian perspective: A review of Bayesian Psychometric Modeling (Levy & Mislevy, 2016). *Journal of Educational and Behavioral Statistics*, *43*(4), 502–505. https://doi.org/10.3102/1076998618778011

Software Development

98. [+]Xu, J., Zhang, Z., & *Qu, W. (2018). webnetvis: Interactive network visualization online [Computer software]. Retrieved from https://webnetvis.psychstat.org.

99. *Wen, Q., *Liu, H., & Zhang, Z. (2018). mnormr: An R package for multivariate non-normal data generation [Computer software]. Retrieved from https://cran.r-project.org/package=mnormt.

100. Zhang, Z., & [+]Keenan, A. (2017). WebPower: An Android app for statistical power analysis [Computer software]. Retrieved from https://play.google.com/store/apps/details?id=org.psychstat.webpower.

101. Zhang, Z., Yuan, K.-H., & ^Mai, Y. (2018). WebPower: An R package for statistical power analysis [Computer software]. Retrieved from https://CRAN.R-project.org/package=WebPower. (*Installed more than 3,000 times from May 2018 to May 2019*)

102. Zhang, Z., Yuan, K.-H., & *Cain, M. (2016). Software for estimating univariate and multivariate skewness and kurtosis [Computer software]. Retrieved from http://psychstat.org/nonnormal.

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109. Zhang, Z., Jiang, J., & Liu, H. (2013). An online software for meta-analysis of correlation [Computer software]. Retrieved from http://webbugs.psychstat.org/modules/metacorr/.

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111. Zhang, Z. & Yuan, K.-H. (2012-2018). WebSEM: Conducting SEM analysis online [Computer software]. Retrieved from https://websem.psychstat.org.

112. Yuan, K.-H. & Zhang, Z. (2011). rsem: An R package for robust structural equation modeling with non-normal and missing data [Computer software]. Retrieved from https://CRAN.R-project.org/package=rsem.

113. Zhang, Z. & Yuan, K.-H. (2011). semdiag: An R package for structural equation modeling diagnostics [Computer software]. Retrievable from https://CRAN.R-project.org/package=semdiag.

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116. Zhang, Z., & Wang, L. (2008). BAUW as an OpenBUGS plugin [Computer software]. Retrievable from http://bauw.psychstat.org.

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121. Zhang, Z., & Nesselroade, J. R. (2005). Selection: A C++ program for analyzing selection effects [Computer software]. Retrieved from http://www.psychstat.org/us/article.php/64.

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Invited Lectures and Addresses

1. Zhang, Z. (2022, August, Chair). *Methods and Applications of Network Science in Psychology*. Invited symposium conducted at the 2022 Annual Convention of the American Psychological Association, Minneapolis, MN.
2. Zhang, Z. (2022, April). *Prevalence, Influences, and Handling Methods of Non-normal Data*. Invited talk at the University of Southern California
3. Zhang, Z. (2021, November). *Social Network Analysis In The Framework Of Structural Equation Modeling*. Invited talk by Data Analytics Colloquium. https://dacolloquium.com
4. Zhang, Z. (2021, November). *What is Data Science?* Invited talk by Data Science Forum.
5. Zhang, Z. (2020, November). *Quantitative Psychology at the Age of Data Science*. Presented to the Monday Symposium in Measurement and Statistics at University Of Maryland & the Brownbag Series of the Quantitative Psychology Program at The Ohio State University. (Online)
6. Zhang, Z. (2020, July). *Psychometric Models for Social Network Data Analysis*. Invited talk at the 85th Annual Meeting of Psychometric Society. (Online)
7. Zhang, Z. (2019, October). *Measure changes in networks*. Cattell Award address at the Annual Meeting of the Society of Multivariate Experimental Research, Baltimore, MA.
8. Zhang, Z. (2019, August). *A comparison of machine learning methods for understanding teaching evaluation comments*. Invited talk at the 2019 Global Summit on Artificial Intelligence and Big Data in Education, Beijing, China.
9. Zhang, Z. & Liu, H. (2019, July). *Social Network Analysis in the Structural Equation Modeling Framework*. Invited talk at the Yangtze Normal University, Chongqing, China.
10. Zhang, Z. & Liu, H. (2019, July). *A Structural Equation Modeling Framework for Social Network Analysis*. Invited talk at the University of Science and Technology of China, Hefei, China.
11. Zhang, Z. (2019, July). *Improving teaching evaluation using text mining*. Invited talk at the 2019 Meeting of the International Society for Data Science and Analytics, Nanjing, China.
12. Zhang, Z. (2019, March). *Stones from one hill may serve to polish the jade of another: Bridging quantitative psychology and data science*. Invited talk at the Pennsylvania State University, University Park, PA.
13. Zhang, Z. (2018, July). *A blessing or a curse? An overview of non-normal data and missing data*. Invited talk at the 2018 International Conference on Management and Operations Research, Beijing, China. [Invited keynote]
14. Zhang, Z., [+]Ye, M., [+]Huang, Y., & [+]Sun, N. (2018, July). *A longitudinal social network clustering method based on tie strength*. Invited talk at the 8th International Forum on Statistics, Beijing, China.
15. Zhang, Z. (2017, June). *Modeling non-normal distributions in mixed-effects and multilevel models*. Invited talk at the 2017 ICSA Applied Statistics Symposium, Chicago, IL.
16. Zhang, Z. (2017, May). *Statistical methods and software for handling non-normal data in social, behavioral and economic sciences*. Invited talk at Henan University, Kaifeng, China.

