CURRICULUM VITAE

Liansheng Larry Tang, Ph.D.

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Education

B.S. in Finance, Department of Statistics & Finance, University of Science and Technology of China, Hefei, Anhui, China (2000)

M.S. in Statistics, Southern Methodist University, Dallas, TX (2003)

Ph.D. in Statistics, Southern Methodist University, Dallas, TX (2005)

Postdoctoral Fellow in Biostatistics, Department of Biostatistics, University of Washington, Seattle, WA (2005-2007)

Research Interests

- Likelihood ratio and receiver operating characteristic (ROC) models in forensics
- Group sequential designs and adaptive sampling procedures in comparative diagnostic trials
- Analysis of correlated ROC curves, location ROC curves, and free-response ROC curve
- Statistical methods in substance abuse treatment
- Clinical trial design in personalized medicine

Experience

2022 – present	Professor (tenured), Department of Statistics & Data Science, National Center for Forensic Science, University of Central Florida, Orlando, FL
2020 – present	Associate Chair, Department of Statistics & Data Science, University of Central Florida, Orlando, FL
2019 – 2022	Associate Professor (tenured), Department of Statistics & Data Science, National Center for Forensic Science, University of Central Florida, Orlando, FL
2013 – 2019	Associate Professor (tenured), Department of Statistics, George Mason University, Fairfax, VA
2007 – 2013	Assistant Professor, Department of Statistics, George Mason University, Fairfax, VA
2014 – present	Guest Researcher, NIH Clinical Center, Rehabilitation Medicine Department, Rockville, MD

Professional Activities

Professional Committee

- Member of Organization of Scientific Area Committees for Forensic Science (OSAC) Scientific & Technical Review Committee, 2024
- Member of American Statistical Association Advisory Committee on Forensic Science, 2021-present
- Affiliate of Fire Debris and Explosives Subcommittee, the Organization of Scientific Area Committees for Forensic Science (OSAC), 2023-2024
- Member of Fire Debris and Explosives Subcommittee, the Organization of Scientific Area Committees for Forensic Science (OSAC), 2017-2022
- Member of OSAC Statistics Task Group, 2018-2023

- Member of NIH Clinical Center Research Protocol Review Committee, 2022- present

Editorial Activities

- Associate Editor, Communications in Statistics – Theory and Methods, 2019–present
- Associate Editor, Communications in Statistics – Simulation and Computation, 2019–present
- Associate Editor, Communications in Statistics – Case Studies, Data Analysis and Applications, 2019–present
- Associate Editor, Journal of Systems Science & Complexity, 2019–present
- Associate Editor, Biostatistics & Epidemiology, 2019–present

Scientific Review Panel

- Centers for Disease Control and Prevention Review Panel, 2025
- Standing member of National Institute of Justice Fellowship Review Panel, 2017-2020, 2023, 2024
- Standing member of National Institute of Justice Scientific Review Panel on Trace, 2018-2020
- Standing member of National Institute of Justice Scientific Review Panel on Impression and Pattern, 2014-2019, 2022

Data Safety and Monitoring Board

- Project HOPE: Hospital Visit as Opportunity for Prevention and Engagement for HIV-Infected Drug Users, National Institute on Drug Abuse, 2012-2016

Manuscript Review

- Book reviewer for CRC Press, Oxford University Press, Pearson Hall
- Referee for Journal of the American Statistical Association, Annals of Applied Statistics, Biometrics, Journal of the Royal Statistical Society: Series C, Biostatistics, Statistica Sinica, Statistics in Medicine, Journal of Environmental and Ecological Statistics, Journal of Statistical Planning and Inference, Computational Statistics and Data Analysis, Communications in Statistics, Health Services and Outcomes Research Methodology, Philosophical Transactions of the Royal Society A, Clinical Trials, Statistics and Its Interface, Statistics, Journal of Applied Statistics, Biometrical Journal, Statistics in Biosciences, Journal of Forensic Sciences, Forensic Science International

