Zhiyong Johnny Zhang, Ph.D.
Professor
University of Notre Dame
December 2023

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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

2023	Joyce Award for Excellence in Undergraduate Teaching, University of Notre Dame
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–Current	Guess Editor (Editorial Board), Psychological Methods
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

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
   Amount: $861,354

1. *REU Site: Computational Social Science at the University of Notre Dame.*
   Begin-End Dates: 2019–2022
   Funding source: National Science Foundation
   Role: Senior Personnel.
   PI: Paul Brenner, University of Notre Dame
   Amount: $120,069

2. *Exploring Adaptive Cognitive and Affective Learning Support for Next-generation STEM Learning Games.*
   Begin-End Dates: 2017–2021
   Funding source: Institute of Education Sciences
   Role: Statistical Consultant
   PI: Valerie Shute, Florida State University
   Amount: $1,399,996

3. *REU Site: Computational Social Science at the University of Notre Dame.*
   Begin-End Dates: 2016–2019
   Funding source: National Science Foundation
   Role: Senior Personnel
   PI: Paul Brenner, University of Notre Dame
   Amount: $374,685

4. *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

5. *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
   Amount: $573,097

6. *Lymphatic Filariasis Transmission and Elimination Modelling Using a Bayesian Data-Model Assimilation Framework.*
   Begin-End Dates: 2014–2017
   Funding source: Gates Foundation
   Role: Co-PI
   PI: Edwin Michael, University of Notre Dame
   Amount: $345,446

7. *MRI: Acquisition of Data Analytics Cluster for Computational Social Sciences.*
   Begin-End Dates: 2012–2015
   Funding source: National Science Foundation
   Role: Senior Personnel
   PI: Jarek Nabrzyski, University of Notre Dame
   Amount: $451,839

Internal

1. *Small Henkels Grant for conference support*
   Begin-End Dates: 2022
   Funding source: Institute for Scholarship in the Liberal Arts
   Role: PI
   Amount: $1,000

2. *Machine Learning Methods for Handling Nonlinear Relationships in Psychometric Models*
   Begin-End Dates: 2022-2024
   Funding source: Lucy Family Institute
   Role: PI
   Amount: $66,000

3. *A Longitudinal Social Network Approach to Understanding the Relationship between Friendship and Alcohol Use among College Students*
   Begin-End Dates: 2020-2024
   Funding source: Asia Research Collaboration Grant
   Role: PI
   Amount: $17,415

4. *Small Henkels Grant for conference support*

Begin-End Dates: 2021
Funding source: Institute for Scholarship in the Liberal Arts
Role: PI
Amount: $1,000

5. *Small Henkels Grant for conference support* (canceled because of Covid)
    Begin-End Dates: 2019
    Funding source: Institute for Scholarship in the Liberal Arts
    Role: PI
    Amount: $3,000

6. *Improving Teaching Evaluation using Text Mining.*
    Begin-End Dates: 2019
    Funding source: Institute for Scholarship in the Liberal Arts
    Role: PI
    Amount: $2,000

7. *A Social Network Approach to Understanding the Relationship between Friendship and Alcohol Use among College Students.*
    Begin-End Dates: 2018
    Funding source: Institute for Scholarship in the Liberal Arts
    Role: PI
    Amount: $2,239

8. *A Blessing or a Curse? An Overview of Non-normal Data and Missing Data.*
    Begin-End Dates: 2018
    Funding source: Institute for Scholarship in the Liberal Arts
    Role: PI
    Amount: $2,068

9. *Testing a Latent Trait Model with Orthogonal and Unorthogonal Factor Structures.*
    Begin-End Dates: 2017
    Funding source: Institute for Scholarship in the Liberal Arts
    Role: PI
    Amount: $2,500

10. *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

11. *A General Bayesian Estimation Method for Structural Equation Modeling.*
    Begin-End Dates: 2009–2010

Funding source: Faculty Research Grants
Role: PI
Amount: $10,000

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

Work in Progress Books (*current or former graduate students; +current or former undergraduate students; ^post-doctoral researchers. At Notre Dame, papers with students are counted as first author papers.)

1. Zhang, Z., & *Liu, H. (under contract). *Applied network analysis for social and behavioral research using R: A structural equation modeling framework*. Springer Nature.
2. Zhang, Z. (in preparation). *Practical data processing for social and behavioral research using R*. The current version is retrievable from https://books.psychstat.org/rdata/.
3. Zhang, Z. (in preparation). *Text mining for social and behavioral research using R: A case study on teaching evaluation*. The current version is retrievable from https://books.psychstat.org/textmining.

