Curriculum Vitae

Department of Biostatistics
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EDUCATION

Ph.D.	Department of Statistics, The University of Michigan, Ann Arbor, 2001
Ph.D. Candidate	Department of Mathematics, Purdue University, West Lafayette, 1995-1996
M.S.	Department of Mathematics, The University of Science and Technology of China, Hefei, 1995
B.S.	Department of Mathematics, The University of Science and Technology of China, Hefei, 1993

PROFESSIONAL EXPERIENCE

Professor	Department of Biostatistics, The University of North Carolina, 2012 - present
Co-director	Carolina Survey Research Lab, Department of Biostatistics, The University of North Carolina, 2011 - 2019
Associate Professor	Department of Biostatistics, The University of North Carolina, 2007 - 2012
Visiting Professor	Department of Mathematics, Hong Kong University of Sci. & Tech., 2008 Nov
Visiting Professor	Mathematical Center, Peking University, Beijing, China, 2008 July - Oct
Assistant Professor	Department of Biostatistics, The University of North Carolina, 2001 - 2007
Research Assistant	Center for Statistical Consulting and Research, The University of Michigan, Ann Arbor, 2000 - 2001
Summer Intern	Merck Research Lab, Rahway, New Jersey, May-July, 2000
Teaching Assistant	Department of Statistics, The University of Michigan, Ann Arbor, 1996-2000
Teaching Assistant	Department of Mathematics, Purdue University, West Lafayette, 1995-1996
Teaching Assistant	Department of Mathematics, University of Science and Technology of China, Hefei, 1993-1995

HONORS & AWARDS

1. Delta Omega Faculty Award, Department of Biostatistics, The University of North Carolina, 2013.
2. Elected Fellow of American Statistical Association, 2011.
3. Elected Fellow of Institute of Mathematical Statistics, 2010.
4. Roy Kuebler Fund Award, Department of Biostatistics, The University of North Carolina, 2008.
5. Noether Young Scholar Award, American Statistical Association, 2008.

6. Junior Faculty Developmental Award, The University of North Carolina, 2006.
7. Center for AIDS Research Development Award, The University of North Carolina, 2002
8. Travel Award, Rackham Graduate School, The University of Michigan, 2001
9. Excellence Award in Qualifying Exams, Department of Statistics, The University of Michigan, 1997
10. Guo-Moruo Award, The University of Science and Technology of China, 1993
11. College Mathematical Contest Team Award, Academia Sinica of China, 1991

PROFESSIONAL MEMBERSHIPS (Active)

1. ENAR, AAAS
2. American Statistical Association
3. Institute of Mathematical Statistics
4. International Chinese Statistical Association

PEER REVIEWED PUBLICATIONS (METHODOLOGICAL PART)

1. Chen, Y., **Zeng, D.**, and Wang, Y. (2020). Learning Individualized Treatment Rules for Multi-Domain Latent Outcomes. *Journal of the American Statistical Association*, in press.
2. Zhu, A., **Zeng, D.**, Li, S., Xia, N., Li, L., and Zhang, P. (2020). A Super-Combo-Drug Test (SupCD-T) to Detect Adverse Drug Events and Drug Interactions from Electronic Health Records in the Era of Polypharmacy. *Statistics in Medicine*, in press.
3. Wu, P., **Zeng, D.**, Fu, H., and Wang, Y. (2020). On Using Electronic Health Records to Improve Optimal Treatment Rules in Randomized Trials. *Biometrics*, in press.
4. Sun, M., **Zeng, D.**, and Wang, Y. (2020). Modeling Temporal Biomarkers with Semiparametric Nonlinear Dynamic Systems. *Biometrika*, in press.
5. Xie, S., Li, X., McColgan, P., Scahill, R., **Zeng, D.**, and Wang, Y. (2020). Identifying Disease-Associated Biomarker Network Features Through Conditional Graphical Model. *Biometrics*, in press.
6. Zhou, X., Wang, Y. and **Zeng, D.** (2020). Multicategory Classification via Forward-Backward Support Vector Machine. *Communications in Mathematics and Statistics*, in press.
7. Tao, R., **Zeng, D.** and Lin, D. Y. (2020). Optimal Designs of Two-Phase Studies. *Journal of the American Statistical Association*, in press.
8. **Zeng, D.**, Pan, Z. and Lin, D. Y. (2020). Design and Analysis of Bridging Studies With Prior Probabilities on the Null and Alternative Hypotheses. *Biometrics*, in press.
9. Li, X., Li, Q., **Zeng, D.**, Marder, K., Paulsen, J. and Wang, Y. (2020) Time-varying Hazards Model for Incorporating Irregularly Measured, High-Dimensional Biomarkers. *Statistica Sinica*, in press.

10. Wu, P., **Zeng, D.** and Wang, Y. (2020). Matched Learning for Optimizing Individualized Treatment Strategies Using Electronic Health Records. *Journal of the American Statistical Association*, in press.

11. Li, X., **Zeng, D.**, Karen, M. and Wang, Y. (2020). Constructing Disease Onset Signatures Using Multi-Dimensional Network-Structured Biomarkers. *Biostatistics*, **21**, 122-138.

12. Tan, X., Liu, G., **Zeng, D.**, Wang, W., Diao, G., Heyse, J. and Ibrahim, J. (2019). Controlling False Discovery Proportion in Identification of Drug-Related Adverse Events from Multiple System Organ Classes. *Statistics in Medicine*, **38**, 4378-4389.

13. Sun, M., **Zeng, D.** and Wang, Y. (2019). Leveraging Nonlinear Dynamic Models to Predict Progression of Neuroimaging Biomarkers. *Biometrics*, **75**, 1240-1252.

14. Diao, G., **Zeng, D.**, Hu, K., and Ibrahim, J. (2019). Semiparametric Frailty Models for Zero-Inflated Event Count Data in the Presence of Informative Dropout. *Biometrics*, **75**, 1168-1178.

15. Hyun, N., **Zeng, D.**, Couper, D., and Pankow, J. (2019). Gumbel Regression Models for A Monotone Increasing Continuous Biomarker Subject to Measurement Error. *Journal of Statistical Planning and Inference*, **203**, 160-168.

16. Zhao, Y., **Zeng, D.**, Tangen, C., and LeBlanc, M. (2019). Robustifying Trial-Derived Optimal Treatment Rules for A Target Population. *Electronic Journal of Statistics*, **13**, 1717-1743.

17. Diao, G., Liu, G., **Zeng, D.**, Wang, W., Tan, X., Heyse, J., and Ibrahim, J. (2019). Efficient Methods for Signal Detection from Correlated Adverse Events in Clinical Trials. *Biometrics*, **5**, 1000-1008.

18. Wong, K. Y., Fan, C., Tanioka, M., Parker, J., Nobel, A., **Zeng, D.**, Lin, D. Y., and Perou, C. M. (2019). I-Boost: An Integrative Boosting Approach for Predicting Survival Time with Multiple Genomics Platforms. *Genome Biology*, **20**, 52.

19. Gao, F., Wang, Y. and **Zeng, D.** (2019). Early Diagnosis of Neurological Disease Using Peak Degeneration Ages of Multiple Biomarkers. *The Annals of Applied Statistics*, **2**, 1295-1318.

20. Jiang, B., Li, J., Rong, R. and **Zeng, D.** (2019). Entropy Learning for Dynamic Treatment Regimes (with Discussion). *Statistica Sinica*, **29**, 1633-1655.

21. Sun, Q., Zhu, R., Wang, T. and **Zeng, D.** (2019) Counting Process Based Dimension Reduction Methods for Censored Outcomes. *Biometrika*, **106**, 181-196.

22. Wong, K. Y., **Zeng, D.** and Lin, D. (2019) Robust Score Tests with Missing Data in Genomics Studies. *Journal of the American Statistical Association*, **114**, 1778-1786.