Promotion Evaluation for Tenure/Promotion

- University of Washington (Promotion to Full Professor), 2023
- Florida International University (Tenure/Promotion to Associate Professor), 2022
- University of Pittsburg (Tenure/Promotion to Associate Professor), 2019

Professional Affiliations

- American Statistical Association, member
- Institute of Mathematical Statistics, permanent member
- International Chinese Statistical Association, permanent member

Honors and Awards

2024 UCF Research Incentive Award

2020 Best Paper Award at *5th IAPR International Conference on Computer Vision & Image Processing*

2014 Top 10 Most-Read Article of 2014, Criminal Justice & Behavior

2011 National Security Agency Young Investigator Award

2008 Travel Award for the Institute of Mathematical Statistics Young Researchers Conference

2005 Institute of Mathematical Statistics Laha Travel Award for Joint Statistical Meetings

Awards from my advisees

2020 First place in 2020's ASA Medical Devices and Diagnostics Section student paper competition, Xiaochen Zhu

2013 International Conference on Health Policy Statistics Student Travel Award, Zhuang Miao

Research Grants

As a Principal Investigator (PI) or Co-PI at UCF

- Co-Principal Investigator (30%), National Institute of Justice (NIJ), Department of Justice. "Enhancing the evidentiary value of textile fibers with a combination of fluorescence microscopy and micro spectrophotometry", 01/01/2025-12/30/2026, $412,786
- Co-Principal Investigator (30%), National Institute of Justice (NIJ), Department of Justice. "Enhanced Ignitable Liquid and Substrate Database Functionality for Improved Casework and Research", 01/01/2023-04/30/2025, $289,496
- Principal Investigator (100%), National Institute of Health, "Intergovernmental Personnel Agreement to Improve the Disability Determination Process". 12/09/2019-02/08/2024, $226,721
- Principal Investigator (100%), National Institute of Justice (NIJ), Department of Justice. "Accounting for Covariates in Forensic Error Rate Assessment and Evidence Interpretation", 09/21/2020-04/30/2023, $495,056
- Principal Investigator (100%), National Institute of Justice (NIJ), Department of Justice. "Statistical Infrastructure for the Use of Error Rate Studies in the Interpretation of Forensic Evidence", 09/21/2020-05/31/2021. $87,207

As a Principal Investigator (PI) or Co-PI at George Mason University

- Principal Investigator (100%), National Institute of Justice (NIJ), Department of Justice. "Statistical Infrastructure for the Use of Error Rate Studies in the Interpretation of Forensic Evidence", 01/01/2019-08/31/2019. $110,462
- Principal Investigator (100%), MITRE & Department of Treasury, "IRS Stratified Sampling Methods", 2018, $30,432.00
- Principal Investigator (100%), IPA from National Institute of Health, 2014-2019, $200,000
- Co-Principal Investigator (30% with Loerch as PI), Mantech/DOD, "Support to USMC Gender Experimentation", 2014-2015
- Co-Principal Investigator (20% with Taxman as PI), Virginia Department of Health, "Medical Monitoring Project", Summer 2012. $46,039
- Principal Investigator (100%), National Security Agency Young Investigator Grant, "Statistical Methods in Complex ROC, LROC and FROC", 2011-2013 $29,997.
- Co-Principal Investigator (33%), National Cancer Institute, "Statistical Methods in Cancer Research", 2010-2013 $409,190.

As an Investigator

- Investigator (Gantz, PI), NIJ, "Statistical Error Estimation for an Objective Measure of Similarity to a Latent Image", 2019- 2020.
- Statistician (Christy, PI), NIJ, "A foundational study of fire debris interpretation using quantitative measures of chromatographic features with the application of ACE-V methodology", 2019-2021.

