KUN CHEN

CONTACT

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EDUCATION

Ph.D. in Statistics 2011
Department of Statistics and Actuarial Science, University of Iowa, Iowa City, Iowa, USA

M.S. in Statistics 2007
Department of Mathematics and Statistics, University of Alaska Fairbanks, Fairbanks, Alaska, USA

B.Econ. in Finance 2003
Department of Statistics and Finance, University of Science and Technology of China (USTC), Hefei, Anhui, China

Dual B.S. in Computer Science and Technology 2003
Department of Electronic Engineering and Information Science, University of Science and Technology of China (USTC), Hefei, Anhui, China

EMPLOYMENT

08/2023– *Professor*, Department of Statistics, University of Connecticut, Storrs, CT

08/2018–08/2023 *Associate Professor (Tenured)*, Department of Statistics, University of Connecticut, Storrs, CT

05/2014– *Research Fellow*, Center for Population Health, University of Connecticut Health Center, Farmington, CT

08/2013–08/2018 *Assistant Professor*, Department of Statistics, University of Connecticut, Storrs, CT

08/2011–08/2013 *Assistant Professor*, Department of Statistics, Kansas State University, Manhattan, KS

HONORS & AWARDS

- Innovative Scholarship Award, College of Liberal Arts & Sciences (CLAS), UConn 2024
- Leadership Fellow, CLAS, UConn 2023
- Fellow of the American Statistical Association (ASA) 2022–
- Elected Member of International Statistical Institute (ISI) 2015–
- Recognition for Teaching Excellence, UConn Spr. 2015, Fall 2015, Fall 2016, Fall 2018

- Travel Award, IMS New Researchers' Conference 2014
- ENAR Distinguished Student Paper Award, International Biometric Society 2011
- Henry L. Rietz Award, University of Iowa 2009
- Provincial Outstanding College Graduate, Anhui, China 2003
- Outstanding Graduate Award, University of Science and Technology of China 2003

RESEARCH INTERESTS

- Large-scale statistical learning
- Machine learning and big data
- Statistical computing and optimization
- Population health and health data science
- Ecological and environmental statistics

PUBLICATIONS

- Google Scholar: Link
- *Student/Post-doc author†; corresponding author**
- Publications are grouped in categories.

LARGE-SCALE MULTIVARIATE STATISTICAL LEARNING

[1] Chen†, J., Aseltine, R., Wang, F., and Chen*, K. (2024) Tree-guided rare feature selection and logic aggregation with electronic health records data. *Journal of the American Statistical Association*, 119(547):1765–1777. (**Best Poster Award, Conference Celebrating UConn Statistics 60th Anniversary**).

[2] Jin†, J., Aseltine, R., Yan, J., and Chen*, K. (2024) Transfer learning for large-scale quantile regression. *Technometrics*, 66(3):381–393. (**Honorable Mention in Student Paper Competition, ASA Section on Risk Analysis**).

[3] Yu, J., Kong, Z., Chen, K., Zhang, X., Chen, Y., and He, L. (2024) A multilinear least-squares formulation for sparse tensor canonical correlation analysis. *Transactions on Machine Learning Research*.

[4] Xu†, T., Chen, K., and Li, G. (2024) Tensor regression for incomplete observations with application to longitudinal studies. *Annals of Applied Statistics*, 8(2):1294–1318.

[5] Chen*, K., Dong, R., Xu†, W., and Zheng, Z. (2022) Fast stagewise sparse factor regression. *Journal of Machine Learning Research*, 23(271):1–45.

[6] Liu†, X., Cong, X., Li, G., Mass, K., and Chen*, K. (2022) Multivariate log-contrast regression with sub-compositional predictors: testing the associations between preterm infant's gut microbiome and neurobehavioral outcomes. *Statistics in Medicine*, 41(3):580–594.

[7] Liu†, X., Ma, S., and Chen*, K. (2022) Multivariate functional regression via a nested reduced-rank regularization. *Journal of Computational & Graphical Statistics*, 31(1):231–240. (**2019 NESS Student Research Award**).

[8] Mishra†, A., Chen, Y., Dey, D. K., and Chen, K. (2021) Generalized co-sparse factor regression. *Computational Statistics & Data Analysis*, 157:107–127.

[9] Uematsu, Y., Fan, Y., Chen, K., Lv, J., and Lin, W. (2019) SOFAR: large-scale association network learning. *IEEE Transactions on Information Theory*, 65(8):4924–4939.

[10] Li, G., Liu†, X., and Chen*, K. (2019) Integrative multi-view regression: Bridging group sparse and low-rank models. *Biometrics*, 75(2):593–602.

[11] He†, L., Chen*, K., Xu†, W., Zhou, J., and Wang, F. (2018) Boosted sparse and low-rank tensor regression. In *Advances in Neural Information Processing Systems (NeurIPS) 31*, pages 1009–1018. Curran Associates, Inc.

[12] Luo†, C., Liang†, J., Li, G., Wang, F., Dey, D. K., and Chen*, K. (2018) Leveraging mixed-type and incomplete outcomes via a generalized reduced rank regression. *Journal of Multivariate Analysis*, 167:378–394.

[13] Mishra†, A., Dey, D. K., and Chen*, K. (2017) Sequential co-sparse factor regression. *Journal of Computational & Graphical Statistics*, 26(4):814–825.

[14] She, Y. and Chen*, K. (2017) Robust reduced-rank regression. *Biometrika*, 104(3):633–647.

[15] Goh†, G., Dey, D. K., and Chen, K. (2017) Bayesian sparse reduced rank multivariate regression. *Journal of Multivariate Analysis*, 157:14–28. (**2015 Student Paper Award, ASA Section on Bayesian Statistical Science**).

[16] Chen*, K. (2016) Model diagnostics in reduced rank estimation. *Statistics and Its Interface*, 9(4):469–484.

[17] Luo†, C., Liu, J., Dey, D. K., and Chen*, K. (2016) Canonical variate regression. *Biostatistics*, 17(3):468–483. (**2015 ICSA Student Paper Award**).

[18] Luo†, C., Dey, D. K., and Chen*, K. (2016) Partially supervised sparse factor regression model for multi-class classification. In Lin, J., Wang, B., Hu, X., Chen, K., and Liu, R., editors, *Statistical Applications from Clinical Trials and Personalized Medicine to Finance and Business Analytics*, pages 323–335. Springer.

[19] Chen*, K. and Chan, K.-S. (2016) A note on rank reduction in sparse multivariate regression. *Journal of Statistical Theory and Practice*, 10(1):100–120.

[20] Mukherjee†, A., Chen, K., Wang, N., and Zhu, J. (2015) On the degrees of freedom of reduced-rank estimators in multivariate regression. *Biometrika*, 102(2):457–477.

[21] Chen*, K., Dong, H., and Chan, K.-S. (2013) Reduced rank regression via adaptive nuclear norm penalization. *Biometrika*, 100(4):901–920.

[22] Chen, K., Chan, K.-S., and Stenseth, N. C. (2012) Reduced rank stochastic regression with a sparse singular value decomposition. *Journal of the Royal Statistical Society: Series B*, 74(2):203–221. (**2011 ENAR Distinguished Student Paper Award**).

STATISTICAL MACHINE LEARNING & COMPUTING

[23] Wang†, W., Luo, C., Aseltine, R., Wang, F., Yan, J., and Chen*, K. (2025) Survival modeling of suicide risk with rare and uncertain diagnoses. *Statistics in Biosciences*, 17:35–61.

[24] Liu, J., Ye, Z., Chen, K., and Zhang, P. (2024) Variational Bayesian inference of mixed-membership stochastic block model for collaborative filtering. *Computational Statistics & Data Analysis*, 189:107836.

[25] Li, G., Li†, Y., and Chen, K. (2023) It's all relative: regression analysis with compositional predictors. *Biometrics*, 79(2):1318–1329.

[26] Li†, Y., Li, G., and Chen*, K. (2022) Principal amalgamation analysis for microbiome data. *Genes*, 13(7):1139.