23. Zhu, W., **Zeng, D.** and Song, R. (2019). Proper Inference for Value Function in High-Dimensional Q-Learning for Dynamic Treatment Regimes. *Journal of the American Statistical Association*, **114**, 1404-1417.

24. Gao, F., **Zeng, D.**, Couper, D. and Lin, D. (2019). Semiparametric Regression Analysis of Multiple Right- and Interval-Censored Events. *Journal of the American Statistical Association*, **114**, 1232-1240.

25. Zhu, A., **Zeng, D.**, Zhang, P. and Li, L. (2019). Estimating Causal Log-Odds Ratio Using the Case-Control Sample and Its Application in the Pharmaco-Epidemiology Study. *Statistical Methods in Medical Research*, **28**, 2165-2178.

26. Liang, B., Wang, Y., and **Zeng, D.** (2019). Semiparametric Transformation Models with Multilevel Random Effects for Correlated Disease Onset in Families. *Statistica Sinica*, **29**, 1851-1871.

27. Li, X., Xie, S., McColgan, P., Tabrizi, S., Scahill, R., **Zeng, D.** and Wang, Y. (2018) Learning Subject-Specific Directed Acyclic Graphs with Mixed Effects Structural Equation Models from Observational Data. *Frontier in Genetics*, **9**, 430.

28. Zhou, X., Wang, Y. and **Zeng, D.** (2018) Outcome-Weighted Learning for Personalized Medicine with Multiple Treatment Options. *Proceeding of International Conference on Data Science and Advanced Analytics*, 2018:565-574..

29. Kim, S., **Zeng, D.** and Cai, J. (2018). Analysis of Multiple Survival Events in Generalized Case-Cohort Designs. *Biometrics*, **74**, 1250-1260.

30. Liu, Y., Wang, Y., Kosorok, M., Zhao, Y. and **Zeng, D.** (2018). Augmented Outcome-weighted Learning for Estimating Optimal Dynamic Treatment Regimens. *Statistics in Medicine*, **37**, 3776-3788.

31. Wang, Y., Fu, H. and **Zeng, D.** (2018). Learning Optimal Personalized Treatment Rules in Consideration of Benefit and Risk: with an Application to Treating Type 2 Diabetes Patients with Insulin Therapies. *Journal of the American Statistical Association*, **113**, 1-13.

32. Wong, A., **Zeng, D.** and Lin, D. Y. (2018). Efficient Estimation for Semiparametric Structural Equation Models With Censored Data. *Journal of the American Statistical Association*, **113**, 893-905.

33. Li, X., Xie, S., **Zeng, D.** and Wang, Y. (2018). Efficient l0-Norm Feature Selection Based on Augmented and Penalized Minimization. *Statistics in Medicine*, **37**, 473-486.

34. Qiu, X., **Zeng, D.** and Wang, Y. (2018). Estimation and Evaluation of Linear Individualized Treatment Rules to Guarantee Performance. *Biometrics*, **74**, 517-528.

35. Diao, G., **Zeng, D.**, Ke, C., Ma, H., Jiang, Q. and Ibrahim, J. (2018). Semiparametric Regression Analysis for Composite Endpoints Subject to Component-Wise Censoring. *Biometrika*, **105**, 403-418.

36. Gao, F., **Zeng, D.** and Lin, D. (2018). Semiparametric Regression Analysis of Interval-Censored Data With Informative Dropout. *Biometrics*, **74**, 1213-1222.

37. Zhang, P., Li, M., Chiang, C., Xiang, Y., Cheng, L., Feng, W., Schleyer, T., Quinney, S., Wu, H., **Zeng, D.** and Li, L. (2018). A Three-Component Mixture Model Based Adverse Drug Event Signal Detection for the Adverse Event Reporting System. *Pharamacometrics & Systems Pharmacology*, **7**, 499-506.

38. **Zeng, D.**, Hyun, N. and Cai, J. (2018). Semiparametric Additive Model for Estimating Risk Difference in Multicenter Studies. *Biostatistics and Epidemiology*, **2**, 84-98.

39. Diao, G., Dong, J., **Zeng, D.**, Ke, C., Rong, A. and Ibrahim, J. (2018). Biomarker Threshold Adaptive Designs for Survival Endpoints. *Journal of Biopharmaceutical Statistics*, **13**, 1-17.

40. Zhang P., Wu H., Chiang C., Wang L., Binkheder S., Wang X., **Zeng D.**, Quinney S.K., and Li L. (2018). Translational Biomedical Informatics and Pharmacometrics Approaches in The Drug Interactions Research. *Pharmacometrics & Systems Pharmacology*, **7**, 90-102.

41. Wang, X., Zhang, P., Chiang, C., Wu, H., Shen, L., Ning, X., **Zeng, D.**, Wang, L., Quinney, S., Feng, W. and Li, L. (2018). Mixture Drug-Count Response Model for the High Dimensional Drug Combinatory Effect on Myopathy. *Statistics in Medicine*, **37**, 673-686.

42. Choi, J., **Zeng, D.**, Olshan, A. F. and Cai, J. (2018). Joint Modeling of Survival Time and Longitudinal Outcomes with Flexible Random Effects. *Lifetime Data Analysis*, **24**, 126-152.

43. **Zeng, D.**, Pan, J., Hu, K., Chi, E. and Lin, D. Y. (2017). Improving the Power to Establish Clinical Similarity in a Phase 3 Efficacy Trial by Incorporating Prior Evidence of Analytical and Pharmacokinetic Similarity. *Journal of Biopharmaceutical Statistics* , **28**, 320-332.

44. Gao, F., Liu, G., **Zeng, D.**, Xu, L., Lin, B., Diao, G., Glom, G., Hyese, J., and Ibrahim, J. (2017). Control-based Imputation for Sensitivity Analyses in Informative Censoring for Recurrent Event Data. *Pharmaceutical Statistics*, **16**, 424-432.

45. Diao, G., **Zeng, D.**, Hu, K., and Ibrahim, J. (2017). Modeling Event Count Data in The Presence of Informative Dropout with Application to Bleeding and Transfusion Events in Myelodysplastic Syndrome. *Statistics in Medicine*, **36**, 3475-3494.

46. Gao, F., Dong, J., **Zeng, D.**, Rong, A. and Ibrahim, J. (2017). Pattern Mixture Models for Clinical Validation of Biomarkers in The Presence of Missing Data. *Statistics in Medicine*, **36**, 2994-3004.

47. Choi, J., **Zeng, D.** and Cai. J. (2017). Penalized Likelihood Approach for Simultaneous Analysis of Survival Time and Binary Longitudinal Outcome. *Sankhya B*, **79**, 190-216.

48. Gao, F., **Zeng, D.** and Lin, D. Y. (2017). Semiparametric Estimation of the Accelerated Failure Time Model with Partly Interval-censored Data. *Biometrics*, **73**, 1161-1168.

49. Diao, G., **Zeng, D.**, Ibrahim, J., Rong, A., Lee, O., Zhang, K. and Chen, Q. (2017). Statistical Design of Non-Inferiority Multiple Region Clinical Trials to Assess Global and Consistent Treatment Effects. *Journal of Biopharmaceutical Statistics*, **27**, 933-944.

50. Tao, R., **Zeng, D.** and Lin, D. Y. (2017). Efficient Semiparametric Inference Under Two-Phase Sampling, With Applications to Genetic Association Studies. *Journal of the American Statistical Association*, **112**, 1468-1476.

51. **Zeng, D.**, Gao, F. and Lin, D. Y. (2017). Maximum Likelihood Estimation for Semiparametric Regression Models with Multivariate Interval-Censored Data. *Biometrika*, **104**, 505-525.

52. Song, R., Luo, S., **Zeng, D.**, Zhang, H. H., Lu, W. and Li, Z. (2017). Semiparametric Single-Index Model for Estimating Optimal Individualized Treatment Strategy. *Electronic Journal of Statistics*, **11**, 364-384.