Publications

Refereed Journal Papers (* student under my supervision/mentoring, † corresponding author)

Statistical Methodology

1. Nguyen, N., Chen, L., , Phillips, J., Tang, L. (2025). "A Homogeneity Test for Ordinal Receiver Operating Characteristic Regression With Application to Facial Recognition Accuracy Assessment". *Statistical Analysis and Data Mining: The ASA Data Science Journal*. 18(2), e70021.
2. Xuan, Y.*, Chen, L., Vidyashankar, A., Tang, L. (2025). "Group Sequential Methods to Compare Receiver Operating Characteristic Curves for Correlated and Clustered Data". *Biostatistics & Epidemiology* . 9(1), e2415833.
3. Simpson, A., Michaela, S., Borcherta, D., Saunders, C., Tang, L. (2024). "Effects of prescreening for likelihood ratio approaches in the forensic identification of source problems". *Forensic Science International: Synergy*. 9, 100560
4. Simpson, A., Michaela, S., Borcherta, D., Saunders, C., Tang, L. (accepted). "Modeling subpopulations for hierarchically structured data". *Statistical Analysis and Data Mining*. (Impact Factor 1.3)
5. Zhu, X*, Tang, L., Slawski, M. (in press) . "Order Constrained ROC Regression with Application to Facial Recognition". *Annals of Applied Statistics*. (Impact Factor 1.959)
6. Chang, J. C., Porcino, J., Rasch, E. K., Tang, L.† (2022). "Regularized Bayesian calibration and scoring of the WD-FAB IRT model improves predictive performance over maximum marginal likelihood." *PLOS One* (Impact Factor 3.752). 17 (4), e0266350.
7. Wang, J., Zhao, Y. , Tang, L., Mueller, C., Li, Q. (2022). "A Resample-Replace Lasso Procedure for Combining High-Dimensional Markers with Limit of Detection". *Journal of Applied Statistics* (Impact Factor: 1.416). 49 (16), 4278-4293.
8. Tang, L., Li, Q., Meng, Z. (2021). "A Powerful Test for Evaluating Group Difference using the ROC Curve." *Statistics in Medicine* (Impact Factor: 2.373). 40 (21), 4597-4608.
9. Zhuang, M.*, Tang, L., Yuan, A. (2021). "Nonparametric Within-cluster Resampling Method for ROC Data." *Biostatistics & Epidemiology*. 5 (2), 169-188.
10. Wang, J.*, Zhao, Y., Tang, L. (2021)."Estimating the AUC with a Graphical Lasso Method for High-dimensional Biomarkers with LOD." *Biostatistics & Epidemiology*. 5 (2), 189-206.
11. Zhu, X*, Slawski, M., Phillips, P.J., Tang, L. (2021) "Order Constrained ROC Regression with Application to Facial Recognition". *Technometrics* (Impact Factor: 2.988). 63:3, 343-353.
12. Xuan, Y.*, Tang, L., Zhu, X.* (2021)."Group sequential comparison of positive predictive value curves for correlated biomarker data" *Statistics in Medicine* (Impact Factor: 2.373). 39 (12), 1732-1745.
13. Zhang, W, Tang, LL †, Li, Q, Liu, A, Lee, M-LT. (2020) "Order-restricted inference for clustered ROC data with application to fingerprint matching accuracy." *Biometrics* (Impact Factor: 2.571). 2020; 76: 863– 873.
14. Zhang, W., Liu, A., Tang, L., Li, Q. (2019). "A Cluster-Adjusted Rank-Based Test for a Clinical Trial Concerning Multiple Endpoints with Application to Dietary Intervention Assessment." *Biometrics* (Impact Factor: 2.571). 75 (3), 821-830.
15. Lu, D., Zhou, C., Tang, L., Tan, M., Yuan, A., Chan, L. (2018) "Evaluating accuracy of diagnostic tests without conditional independence assumption." *Statistics in Medicine* (Impact Factor: 2.373). 37, 2809-2821.
16. Zhang, W., Yang, L., Tang, L.L., Liu, A., Mills, J.L., Sun, Y. and Li, Q. (2017). "GATE: an efficient procedure in study of pleiotropic genetic associations", *BMC genomics* (Impact Factor: 3.969). 18(1), p.552.
17. Lerch, J., Walters, S., Tang, L., Taxman, F.S. (2017) "Effectiveness of a computerized motivational intervention on treatment initiation and substance use: Results from a randomized trial", *Journal of Substance Abuse Treatment* (Impact Factor: 3.770), 80, 59-66.