Journal Articles

1. *Zhang, L., +Li, X., & Zhang, Z. (in press). Variety and Mainstays of the R Developer Community. *R Journal*. [CiteScore: 2.5; Q1]
2. *Zhao, S., Zhang, Z., & Zhang, H. (in press). Bayesian Inference of Dynamic Mediation Models for Longitudinal Data. *Structural Equation Modeling: A Multidisciplinary Journal*. https://doi.org/10.1080/10705511.2023.2230519 [CiteScore: 6.6; Q1]
3. Liu, X., Zhang, Z., Valentino, K., & Wang, L. (in press). The impact of omitting confounders in parallel process latent growth curve mediation models: Three sensitivity analysis approaches. *Structural Equation Modeling: A Multidisciplinary Journal*. https://doi.org/10.1080/10705511.2023.2189551 [CiteScore: 6.6; Q1]
4. *Wilcox, K. T., Jacobucci, R., Zhang, Z., & Ammerman, B. A. (2023). Supervised Latent Dirichlet Allocation with Covariates: A Bayesian Structural and Measurement Model of Text and Covariates. *Psychological Methods*, *28*(5), 1178–1206. https://doi.org/10.1037/met0000541 [CiteScore: 12.6; Q1]
5. Liu, X., Wang, L., & Zhang, Z. (2023). Bayesian hypothesis testing of mediation: Methods and the impact of prior odds specifications. *Behavior Research Methods*, *55*, 1108–1120. https://doi.org/10.3758/s13428-022-01860-1 [CiteScore: 11.2; Q1]
6. *Xu, Z., *Hai, J., *Yang, Y., & Zhang, Z. (2023). Comparison of Methods for Imputing Social Network Data. *Journal of Data Science*, *21*(3), 599–618 https://doi.org/10.6339/22-JDS1045 [No data]
7. *Wyman, A., & Zhang, Z. (2023). API Face Value: Evaluating the Current Status and Potential of Emotion Detection Software in Emotional Deficit Interventions. *Journal of

Behavioral Data Science, 3(1), 59–69. https://doi.org/10.35566/jbds/v3n1/wyman [No data]

8. *Liu, X., Wang, L., & Zhang, Z. (2023). Bayesian hypothesis testing of mediation: Methods and the impact of prior odds specifications. *Behavior Research Methods, 55,* 1108-1120*.* https://doi.org/10.3758/s13428-022-01860-1 [CiteScore: 11.2; Q1]

9. *Mai, Y., *Xu, Z., Zhang, Z., & Yuan, K.-H. (2023). An Open Source WYSIWYG Web Application for Drawing Path Diagrams of Structural Equation Models. *Structural Equation Modeling: A Multidisciplinary Journal, 30*(2), 328-335. https://doi.org/10.1080/10705511.2022.2101460 [CiteScore: 6.6; Q1]

10. *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 [No Data][1]

11. 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 [CiteScore: 9.7; Q1]

12. 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 [No Data]

13. Lu, Z., & 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 [No Data]

14. *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 [CiteScore: 3.4; Q1]

15. 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 [No Data]

16. *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 [CiteScore: 6.6; Q1]

17. 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 [No Data]

18. *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 [No Data]

19. *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 [CiteScore: 9.0; Q1]

20. *Tong, X., & Zhang, Z. (2020). Robust Bayesian approaches in growth curve modeling: Using Student's t distributions versus a semiparametric method. *Structural Equation*

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[1] JBDS is a journal I edit to promote data science in behavioral research. The average number of citations per article in 2023 based on Google Scholar is 1.9.

Modeling, 27(4), 544-560. https://doi.org/10.1080/10705511.2019.1683014 [CiteScore: 6.6; Q1]

21. *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 [CiteScore: 11.2; Q1]

22. *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 [CiteScore: 6.0; Q1]

23. *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 [CiteScore: 11.2; Q1]

24. 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 [CiteScore: 6.6; Q1]

25. *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 [CiteScore: 6.6; Q1]

26. 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 [CiteScore: 12.6; Q1]

27. *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 [CiteScore: 6.0; Q1]

28. ^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 [CiteScore: 6.6; Q1]

29. ^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 [CiteScore: 6.6; Q1]

30. *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 [CiteScore: 5.9; Q1]

31. *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 [CiteScore: 4.6; Q1]

32. *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 [CiteScore: 6.6; Q1]

33. 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 [CiteScore: 1.7; Q3]