53. Chen, H., **Zeng, D.**, and Wang, Y. (2017). Penalized Nonlinear Mixed Effects Model to Identify Biomarkers that Predict Disease Progression. *Biometrics*, **73**, 1343-1354.

54. Liu, Z., Song, R., **Zeng, D.** and Zhang, J. (2017). Principal Components Adjusted Variable Screening. *Computational Statistics and Data Analysis*, **110**, 134-144.

55. Mao, L., Lin, D. and **Zeng, D.** (2017). Semiparametric Regression Analysis of Interval-Censored Competing Risks Data. *Biometrics*, **73**, 857-865.

56. Deng, Y., **Zeng, D.**, Zhao, J. and Cai, J. (2017). Proportional Hazards Model with a Change Point for Clustered Event Data. *Biometrics*, **73**, 835-845.

57. Gao, F., Liu, G., **Zeng, D.**, Diao, G., Heysey, J. F. and Ibrahim, J. (2017). On Inference of Control-based Imputation for Analysis of Repeated Binary Outcomes with Missing Data. *Journal of Biopharmaceutical Statistics*, **27**, 358-372.

58. Liu, Y., Wang, Y., Wang, C. and **Zeng, D.** (2017). Estimating Personalized Diagnostic Rules Depending on Individualized Characteristics. *Statistics in Medicine*, **36**, 1099-1117.

59. Liu, Y., Wang, Y. and **Zeng, D.** (2017). Sequential Multiple Assignment Randomization Trials with Enrichment Design. *Biometrics*, **73**, 378-390.

60. Liang, B., Tong, X., **Zeng, D.**, and Wang, Y. (2017) Semiparametric Regression Analysis of Repeated Current Status Data. *Statistica Sinica*, **27**, 1079-1100.

61. Gao, F., **Zeng, D.**, Wei, H., Wang, X., and Ibrahim, J. (2017). Estimating Treatment Effects for Recurrent Events in the Presence of Rescue Medications: An Application to the Immune Thrombocytopenia Study. *Statistics in Biosciences*, in press.

62. Chen, G., **Zeng, D.** and Kosorok, M. (2017). Personalized Dose Finding Using Outcome Weighted Learning (with discussion). *Journal of the American Statistical Association*, **111**, 1509-1521.

63. Kim, S., **Zeng, D.**, and Taylor, J. (2017). Joint Partially Linear Model for Longitudinal Data with Informative Drop-Outs. *Biometrics*, **73**, 72-82.

64. Wang, Y., Wu, P., Liu, Y., Weng, C., and **Zeng, D.** (2016). Learning Optimal Individualized Treatment Rules from Electronic Health Records Data. *IEEE International Conference on Healthcare Informatics: ICHI 2016 Proceedings*: 65-71. DOI 10.1109/ICHI.2016.13

65. Wang, Y., Chen, T. and **Zeng, D.** (2016). Support Vector Hazards Machine: A Counting Process Framework for Learning Risk Scores for Censored Outcomes. *Journal of Machine Learning*, **17**, 1-37.

66. Ou, F., **Zeng, D.**, and Cai, J. (2016). Quantile Regression Models for Current Status Data. *Journal of Statistical Planning and Inference*, **178**, 112-127.

67. Ni, A., Cai, J., and **Zeng, D.** (2016). Variable Selection for Case-Cohort Studies with Failure Time Outcome. *Biometrika*, **103**, 547-562.

68. **Zeng, D.**, Mao, L. and Lin, D. Y. (2016). Maximum Likelihood Estimation for Semiparametric Transformation Models with Interval-Censored Data. *Biometrika*, **103**, 253-271.

69. Laber, E. B., Zhao, Y-Q., Regh, T., Davidian, M., Tsiatis, A. A., Stanford, J. B., **Zeng, D.**, Song, R., and Kosorok, M. R. (2016). Using Pilot Data to Size A Two-Arm Randomized Trial to Find A Nearly Optimal Personalized Treatment Strategy. *Statistics in Medicine*, **35**, 1245-1256.

70. Chen, T., **Zeng, D.**, Wang, Y. and the Alzheimers Disease Neuroimaging Initiative (2015). Multiple Kernel Learning with Random Effects for Predicting Longitudinal Outcomes and Data Integration. *Biometrics*, **71**, 918-928.

71. Wang, Y., Liang, B., Tong, X., Marder, K., Bressman, S., Orr-Urtreger, A., Giladi, N. and **Zeng, D.** (2015). Efficient Estimation of Nonparametric Genetic Risk Function with Censored Data. *Biometrika*, **102**, 515-532.

72. Zhu, R., **Zeng, D.** and Kosorok, M. (2015). Reinforcement Learning Trees. *Journal of the American Statistical Association*, **110**, 1770-1784.

73. **Zeng, D.**, Gao, F., Hu, K., Jia, C. and Ibrahim, J. (2015). Hypothesis Testing for Two-Stage Designs with Over or Under Enrollment. *Statistics in Medicine*, **34**, 2417-2426.

74. Song, R., Kosorok, M., **Zeng, D.**, Zhao, Y., Laber, E. and Yuan, M. (2015). On Sparse representation for Optimal Individualized Treatment Selection with Outcome Weighted Learning. *Stat*, **4**, 59-68.

75. Kim, E., **Zeng, D.** and Zhou, X. (2015). Semiparametric Transformation Models for Multiple Continuous Biomarkers in ROC Analysis. *Biometrical Journal*, **57**, 808-833.

76. Tao, R., **Zeng, D.**, Franceschini, N., North, K., Boerwinkle, E., and Lin, D. Y. (2015). Analysis of Sequence Data Under Multivariate Trait-Dependent Sampling. *Journal of the American Statistical Association*, **110**, 560-572.

77. **Zeng, D.** and Lin, D. Y. (2015). On Random-Effects Meta-Analysis. *Biometrika*, **102**, 281-294.

78. Cao, H., Churpek, M., **Zeng, D.** and Fine, J. (2015). Analysis of the Proportional Hazards Model with Sparse Longitudinal Covariates. *Journal of the American Statistical Association*, **110**, 1187-1196.

79. Zhao, Y., **Zeng, D.**, Laber, E., and Kosorok, M. (2015). New Statistical Learning Methods for Estimating Optimal Dynamic Treatment Regimes. *Journal of the American Statistical Association*, **110**, 583-598.

80. Cao, H., **Zeng, D.** and Fine, J. (2015). Regression Analysis of Sparse Asynchronous Longitudinal Data. *Journal of the Royal Statistical Society, Series B*, **77**, 755-776.

81. Song, R., Wang, W., **Zeng, D.** and Kosorok, M. (2015). Penalized Q-learning for Dynamic Treatment Regimens. *Statistica Sinica*, **25**, 901-920.

82. **Zeng, D.**, Chen, M. H., Ibrahim, J. G., Wei, R., Ding, B., Ke, C. and Jiang, Q. (2015). A Counterfactual P-value Approach for Benefit-Risk Assessment in Clinical Trials. *Journal of Biopharmaceutical Statistics*, **25**, 508-524.

83. Choi, J., Cai, J., **Zeng, D.**, and Olshan, A. F. (2015). Joint Analysis of Survival Time and Longitudinal Categorical Outcomes. *Statistics in Biosciences*, **7**, 19-47.

84. Chen, Q., **Zeng, D.**, Ibrahim, J., Chen, M. H., Pan, Z., and Xue, X. (2015). Quantifying the Average of the Time-varying Hazard Ratio via a Class of Transformations. *Lifetime Data Analysis*, **21**, 259-279.

85. Zhao, Y., **Zeng, D.**, Laber, E., Song, R., Yuan, M. and Kosorok, M. (2015). Doubly Robust Learning for Estimating Individualized Treatment with Censored Data. *Biometrika*, **102**, 151-168.

86. Yin, G., **Zeng, D.**, and Li, H. (2014). Censored Quantile Regression with Varying Coefficients. *Statistica Sinica*, **24**, 855-570.