[27] Cui, S., Liang, J., Pan, W., Chen, K., Zhang, C., and Wang, F. (2022) Collaboration equilibrium in federated learning. In *KDD '22: Knowledge Discovery and Data Mining*, pages 241–251.

[28] Xu†, T., Chen, K., and Li, G. (2022) The more data, the better? Demystifying deletion-based methods in linear regression with missing data. *Statistics and Its Interface*, 15:515–526.

[29] Li†, Y., Yu, C., Zhao, Y., Aseltine, R., Yao, W., and Chen*, K. (2022) Pursuing sources of heterogeneity in modeling clustered population. *Biometrics*, 78(2):716–729.

[30] Vaughan†, G., Aseltine, R., Chen, K., and Yan, J. (2020) Efficient interaction selection via stagewise generalized estimation equations. *Statistics in Medicine*, 39(22):2855–2868.

[31] Sun†, Z., Xu, W., Cong, X., Li, G., and Chen*, K. (2020) Log-contrast regression with functional compositional predictors: Linking preterm infant's gut microbiome trajectories to neurobehavioral outcome. *Annals of Applied Statistics*, 14(3):1535–1556. (**2020 John van Ryzin Award and ENAR Distinguished Student Paper Award**).

[32] Wang†, W., Aseltine, R., Chen*, K., and Yan, J. (2020) Integrative survival analysis with uncertain event times in application to a suicide risk study. *Annals of Applied Statistics*, 14(1):51–73. (**2017 NESS Student Research Award**).

[33] Liang†, J., Chen*, K., Lin, M., Zhang, C., and Wang, F. (2018) Robust finite mixture regression for heterogeneous targets. *Data Mining & Knowledge Discovery*, 32:1509–1560.

[34] Vaughan†, G., Aseltine, R., Chen, K., and Yan, J. (2017) Stagewise generalized estimation equations with grouped variables. *Biometrics*, 73:1332–1342. (**2017 Student Paper Award, ASA Mental Health Statistics Section**).

[35] Chen*, K. and Ma, Y. (2017) Analysis of double single index models. *Scandinavian Journal of Statistics*, 44(1):1–20.

[36] Yu†, C., Yao, W., and Chen, K. (2017) A new method for robust mixture regression and outlier detection. *Canadian Journal of Statistics*, 45(1):77–94.

[37] Dong, H., Chen, K., and Linderoth, J. T. (2015) Regularization vs. relaxation: A conic optimization perspective of statistical variable selection. *CoRR*, abs/1510.06083.

[38] Chen, K. and Chan, K.-S. (2011) Subset ARMA selection via the adaptive lasso. *Statistics and Its Interface*, 4:197–205.

STATISTICAL METHODS IN DATA SCIENCE

[39] Nyiera, H., Yang, X., Sun, Y., Wang, J., Liu, Y., Chen, O., Chen, K., and Zhao, J. (2025) An integrative statistical approach for analyzing photoluminescence fluctuations in single $CsPbBr_3$ quantum dots. *Journal of Physical Chemistry Letters*, 129(38):17150–17159.

[40] Lin, Q., Dorsett, Y., Mirza, A., Tremlett, H., Piccio, L., Longbrake, E., Choileain, S. N., Hafler, D., Cox, L., Weiner, H., Yamamura, T., Chen, K., Wu, Y., and Zhou, Y. (2024) Meta-analysis identifies common gut microbiota signatures in patients with multiple sclerosis. *Genome Medicine*, 16:94.

[41] Pan, W., Chang, S., Maasch, J., Chen, K., Henchcliffe, C., and Wang, F. (2024) Learning phenotypic associations for Parkinson's disease with longitudinal clinical records. *AMIA Joint Summits on Translational Science Proceedings*, pages 374–383.

[42] Li†, Y., Chen, K., Yan, J., and Zhang, X. (2023) Regularized fingerprinting in detection and attribution of climate change with weight matrix optimizing the efficiency in scaling factor estimation. *Annals of Applied Statistics*, 17(1):225–239.

[43] Zang, C., Zhang, H., Xu, J., Zhang, H., Fouladvand, S., Havaldar, S., Cheng, F., Chen, K., Chen, Y., Glicksberg, B. S., Chen, J., Bian, J., and Wang, F. (2023) High-throughput target trial emulation for Alzheimer's disease drug repurposing with real-world data. *Nature Communications*, 14:8180.

[44] Li†, Y., Chen, K., Yan, J., and Zhang, X. (2021) Uncertainty in optimal fingerprinting is underestimated. *Environmental Research Letters*, 16(8):084043.

[45] Ghahramani, G., Brendel, M., Lin, M., Chen, Q., Keenan, T., Chen, K., Chew, E., Lu, Z., Peng, Y., and Wang, F. (2021) Multi-task deep learning-based survival analysis on the prognosis of late AMD using the longitudinal data in AREDS. *American Medical Informatics Association (AMIA) Annual Symposium Proceedings (Regular Paper)*, pages 506–515.

[46] Halder†, A., Mohammed†, S., Chen, K., and Dey, D. (2021) Spatial Tweedie exponential dispersion models: An application to insurance rate-making. *Scandinavian Actuarial Journal*, 2021(10):1017–1036.

[47] Wang, J., Tang, K., Feng, K., Lin, X., Lv, W., Chen, K., and Wang, F. (2021) Impact of temperature and relative humidity on the transmission of COVID-19: a modelling study in China and the United States. *BMJ Open*, 11:e043863.

[48] Liu, Y., Huang, J., Urbanowicz, R. J., Chen, K., Manduchi, E., Greene, C. S., Scheet, P., Moore, J. H., and Chen, Y. (2020) Embracing heterogeneity for finding genetic interactions in large-scale research consortia. *Genetic Epidemiology*, 44(1):52–66.

[49] Zhang, X., He, L., Chen, K., Luo, Y., Zhou, J., and Wang, F. (2018) Multi-view graph convolutional network and its applications on neuroimage analysis for parkinson's disease.

American Medical Informatics Association (AMIA) Annual Symposium Proceedings (Regular Paper), pages 1147–1156.

[50] Chen*, K., Mishra, N., Smyth, J., Bar, H., Schifano, E., Kuo, L., and Chen, M.-H. (2018) A tailored multivariate mixture model for detecting proteins of concordant change in the pathogenesis of *Necrotic Enteritis*. *Journal of the American Statistical Association*, 113:546–559.

[51] Lachos, V. H., Moreno, E. J., Chen, K., and Cabral, C. R. B. (2017) Finite mixture modeling of censored data using the multivariate student-*t* distribution. *Journal of Multivariate Analysis*, 159:151–167.

[52] Chen*, K., Hoffman, E. A., Seetharaman†, I., Lin, C.-L., and Chan, K.-S. (2016) Linking lung airway structure to pulmonary function via composite bridge regression. *Annals of Applied Statistics*, 10(4):1880–1906.

[53] Bai†, X., Chen, K., and Yao, W. (2016) Mixture of linear mixed models using multivariate t distribution. *Journal of Statistical Computation and Simulation*, 86(4):771–787.

[54] Gan, G. and Chen, K. (2016) A soft subspace clustering algorithm with log-transformed distances. *Big Data and Information Analytics*, 1(1):93–109.

[55] Yu†, C., Chen, K., and Yao, W. (2015) Outlier detection and robust mixture modeling using nonconvex penalized likelihood. *Journal of Statistical Planning and Inference*, 164:27–38.

[56] Chen*, K., Chan, K.-S., and Stenseth, N. C. (2014) Source-sink reconstruction through regularized multicomponent regression analysis–with application to assessing whether North Sea cod larvae contributed to local fjord cod in Skagerrak. *Journal of the American Statistical Association*, 109:560–573.

[57] Shi, J., Chen, K., and Song, W. (2014) Robust errors-in-variables linear regression by Laplace distribution. *Statistics & Probability Letters*, 84:113–120.

[58] Chen, K., Ciannelli, L., Decker, M., Ladd, C., Cheng, W., Zhou, Z., and Chan, K.-S. (2014) Reconstructing source-sink dynamics in a population with a pelagic dispersal phase. *PLoS ONE*, 9(5):e95316.