17. Zhang, Z. (2017, March). *Two-stage Bayesian estimation in structural equation modeling*. Invited talk at the ACMS Statistics Seminar, Department of ACMS, University of Notre Dame, Notre Dame, IN.
18. Zhang, Z., & *Liu, H. (2016, October). *Sample size planning for latent change score models through Monte Carlo simulation*. Invited talk at the Conference on Advances in Longitudinal Models for Multivariate Psychology: A Festschrift for Jack McArdle, Richmond, VA.
19. Zhang, Z., & Yuan, K.-H. (2015, December). *Online statistical software for simple and complex models*. Invited software demonstration/tutorial at the IES PI meeting, Washington, D.C.
20. Zhang, Z. (2015, June). *Statistical power analysis for mediation effects through WebPower*. Invited talk at the Renmin University of China, Beijing, China.
21. Zhang, Z. (2015, March). *Bayesian factor analysis*. Invited talk at the University of Southern California, Los Angeles, CA.
22. Zhang, Z. (2014, September). *The use of relaxed and Bayesian assumptions on error terms in dynamic models of change*. Invited talk at the 2014 Society for Research in Child Development themed meeting: Developmental Methodology, San Diego, CA.
23. Yuan, K.-H., *Tong, X., & Zhang, Z. (2012, July). *Bias and efficiency for SEM with missing data and auxiliary variables: Robust method versus normal distribution based ML*. Invited talk at the 2nd meeting of the Institute of Mathematical Statistics Asia Pacific Rim, Tsukuba, Japan.
24. *Lu, Z., Zhang, Z., & Lubke, G. (2012, January). *Bayesian inference for growth mixture models with latent class dependent missing data*. Invited talk at the Hong Kong Institute of Education, Hong Kong, China.
25. Zhang, Z. (2011, June). *Introduction to Bayesian analysis*. Invited lecture at the Renmin University of China, Beijing, China.
26. Zhang, Z., McArdle, J. J., & Nesselroade, J. R. (2011, May). *Growth rate models: Emphasizing growth rate analysis through growth curve modeling*. Invited talk at the Nesselroade Festschrift, Charlottesville, VA
27. Zhang, Z. (2009, July). *Bayesian analysis*. Invited workshop at the University of Southern California, Los Angeles, CA.

Conference Presentations
Organized Meetings
28. Zhang, Z., & Yuan, K.-H. (2022, May). *The 2022 ISDSA Meeting on Behavioral Data Science*. Notre Dame, IN.
29. Zhang, Z., & Yuan, K.-H. (2021, June). *The 2021 ISDSA Meeting on Behavioral Data Science*. Notre Dame, IN. (Online)
30. Zhang, Z., & Yuan, K.-H. (2020, May). *The 2020 Annual Meeting of the International Society for Data Science and Analytics*. Notre Dame, IN. (Online)
31. Zhang, Z., & Yuan, K.-H. (2019, July). *The 2019 Annual Meeting of the International Society for Data Science and Analytics*. Nanjing, China.
32. Yuan, K.-H., & Zhang, Z. (2017, May). *Statistics in social sciences: Present and future*. Beijing, China.
Chaired Symposiums

33. Zhang, Z., & Yuan, K.-H. (2015, May, Chaired Symposiums). *Methods and software for statistical power analysis with non-normal data*. Symposium conducted at the 27th Annual Convention of the Association for Psychological Science, New York, NY.
34. Zhang, Z. (2014, May). *New developments in Bayesian analysis*. Symposium conducted at the 26th Annual Convention of the Association for Psychological Science, San Francisco, CA.
35. Zhang, Z., & Yuan, K.-H. (2012, May). *Robust statistical data analysis*. Symposium conducted at the 24th Annual Convention of the Association for Psychological Science, Chicago, IL.
36. Zhang, Z. (2011, August). *Bayesian methods for non-normal and non-ignorable missing data analysis*. Symposium conducted at the 119th Annual Convention of the American Psychological Association, Washington DC.