87. **Zeng, D.**, Cornea, E., Dong, J., Pan, J. and Ibrahim, J. (2014). Assessing Temporal Agreement between Central and Local Progression-Free Survival Times. *Statistics in Medicine*, **34**, 844-858.

88. Chen, M-H., Ibrahim, J. G., **Zeng, D.**, Hu, K., and Jia, C. (2014). Bayesian Design of Superiority Clinical Trials for Recurrent Events Data with Applications to Bleeding and Transfusion Events in Myelodyplastic Syndrome. *Biometrics*, **70**, 1003-1013.

89. Lin, D. Y., Tao, R., Kalsbeek, W., **Zeng, D.**, and et al. (2014). Genetic Association Analysis Under Complex Survey Sampling: The Hispanic Community Health Study/Study of Latinos. *American Journal of Human Genetics*, **95**, 675-688.

90. Hu, W., Cai, J., and **Zeng, D.** (2014). Sample Size/Power Calculation for Stratified Case-cohort Design. *Statistics in Medicine*, **33**, 3973-3985.

91. Kim, E, Zhang, Z., Wang, Y., and **Zeng, D.** (2014). Power Calculation for Comparing Diagnostic Accuracies in a Multi-Reader, Multi-Test Design. *Biometrics*, **70**, 1033-1041.

92. Hu, Y., Lin, D.Y., Sun, W., and **Zeng, D.** (2014). A Likelihood-Based Framework for Association Analysis of Allele-Specific Copy Numbers. *Journal of the American Statistical Association*, **109**, 1533-1545.

93. **Zeng, D.** and Lin, D. (2014). Efficient Estimation of Semiparametric Transformation Models for Two-Phase Cohort Studies. *Journal of the American Statistical Association*, **109**, 371-383. PMC3960088

94. Chen, T., Wang, Y., Chen, H., Marder, K., and **Zeng, D.** (2014). Targeted Local Support Vector Machine for Age-Dependent Classification. *Journal of the American Statistical Association*, **109**, 1174-1187. PMC4183366

95. Agans, R., Jefferson, M., Bowling, M., **Zeng, D.**, Young, J and Silverbush, M. (2014). Enumerating the Hidden Homeless: Strategies to Estimate the Homeless Gone Missing from a Point-in-time Count. *Journal of Official Statistics*, **30** 215-299.

96. Zhang, Y., Chu, H. and **Zeng, D.** (2014). Evaluation of Incomplete Multiple Diagnostic Tests, with an Application in the Colon Cancer Family Registry Study. *Journal of Applied Statistics*, **41** 688-700.

97. Liu, X. and **Zeng, D.**. (2013). Variable Selection in Semiparametric Transformation Models for Right Censored Data. *Biometrika*, **100**, 859-876.

98. **Zeng, D.**, Ibrahim, J., Chen, M. H., Hu, K. and Jia, C. (2014). Multivariate Recurrent Events in the Presence of Multivariate Informative Censoring with Applications to Bleeding and Transfusion Events in Myelodyplastic Syndrome. *Journal of Biopharmaceutical Statistics*, **24** 429-442.

99. Zhou, H., Wang, X.. **Zeng, D.**, and Cai, J. (2014). Semiparametric Inference for Data with a Continuous Outcome from a Two-Phase Probability Sampling Scheme. *Journal of the Royal Statistical Society, Series B*, **76** 197-215.

100. Chen, M-H., Zhang, Y., Ibrahim, J., **Zeng, D.**, Chen, Q., Pan, Z., and Xue, X. (2014). Bayesian Gamma Frailty Models for Survival Data with Semi-Competing Risks and Treatment Switching. *Lifetime Data Analysis*, **20** 76-105.

101. Diao, G., **Zeng, D.** and Yang, S. (2013). Efficient Semiparametric Estimation of Short-Term and Long-Term Hazard Ratios with Right-Censored Data. *Biometrics*, **69** 840-849.

102. Ding, K., Kosorok, M., and **Zeng, D.** (2013). On the Local and Stratified Likelihood Approaches in Single-Index Hazards Model. *Communication in Mathematics and Statistics*, **1** 115-132.

103. Lu, W., Zhang, H. H., and **Zeng, D.** (2013). Variable Selection for Optimal Treatment Decision. *Statistical Methods in Medical Research*, **22** 493-504.

104. Lin, D. Y., **Zeng, D.**, and Tang, Z. (2013). Quantitative Trait Analysis in Sequencing Studies under Trait-dependent Sampling. *PNAS*, **110** 12247-12252.

105. Chen, Q., **Zeng, D.**, Mouna, A., Heinz, S. and Ibrahim, J. (2013). Estimating Time-varying Effects for Overdispersed Recurrent Events Data with Treatment Switching. *Biometrika*, **100** 339-354.

106. Wang, Y., Chen, H., **Zeng, D.**, Mauro, C., Duan, N. and Shear, K. (2013). Auxiliary Marker-Assisted Classification in the Absence of Class Identifiers. *Journal of the American Statistical Association*, **108** 553-564.

107. Kim, E. and **Zeng, D.** (2013). Semiparametric ROC Analysis Using Accelerated Regression Models. *Statistica Sinica*, **23** 829-852.

108. Zhang, H., **Zeng, D.**, Olschwang, S., and Yu, K. (2013). Semiparametric inference on the penetrances of rare genetic mutations based on a case-family design. *Journal of Statistical Planning and Inference*, **143** 368-377.

109. Kim, S., **Zeng, D.**, Li, Y., Spiegelman, D. (2013). Joint Modeling for Longitudinal and Cure-Survival Data. *Journal of Statistical Theory and Practice*, **7** 324-344.

110. Kim, S., **Zeng, D.**, Chambless, L., and Li, Y. (2012). Joint Models of Longitudinal Data and Recurrent Events with Informative Terminal Event. *Statistics in Biosciences*, **4**, 262-281.

111. Zhao, Y., **Zeng, D.**, Rush, J. and Kosorok, M. (2012). Estimating Individualized Treatment Rules Using Outcome Weighted Learning. *Journal of the American Statistical Association*, **107** 1106-1118.

112. **Zeng, D.**, Chen, Q., Chen, M-H, Ibrahim, J. and Amgen Research Group (2012). Estimating Treatment Effects with Treatment Crossovers via Semi-Competing Risks Models: An Application to a Colorectal Cancer Study. *Biometrika*, **99** 167-184.

113. Chen, L., Lin, D. Y. and **Zeng, D.** (2012). Checking Semiparametric Transformation Models with Censored Data. *Biostatistics*, **13** 18-31.

114. Chen, L., Lin, D. Y., and **Zeng, D.** (2012). Predictive Accuracy of Covariates for Event Times. *Biometrika*, **99** 615-630.

115. **Zeng, D.**, Cai, J. and Schaubel, D. E. (2011). Semiparametric Transformation Rate Model for Recurrent Event Data. *Statistics in Biosciences*, **3** 187-207.

116. Lin, D. Y. and **Zeng, D.** (2011). Correcting for Population Stratification in Genomewide Association Studies. *Journal of the American Statistical Association*, **106** 997-1008.

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2. Poon, A. K., Meyer, M., Tanaka, H., Selvin, E., Pankow, J., **Zeng, D.**., Loehr, L., Knowles, J., Rosamond, W., and Heiss, G. (2020). Association of Insulin Resistance, from Mid-Life toLate-Life, with Aortic Stiffness in Late-Life: The Atherosclerosis Risk in Communities Study. *Cardiovascular Diabetology*, in press.

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4. Kallwitz, E., Tayo, B., Kuniholm, M., Daviglus, M., **Zeng, D.**, Isasi, C., and Cotler, S. (2020). Association of HSD17B13 rs72613567:TA with non-alcoholic fatty liver disease in Hispanics/Latinos. *Liver International*, in press.