APPLICATIONS: DATA-DRIVEN SUICIDE PREVENTION

[59] Rogers, S., Sacco, S. J., Volz, K., Chenard, D., Borrup, K., Chen, K., and Aseltine, R. H. (2025) Feasibility and importance of universal suicide screening in a pediatric emergency department. *PLOS One*, 20(6):e0321934.

[60] Aseltine, R. H., Sacco, S. J., Rogers, S., Wang, F., Schwartz, H., and Chen, K. (2025) Screening and predictive algorithms for detecting pediatric suicide risk in the emergency department. *JAMA Network Open*, 8(9):e2533505.

[61] Sacco, S., Chen, K., Wang, F., Rogers, S. C., and Aseltine, R. H. (2025) Using transfer learning to improve prediction of suicide risk in acute care hospitals. *Journal of the American Medical Informatics Association*, page ocaf126.

[62] Mitra†, A., Chen, K., Liu, W., Kessler, R., and Yu, H. (2025) Post-discharge suicide prediction among us veterans using natural language processing-enriched social and behavioral determinants of health. *npj Mental Health Research*, 4:8.

[63] Sacco, S., Chen, K., Jin, J., Tang, B., Wang, F., and Aseltine, R. (2025) Identifying patients at risk of suicide using data from Health Information Exchanges. *BMC Public Health*, (25):1582.

[64] Zang, C., Hou, Y., Jin, J., Sacco, S., Chen*, K., Aseltine*, R., and Wang*, F. (2024) Accuracy and generalizability of machine learning models for adolescent suicide prediction with longitudinal clinical records. *Translational Psychiatry*, 14:316.

[65] Sacco†, S., Chen, K., Wang, F., and Aseltine, R. (2023) Target-based fusion using social determinants of health to enhance suicide prediction with electronic health records. *PLoS ONE*, 18(4):e0283595.

[66] Rawat, B. P. S., Reisman, J., Pogoda, T. K., Weisong, L., Rongali, S., Aseltin, R. H., Chen, K., Tsai, J., Berlowitz, D., Yu, H., and Carlson, K. (2023) Intentional self-harm among US veterans with traumatic brain injury and/or posttraumatic stress disorder: A retrospective cohort study 2008–2017. *JMIR Public Health and Surveillance*, 9:e42803.

[67] Mitra†, A., Pradhan†, R., Melamed, R. D., Chen, K., Hoaglin, D. C., Tucker, K. L., Reisman, J. I., Yang, Z., Liu, W., Tsai, J., and Yu, H. (2023) Associations between natural language processing (NLP) enriched social determinants of health and suicide death among US veterans. *JAMA Network Open*, 6(3):e233079.

[68] Luo†, C., Chen, K., Doshi, R., Rickles, N., Chen, Y., Schwartz, H., and Aseltine, R. H. (2022) The association of prescription opioid use with suicide attempts: An analysis of statewide medical claims data. *PLoS ONE*, 17(6):e0269809.

[69] Xu†, W., Su†, C., Li†, Y., Doshi†, R., Chen, K., Wang, F., and Aseltine, R. (2022) Improving suicide risk prediction via targeted data fusion: proof of concept using medical claims data. *Journal of the American Medical Informatics Association*, 29(3):500–511. (**Featured article**).

[70] Aseltine, R., Chen, K., Wang, F., and Jin, J. (2022) Harnessing big data in health care: Challenges in enhancing the clinical utility of patient data for suicide prevention. *Connecticut Medicine*, 86(1):61–66.

[71] Su†, C., Aseltine, R., Riddhi†, D., Chen, K., Rogers, S., and Wang, F. (2020) Machine learning for suicide risk prediction in children and adolescents with electronic health records. *Translational Psychiatry*, 10, 413.

[72] Doshi†, R., Chen, K., Wang, F., Schwartz, H., Herzog, A., and Aseltine, R. (2020) Identifying risk factors for mortality among patients previously hospitalized for a suicide attempt. *Scientific Reports*, 10:15223.

[73] Doshi, R., Aseltine, R., Wang, F., Schwartz, H., Rogers, S., and Chen, K. (2018) Illustrating the role of Health Information Exchange in a learning health system: Improving the identification and management of suicide risk. *Connecticut Medicine*, 82(6):327–333.

[74] Chen, K. and Aseltine, R. (2017) Using hospitalization and mortality data to target suicide prevention activities. *Journal of Adolescent Health*, 61:192–197.

OTHER APPLICATIONS

[75] Corsetti, R., Desmarais, J., Kieley, A., Wilson, D., Adamczyk, P., Roberts, D., Zhang, Y., Chen, K., Harel, O., Parham, K., and Skoe, E. (2025) The daily auditory environments of people with tinnitus. *Scientific Reports*, 15:27756.

[76] Piacentino, D., Vizioli, C., Barb, J. J., Grant-Beurmann, S., Bouhlal, S., Battista, J. T., Jennings, O., Lee, M. R., Schwandt, M., Walter, P., Henderson, W. A., Chen, K., Turner, S., Yang, S., Fraser, C. M., Farinelli, L., Farokhnia, M., and Leggio, L. (2024) Gut microbial diversity and functional characterization in people with alcohol use disorder: A case-control study. *PLoS ONE*, 19(6):e0302195.

[77] Li, X., Wang, X., Ma, X., Sun, W., Chen, K., and Dou, F. (2024) Effectiveness of nanomaterials and their counterparts in improving rice growth and yield under arsenic contamination. *Frontiers in Plant Science*, 15:1338530.

[78] Filatava, E., Liu, Z., Xie, J., Tran, T. D.-B., Chen, K., Habbal, N. E., Weinstock, G., Zhou, Y., and Gregory, K. (2023) The preterm human milk microbiota is characterized by temporal fluctuations and maternal factors. *mBio*, 14(6):e02106–23.

[79] Chen, J., Li, H., Zhao, T., Chen, K., Chen, M.-H., Sun, Z., Xu, W., Maas, K., Lester, B., and Cong, X. (2023) The impact of early life experiences and gut microbiota on neurobehavioral development in preterm infants: A longitudinal cohort study. *Microorganisms*, 11(3):814.

[80] Li, X., Guo, J., Velarca, M. V., McClung, A., Chen, K., and Dou, F. (2023) Effect of nitrogen application rate under organic and conventional systems on rice (*Oryza sativa L.*) growth, grain yield, soil properties, and greenhouse gas emission. *Journal of Plant Nutrition*, 46(8):1627–1649.

[81] Sun, Y., Wang, Y., Zhu, H., Jin, N., Mohammad, A., Biyikli, N., Chen, O., Chen, K., and Zhao, J. (2022) Excitation wavelength-dependent photoluminescence decay of single quantum dots near plasmonic gold nanoparticles. *Journal of Chemical Physics*, 156:154701.

[82] Suther, C., Daddi, L., Bokoliya, S., Panier, H., Liu, Z., Lin, Q., Han, Y., Chen, K., Moore, M. D., and Zhou, Y. (2022) Dietary Boswellia serrata acid alters the gut microbiome and blood metabolites in a pre-clinical controlled trial. *Nutrients*, 14(4):814.

[83] Cantoni, C., Lin, Q., Dorsett, Y., Ghezzi, L., Liu, Z., Pan, Y., Chen, K., Han, Y., Li, Z., Xiao, H., Gormley, M., Liu, Y., Bokoliya, S., Panier, H., Suther, C., Evans, E., Deng, L., Locca, A., Mikesell, R., Obert, K., Newland, P., Wu, Y., Salter, A., Cross, A. H., Tarr, P. I., Lovett-Racke, A., Piccio, L., and Zhou, Y. (2022) Alterations of host-gut microbiome interactions in multiple sclerosis. *eBioMedicine*, page 103798.

[84] Wang, X., Li, X., Dou, F., Sun, W., Chen, K., Wen, Y., and Ma, X. (2021) Elucidating the impact of three metallic nanoagrichemicals and their bulk and ionic counterparts

on the chemical properties of bulk and rhizosphere soils in rice paddies. *Environmental Pollution*, 290:118005.