Workshops
37. Tong, X., Du, H., & Zhang, Z. (2022, June). Workshop on *Bayesian Longitudinal Data Modeling*. Two-day workshop supported by the Association of Psychological Science.
38. Zhang, Z. (2022, June). *Workshop on Statistical Power Analysis for Structural Equation Modeling at the 2022 ISDSA Annual Meeting*. Online.
39. Zhang, Z. (2021, June). *Workshop on Statistical Power analysis at the 2021 ISDSA Annual Meeting*. Online.
40. Zhang, Z. (2019, July). *Data mining methods for education and psychology*. Workshop conducted at the 2019 Global Summit on Artificial Intelligence and Big Data in Education, Beijing, China.
41. Zhang, Z. (2016, August). *Practical statistical power analysis for simple and complex models*. Workshop conducted at the 124th Annual Convention of the American Psychological Association, Denver, CO.
42. Zhang, Z., & Yuan K.-H. (2013, August). *Robust SEM for non-normal and missing data using WebSEM*. Workshop conducted at the 121th Annual Convention of the American Psychological Association, Washington DC.
43. Zhang, Z. (2009, August). *Introduction to Bayesian analysis*. Workshop presented at the 117th Annual Convention of the American Psychological Association, Toronto, Canada.

Paper Presentations
44. *Xu, Z., *Hai, J., *Yang, Y., & Zhang, Z. (May, 2022). *Comparison of Methods for Imputing Social Network Data*. Paper presented at the 2022 Annual Convention of the American Psychological Association, Minneapolis, MN.
45. *Xu, Z., *Hai, J., *Yang, Y., & Zhang, Z. (May, 2022). *Comparison of Methods for Imputing Social Network Data*. Paper presented at the 2022 Annual Meeting of the International Society for Data Science and Analytics, Notre Dame, IN, USA.
46. Zhang, Z. (May, 2022). *Social Network Analysis in the Framework of Structural Equation Modeling*. Paper presented at the 2022 Annual Meeting of the International Society for Data Science and Analytics, Notre Dame, IN, USA.
47. *Wilcox, K. T., Jacobucci, R., and Zhang, Z. (2020, July). *Combining topic modeling and regression: Supervised topic modeling with covariates*. Paper presented at the 85th Annual Meeting of Psychometric Society. (Online)