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56. Bullitt, E., Wolthousen, A. Brubaker, L. Lin, W., **Zeng, D**, and Van Dyke, T. (2006) Malignancy-Associated Vessel Tortuosity: A Computer-Assisted, MRA Study of Choroid Plexus Carcinoma in Genetically Engineered Mice. *American Journal of Neuroradiology*, **27**, 612-619.

57. Kuzmiak, C.M., Pisano, E.D., Cole, E.B., Johnson, R.E., and **Zeng, D.**, Burns, C. B., Roberto, C., Pavic, D., Lee, Y., Seo, B. K., Koomen, M., and Washburn, D. (2005). Comparison of Full-Field Digital Mammography to Screen-Film Mammography with Respect to Contrast and Spatial Resolution in Tissue Equivalent Breast Phantoms. *Medical Physics*, **32**, 3144-3150.

58. Mortamet, B., **Zeng, D.**, Gerig, G., Prastawa, M., and Bullitt, E. (2005). Effects of Healthy Aging Measured By Intracranial Compartment Volumes Using a Designed MR Brain Database. *Lecture Notes in Computer Science*, **3749**, 383-391.

59. Bullitt, E., **Zeng, D**, Gerig, G., Aylward, S., Joshi, S., Smith, J. K., Lin, W., and Ewend, M. G. (2005). Vessel Tortuosity and Brain Tumor Malignancy: A Blinded Study. *Academic Radiology*, **12**, 1232-1240. (**Recipient of the 2006 Herbert M. Stauffer Award for Best Clinical Paper 2005 by the Association of University Radiologists**).

60. Wohl, D., **Zeng, D.**, Stewart, P., Glomb, N., Alcorn, T., Jones, S., Handy, J., Fiscus, S., Weinberg, A., Gowda, D., and van der Horst, C. (2005). Cytomegalovirus Viremia, Mortality and CMV End-Organ Disease Among Patients with AIDS Receiving Potent Antiretroviral Therapies. *Journal of AIDS*, **38**, 538-544.

61. Cole, E.B., Pisano, E.D., **Zeng, D.**, Muller, K., Aylward, S. R., Park, S., Kuzmiak, C., Koomen, M., Pavic, D., Walsh, R., Baker, J., Gimenez, E. I., and Freimanis, R. (2005). The Effects of Grey Scale Image Processing on Digital Mammography Interpretation Performance. *Academic Radiology*, **12**, 585-595.

62. Abrams, T., Milner, D, Kwiek, J., Mwapasa, V., Kamwendo, D., **Zeng, D.** Tadesse, E., Lema, V. M., Molyneux, M. E., Rogersonm, S. J., and Meshnick, S.R. (2004). Risk Factors and Mechanisms of Preterm Delivery in Malawi. *American Journal of Reproductive Immunology*, **52**, 174-183.

63. Murray, M., Meyer, W., Zaino, R., Lessey, B., Novotny, D., Ireland, K., **Zeng, D.**, and Fritz, M. (2004). A Critical Reanalysis of the Accuracy, Reproducibility, and Clinical Utility of Histologic Endometrial Dating: A Systematic Study of the Secretory Phase in Normally Cycling, Fertile Women. *Fertility and Sterility*, **81**, 1333-1343.

64. Lin, G. and **Zeng, D.** (1999). Spatial Clusters of Diseases: Remodeling the Concept. *Geographic Information Sciences*, **5**, 175-180.

BOOK CHAPTERS

1. Chen, Y., Liu, Y., **Zeng, D.** and Wang, Y. (2020). Statistical Learning Methods for Optimizing Dynamic Treatment Regimes in Subgroup Analysis. *Design and Analysis of Subgroups with Biopharmaceutical Applications*, edited by Ting, D., Cappelleri, J., Ho, S. and Chen, D., Springer.

2. **Zeng, D.** and Lin, D. (2018). Maximum Likelihood Estimation for Case-Cohort and Nested Case-Control Studies. *Handbook of Statistical Methods for Case-Control Studies*, edited by Borgan, O., Breslow, N., Chatterjee, N., Gail, M. Scott, A. ad Wild, C. Chapman & Hall/CRC.

3. Diao, G., **Zeng, D.** and Lin, D. (2018). Analysis of Secondary Phenotype under Case-Control Design. *Handbook of Statistical Methods for Case-Control Studies*, edited by Borgan, O., Breslow, N., Chatterjee, N., Gail, M. Scott, A. ad Wild, C. Chapman & Hall/CRC.

4. Chen, G. and **Zeng, D.** (2016). Clinical Trials for Personalized Dose Finding. *Adaptive Treatment Strategies in Practice*. Edited by M. Kosorok and E. Moodie. Series: ASA-SIAM Series on Statistics and Applied Mathematics.

5. Cai, J., **Zeng, D.** and Deng, Y. (2015). Cox Proportional Hazard Model. *Methods and Applications of Statistics in Clinical Trials, Volume 2: Planning, Analysis, and Inferential Methods*, in press.

6. Guo, S. and **Zeng, D.** (2014). An Overview of Semiparametric Models in Survival Analysis Journal of Statistical Planning and Inference. *Journal of Statistical Planning and Inference*, **151**, 1-16.

7. Zhang, Y., Chen, Q., Chen, M-H., Ibrahim, J., **Zeng, D.**, Pan, Z. and Xue, X. (2013). Bayesian Analysis of Survival Data with Semi-Competing Risks and Treatment Switching. *International Chinese Statistical Association 2012 Proceeding*: Springer.

8. Zhao, YQ. and **Zeng, D.** (2013). Recent Development on Statistical Methods for Personalized Medicine Discovery. *Frontiers of Medicine*: Springer-Verlag.

9. Amorim, L., Cai, J. and **Zeng, D.** (2010). Proportional Rate Models for Recurrent Time Event Data under Dependent Censoring: A Comparative Study. *Recent Advances in Biostatistics: False Discovery, Survival Analysis and Other Topics*.

10. **Zeng, D.** and Yu, D. (2009). Kernel Estimation in Longitudinal Data with Outcome-Related Observation Times. *Frontiers of Biostatistics and Bioinformatics*: University of Science and Technology of China Press.

11. **Zeng, D.** and Cai, J. (2009). Additive-Accelerated Rate Model for Recurrent Event. *New Developments in Biostatistics and Bioinformatics*, edited by Fan, Lin and Liu.

12. Cai, J. and **Zeng, D.** (2009). Overview of Semi-parametric Inferential Methods for Time-to-Event Endpoints. *Design and Analysis of Clinical Trials with Time-to-Event Endpoints*: CRC Press.

13. Cai, J. and **Zeng, D.** (2008). Cox Proportional Hazards Model. *Wiley Encyclopedia of Clinical Trials*, edited by D'Agostino, Sullivan and Joseph Massaro. Wiley.

OTHER PUBLICATIONS

1. Yang, S. and **Zeng, D.** (2018). Discussion on "Penalized Spline of Propensity Methods for Treatment Comparison". *Journal of the American Statistical Association*, **114**, 30-32.

2. Stewart, T., **Zeng, D.**, and Wu, M. (2018). Constructing Support Vector Machines with Missing Data. *WIREs Computational Statistics*, **10**, e1411.

3. Zhang, P., Wu, H., Chiang, C., Wang, L., Binkheder, S., Wang, X., **Zeng, D.**, Quinney, S. and Li, L. (2017). Translational Biomedical Informatics and Pharmacometrics Approaches in the Drug Interactions Research. *Pharmacometrics & Systems Pharmacology*, in press.

4. Chen, J., Liu, Y., **Zeng, D.**, Rong, R., Zhao, Y. and Kosorok, M. (2016). Discussion of "Bayesian Nonparametric Estimation for Dynamic Treatment Regimes with Sequential Transition Times". *Journal of the American Statistical Association*, **111**, 942-947.