[85] Johnson, B. T., Sisti, A., Bernstein, M., Chen, K., Hennessy, E. A., Acabchuk, R. L., and Matos, M. (2021) Community-level factors and incidence of gun violence in the United States, 2014–2017. *Social Science & Medicine*, 280:113969.

[86] Aleman, J. O., Henderson, W. A., Walker, J. M., Ronning, A., Jones, D., Walter, P. J., Daniel, S. G., Bittinger, K., Vaughan, R., MacArthur, R., Chen, K., Breslow, J. L., and Holt, P. R. (2021) Excess dietary fructose does not alter gut microbiota or permeability in humans: a pilot randomized controlled study. *Journal of Clinical and Translational Science*, 5(1):E143.

[87] Li, X., Tan, A., Chen, K., Pan, Y., Gentry, T., and Dou, F. (2021) Effect of cover crop type and application rate on soil nitrogen mineralization and availability in organic rice production. *Sustainability*, 13(5):2866.

[88] Li, X., Dou, F., Guo, J., Velarca, M. V., Chen, K., Gentry, T., and McNear, D. (2020) Soil microbial community responses to nitrogen application in organic and conventional rice (*Oryza Sativa* L.) production. *Soil Science Society of America Journal*, 84(6):1885–1897.

[89] Li, X., Dou, F., Watkins, K. B., Wang, S., Chen, K., Zhou, X., McClung, A., Storlien, J. O., and Hons, F. M. (2020) Seeding rate effects on organic rice growth, yield, and economic returns. *Agronomy Journal*, 112(5):4104–4119.

[90] Zhou, C., Huang, Y., Jia, B., Wang, S., Dou, F., Samonte, S., Chen, K., and Wang, Y. (2019) Optimization of nitrogen rate and planting density for improving grain yield of different rice genotypes in northeast China. *Agronomy*, 9(9):555.

[91] Dou, F., Ping, C.-L., Li, X., Jorgenson, T., Guo, L., Chen, K., and Michaelson, G. (2017) Soil organic carbon reactivity along the eroding coastline of northern Alaska. *Soil Science*, 182(6):227–232.

[92] Mickelsen, L., Kolling, F., Chimileski, B., Fujita, A., Norris, C., Chen, K., Nelson, C., and Jackson, A. (2017) Neurochemical heterogeneity among lateral hypothalamic hypocretin/orexin and melanin-concentrating hormone neurons identified through single cell gene expression analysis. *eNeuro*, 4(5):13–17.

[93] Choi, S., Hoffman, E. A., Wenzel, S. E., Castro, M., Fain, S., Jarjour, N., Schiebler, M. L., Chen, K., and Lin, C.-L. (2017) Quantitative computed tomography imaging-based clustering differentiates asthmatic subgroups with distinctive clinical phenotypes. *Journal of Allergy and Clinical Immunology*, 140(3):690–700.

[94] Chen†, Y., Chen, K., and Kalichman, S. C. (2017) Barriers to HIV medication adherence in the context of regimen simplification. *Annals of Behavioral Medicine*, 51(1):67–78.

[95] Dou, F., Lee, T., Chen, K., Wright, A., and Mohammad, A. (2016) Planting date and variety effects on rice main and ratoon crop production in south Texas. *Communications in Soil Science and Plant Analysis*, 47(21):2414–2440.

[96] Dou, F., Soriano, J., Tabien, R., and Chen, K. (2016) Soil texture and cultivar effects on rice (*Oryza sativa, L.*) grain yield, yield components and water productivity in three water regimes. *PLoS ONE*, 11(3):e0150549.

[97] Soriano, J., Dou, F., Tabien, R., Harper, C., and Chen, K. (2016) Growth, development, yield and harvest index of two diverse rice cultivars in different water regimes and soil textures. *International Journal of Agronomy and Agricultural Research*, 8(2):82–94.

[98] Choi, S., Hoffmann, E. A., Wenzel, S. E., Castro, M., Fain, S. B., Jarjour, N. N., Schiebler, M. L., Chen, K., and Lin, C.-L. (2015) Quantitative assessment of multiscale structural and functional alterations in asthmatic populations. *Journal of Applied Physiology*, 118(10):1286–1298.

[99] Chen, K., Chan, K.-S., Bailey, K., Aydin, K., and Ciannelli, L. (2012) A probabilistic cellular automata approach for predator-prey interactions of arrowtooth flounder and walleye pollock in the eastern Bering Sea. *Canadian Journal of Fisheries and Aquatic Sciences*, 69(2):259–272.

[100] Hunsicker, M., Ciannelli, L., Bailey, K., Buckel, J., White, J., Link, J., Essington, T., Anderson, T., Brodeur, R., Chan, K.-S., Chen, K., Englund, G., and et. al. (2011) Functional responses and scaling in marine predator-prey interactions: contemporary issues and emerging concepts. *Ecology Letters*, 14(12):1288–1299.

DISCUSSIONS & COMMENTARIES

[101] Wang, J., Wang, H., and Chen, K. (2023) Discussion of "Statistical inference for streamed longitudinal data". *Biometrika*, 110(4):863–866.

[102] Chen, K. and Wang, F. (2021) Discussion on "The timing and effectiveness of implementing mild interventions of COVID-19 in large industrial regions via a synthetic control method". *Statistics and Its Interface*, 14(1):15–17.

BOOKS

[103] Reinsel, G. C., Velu, R. P., and Chen, K. (2022) *Multivariate Reduced-Rank Regression: Theory, Methods and Applications, 2nd Edition*. Springer. Link.

EDITED BOOKS & VOLUMES

[104] Lin, J., Wang, B., Hu, X., Chen, K., and Liu, R., editors (2016) *Statistical Applications from Clinical Trials and Personalized Medicine to Finance and Business Analytics*. Springer.

CONFERENCE PROCEEDINGS

[105] Ghahramani, G., Brendel, M., Chen, Q., Keenan, T., Chen, K., Chew, E., Lu, Z., Peng, Y., and Wang, F. (2021) Deep learning survival analysis on the progression to late AMD in the Age-Related Eye Disease Study. *Annual Meeting of Association for Research in Vision and Ophthalmology (ARVO)*.

[106] Li, F., Liu, W., Druhl, E., Tucker, K., Lingeman, J., Pogoda, T., Wang, F., Chen, K., Aseltine, R., Kerns, R., Becker, W., Berlowitz, D., Ney, J., Carlson, K., and Yu, H. (2020) A

pilot study of extracting social determinants of health from clinical text. *The 13th ACM International WSDM Conference (Workshop Paper)*.

[107] Rogers, S., deMayo, R., Chen, K., Wang, F., and Aseltine, R. (2018) EHR phenotyping & data-driven suicide prevention. *American Medical Informatics Association (AMIA) Informatics Summit*.

[108] Chen, K., Wang, F., and Aseltine, R. (2016) Using hospitalization and suicide mortality data to identify subpopulation of high suicide risk via survival modeling. *American Medical Informatics Association (AMIA) Annual Symposium*.

[109] Choi, S., Chen, K., Hoffman, E., Wenzel, S., Castro, M., Fain, S., Jarjour, N., Schiebler, M., and Lin, C.-L. (2015) Linking and clustering multiscale structural and functional variables in asthmatic populations. *American Journal of Respiratory and Critical Care Medicine*, 191:A2464.

[110] Zhang, M., Chen, K., Sparrow, S., Bechtel, P., and Pantoja, A. (2008) Simulating CO_2 released from soil: a Bayesian approach. *Eos Trans. AGU*, 89(53):Fall Meet. Suppl., Abstract B11D–0404.

MANUSCRIPTS

[111] Yin†, X., Mitra†, A., Zhou, Y., Chen, K., and Yu, H. (2026) Scalable counterfactual risk estimation for rare events in longitudinal data. Submitted.

[112] Hunter, A., Sacco, S., Xu, Z., Chen, K., Yan, J., and Aseltine, R. (2026) Preliminary development of an algorithm to detect child physical abuse using emergency department records. *Injury Prevention*. In revision.