48. *Qu, W. & Zhang, Z. (2020, July). *Evaluating the effect of multivariate non-normality on confirmatory factor analysis*. Paper presented at the 85th Annual Meeting of Psychometric Society. (Online)
49. *Qu, W., Liu, H., & Zhang, Z. (2019, July). *Permutation Test on Logistic Regression Coefficients with Social Network Data*. Paper presented at the 85th Annual Meeting of Psychometric Society. Santiago, Chile.
50. *Qu, W., & Zhang, Z. (2019, July). *An Application of Aspect-Based Sentiment Analysis on Teaching Evaluation*. Paper presented at the 2019 Annual Meeting of the International Society for Data Science and Analytics. Nanjing, China.
51. Zhang, Z., [+]Ye, M., [+]Huang, Y., & [+]Sun, N. (2018, December). *A longitudinal social network clustering method based on tie strength*. Paper presented at the 2018 IEEE Big Data Conference, Seattle, WA.
52. *Qu, W., *Liu, H., & Zhang, Z. (2018, July). *Generation of multivariate non-normal random numbers with specified multivariate measures*. Paper presented at the 2008 International Meeting of the Psychometric Society, New York, NY.
53. Zhang, Z. (2017, Oct). *Two-stage Bayesian estimation in structural equation modeling*. Paper presented at the 2017 meeting of the Society of Multivariate Experimental Psychology, Minneapolis, MN.
54. *Liu, H., & Zhang, Z. (2016, July). *Logistic regression with misclassification in binary outcome variables: Method and software*. Paper presented at the Annual Meeting of the Psychometric Society, Asheville, NC.
55. Zhang, Z. (2016, July). *Statistical power analysis for mediation with non-normal and missing data*. Paper presented at the Annual Meeting of the Psychometric Society, Asheville, NC.
56. *Cain, M. K., & Zhang, Z. (2016, May). *Time and other considerations in mediation design*. Paper presented at the 2017 Modern Modeling Methods Conference, Storrs, CT.
57. Zhang, Z. (2014, May). *Monte Carlo based statistical power analysis for mediation analysis with non-normal data: Methods and software*. Paper presented at the 27th Annual Convention of the Association for Psychological Science, New York, NY.
58. *Lu. Z., & Zhang, Z. (2014, July). *Aggregating time series: Illustration through an AR(1) model*. Paper presented at the 79th Annual Meeting of the Psychometric Society, Madison, Wisconsin.
59. Zhang, Z., Wang, L., & *Tong, X. (2014, July). *Mediation analysis with missing data through multiple imputation and bootstrap*. Paper presented at the 79th Annual Meeting of the Psychometric Society, Madison, Wisconsin.
60. *Liu, H., & Zhang, Z. (2014, July). *Separating-strategy priors for covariance matrices*. Paper presented at the 79th Annual Meeting of the Psychometric Society, Madison, Wisconsin.
61. *Lu, Z., Zhang, Z., & Cohen, A. (2014, May). *Bayesian model selection criteria for latent growth models*. Paper presented at the 26th Annual Convention of the Association for Psychological Science, San Francisco, CA.
62. *Tong, X., & Zhang, Z. (2014, May). *Robust semi-parametric Bayesian methods in growth curve modeling with nonnormal data*. Paper presented at the 26th Annual Convention of the Association for Psychological Science, San Francisco, CA.

63. Zhang, Z., Jiang, K., & *Liu, H. (2014, May). *Bayesian meta-analysis of correlation coefficients through power prior*. Paper presented at the 26th Annual Convention of the Association for Psychological Science, San Francisco, CA.

64. *Lu, Z., & Zhang, Z. (2014, April). *Robust growth mixture models with non-ignorable missingness*. Paper presented at the 2014 Annual Meeting of National Council on Measurement in Education, Philadelphia, Pennsylvania.

65. Liu, X., Liu, F., Simon, M., & Zhang, Z. (2014, April). *Are the score gains suspicious? – A Bayesian growth analysis approach*. Paper presented at the 2014 Annual Meeting of National Council on Measurement in Education, Philadelphia, Pennsylvania.

66. Zhang, Z., & Grimm, K. J. (2013, April). *A random-coefficient latent change score model for nonlinear growth data*. Paper presented at the 2013 Biennial Meeting of Society for Research in Child Development, Seattle, Washington.

67. Zhang, Z., *Lai, K., *Lu, Z., & *Tong, X. (2012, May). *Bayesian robust growth curve modeling based on Student's t distribution*. Paper presented at the 24th Annual Convention of the Association for Psychological Science, Chicago IL.

68. Yuan, K.-H., & Zhang, Z. (2012, May). *Robust structural equation modeling with missing data and auxiliary variables*. Paper presented at the 24th Annual Convention of the Association for Psychological Science, Chicago IL.

69. *Tong, X., Zhang, Z., & Yuan, K.-H. (2012, May). *Evaluation of fit statistics for robust SEM with non-normal missing data*. Paper presented at the 24th Annual Convention of the Association for Psychological Science, Chicago IL.

70. *Lu, Z., & Zhang, Z. (2012, May). *Robust growth mixture modeling using Bayesian methods*. Paper presented at the 24th Annual Convention of the Association for Psychological Science, Chicago IL.

71. *Lu, Z., Zhang, Z., & Cohen, A. (2012, July). *Latent growth curve models with non-ignorable missing data: Bayesian inference and model selection criteria*. Paper presented at the 77th Annual International Meeting of the Psychometric Society, Lincoln, Nebraska.

72. Zhang, Z. & *Lu, Z. (2012, February). *Issues in aggregating time series: Illustration through an AR(1) model*. Paper presented at the 2012 Society for Research in Child Development Themed Meeting: Developmental Methodology, Tampa, Florida.

73. *Lu, Z., Zhang, Z., & Cohen, A. (2012, April). *Latent growth curve models with non-ignorable missing data: Bayesian inference and model selection criteria*. Paper presented at the 2012 Annual Meeting of the National Council on Measurement in Education (NCME), Vancouver, BC, Canada.