34. *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 [CiteScore: 11.2; Q1]

35. *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 [CiteScore: 4.1; Q1]

36. 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 [CiteScore: 6.6; Q1]

37. *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 [CiteScore: 5.6; Q1]

38. *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 [CiteScore: 6.6; Q1]

39. 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 [CiteScore: 11.2; Q1]

40. 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 [CiteScore: 5.9; Q1]

41. 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 [CiteScore: 6.6; Q1]

42. 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 [CiteScore: 6.6; Q1]

43. 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 [CiteScore: 9.3; Q1]

44. 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 [CiteScore: 5.2; Q1]

45. 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 [CiteScore: 6.6; Q1]

46. 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 [CiteScore: 4.8; Q1]
47. *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 [CiteScore: 6.6; Q1]
48. Zhang, Z. (2014a). WebBUGS: Conducting Bayesian analysis online. *Journal of Statistical Software*, *61*(7), 1–30. http://doi.org/10.18637/jss.v061.i07 [CiteScore: 10.4; Q1]
49. 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 [CiteScore: 11.2; Q1]
50. 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 [CiteScore: 6.6; Q1]
51. *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 [CiteScore: 3.1; Q1]
52. *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 [CiteScore: 6.6; Q1]
53. 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 [CiteScore: 2.8; Q2]
54. 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 [CiteScore: 6.6; Q1]
55. 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 [CiteScore: 6.3; Q1]
56. 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 [CiteScore: 6.6; Q1]
57. 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 [CiteScore: 6.6; Q1]
58. 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 [CiteScore: 3.4; Q1]
59. 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 [CiteScore: 3.4; Q2]

60. *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 [CiteScore: 6.6; Q1]

61. 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 [CiteScore: 6.6; Q1]

62. 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 [CiteScore: 1.3; Q3]

63. Zhang, Z., McArdle, J. J., & Nesselroade, J. R. (2012). Growth rate models: Emphasizing growth rate analysis through growth curve modeling. *Journal of Applied Statistics*, *39*(6), 1241–1262. https://doi.org/10.1080/02664763.2011.644528 [CiteScore: 2.8; Q2]

64. *Tong, X., Zhang, Z., & Yuan, K.-H. (2011). Abstract: Evaluation of test statistics for robust structural equation modeling with nonnormal missing data. *Multivariate Behavioral Research*, *46*(6), 1016–1016. https://doi.org/10.1080/00273171.2011.636715 [CiteScore: 6.6; Q1]

65. 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 [CiteScore: 6.6; Q1]

66. Hardy, S. A., White, J., Zhang, Z., & Ruchty, J. (2011). Parenting and the socialization of religiousness and spirituality. *Psychology of Religion and Spirituality*, *3*(3), 217–230. https://doi.org/10.1037/a0021600 [CiteScore: 4.8; Q1]

67. *Lu, Z., Zhang, Z., & Lubke, G. (2011). Bayesian inference for growth mixture models with latent class dependent missing data. *Multivariate Behavioral Research*, *46*(4), 567–597. https://doi.org/10.1080/00273171.2011.589261 [CiteScore: 6.6; Q1]

68. Zhang, Z., Browne, M. W., & Nesselroade, J. R. (2011). Higher-order factor invariance and idiographic mapping of constructs to observables. *Applied Developmental Sciences*, *15*(4), 186–200. https://doi.org/10.1080/10888691.2011.618099 [No Data]

69. *Lu, Z., Zhang, Z., & Lubke, G. (2010). Abstract: Bayesian inference for growth mixture models with non-ignorable missing data. *Multivariate Behavioral Research*, *45*(6), 1028–1028. https://doi.org/10.1080/00273171.2010.534381   [CiteScore: 6.6; Q1]

70. Winter, W. C., Hammond, W. R., Zhang, Z., & Green, N. H. (2009). Measuring circadian advantage in Major League Baseball: A 10-year retrospective study. *International Journal of Sports Physiology and Performance*, *4*(3) 394–401. https://doi.org/10.1123/ijspp.4.3.394 [CiteScore: 6.1; Q1]

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Book Review

102. 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

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127. Zhang, Z., & Nesselroade, J. R. (2004). DFA: Dynamic factor analysis [Computer software]. Retrieved from http://dfa.psychstat.org.