[113] Wang†, J., Wang*, H., and Chen*, K. (2025) Robust data fusion vis subsampling. *Annals of Statistics*. Under review. arXiv:2508.12048.

[114] Liu†, Z., Yin†, X., Zhou, Y., Li, G., and Chen*, K. (2025) Dissecting microbial community structure and heterogeneity via multivariate covariate-adjusted clustering. *Biometrics*. In revision. arXiv:2508.11036.

[115] Yin†, X., Sacco, S., Aseltine, R., Wang, F., and Chen*, K. (2025) Salvaging forbidden treasure in medical data: Utilizing surrogate outcomes and single records for rare event modeling. *Journal of the American Statistical Association*. Revised & Resubmitted. (**2024 Student Paper Award, ASA Mental Health Statistics Section**). arXiv:2501.02197.

[116] Chen†, J. and Chen*, K. (2025) Stagewise primal-dual algorithm for generalized lasso. *Journal of Multivariate Analysis*. Submitted. arXiv:2501.02197.

[117] Yang†, X., Nyiera†, H., Sun, Y., Zhao, J., and Chen*, K. (2025) Integrative learning of intensity fluctuations of quantum dots under excitation via a tailored mixture hidden markov model. *Annals of Applied Statistics*. Submitted. (**2025 NESS Student Research Award**). arXiv:2501.01292.

[118] Fang†, J., Gu*, Y., and Chen*, K. (2025) Rare feature quantile regression. *Applied Stochastic Models in Business and Industry*. In revision.

[119] Yin†, X. and Chen*, K. (2025) Blessing of multiple outcomes: Imputation via data fusion and multi-task learning.

[120] Wang†, B., Song, Y., and Chen*, K. (2024) Targeted integrative learning via a directional distance segmented regression. In revision.

[121] Zhou, M., Ke, A., Wang, X., Chen, K., Wang, F., and Su, C. (2024) Elucidating molecular networks underpinning heterogeneity in Parkinson's disease progression across clinical manifestation spectrum. *medRxiv*.

SOFTWARE

[122] Li, Y. and Chen, K. *fmerPack: Tools of Heterogeneity Pursuit via Finite Mixture Effects Model* (2021). R package version 0.0-1.

[123] Zhe, S. and Chen, K. *Compack: Regression with Compositional Covariates* (2020). R package version 0.1.0.

[124] Wang, W., Chen, K., and Yan, J. *intsurv: Integrative Survival Modeling* (2019). R package version 0.2.0.

[125] Li, Y., Chen, K., and Yan, J. *tls: Tools of Total Least Squares in Error-in-Variables Models* (2018). R package version 0.1.0.

[126] Chen, K. *rrpack: Reduced-Rank Regression* (2017). R package version 0.1-5.

(Some computational packages are available at kun-chen.uconn.edu/code/.)

GRANTS

(The listed dollar amount is the amount awarded or sub-contracted to Chen, if not otherwise specified.)

CURRENT

– **PI & Co-PI Grants**

- Elucidating the impact of nano-agrichemicals on paddy soil health and rice production through combined greenhouse studies and machine learning.
  - Role: Co-PI
  - Agency: USDA (2023-67021-39755)
  - Period: 04/01/2023–03/31/2027
  - Amount: $153,329
- Integrative learning of fluorescence fluctuations in perovskite quantum dots using a data science assisted single-particle approach.
  - Role: Co-PI
  - Agency: National Science Foundation (CHE-2203854)
  - Period: 09/01/2022–08/31/2026
  - Amount: $336,570
- Coupling risk screening and predictive algorithms to improve the identification of patients at risk for suicidal behavior.

  - Role: PI
  - Agency: Alan R. Bennett Public Health Policy Research
  - Period: 06/2024–12/2025
  - Amount: $30,000

- **Co-I Grants**
  - Exploring cumulative social determinants burden, cancer, and accelerated aging: The role of physical activity as a moderator.
    - Role: Co-I
    - Agency: National Institutes of Health (R03CA297274)
    - Period: 12/01/2024–11/30/2026

COMPLETED

- **PI & Co-PI Grants**
  - Developing suicide risk algorithms for diverse clinical settings using data fusion.
    - Role: MPI
    - Agency: National Institutes of Health (R01-MH124740)
    - Period: 09/16/2020–06/30/2025
    - Amount: $868,482
  - Comprehensive heterogeneous response regression from complex data.
    - Role: PI
    - Agency: National Science Foundation (IIS-1718798)
    - Period: 09/01/2017–08/31/2021
    - Amount: $250,000
  - Integrative multivariate analysis with multi-view data.
    - Role: PI
    - Agency: National Science Foundation (DMS-1613295)
    - Period: 09/01/2016–08/31/2020
    - Amount: $150,000
  - Structured low rank modeling for multivariate statistical learning.
    - Role: PI
    - Agency: Simons Foundation (#359404)
    - Period: 09/2015–08/2020
    - Amount: $35,000

- **PI on Subcontract**
  - Improving suicide prediction using NLP-derived social determinants of health.
    - Role: PI on sub-award (PI: Dr. Hong Yu at UMass & VA)
    - Agency: National Institutes of Health (R01-MH125027)
    - Period: 09/01/2020–06/30/2025
    - Amount: $327,629

- Reciprocal modulation of the microbiome and cellular senescence in metabolic dysfunction.
  - Role: PI on sub-award (PI: Dr. Yanjiao Zhou at UCHC)
  - Agency: National Institutes of Health (R01-AG068860)
  - Period: 09/10/2020–05/31/2025
  - Amount: $234,127
- Improving identification of pediatric patients at risk of child physical abuse.
  - Role: PI on sub-award (PI: Amy A. Hunter)
  - Agency: The Patterson Foundation
  - Period: 01/31/2023–01/30/2025
- Improving the identification of patients at risk of suicide.
  - Role: PI on sub-award (PI: Dr. Robert Aseltine)
  - Agency: National Institutes of Health (R01-MH112148)
  - Period: 07/01/2017–06/30/2023
  - Amount: $456,550
- Improving the identification and management of suicide risk among patients using prescription opioids (HEAL Supplement).
  - Role: PI on sub-award (PI: Dr. Robert Aseltine)
  - Agency: National Institutes of Health (R01-MH112148-03S1)
  - Period: 09/18/2020–06/30/2022
  - Amount: $346,074
- An integrative statistics-guided image-based multi-scale lung model.
  - Role: PI on sub-award (PI: Dr. Ching-Long Lin at UIowa)
  - Agency: National Institutes of Health (U01-HL114494)
  - Period: 08/01/2013–05/31/2018
  - Amount: $173,521
- Garrett Lee Smith Suicide Prevention.
  - Role: PI on sub-award
  - Agency: U.S. Substance Abuse and Mental Health Services Administration
  - Period: 07/01/2016–12/31/2016
  - Amount: $20,995
- New England eConsult Network.
  - Role: PI on sub-award
  - Agency: New England eConsult Network
  - Period: 01/19/2016–05/30/2016
  - Amount: $23,207

– **Co-I Grants**

- Double jeopardy? Social determinants of health and accelerated aging in breast cancer survivors.
  - Role: Co-I

  - Agency: Connecticut Breast Health Initiative (CTBHI)
  - Period: 06/2024–06/2025
  - Amount: $50,000 (total)
- Conference: UConn Sports Analytics Symposium: engaging students into data science.
  - Role: Co-I
  - Agency: National Science Foundation (DMS-2219336)
  - Period: 09/01/2022–08/31/2025
- Modeling and analysis of large insurance claim and occurrence data: a partnership between UConn & Travelers.
  - Role: Co-I
  - Agency: Travelers Insurance
  - Period: 08/01/2016–07/31/2020