18. Wang, S., Yuan, A., Tang, L., Fang, H, Tan, M., Chan, L. (2017). "ROC analysis for phase II group sequential basket clinical trial." *International Journal of Statistics in Medical Research.* 6, 22-33.

19. Tang, L., Yuan, A., Collins, J., Che. X., Chan, L. (2017). "Unified Least Squares Methods for the Evaluation of Diagnostic Tests With the Gold Standard." *Cancer Informatics.* 16, 1-12.

20. Tang, L., Zhang, W., Li, Q., Ye., X.*, Chan, L. (2016). "Least squares regression methods for clustered ROC data with discrete covariates." *Biometrical Journal* (Impact Factor: 2.207). 58, 747-765.

21. Dong, T.*, Tang, L., Petricoin, E. F. (2014) "Combining Proteomic Biomarkers with and without the Limit of Detection." *Statistics in Medicine* (Impact Factor: 2.373). 33, 1307-1320.

22. Dong, T.*, Tang, L., Rosenberger, W. R. (2014) "Optimal Sampling Ratios in Comparative Diagnostic Trials." *Journal of the Royal Statistical Society: Series C* (Impact Factor: 1.864). 63, 499-514.

23. Tang, L., Caudy, M., Taxman, F. (2013) "Methods for Synthesizing Meta-Analyses." *Computational and Mathematical Methods in Medicine.*

24. Tang, L., Kang, L., Liu, C., Schisterman, E., and Liu, A. (2013) "An Additive Selection of Markers to Improve Diagnostic Accuracy Based on a Discriminatory Measure." *Academic Radiology* (Impact Factor: 3.173). 20, 854-862.

25. Tang, L., Liu, A., Chen, C., Schisterman, E., Zhang, B.,*Miao, Z. (2013). "Nonparametric ROC Summary Statistics for Correlated Diagnostic Marker Data." *Statistics in Medicine* (Impact Factor: 2.373). 32, 2209-2220.

26. Tang, L., Zhou, X. H. (2013). "A General Framework of Marker Validation Designs with Optimal Allocation to Assess Clinical Utility." *Statistics in Medicine* (Impact Factor: 2.373). 32(4), 620-30.

27. Tang, L., Liu, A., Schisterman, E., Zhou, X. H., Liu, C. (2012). "Homogeneity Tests of Clustered Diagnostic Markers with Applications to the BioCycle Study." *Statistics in Medicine* (Impact Factor: 2.373). 31, 3638-3648.

28. Tang, L. and Zhou, X. H. (2012). "A Semiparametric Separation Curve Approach for Comparing Correlated ROC Data from Multiple Markers." *Journal of Computational and Graphical Statistics* (Impact Factor: 2.302). 21 (3) , 662-676.

29. Tang, L., Ming, T. and Zhou, X. H. (2011). "A Sequential Conditional Probability Ratio Test Procedure for Comparing Diagnostic Tests." *Journal of Applied Statistics* (Impact Factor: 1.404). 38 (8), 1623-1632.

30. *Dong, T., Tang, L. (2011). "Sequential Diagnostic Trial Designs." *Wiley Interdisciplinary Reviews: Computational Statistics.* 3, 79:1-783.

31. Tang, L. and N. Balakrishnan. (2011). "A Random-Sum Wilcoxon Statistic and Its Application to Analysis of ROC and LROC Data." *Journal of Statistical Planning and Inference.* (Impact Factor: 1.111). 141 (1), 335-344.

32. Tang, L., Du, P., Wu, CQ. (2010). "Compare Diagnostic Tests Using Transformation-invariant Smoothed ROC Curves." *Journal of Statistical Planning and Inference.* (Impact Factor: 1.111). 140 (11), 3540-3551.

33. Tang, L. and Liu, A. (2010). "Sample Size Recalculation in Sequential Diagnostic Trials." *Biostatistics* (Impact Factor: 5.899). 11(1), 151-163.

34. Tang, L. and Zhou, X. H. (2009). "Semiparametric Inferential Procedures for Comparing Multivariate ROC Curves with Interaction Terms." *Statistica Sinica.* (Impact Factor: 1.261). 19, 1203-1221.