Invited Lectures and Addresses

1. Zhang, Z. (2023, July). Social Network Analysis in the Framework of Structural Equation Modeling. Invited talk at the Nanjing University of Posts and Telecommunications, Nanjing, China.
2. Zhang, Z. (2023, July). Statistical power for linear and quadratic growth curve models with ignorable and non-ignorable missing data. Invited talk at the 2023 Annual Meeting of ISDSA, Shanghai, China.
3. 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.
4. Zhang, Z. (2022, April). *Prevalence, Influences, and Handling Methods of Non-normal Data*. Invited talk at the University of Southern California
5. Zhang, Z. (2021, November). *Social Network Analysis In The Framework Of Structural Equation Modeling*. Invited talk by Data Analytics Colloquium. https://dacolloquium.com
6. Zhang, Z. (2021, November). *What is Data Science?* Invited talk by Data Science Forum.
7. 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)
8. Zhang, Z. (2020, July). *Psychometric Models for Social Network Data Analysis*. Invited talk at the 85th Annual Meeting of Psychometric Society. (Online)
9. Zhang, Z. (2019, October). *Measure changes in networks*. Cattell Award address at the Annual Meeting of the Society of Multivariate Experimental Research, Baltimore, MA.
10. 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.
11. Zhang, Z. & Liu, H. (2019, July). *Social Network Analysis in the Structural Equation Modeling Framework*. Invited talk at the Yangtze Normal University, Chongqing, China.
12. 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.
13. 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.
14. 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.
15. 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]

16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. Zhang, Z. (2015, June). *Statistical power analysis for mediation effects through WebPower*. Invited talk at the Renmin University of China, Beijing, China.
23. Zhang, Z. (2015, March). *Bayesian factor analysis*. Invited talk at the University of Southern California, Los Angeles, CA.
24. 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.
25. 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.
26. *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.
27. Zhang, Z. (2011, June). *Introduction to Bayesian analysis*. Invited lecture at the Renmin University of China, Beijing, China.
28. 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
29. Zhang, Z. (2009, July). *Bayesian analysis*. Invited workshop at the University of Southern California, Los Angeles, CA.

Conference Presentations
<u>Organized Meetings</u>
30. Zhang, Z., & Yuan, K.-H. (2023, July). *The 2023 ISDSA Meeting on Behavioral Data Science*. Shanghai, China.

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

Chaired Symposiums

36. 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.
37. 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.
38. 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.
39. 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

40. Zhang, Z. (2023, July). Invited workshop on *Deep Learning Using R* at the 2023 ISDSA Annual Meeting. Online.
41. Du, H. & Zhang, Z. (2023, May). *Power Analysis*. Invited workshop conducted at the 2023 Annual Convention of Association for Psychological Science, Washington DC.
42. Tong, X., Du, H., & Zhang, Z. (2022, June). Workshop on *Bayesian Longitudinal Data Modeling*. Two-day workshop supported by the Association of Psychological Science.
43. Zhang, Z. (2022, June). *Workshop on Statistical Power Analysis for Structural Equation Modeling* at the 2022 ISDSA Annual Meeting. Online.
44. Zhang, Z. (2021, June). *Workshop on Statistical Power* analysis at the 2021 ISDSA Annual Meeting. Online.
45. 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.
46. 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.
47. 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.
48. Zhang, Z. (2009, August). *Introduction to Bayesian analysis*. Workshop presented at the 117th Annual Convention of the American Psychological Association, Toronto, Canada.

49. Zhang, Z. (2023, October). WebPower as an open system for statistical power analysis. Online presentation at the 2023 SMEP Meeting.
50. +Wyman, A., & Zhang, Z. (2022, October). API Face Value: Enhancing Emotional Deficit Interventions with Emotion Detection Software. Presented at the ninety-third annual conference of the Indiana Association of the Social Sciences, Gary, IN, United States.
51. *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.
52. *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.
53. 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.
54. *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)
55. *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)
56. *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.
57. *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.
58. 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.
59. *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.
60. 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.
61. *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.
62. 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.
63. *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.

64. 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.

65. *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.

66. 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.

67. *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.

68. *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.

69. *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.

70. 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.

71. *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.

72. 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.

73. 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.

74. 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.

75. 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.

76. *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.

77. *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.

78. *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.

79. 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.

80. *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.

81. *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.

82. 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.

83. *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.

84. 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.

85. *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.

86. *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.

87. *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.

88. 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.

89. 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.

90. 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.

91. 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.

92. 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.

93. 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

94. 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.

95. [+]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.

96. [+]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.

97. 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.

98. 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.

99. *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.

100. ^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.

101. *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.

102. *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.

103. 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.

104. 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.

105. 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.

106. 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.

107. 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.

108.   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.