74. *Xin, T., Zhang, Z., & Yuan, K.-H. (2011). *Evaluation of test statistics for robust structural equation modeling with non-normal missing data*. Paper presented at the Annual Society of Multivariate Experimental Psychology Graduate Student Pre-conference, Oklahoma.

75. Zhang, Z., & Wang, L. (2011, August). *Overview of full Bayesian analysis of non-ignorable missing data*. Paper presented at the 119th Annual Convention of the American Psychological Association, Washington DC.

76. *Lu, Z., Zhang, Z., & Lubke, G. (2011, August). *Bayesian inference for growth mixture models with non-ignorable missing data*. Paper presented at the 119th Annual Convention of the American Psychological Association, Washington DC.

77. Wang, L. & Zhang, Z. (2011, August). *Bayesian estimation and inference on mediation effects with censored data*. Paper presented at the 119th Annual Convention of the American Psychological Association, Washington DC.

78. *Tong, X., & Zhang, Z. (2011, August). *Bayesian inference for robust growth curve modeling using t distributions*. Paper presented at the 119th Annual Convention of the American Psychological Association, Washington DC.

79. *Lu, Z., Zhang, Z., & Lubke, G. (2011, July) *Bayesian inference for growth mixture models with latent class dependent missing data*. Paper presented at the 76th Annual International Meeting of the Psychometric Society, Hong Kong, China.

80. *Lu, Z., Zhang, Z., & Lubke, G. (2010, September) *Bayesian inference for growth mixture models with non-ignorable missing data*. Paper presented at the Annual Society of Multivariate Experimental Psychology Graduate Student Pre-conference, Atlanta, GA.

81. Zhang, Z. (2010, July). *Testing the invariance of latent traits in multiple group analysis*. Paper presented at the 7th Conference of the International Test Commission, Hong Kong, China.

82. Zhang, Z. (2009, June). *Bayesian SEM: Current developments and future directions*. Paper presented at the 21th Annual Convention of the Association for Psychological Science, San Francisco, CA.

83. Zhang, Z. (2007, October). *Bootstrap analysis of mediation effects*. Paper presented at the Annual Society of Multivariate Experimental Psychology Graduate Student Pre-conference, Chapel Hill, NC.

84. Zhang, Z., & Wang, L. (2007, July). *Methods evaluating mediation effect: Rationale and comparison*. Paper presented at the 72nd Annual Meeting of the Psychometric Society, Tokyo, Japan.

85. Wang, L., Zhang, Z., & McArdle, J. J. (2006, June*). Investigating the ceiling effects in longitudinal data analysis*. Paper presented at the 71st Annual Meeting of the Psychometric Society, Montreal, Canada.

86. Zhang, Z., Wang, L., & Nesselroade, J. R. (2006, June). *Growth rate models and Bayesian estimation*. Paper presented at the 71st Annual Meeting of the Psychometric Society, Montreal, Canada.

Poster Presentations

87. Zhang, Z. (2018, May). *A new software program for practical statistical power analysis*. Poster presented at the 30th Annual Convention of the Association for Psychological Science, San Francisco, CA.

88. [+]Tzakis, T., *Liu, H., & Zhang, Z. (2018, May). *A review of social network analysis in psychological research*. Poster presented at the 30th Annual Convention of the Association for Psychological Science, San Francisco, CA.

89. [+]Tzakis, T., & Zhang, Z. (2018, March). *A review of social network analysis in psychological research*. Poster presented at the 2018 Conference of Michigan Academy, Alma, MI.

90. Zhang, Z. (2017, August). *Practical statistical power analysis for multilevel modeling: Methods and software*. Poster presented at the 125th Annual Convention of the American Psychological Association, Washington DC.