– **Internal Grants**

- Social determinants of health and accelerated aging in adults with cancer: Leveraging the All of Us research program.
  - Role: Co-PI
  - Agency: CLAS Summer Research Funding
  - Period: 05/23/2023–08/22/2023
  - Amount: $22,362 (total)
- Leadership Fellow.
  - Role: PI
  - Agency: CLAS Dean's Office
  - Period: 2022–2023
  - Amount: $7,500
- Understanding community- and individual-level factors underlying firearm violence in America: Focus on the State of Connecticut.
  - Role: Co-PI
  - Agency: The Interdisciplinary CLAS Pilot Grant Program
  - Period: 12/2019–12/2020
- Data Science Lab: Real-world data science problems meet future data scientists.
  - Role: PI
  - Agency: UConn CLAS Fund for Innovative Education in Science
  - Period: 01/01/2017–12/31/2019
  - Amount: $65,000
- Integrative multivariate analysis with multiple sets of variables of high dimensionality.
  - Role: PI
  - Agency: UConn Faculty Large Grant
  - Period: 01/01/2014–12/31/2014

  - Amount: $19,399
- High-dimensional multivariate modeling via matrix decomposition and regularization.
  - Role: PI
  - Agency: K-State Faculty Enhancement Award
  - Period: 01/01/2012–12/31/2012
  - Amount: $10,000

PENDING

- Advancing rare-event inference via cross-phenotype and cross-site ranking consolidation
  - Role: PI
  - Agency: Patient-Centered Outcomes Research Institute (PCORI)
- Impact of social and behavioral determinants of health on aging and Alzheimer's disease
  - Role: MPI
  - Agency: National Institutes of Health

TEACHING

@DEPARTMENT OF STATISTICS, UNIVERSITY OF CONNECTICUT

- STAT:5915 Data Science in Action (3 cr., graduate level)
- STAT:6494 Modern Dimension Reduction with Big Data (3 cr., graduate level)
- STAT:5725 Linear Statistical Models I (3 cr., graduate level)
- STAT:6694 Linear Statistical Models II (3 cr., graduate level)
- STAT:5361 Statistical Computing (3 cr., graduate level)
- STAT:5665 Applied Multivariate Statistics (3 cr., graduate level)
- STAT:3375 Introduction to Mathematical Statistics (3 cr., undergraduate level)
- STAT: 3515/5515 Design of Experiments (3 cr., undergraduate and graduate levels)
- STAT:3115/5315 Analysis of Experiments (3 cr., undergraduate and graduate levels)

@DEPARTMENT OF STATISTICS, KANSAS STATE UNIVERSITY

- STAT:905 High Dimensional Data and Statistical Learning (3 cr., graduate level)
- STAT:730 Multivariate Statistical Methods (3 cr., graduate level)
- STAT:510 Introductory Probability and Statistics (3 cr., undergraduate level)

@DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE, UNIVERSITY OF IOWA

- 22S:101 Biostatistics (3 cr., undergraduate level)

SHORT COURSES

- "Integrative Multivariate Statistical Learning in Healthcare Research with Real-World Data". Half-day short course, with Dingfeng Jiang. 2017 ICSA Applied Statistics Symposium, Chicago, IL. June 2017.

– "Practical Integrative Statistical Learning: Recent Developments and Case Studies". Full-day short course, with Robert Aseltine. The 31st New England Statistics Symposium, Storrs, CT. April 2017.
– "Modern Multivariate Statistical Learning: Methods and Applications". Full-day short course, with Jun Yan. The 29th New England Statistics Symposium, Storrs, CT. April 2015.

STUDENTS

CURRENT PH.D. STUDENTS

– Ran You, UConn Statistics (2025–)
– Ziyue Li, UConn Statistics (2024–)
– Franky Zhang, UConn Statistics (2023–)
– Xiaohui Yin, UConn Statistics (2022–)
– Xin Yang, UConn Statistics (2022–).

PH.D. GRADUATES

(Student placement at the time of graduation is listed. Please check here for more recent news about my students.)

– Jing Wang. UConn Statistics (Defended June 2025; Joint with HaiYing Wang). Optimal subsampling methods and their applications for rare-events and transfer learning. **Postdoc at Penn**.
– Jiadong Fang. UConn Statistics (Defended December 2024; Joint with Yuwen Gu). Quantile and expectile regression with rare feature aggregation. **Statistician at Abbvie**.
– Jin (Bruce) Jin. UConn Statistics (Defended July 2024). On large-scale transfer learning with heterogeneous data. **Assistant Professor, Department of Epidemiology and Biostatistics, Michigan State University**.
– Boyang Tang, UConn Statistics (Defended September 2023). Stagewise majorization minimization algorithms for regularized learning with applications. **Statistician at FDA**.
– Jianmin Chen, UConn Statistics (Defended July 2023). Tree-guided rare feature selection and logic aggregation. **Postdoc at Penn (now Assistant Professor, Xiameng University, China)**.
– Zhongmao Liu, UConn Statistics (Defended July 2023). Pursuing sources of heterogeneity in microbiome community structure. **Statistician at FDA**.
– Biju Wang, UConn Statistics (Defended July 2021). On targeted integrative learning via distance segmented regression. **Biostatistician at Johnson & Johnson**.
– Wanwan Xu, UConn Statistics (Defended June 2021). Topics on statistical data fusion with public health applications. **Postdoc at Yale**.
– Yan Li, UConn Statistics (Defended June 2021; Joint with Jun Yan). Amalgamation-based statistical learning for compositional data. **Postdoc at University of Michigan (now Assistant Professor, Auburn University)**.
– Zhe Sun, UConn Statistics (Defended April 2021). On statistical modeling of longitudinal compositional data with applications in a preterm infant study. **Postdoc at Yale**.

– Xiaokang Liu, UConn Statistics (Defended April 2020). Integrative multivariate learning via composite low-rank decompositions. **Postdoc at Penn (now Assistant Professor, University of Missouri, Columbia)**.
– Wenjie Wang, UConn Statistics (Defended August 2019; Joint with Jun Yan). Integrative survival analysis with application to suicide risk. **Senior Research Scientist, Eli Lilly and Company**.
– Aditya Mishra, UConn Statistics (Defended August 2017; Joint with Dipak Dey). On sequential estimation of multivariate associations. **Postdoc at Simons Foundation (now Assistant Professor, University of Georgia)**.
– Chongliang Luo, UConn Statistics (Defended July 2017; Joint with Dipak Dey). On integrative reduced-rank models and applications. **Postdoc at UCHC and Penn (now Assistant Professor, Washington University in St. Louis)**.
– Gregory Vaughan, UConn Statistics (Defended July 2017; Joint with Jun Yan). Stagewise estimating equations. **Assistant Professor, Bentley University, Waltham, MA (now Associate Professor and Department Chair)**.
– Xiuqin Bai, K-State Statistics (Defended June 2014; Joint with Weixin Yao). Robust fitting of mixture regression models. **Assistant Professor, Eastern Washington University (now Associate Professor, Kansas State University)**.
– Chun Yu, K-State Statistics (Defended May 2014; Joint with Weixin Yao). Robust mixture modeling. **Assistant Professor, Jiangxi University of Finance and Economics, China (now Associate Professor)**.

M.S. GRADUATES

– Indu Seetharaman, K-State Statistics (defended May 2013). Composite bridge regression for bi-level selection.
– Rohan Khatavkar, K-State Statistics (defended June 2013). Sparse and orthogonal singular value decomposition.

POST DOC.

– Shane Sacco (June 2021– June 2024). **Assistant Professor, School of Medicine, UConn Health Center**.
– Chongliang Luo (August 2017 – August 2018). **Assistant Professor, School of Medicine, Washington University at St. Louis**.

VISITING SCHOLAR

– Jian Liang, Tsinghua University, Beijing, China. 03/2016–09/2016.

STUDENT ACHIEVEMENTS & AWARDS

– Xin Yang, Student Research Award, from the 38th New England Statistics Symposium in 2025.
– Xiaohui Yin, Student Paper Award, from the Mental Health Statistics Section of the American Statistical Association in 2024.
– Jianmin Chen, Poster Award, from the Conference Celebrating UConn Department of Statistics 60th Anniversary in October 2022.