5. Liu, Y., **Zeng, D.** and Wang, Y. (2014). Use of personalized Dynamic Treatment Regimes (DTRs) and Sequential Multiple Randomized Trials (SMARTs) in mental health studies. *Shanghai Arch Psychiatry*, **26**, 376-383.

6. Goldberg, Y., Song, R., **Zeng, D.**, and Kosorok, M. (2014). Discussion of "Dynamic treatment regimes: Technical challenges and applications". *Electronic Journal of Statistics*, **8**, 1290–1300.

7. Chen, H. and **Zeng, D.** (2014). Discussion of "Sparse Semiparametric Nonlinear Model with Application to Chromatographic Fingerprints" by Guo et al. *Journal of the American Statistical Association*, **2014**, 1339-1349.

8. **Zeng, D.** and Wang, Y. (2013). Discussion of "Generalized Jackknife Estimators of Weighted Average Derivatives" by Cattaneo et al. *Journal of the American Statistical Association*, **108**, 1243-1256.

9. **Zeng, D.** and Lin, D.Y. (2007). Discussion of "Analysis of Longitudinal Data with Drop-out: Objectives, Assumptions and a Proposal" by P. Diggle, D. Farewell and R. Henderson. *Journal of the Royal Statistical Society, (Series C)*, 56:544-545.

PRESENTATIONS

1. Invited talk: Combining Powers of Statistical Models and Machine Learning for Individualized Treatment Rules in EHRs. Ohio State University, 2020.

2. Invited talk: Learning Optimal Treatment Rules for Type-2 Diabetic Patients Using EHRs. ICSA, Hangzhou, 2019.

3. Invited talk: Estimation, Robust Testing and Design for Two-Phase Studies. University of Science and Technology of China, 2019.

4. Invited talk: Personalized Medicine Discovery through Machine Learning. University of Science and Technology of China, 2019.

5. Invited talk: Personalized Medicine Discovery through Machine Learning. Northeastern Normal University, 2019.

6. Invited talk: Integrative Analysis of Multiple Biomarkers in Electronic Health Records. JSM, 2019.

7. Invited talk: Integrating Multiple Trials to Learn Individualized Treatment Rules. ICSA, Raleigh, 2019.

8. Invited talk: Semiparametric Regression for Multivariate Interval-Censored and Right-Censored Data. LIDS, Pittsburgh, 2019.

9. Invited talk: Semiparametric Regression Analysis for Composite Endpoint Subject to Different Censoring. Duke-Industry Conference, Duke, 2019.

10. Invited talk: Support Vector Machine for Predicting Latent Disease Classes. Quantitative Psychology, UNC, 2019.

11. Invited talk: Learning Direct Acyclic Graph with Random Effect Models. Pisa, Italy, 2018.
12. Invited talk: Sequential Outcome-Weighted Learning for Optimal Individualized Rules with Multiple Treatments. UMN-IMA, 2018.
13. Invited talk: Estimation, Hypothesis Testing and Design in Two-Phase Studies. University of Waterloo, Waterloo, 2018.
14. Invited talk: AMOL for Personalized Medicine. University of Western Ontario, London ON, 2018.
15. Invited talk: Semiparametric Regression Analysis of Multiple Right- and Interval-Censored Events. JSM, Vancouver, 2018.
16. Invited talk: Estimating Drug-Induced Myopathy Risks Using Case-Control Sample from Electronic Medical Records. ICSA, New Brunswick, 2018.
17. Invited talk: Sequential Outcome-Weighted Learning for Optimal Individualized Rules with Multiple Treatments. SLDS, New York, 2018.
18. Invited talk: Estimation, Hypothesis Testing and Design for Two-Phase Studies. University of Pennsylvania, 2018.
19. Invited talk: Sequential Outcome-Weighted Learning for Optimal Individualized Rules with Multiple Treatments. ENAR, Atlanta, 2018.
20. Invited talk: Semiparametric Regression of Interval-Censored Data with Informative Dropout. JSM, Baltimore, 2017.
21. Short course: Statistical Methods for Personalized Medicine. Eastern Normal University of China, 2017.
22. Invited talk: SMARTer design for personalized medicine. IMS-NUS, 2017.
23. Invited talk: Personalized medicine discovery via statistical learning. IUPUI, 2017.
24. Tutorial: Personalized Medicine and Machine Learning. Merck, 2017.
25. Invited talk: Discussion for "Extraordinary Possibilities for Mobile Health to Impact Precision Medicine". Washington, DC, 2017.
26. Invited talk: Personalized medicine discovery through machine learning. Temple University, 2017.
27. Invited talk: Semiparametric regression for competing risks with interval censored data. ICSA, Shanghai, 2016.
28. Invited talk: Robust and hybrid learning for DTR. Fudan University, 2016.
29. Invited talk: SMART with enrichment design for dynamic treatment regimes. University of Pittsburgh, 2016.
30. Invited talk: Estimating treatment effects with treatment crossovers via semi-competing risks models. Duke-Industry Symposium, Duke, 2016

31. Invited talk: Semiparametric models for extreme-value distributed biomarkers with measurement error. Banff, 2016

32. Invited talk: Personalized medical diagnostics using SVM. Statistical Learning and Data Mining, UNC 2016.

33. Invited talk: SMART and SMARTer for dynamic treatment regimes. UNC causal inference working group, 2016.

34. Invited talk: Benefit and risk analysis in personalize medicine. ENAR, 2016.

35. Invited talk: Robust and hybrid learning for DTR. University of Missouri, 2016.

36. Invited talk: Personalized dose finding using outcome weighed learning. ICHIP, 2015.

37. Invited talk: Varying-coefficient proportional hazards model with biomarker signature. JSM, 2015.

38. Invited talk: SMART design with enrichment. Columbia University, New York, 2015.

39. Invited talk: AMOL for estimating dynamic treatment regimes. UNC-Charlotte, 2015.

40. Invited talk: Estimating personalized treatment regimes: from design to robust analysis. Duke University, 2015.

41. Invited talk: AMOL for estimating dynamic treatment regimes. Virginia Tech, 2014.

42. Invited talk: SMARTer design and AMOL for estimating DTRs. FDA, 2014.

43. Invited talk: AMOL for estimating dynamic treatment regimes. University of Minnesota, 2014.

44. Invited talk: New statistical learning for estimating dynamic treatment regimes. Hongkong Chinese University, 2014.

45. Invited talk: Outcome weighted learning for estimating dynamic treatment regimes. Shanghai Financial and Economic University, 2014.

46. Invited talk: Semiparametric efficient estimation in case-cohort study. Hongkong Polytech University, 2014.

47. Invited talk: Outcome weighted learning for personalized medicine. University of Science and Technology of China, 2014.

48. Invited talk: Efficient estimation in two-stage sampling designs. University of Wisconsin-Madison, 2014.

49. Invited talk: Outcome weighted learning for discovering personalized treatment regimes. University of South Carolina, 2013.