91. Zhang, Z., & *Liu, H. (2017, May). *Sample size planning for latent change score models through Monte Carlo simulation*. Poster presented at the 30th Annual Convention of the Association for Psychological Science, Boston, MA.
92. *Cain, M. K., & Zhang, Z. (2017, May). *Fit for a Bayesian: An evaluation of PPP and DIC*. Poster presented at the 2017 Modern Modeling Methods Conference, Storrs, CT.
93. ^Mai, Y., & Zhang, Z. (2016, May). *Multilevel modeling through path diagramming: An online graphical interface*. Poster presented at the 28th Annual Convention of the Association for Psychological Science, Chicago, IL.
94. *Liu, H., & Zhang, Z. (2016, May). *Power of logistic regression with correction of misclassifications*. Poster presented at the 28th APS Annual Convention of Association for Psychological Science, Chicago, IL.
95. *Liu, H., & Zhang, Z. (2016, May). *Power of logistic regression with correlated predictors*. Poster presented at the 28th APS Annual Convention of Association for Psychological Science, Chicago, IL.
96. Zhang, Z. (2016, October). *Practical statistical power analysis for structural equation modeling: Methods and software*. Poster presented at the 87th Annual Meeting of the Indiana Academy of the Social Sciences, Westville, IN.
97. Zhang, Z., & Wang, L. (2010, August). *Power analysis for linear and nonlinear growth curve modeling*. Poster presented at the 118th Annual Convention of the American Psychological Association, San Diego, CA.
98. Zhang, Z., & Wang, L. (2007, August). Bayesian analysis of longitudinal data using growth curve models. Poster presented at the 115th Annual Convention of the American Psychological Association, San Francisco, CA.
99. Zhang, Z., McArdle, J. J., Wang, L., and Hamagami, F. (2006, August). *Using WinBUGS inside SAS for Bayesian analysis*. Poster presented at the 114th Annual Convention of the American Psychological Association, New Orleans, LA.
100.   Wang, L. & Zhang, Z. (2006, April). *Memory training on individual learning performance for independent and vital older adults*. Poster presented at the 19th Cognitive Aging Conference, Atlanta, GA.
101.   Zhang, Z., Wang, L., & Hamagami, F. (2006, April). *Evaluation of the intervention of memory training on short-term learning for elderly*. Poster presented at the 19th Cognitive Aging Conference, Atlanta, GA.

Doctoral Dissertations Directed

2021   Change Che (Now data scientist at Facebook)
2021   Wen Qu (Now associate research professor at the Fudan University)
2018   Haiyan Liu (Now tenure-track assistant professor at the University of California, Merced)
2017   Megan Cain (Now data scientist at Multi Health Systems Inc., started as a research assistant professor at University of Texas at San Antonio, co-advised with Ke-Hai Yuan)
2014   Xin Tong (Now tenured associate professor at the University of Virginia)
2011   Zhenqiu Lu (Now tenured associate professor at the University of Georgia, co-advised with Ke-Hai Yuan)

Professional Service

Editor
>Journal of Behavioral Data Science, 2021–

Associate Editor
>Multivariate Behavioral Research, 2016–Current
>Neurocomputing (Editorial Board), 2020–Current

Guest Action Editor
>Psychological Methods (2016, 2017)
>Sage Open (2017, 2018, 2019)

Consulting Editor
>Psychological Methods, 2014–Current

Manuscript reviewer
>Abstract and Applied Analysis
>Aging, Neuropsychology and Cognition
>American Education Research Journal
>Anxiety, Stress, & Coping
>Applied Psychological Measurement
>Behavior Genetics
>Behavior Research Methods
>BMC Medical Research Methodology
>Brazilian Journal of Probability and Statistics
>British Journal of Mathematical and Statistical Psycho
>Child Development
>Communications in Statistics: Simulation and Computati
>Communications in Statistics: Theory and Methods
>Computational Statistics and Data Analysis
>Developmental Psychology
>Educational Research and Evaluation
>Emotion
>Frontier in Quantitative Psychology
>Human Resource Management Journal
>International Journal of Behavioral Development
>International Journal of Osteoarchaeology
>Journal of Agricultural, Biological, and Environmental
>Journal of Applied Statistics
>Journal of Biopharmaceutical Statistics
>Journal of Early Adolescence
>Journal of Educational and Behavioral Statistics
>Journal of Experimental Education
>Journal of Statistical Software
>Journal of the Royal Statistical Society
>Methodology
>Multivariate Behavioral Research
>Nursing Research
>Personality and Social Psychology Bulletin
>Perspectives on Psychological Science

Psychological Methods
Psychological Science
Psychometrika
Psychonomic Bulletin & Review
Public Health Nutrition
R Journal
Religious
Research Synthesis Methods
Sage Open
Social Psychological and Personality Science
Statistics
Statistics and Probability Letters
Statistics in Medicine
Structural Equation Modeling
Studies in Nonlinear Dynamics & Econometrics
Technological Forecasting & Social Change

Professional Affiliations and Memberships
American Psychological Association
Association for Psychological Science
Institute of Electrical and Electronics Engineers
Psychometric Society
Society of Multivariate Experimental Psychology
International Society for Data Science and Analytics