- Jin Jun, Honorable Mention in Student Paper Competition, from the Section on Risk Analysis of the American Statistical Association in 2022.
- Zhe Sun, John van Ryzin Award for the Best Paper at ENAR 2020.
- Zhe Sun, ENAR Distinguished Student Paper Award, 2020.
- Yan Li, ENAR Distinguished Student Paper Award, 2020.
- Jackson Lautier, Graduate Research Fellowship Award, National Science Foundation, 2020.
- Yan Li, Student Research Award, from the 33rd New England Statistics Symposium in 2019.
- Xiaokang Liu, Student Research Award, from the 33rd New England Statistics Symposium in 2019.
- Xiaokang Liu, Honorable Mention in Student Poster Competition, from the Fourth International Workshop on the Statistical Analyses of Multi-outcome Data (SAM) in 2018.
- Wanwan Xu, Honorable Mention in Student Poster Competition, from the Fourth International Workshop on the Statistical Analyses of Multi-outcome Data (SAM) in 2018.
- Wenjie Wang, Student Research Award, the 31st New England Statistics Symposium in 2017.
- Gregory Vaughan, Student Paper Award, from the Mental Health Statistics Section of the American Statistical Association in 2017.
- Chongliang Luo, Student Paper Award, from the International Chinese Statistical Association in 2015.
- Gyuhyeong Goh, Student Paper Award, from the Section on Bayesian Statistical Science of the American Statistical Association in 2015.

PROFESSIONAL ACTIVITIES & SERVICES

PROFESSIONAL MEMBERSHIPS

- Fellow, American Statistical Association (ASA) 2022–
- Life Member, New England Statistical Society (NESS) 2017–
- Elected Member, International Statistical Institute (ISI) 2015–
- Member, International Biometrics Society, ENAR 2010–
- Life Member, International Chinese Statistical Association (ICSA) 2010–
- Member, Institute of Mathematical Statistics (IMS) 2009–
- Member, American Statistical Association (ASA) 2006–

LEADERSHIP POSITIONS

- Board Member, ICSA Board of Directors 2024–
- Steering Committee Member, Pharmaceutical Data Science Conference 2024–
- Steering Committee Member, New England Rare Disease Statistics Workshop 2019–
- Member, Connecticut All-Payer Claims Database (APCD) Data Release Committee (DRC), Office of Health Strategy, State of Connecticut 2017–

- President, Vice President, ASA CT Chapter 2022–2024
- Program Chair, Section on Statistical Computing, ASA 2022–2024
- Executive Secretary, NESS 2017–2021

EDITORIAL WORK

- Associate Editor, *Annals of Applied Statistics* 2023–
- Associate Editor, *Journal of Data Science* 2022–
- Editorial Board reviewer, *Journal of Machine Learning Research* 2020–
- Associate Editor, *Sankhya Series B* 2016–
- Co-Editor, 2015 ICSA Symposium Proceeding Book 2015

CONFERENCE ORGANIZATION

- Co-Chair of Program Committee. DahShu Data Science Symposium, Storrs, CT. October 2025
- Co-Chair of Organizing Committee. The 37th New England Statistics Symposium, Storrs, CT. May 2024
- Co-Chair of Organizing Committee. Pharmaceutical Data Science Conference. March 2024
- Co-Chair of Organizing Committee. New England Rare Disease Statistics Workshop. October 2023
- Co-Chair of Organizing Committee. ASA Statistical Computing in Action Mini-Symposium. November 2023
- Co-Chair of Organizing Committee. The 21st ASA-CT Mini-Conference. April 2023
- Co-Chair of Organizing Committee. ASA Statistical Computing in Action Mini-Symposium. 2022
- Associate Program Chair, 2022 Joint Statistical Meeting. 2022
- Co-Chair of Organizing Committee. The 35th New England Statistics Symposium, Storrs, CT. 2022
- Organizing Committee. The 34th New England Statistics Symposium, Providence, Rhode Island. 2021
- Organizing Committee. ASA-BI-NESS Webinar Series. 2019–
- Organizing Committee. UConn Sports Analytics Conference. 2019
- Program Committee. The 33rd New England Statistics Symposium, Hartford, CT. May 2019
- Organizing Committee. The 3rd Stat4Onc Annual Symposium, Hartford, CT. April 2019
- Co-Chair of Organizing Committee. Conference on Bayesian Modeling, Computation, and Applications, Storrs, CT. May 2018
- Organizing Committee; full-day short course instructor. The 31th New England Statistics Symposium, Storrs, CT. April 2017

UNIVERSITY & DEPARTMENT SERVICE

AT UCONN

- Chair, Committee on Awards 2022–
- Chair, Faculty Search Committee 2021–

- Member, Department 3 + 1 Admission Committee 2014–2023
- Member, Department Graduate Admissions Committee 2013–
- Member, CLAS Strategic Plan Advisory Committee 2022–2023
- Co-Chair, Q-Subcommittee of UConn General Education Oversight Committee 2018–2021
- Member, Committee of UConn General Education Oversight Committee 2018–2021
- Member, Q-Subcommittee of UConn General Education Oversight Committee 2014–2021
- Chair, Department Undergraduate Curriculum Committee 2016–2020
- Member, CLAS Curriculum & Course Committee 2016–2018
- Chair, Committee on New England Statistical Society 2016–2017
- Member, Department Colloquium Committee 2014–2018

AT K-STATE

- Chair, Ph.D. Exam Committee on Linear Models 2012–2013
- Chair, Department Seminar 2012–2013
- Member, Student Assessment Committee 2011–2013
- Member, Departmental Scholarships and Awards Committee 2011–2012
- Member, Graduate Student Progress Committee 2011–2012

PRESENTATIONS

INVITED TALKS

1. Colloquium Talk. Boston University. November 2025.
2. Colloquium Talk. Univeristy of Missouri. October 2025.
3. Invited Talk (virtual). International Conference on Statistical Optimization and Learning. Beijing, China. July 2025.
4. Invited Talk. ICSA China Conference, Zhuhai, China. June 2025.
5. Invited talk. UConn Early College Experience Workshop. May 2025.
6. Research & Scholarship Seminar. School of Nursing, UConn. March 2025.
7. Colloquium Talk. Department of Mathematics & Statistics, Binghamton University, Binghamton, New York. March 2025.
8. "Salvaging forbidden treasure in medical data: utilizing single-record data to improve rare event prediction." Conference on New Perspectives on the Analysis of Complex Multivariate Data, University of Minnesota, Twin Cities. May 2024.
9. Colloquium Talk. Center for Health Statistics, University of Massachusetts, Lowell, MA. February 2024.
10. Colloquium Talk (Virtual). University of Electronic Science and Technology of China, Chengdu, China. January 2024.
11. "Rare feature selection and logic aggregation through convex optimization." Eighth International Conference on Statistical Optimization and Learning. Beijing, China (virtual). December 30, 2023.
12. "Social Determinants of Health: Methods for Detection and Epidemiological and Clinical Applications." AMIA, New Orleans, LA. October 2023.
13. "Scalable and Interpretable Rare Feature Aggregation." ICSA China Conference, Chengdu, China. July 2023.