Teaching and Mentoring

Course Taught

2023   R for Data Science (Spring, Fall), Advanced Statistics (Fall), Quantitative Study Seminar (Spring, Fall)

2022   R for Data Science (Spring), Advanced Statistics (Fall), Bayesian Statistics (Fall), Quantitative Study Seminar (Spring, Fall)

2021   Advanced Statistics (Fall), Quantitative Study Seminar (Spring, Fall)

2020   R for Data Science (Spring), Advanced Statistics (Fall), Structural Equation Models (Fall), Quantitative Study Seminar (Spring, Fall)

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 Senior Statistician at StataCorp, 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)

Undergraduate Students Advised

2023   Julia Savino, Caroline Schafer, Annie Lee, Anna Krush, Anna Kierski, Aedan Joel, Austin Wyman

2022   Weining Wang, Lirui Xiao, Xinyu Wei, Xinran She, Zheyuan Cui, Austin Wyman, Aedan Joel, Rena Steele, Sarah Deussing, Kyle Phan

2021   Shuangtong Li, Caroline Smith, Xueyang Li, Jiarui Hai, Lijin Zhang, Yutong Yang

2020   Keyu Han, Yunlu Chen, Xueyang Li, Changrong Xiao, Yuxin Wu

2019   Jacob Chang, Lingbo Tong, Zhaowen Wang, Shivani Kamtikar

2018   Shitao Fan, Jingyi Xu, Silvia Camara, Roann Yanes, Ann Keenan, Leah Tzakis

2017   Christopher Clarizio Kelly Dodson, Xin Tong, Yiwen Chen, Margaret West, Jianan Wang, Ann Keenan, Leah Tzakis, Yuchen Liu

2016   Ann Keenan, Leah Tzakis, David Mattia, Cindy Wang, Brett Baumgartner, Yijie Huang, Mao Ye, Nan Sun

2015   Ann Keenan, Leah Tzakis, David Mattia, Cindy Wang

2014   Leah Tzakis, Leah Tzakis

Master's Theses Directed

2015   Megan Cain

2012   Xin Tong

Master Thesis Paper Reader (For students already with a master degree, they need to have a paper approved by two readers to pass the qualification exam.)
2022   Meng Qiu
2022   Dayoung Lee
2020   Tyler Wilcox
2020   Max Hong
2019   Brenna Gomer
2019   Wen Qu
2019   Alex Brodersen
2018   Ian Campbell
2014   Can Shao

Master Thesis Committees
2023   Dani Parra
2022   Jessica Hocking
2022   Kenneth McClure
2019   Lauren Trichtinger
2019   Chang Che
2016   Ryan Woodbury
2015   Callie Baird
2012   Zijun Ke

Qualification Exams/ Prelim Committee
2022   Meng Qiu, Xiaobei Li
2021   Tyler Wilcox, Xiao Liu
2020   Chang Che, Wen Qu, Daniella Reboucas, Lauren Trichtinger, Brenna Gomer
2019   Alex Brodersen
2018   Ian Campbell
2016   Samantha Anderson, Haiyan Liu
2013   Charles Laurin, Raymond Walters
2012   Xin Tong
2011   Keke Lai

Dissertation Committees
2023   Dayoung Lee, Meng Qiu
2022   Claire Scott-Bacon (proposal), Xiao Liu, Tyler Wilcox
2021   Brenna Gomer, Maxwell Hong, Minami Hattori, Lauren Trichtinger
2020   Jaime Shapiro, Alex Brodersen
2018   Agung Santoso, Miao Yang, Ge Jiang, Erin Hillard, Robert Miller
2017   Han Du, Meghan Cain, Amber Shoaib
2016   Patrick Miller, Daniel McArtor, Can Shao, Callie Baird
2015   Qian Zhang, Quinn Lathrop
2014   Charles Laurin, Raymond Walters, Jeffrey Patton
2013   Zijun Ke
2012   Chun-Ting Lee, KeKe Lai
2011   Melissa Mitchell

2010   Stephen Tueller

Quantitative Minor Advised
2015   Rebecca Cheung (Associate Professor at the University of Reading)
2010   Windy McNerney

Services
University and Departmental Service
2019–2023   Graduate Studies Committee
2018–2021   University Committee on Research and Sponsored Programs
2017–Current   Psychology Department Communication and Website Committee
2017–Current   Department Committee on Appointment and Promotion
2008–Current   Psychology Department Computer/Tech Support Committee
2015   Review Committee of the Bernoulli awards
2015   ISLA Bi-Annual Large Grant Review Committee

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