50. Invited talk: Adjust for informative missingness using high-dimensional auxiliary information. RTI, 2013.

51. Invited talk: Efficient estimation for two-phase cohort studies. Suzhou. 2013.

52. Invited talk: Outcome weighted learning for survival analysis. IMS-China, Chengdu. 2013.

53. Invited talk: Outcome weighted learning for censored data. New York University. 2013.
54. Invited talk: Outcome weighted learning for personalized medicine. New York Psychiatric Institute. 2013.
55. Contributed talk: Counterfactual p-values for benefit-risk assessment. JSM, 2012.
56. Invited talk: New learning methods for dynamic treatment regimes. 2nd Joint Biostatistical Symposium, Beijing, 2012.
57. Invited talk: Estimating treatment effect in cross-over study. Chinese Academia Sinica, Beijing, 2012.
58. Invited talk: OWL for personalized treatment selection. Chinese Academia Sinica, Beijing, 2012.
59. Invited lectures: Semiparametric models and statistical learning. Beijing Normal University, June-July, 2012.
60. Invited talk: Partial single index model for censored data. UT Houston, 2012.
61. Invited talk: Iterative OWL for dynamic treatment regime, ENAR, 2012.
62. Invited talk: Adjusting for population stratification in genome-wide association studies. IMS-China, Xi'an, 2011.
63. Invited talk: Prediction accuracy of multiple covariates for counting process. Beijing Normal University, Beijing, 2011.
64. Invited talk: Personalized treatment regimen for NSCLC. Renming University, Beijing, 2011.
65. Invited talk: Efficient estimation in the case-cohort study with transformation models. Chinese Academia Sinica, Beijing, 2011.
66. Invited talk: Partly single-index proportional hazards model. Chinese Academia Sinica, Beijing, 2011.Chinese Academia Sinica, Beijing, 2011.
67. Invited talk: Partly single-index proportional hazards model. University of Pittsburgh, 2011.
68. Invited talk: Analysis of longitudinal data with informative drop-out. George-Mason University, 2011.
69. Invited talk: Analysis of longitudinal data with informative drop-out. ENAR, Miami, 2011.
70. Invited talk: Prediction accuracy of multiple covariates for counting process. University of South Carolina, 2010.
71. Invited talk: Efficient estimation in the case-cohort study with transformation models. Brown University, 2010.
72. Invited talk: Partly single-index proportional hazards model. Columbia University, 2010.
73. Invited talk: Semiparametric transformation models for multiple biomarkers in the ROC analysis. Yale University, 2010.

74. Invited talk: Efficient estimation in the case-cohort study with transformation models. LCCC, UNC, 2009.

75. Invited talk: Efficient estimation in the case-cohort study with transformation models. JSM, 2009.

76. Invited talk: Efficient estimation in the case-cohort study with transformation models. ENAR, 2009.

77. Invited talks (4): Semiparametric models in health science. Hong Kong University of Science and Technology, Hong Kong, 2008.

78. Invited talk: Gamma-frailty transformation models with multivariate survival times. Hong Kong Baptist University, Hong Kong, 2008.

79. Invited talk: Semiparametric transformation models for current status data. National University of Singapore, Singapore, 2008.

80. Invited talk: Gamma-frailty transformation model with multivariate failure time data. Chinese Academy of Sciences, Beijing, 2008.

81. Invited talk: Gamma-frailty transformation model with multivariate failure time data. USTC, Hefei, 2008.

82. Invited talk: Doubly penalized likelihood with high-dimensional confounders. ENAR, Washington DC, 2008.

83. Invited talk: Transformation models for recurrent data with terminal event. University of Rochester, 2008.

84. Invited talk: Adjusting for informative missingness with high-dimensional auxiliary covariates. Kunming Conference, 2007.

85. Invited talk: Transformation models for recurrent data with terminal event. Zhejiang University, Hangzhou, 2007.

86. Invited talk: Semiparametrically Efficient estimation in the accelerated failure time model. Fudan University, Shanghai, 2007.

87. Invited talk: ransformation models for recurrent data with terminal event. JSM, Salt Lake City, 2007.

88. Invited talk: Semiparametrically efficient estimation in the accelerated failure time model. Presented at ICSA, Raleigh, 2007.

89. Efficient estimation in the accelerated failure time model. Presented at ENAR, Atlanta, 2007.

90. Invited talk: Efficient estimation in the accelerated failure time model. Presented at WNAR, Flagstaff, 2006.

91. Invited talk: Dependent censoring with high-dimensional auxiliary information. Presented at Academic Sinica of China, Beijing, 2006.

92. Invited talk: Transformation models for cure survival data. Presented at Academic Sinica of China, Beijing, 2006.

93. Invited talk: Transformation models for counting processes. Presented at Academic Sinica of China, Beijing, 2006.

94. Semiparametric transformation models for cure data. Presented at Joint Statistical Meeting, Minneapolis, 2005.

95. Transformation models in survival data. Presented at 8th New Researcher Conference, Minneapolis, 2005.

96. Invited talk: Semiparametric transformation models for counting process. SCROS conference at Clemson University, 2005.

97. Invited talk: Semiparametric transformation models for counting process. M.D. Anderson Cancer Center, 2005.

98. Invited talk: Semiparametric transformation models for survival data with a cure fraction. University of Pennsylvania, 2005.

99. Semiparametric linear transformation model with random effects for clustered survival times. Presented at ENAR, Pittsburgh, 2004.

100. Proportional odds model with random effects. Presented at Joint Statistical Meeting, San Francisco, 2003.

101. Invited talk: Analysis of longitudinal data when observation times are outcome-informative. Presented at American Statistical Association Chapter, Indianapolis, 2003.

102. Kernel estimation of longitudinal pattern with informative observation times. Presented at ENAR conference, Tampa, 2003.

103. Analysis of longitudinal data when observation times are outcome-related. Presented at ENAR conference, Washington DC, 2002.

104. Invited talk: Analysis of longitudinal data when observation times are outcome-informative. Presented at Department of Statistics in North Carolina State University, Raleigh, 2002.

105. Invited talk:Adjusting for dependent censoring using high-dimensional auxiliary information. Presented (joint with Murphy S.A.) at Joint Statistical Meeting presentation, Atlanta, 2001.

106. Invited talk: Adjusting for dependent censoring using high-dimensional auxiliary information. Presented (joint with Murphy S.A.) at WNAR, Vancouver, 2001.

107. Analyzing CGD data using wavelet transformation. Presented at Merck Research Lab, Rahway, 2000.

TEACHING ACTIVITIES

1. *Course taught in the past years or currently*

   Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2019 (40 students)

Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2018 (18 students)

Introduction to Statistical Learning and Personalized Medicine (BIOS 740), UNC-CH, Spring 2018 (38 students)

Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2016 (21 students)

Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2015 (20 students)

Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2013 (17 students)

Advanced Survey Sampling (BIOS740), UNC-CH, Spring 2013 (5 students)

Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2011 (12 students)

Statistical Learning and High-dimensional Data (BIOS 740), UNC-CH, Spring 2011 (16 students)

Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2009 (13 students)

Semiparametric Inference with Application to Health Science, Peking University, Summer-Fall 2008

Workshop on Empirical Processes and Semiparametric Efficiency, UNC-CH, Spring 2007

Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2007 (19 students)

Advanced Probability and Statistical Inference (I) (BIOS 760), UNC-CH, Fall 2006 (11 students)

Advanced Probability and Statistical Inference (I) (BIOS 260), UNC-CH, Fall 2005 (19 students)

Semiparametric Models (BIOS 240), UNC-CH, Fall 2004

2. *Currently supervised students*

Jie Chen (PhD student)

Beilin Jia (PhD student)

Hang Yu (PhD student)

Jitong Lou (PhD student, co-advised by Dr. Yuanjia Wang)

3. *Previously supervised students*

Jin Wang (PhD, co-advised by Dr. Danyu Lin), with dissertation "Semiparametric Single-Index Models for Optimal Treatment Regimens With Censored Outcomes", graduated in August 2019.

Xuan Zhou (PhD, co-advised by Dr. Yuanjia Wang), with dissertation "New Statistical Learning Methods for Personalized Medical Decision Making", graduated in May 2018.

Kin Yau Wong (PhD, co-advised by Dr. Danyu Lin), with dissertation "Statistical Methods for Integrative Analysis of Multiple Types of Data", graduated in August 2017.

Fei Gao (PhD, co-advised by Dr. Danyu Lin), with dissertation "Semiparametric Regression Analysis of Interval-Censored Data", graduated in August 2017.

Yu Deng (PhD, co-advised by Dr. Jianwen Cai), with dissertation "Generalized Change-Point Hazards Models with Censored data", graduated in May 2016.

Thomas Stewart (PhD, co-advised by Dr. Michael Wu), with dissertation "Support Vector Machine with Missing Data", graduated in August 2015.