35. Du, P. and Tang, L. (2009). "Transformation-invariant and Nonparametric Monotone Smooth Estimation of ROC Curves." *Statistics in Medicine* (Impact Factor: 2.373). 28, 349-359.

36. Tang, L., Emerson, S. and Zhou, X.H. (2008). "Nonparametric and Semiparametric Group Sequential Methods for Comparing Accuracy of Diagnostic Tests." *Biometrics* (Impact Factor: 2.571). 64, 1137-1145.

37. Tang, L., Schucany, W. and Woodward, W. (2008). "Undercoverage of Wavelet-Based Resampling Confidence Intervals." *Communications in Statistics.* (Impact Factor: 1.118). 37, 1307-1315.

Statistical Applications

38. Chang, J. C., Porcino, J., Marfeo, E., Tang, L., Goldman, H., & Rasch, E. (2025). "Functional improvement is a better predictor of steady work than medical improvement for individuals with mental health conditions". *PLOS Mental Health*, 2(8), e0000384.
39. Tang, L., Williams, M R. and Sigman, M., Booppasiri, S, (2025) "Evaluating machine learning methods on a large-scale of in silico fire debris data". Forensic Chemistry, *Forensic Chemistry*, 44.
40. Sigman, M. E., Williams, M. R., Tang, L., Booppasiri, S., Prakash, N. (2025). "In silico created fire debris data for Machine learning". Forensic Chemistry, 42, 100633.
41. Jeckeln, G., Hu, Y., Cavazos, J., Yates, A., Hahn, C., Tang, L., O'Toole, A., Phillips, J. (2023). "Face Identication Prociency Test Design Using Item Response Theory". *Behavior Research Methods* (Impact Factor 5.953)
42. Marasco, E., He, M.*, Tang, L. (2022). "Demographic-Adapted ROC Curve for Assessing Automated Matching of Latent Fingerprints." *Springer Nature Computer Science.* (Impact Factor 3.783) (3), 190.
43. Hahn, C., Yates, A., Tang, L., Phillips, J. (2022). "Forensic facial examiners vs. super-recognizers: Evaluating behavior beyond accuracy. " *Applied Cognitive Psychology.* (Impact Factor 2.360) 36 (6), 1209-1218.
44. Baumgarten, B., Thomas, S., Flynn, N., Maric, M., Nguyen, T., Tang, L., Bridge, C. (2022). "Developing a comprehensive analytical protocol for forensic sexual lubricant analysis – Part 1: Implementing a Sexual Lubricant Database for Forensic Casework". *Forensic Chemistry* (Impact Factor: 3.096).. 27, 100403.
45. Winters, K., Rossheim, A., Cristy, B., Newman, R., Tang, L. (2021). "Foundational Study of Fire Debris Interpretation Using Quantitative Measure of Chromatographic Features in Gasoline." *Forensic Chemistry.* (Impact Factor: 2.676). 24, 100337.
46. Baudelet, M., Tang, L., Lucchi, J., Gluck, D.* (2021). "Tire classification by elemental signatures using Laser-Induced Breakdown Spectroscopy". *Applied Spectroscopy* (Impact Factor: 2.388). 75 (6), 747-752.
47. Yuan, Q.*, Tang, L.†, Yang, F., Brant, D., Chan, L. (2019). "An exploration of SSAs disability determination process with multi-stage DEA method." *Journal of Modeling in Management*, 14 (3), 590-609.
48. Tolkacz, M, Friedman, J.M., Koizumi, N., Tang, L., Ortiz, J. (2019) "United Network for Organ Sharing Rule Changes and Their Effects on Kidney and Liver Transplant Outcomes". *Experimental and Clinical Transplantation.*
49. Vikas, K., Salha R., Wang, D., Wood, E., Salvetti, M., Ristori, G., Tang, L., Bagnato, F., and N. Ikonomidou, V. (2018). "Validating non-linear registration to improve subtraction images for lesion detection and quantification in multiple sclerosis", *Journal of Neuroimaging* (Impact Factor: 2.486). 28(1), 70-78.
50. Wooditch, A., Tang, L., Taxman, F. (2014) "Which Criminogenic Need Changes Affect Criminal Offending and Drug Use among Probationers?" *Criminal Justice and Behavior* (Impact Factor: 2.801). 41, 276-299. *(Top 10 Most-Read Article of 2014 from Criminal Justice and Behavior).*
51. Caudy, M., Tang, L., Taxman, F., Wooditch, A. (2014) "Short-term Trajectories of Substance Use in A Sample of Drug-involved Probationers." *Journal of Substance Abuse Treatment* (Impact Factor: 3.770). 46(2):202-13.
52. Palsbo, S., Diao, G., Palsbo G., Tang, L., Rosenberger W. F., Mastal, M. (2011). "Case-Mix Adjustment and Enabled Reporting of the Health Care Experiences of Adults with Disabilities." *Archives of Physical Medicine and Rehabilitation* (Impact Factor: 3.966). 91(9), 1339-1346.