14. Colloquium Talk. Sichuan Normal University, Chengdu, China. June 2023.
15. Colloquium Talk. Chengdu University of Technology, Chengdu, China. June 2023.
16. "Scalable and interpretable rare feature aggregation." The 5th International Conference on Econometrics and Statistics (EcoSta 2022). June 2022.
17. "Scalable and interpretable rare feature aggregation." Department of Statistics, Kansas State University. April 2022.
18. "An amalgamation-based statistical learning paradigm for microbiome data." Biostatistics and Bioinformatics Branch at NICHD (virtual). January 2022.
19. "An amalgamation-based statistical learning paradigm for microbiome data." University of Pennsylvania (virtual). October 2021.
20. "An amalgamation-based and taxonomy-guided statistical learning paradigm for microbiome data." AISC 2021 (virtual). October 2021.
21. "Principal Amalgamation Analysis for compositional data." ENAR Spring Meeting (virtual). March 2021.
22. "Improving suicide risk prediction through integrative statistical learning." Guanghua Forum (virtual), Southwest University of Finance and Economics, Chengdu, China. September 2020.
23. "Large-scale integrative learning with applications." Syracuse University. November 2019.
24. "Targeted integrative learning with applications in suicide risk prediction." Mathematical Sciences, Worcester Polytechnic Institute. October 2019.
25. "Statistically guided divide-and-conquer for large-scale sparse matrix factorization." Department of Computer Science, University of Massachusetts Lowell. September 2019.
26. "Targeted integrative learning via distance segmented regression." Joint Statistical Meeting, Denver, CO. August 2019.
27. "Boosted sparse and low-rank tensor regression." 2019 Symposium on Data Science and Statistics, Seattle, WA. May 2019.
28. "Integrative Survival Analysis with Uncertain Event Times–Towards a Data Driven Suicide Prevention Framework." Department of Biostatistics, Yale University, New Haven, CT. April, 2019.
29. "Integrative Survival Analysis with Uncertain Event Times–Towards a Data Driven Suicide Prevention Framework." Mental Health Data Science, Department of Biostatistics, Columbia University, New York. December 2018.
30. "Integrative statistical learning with real world healthcare data: towards a data driven suicide prevention framework." 2018 Joint Statistical Meeting, Vancouver, Canada. August 2018.
31. "Stagewise Co-Sparse and Low-Rank Matrix Factorization." 2018 ICSA China Conference, Qingdao, China. July 2018.
32. "Sparse Log-Contrast Regression with Functional Compositional Predictors." The 8th International Forum on Statistics, Renmin University of China, Beijing, China. July 2018.
33. "Stagewise Co-Sparse Low-Rank Matrix Decomposition." 2018 ICSA Applied Statistics Symposium. New Brunswick, New Jersey. June 2018.
34. "Sparse Log-Contrast Regression with Functional Compositional Covariates." 2018 Modern Modeling Methods Conference. Storrs, CT. May 2018.
35. "Stagewise Co-Sparse and Low-Rank Matrix Factorization." Baruch College. New York. April 2018.

36. "Integrate, Divide, and Conquer: On Sparse and Low-Rank Multivariate Statistical Learning." School of Statistics, Beijing Normal University. Beijing, China. December 2017.
37. "Integrate, Divide, and Conquer: On Sparse and Low-Rank Multivariate Statistical Learning." School of Statistics, Renmin University of China. Beijing, China. December 2017.
38. "Integrate, Divide, and Conquer: On Sparse and Low-Rank Multivariate Statistical Learning." Health Informatics PIC Distinguished Speaker Series, IBM Watson Research Center, New York. November 2017.
39. "On Sparse and Low-Rank Models for Integrative Multivariate Statistical Learning." Biostatistics and Epidemiology, Weill Cornell Medical College, New York. November 2017.
40. "Dealing with uncertain suicidal deaths due to imperfect data integration: a first step towards a data-driven suicide prevention framework." Department of Mathematics and Statistics, Boston University, Boston, MA. October 2017.
41. "Integrative Cox regression for modeling uncertain survival records due to imperfect data integration." 2017 ICSA Applied Statistical Symposium, Chicago, IL. June 2017.
42. "Leveraging mixed and incomplete outcomes via reduced-rank regression." Modern Modeling Methods Conference, Storrs, CT. May 2017.
43. "On integrative learning of mixed and incomplete data." IMS/ASA Spring Research Conference, Rutgers University, New Brunswick, NJ. May 2017.
44. "Regularized mixture regression with mixed and incomplete outcomes." The 31st New England Statistics Symposium, Storrs, CT. April 2017.
45. "Using hospitalization and suicide mortality data to identify subpopulation of high suicide risk via survival modeling." AMIA 2016 Annual Symposium, Chicago, IL. November 2016.
46. "On large-scale predictive modeling of mixed and incomplete outcomes." Department of Mathematics & Statistics, University of Massachusetts, Amherst, MA. October 2016.
47. "Canonical variate regression for integrative analysis of genomics data."
    - Joint Statistical Meeting, Chicago. Topic-contributed session. August 2016.
    - Department of Biostatistics, Columbia University. Guest lecture. May 2016.
49. "Model diagnostics in reduced rank estimation." ICSA Applied Statistics Symposium, Atlanta, GA. June 2016.
50. "Robust multivariate mixture model via mean-shift penalization." Modern Modeling Methods Conference, Storrs, CT. May 2016.
51. "A tailored robust multivariate clustering approach via mean-shift penalization."
    - Center for Statistical Science, Peking University, Beijing, China. May 2016.
    - ICSA Conference on Data Science, Yunnan, China. July 2016.
53. "Sequential estimation in sparse factor regression."
    - Conference on Statistical Learning and Data Science, University of North Carolina at Chapel Hill. June, 2016.
    - Big Statistics & Data Science Joint Conference, Renmin University, China. May 2016.
    - Department of Statistics, Florida State University. April 2016.
    - Department of Mathematics and Statistics, Boston University. April 2016.
    - Department of Statistics, University of South Carolina. March 2016.
58. "Canonical variate regression."

- Department of Statistics, University of Missouri Columbia. September 2015.
- 60th World Statistics Congress (ISI 2015). August 2015.

60. "Linking lung airway structure to pulmonary function via hierarchical feature selection." ICSA Applied Statistics Symposium and 13th Graybill Conference, Fort Collins, CO. June 2015.
61. "Some recent developments on reduced rank modeling." Department of Mathematical Sciences, Worcester Polytechnic Institute, Worcester, MA. November 2014.
62. "On sparse and low-rank estimation in high dimensions." Department of Statistics, Kansas State University, Manhattan, KS. October 2014.
63. "On some low-rank models in multivariate time series analysis." International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC. October 2014.
64. "Sparse and orthogonal factor regression." 16th Meeting of New Researchers in Statistics and Probability. Harvard University, Boston, MA. August 2014.
65. "Sparse orthogonal factor regression in high dimensions with an application to eQTL data analysis."
    - WNAR Annual Meeting, Honolulu, HI. June 2014.
    - The 6th International Statistics Forum at Renmin University, Beijing, China. May 2014.
67. "Some recent developments on multivariate modeling." University of Science and Technology of China, Hefei, Anhui, China. May 2014.
68. "Sparse and low-rank regression in high dimensions. BIRS Workshop on Statistical and Computational Theory and Methodology for Big Data Analysis, Banff International Research Station, Banff, Alberta, Canada. February 2014.
69. "Source-sink reconstruction through regularized multi-component regression."
    - Department of Biostatistics, Brown University, Providence, RI. September, 2013.
    - IMS-China International Conference on Statistics and Probability, Chengdu, China. July 2013.
    - Department of Statistics, University of Connecticut, Storrs, CT. February 2013.
72. "Reduced rank estimation and its extensions." College of Mathematics and Software, Sichuan Normal University, Chengdu, China. June 2013.
73. "Adaptive reduced-rank estimation and its complexity." Department of Statistics and Actuarial Science, University of Iowa, Iowa City, IA. November 2012.
74. "Statistical source-sink reconstruction." Department of Statistics, Kansas State University, Manhattan, KS. October 2012.
75. "Regularized multivariate regression for rank reduction and variable selection." ICSA Applied Statistics Symposium, Boston, MA. June 2012.
76. "Some dimension reduction methods in high-dimensional multivariate regression." Department of Mathematics, Kansas State University, Manhattan, KS. April 2012.
77. "Reduced-rank stochastic regression with sparse singular value decomposition."
    - Distinguished Student Paper Award, ENAR Spring Meeting, Miami, FL. March 2011.
    - Department of Statistics, Kansas State University, Manhattan, KS. February 2011.
    - Department of Statistics, Oregon State University, Corvallis, OR. February 2011.

- Department of Mathematics, Wake Forest University, Winston-Salem, NC. February 2011.
- Department of Statistics, University of Wyoming, Laramie, WY. January 2011.
- Department of Statistics, Western Michigan University, Kalamazoo, MI. January 2011.
- Department of Statistics & Actuarial Science, University of Iowa, Iowa City, IA. September 2010.

84. "Statistical methods, cellular automata models and wavelets." International Workshop on Predator-prey Interactions in Marine Ecosystems, Oregon State University, Corvallis, OR. March 2010.