Fang-shu Ou (PhD, co-advised by Dr. Jianwen Cai), with dissertation "Quantile Regression with Censored Data", graduated in August 2015.

Noorie Hyun (PhD, co-advised by Dr. David Couper), with dissertation "Analysis of Interval Censored Data Using A Longitudinal Biomarker", graduated in May 2014.

Xiaoxi Liu (PhD), with dissertation "Variable Selection and Statistical Learning for Censored Data", graduated in May 2014.

Xuan Zhou (MS), with thesis "Empirical Comparison of Estimating Causal Effects Based on Propensity Scores ", graduated in May 2014.

Yi Zhang (DrPH, co-advised by Dr. Haitao Chu), with dissertation "Statistical Methods for Evaluating the Diagnostic Accuracy of Incomplete Multiple Tests", graduated in May 2013.

Jaeun Choi (PhD, co-advised by Dr. Jianwen Cai), with dissertation "Joint Modelling of Survival Analysis and Generalized Outcome", graduated in June 2011.

Xiaoxi Liu (MS), with thesis "Variable selection in transformation models for censored data", November 2010.

Se Hee Kim (PhD), with dissertation "Joint Analysis of Longitudinal Data and Counting Processes", graduated in August 2010.

Kai Ding (PhD, co-advised by Dr. Michael Kosorok), with dissertation "Single-index Hazards Models", graduated in August 2010.

Li Chen (PhD, co-advised by Dr. Danyu Lin), with dissertation "Model Checking and Prediction for Censored Data", graduated in August 2009.

Eunhee Kim (PhD, co-advised by Dr. Joseph Ibrahim), with dissertation "Nonparametric and Semiparametric Methods in Medical Diagnostics", graduated in August 2009.

Che-Chin Lie (MS, co-advised by Dr. Jianwen Cai), with thesis "Differentiating Tumor Malignancy Using Vessel Attributes: A Case Study with Brain Image Data", graduated in December 2008.

Yimei Li (MS), with thesis "On The Efficiency of Resampling Methods Based on Pivotal Estimating Functions", graduated in July 2006.

Leila Amorim (DrPH, co-advised by Dr. Jianwen Cai), with dissertation "Estimating Time-Varying Treatment Effect for Recurrent Childhood Diseases", graduated in May 2005.

Qingxia Chen (PhD, co-advised by Dr. Joseph Ibrahim), with dissertation "Theory and Inference for Parametric and Semiparametric Methods in Missing Data Problems", graduated in May 2005.

4. *Member of the doctoral committees of students (not most updated)*: Owen Francis (Biostaistics, UNC), Lu Mao (Biostatistics, UNC), Ying Liu (Biostatistics, Columbia), Pengyue Zhang (Biostatistics, IUPUI), Ran Tao (Biostatistics, UNC), Alex Wong (Biostatistics, UNC), Andy Ni (Biostatistics, UNC), Gene Urrutia (Biostatistics, UNC), Shangbang Rao (Biostatistics, UNC), Guanhua Chen (Biostatistics, UNC), Zhengzheng Tang (Biostatistics, UNC), Qiang Sun (Biostatistics, UNC), Ruoqing Zhu (Biostatistics, UNC), Emil Cornea (Biostatistcis, UNC), Danielle Dean (Psychology, UNC), Hana Lee (Biostatistics, UNC), Chong Zhang (Statistics, UNC), Zakaria Khondker (Biostatistics, UNC), Kapuaola Gellert (Epidemiology, UNC), Lan Liu (Biostatistics, UNC), Soyoung Kim (Biostatistics, UNC), Yijuan Hu (Biostatistics, UNC), Yingqi Zhao (Biostatistics, UNC), Yiyun Tang (Biostatistics, UNC), Lily Chen (Biostatistics, UNC), Hongyuan Cao (Statistics, UNC), Xiaoyan Wang (Biostatistics, UNC), Yimei Li (Biostatistics, UNC), Yufan Zhao (Biostatistics, UNC), Arpita Ghosh (Biostatistics, UNC), Yeonseung Chung (Biostatistics, UNC), Amy Shi (Biostatistics, UNC), Guoqing Diao (Biostatistics, UNC), Yue-yun Chi (Biostatistics, UNC), Guosheng Yin (Biostatistics, UNC), Xiaofei Wang (Biostatistics, UNC), Inkyun Jung (Biostatistics, UNC), David Shoham (Epidemiology, UNC), Richard Kwok (Epidemiology, UNC), Amy Pickard (Epidemiology, UNC), Ricardo Pollitt (Epidemiology, UNC), Stephen Campbell (Epidemiology, UNC)

GRANT SUPPORT (PI, subcontract PI, or coordinating center PI)

1. (Role: PI) R01GM124104 "Efficient Statistical Learning Methods for Personalized Medicine Using Large Scale Biomedical Data" (Zeng), 2018-2022.

2. (Role: Subcontract PI) R01 AI093234 "Statistical Methods for Ordinal Variables in HIV/AIDS Studies" (Shepherd), 2018-

3. (Role: Subcontract PI) 5 R01 NS073671-07 "Statistical Methods for Early Disease Prediction and Treatment Strategy Estimation using Biomarker Signatures" (Wang), 2017-

4. (Role: DCC PI) 1 R01 AG061088-01 "Arterial Stiffness, Brain Morphology, Cognition, and Dementia in U.S. Hispanics/Latinos" (Meyer), 2019-

5. (Role: PI) GIL 288980 "Drug Safety in Electronic Medical Record Data" (Zeng), 2016-2018.

6. (Role: DCC PI) 1 RF1 AG054548-01 " MRI Measures of Cerebrovascular Injury and AD Atrophy in a Study of Latinos" (DeCarli), 2017-2021.

7. (Role: Subcontract PI) U01 NS082062 "Identifying Huntington's Disease Markers by Modern Statistical Learning Methods" (Wang), 2014-2017.

8. (Role: DCC PI) 5 R01 AG048642-05 "Study of Latinos-Investigation of Neurocognitive Aging (SOL-INCA)" (Gonzalez), 2015-2020.

PROFESSIONAL SERVICES

1. Program Chair, ICSA Applied Symposium, Raleigh, 2019.

2. Ad hoc member of NIH or VA study sections, 2011, 2016, 2017, 2019.

3. CE committee of ENAR, 2016.

4. Member of Noether Award Committee, ASA, 2014-

5. Chair of Biostatistics Exam Committee, 2015-

6. CE Chair of Biometrics Section, ASA, 2012-2013.

7. Elected chair of Biometrics Section, ICSA, 2013

8. Chair of Biostatistics Awards Committee, 2012-2015.

9. Other committees (department or school-wide) including faculty search committee, graduate study committee, SPH awards committee

10. Conference service: organized an invited session for WNAR/IMS meeting (2006); organized an invited session for USC Nonparametric Statistical Conference (2007); organized an invited session for ICSA (2008); organized an IMS invited session for JSM (2009) ENAR local committee (2011); organized 2 invited sessions for ICSA (2016).

11. Editorial board member:
    Scandinavian Journal of Statistics (2015-)
    Statistica Sinica (2015-)
    Journal of Statistical Planning and Inference (2012-)
    Science China Mathematics (2018-)
    JASA T&M (2015-)
    Statistical Theory and Related Fields (2016-2017)
    Communication in Mathematics and Statistics (2012-2016)
    Biostatistics and Epidemiology (2016-2017)
    JASA A&C (2012-2018)
    Statistics Surveys (2010)
    Annals of Statistics (2008-2009)

12. Referee service: American Journal of Epidemiology, Stat, JASA, Annals of Statistics, Biometrika, Biometrics, Statistica Sinica, JRSSB, Scandinavian Journal of Statistics, Lifetime Data Analysis, Annals of International Mathematical Statistics, Journal of Planning and Statistical Inference, Statistics and Probability Letter, Statistics in Medicine, Canadian Journal of Statistics, NSF grant proposals, Singapore National Medical Research Council grant proposals.