Refereed Conference Papers

53. Marasco, E., He, M., Tang, L., Tao, Y. "Demographic Effects in Latent Fingerprint Matching and their Relation to Image Quality". *2022 7th International Conference on Machine Learning Technologies (ICMLT) 2022.* Mar 11, (pp. 170-179).
54. Marasco, E., He, M.*, Tang, L. (2021) "Accounting for Demographic Differentials in Forensic Error Rate Assessment of Automated Latent Prints Matching via Covariate-Specific ROC Regression." *5th IAPR International Conference on Computer Vision & Image Processing (CVIP-2020).* [Best Paper Award]
55. Marasco, E., Cando, S., Tang, L. (2019), "Cross-Sensor Evaluation of Textural Descriptors for Inferring Gender from Fingerprints", *Cross Domain Biometric Recognition Workshop at 2018 IEEE Winter Conference on Applications of Computer Vision (WACV).*
56. Marasco, E., Cando, S., Tang, L. Tabassi, E. (2019), "Can Liveness Be Automatically Detected from Latent Fingerprints?", *2018 IEEE Winter Conference on Applications of Computer Vision (WACV) Workshop on Image and Video Forensics.*
57. Marasco, E., Cando, S., Tang, L., Marcialis, G.L. (2018) "A Look At Non-Cooperative Presentation Attacks in Fingerprint Systems", *IEEE International Conference on Image Processing Theory, Tools and Applications (IPTA) 2018*, pp.1-6.
58. Zhu, X.*, Tang, L., Tabassi, E. (2017, October). " Repeatability and Reproducibility of Forensic Likelihood Ratio Methods when Sample Size Ratio Varies". *The International Joint Conference on Biometrics (IJCB).*
59. Tang, L. (2008). "A Family of Nonparametric Statistics for LROC Curves." *2008 International Conference on BioMedical Engineering and Informatics*, 758-762.

Refereed Book Chapters

1. Gluck, D.*, Tabassi, E., N. Balakrishnan, Tang, L. (accepted). "Likelihood Ratios in Forensics: What They Are and What They Are Not" *Statistics and Simulation. Springer International Publishing.* Pilz, J., Rasch, D., Melas, V. B., Moder, K. (Eds.).
2. Xuan, Ye*, Tang, L. (2015). "Group Sequential Methods for Comparing Correlated Receiver Operating Characteristic Curves". *Applied Statistics in Biomedicine and Clinical Trials Design.* Ed. by Z. Chen et al.
3. Caudy, M., Tang, L., Taxman, F. S., Watson, C. (2014). "A Standardized Method for Reviewing Systematic Reviews: An Overview of the Evidence Mapping to Advance Justice Practice (EMTAP) Project." *Systematic Reviews in Criminology: What Have We Learned?* Ed. by D. F. Farrington and D. Weisburd.
4. Caudy, M., Tang, L., Lerch, J., Ainsworth, S. A., Taxman, F. S. "Reducing Recidivism Through Correctional Programming: Using Meta-Analyses to Inform the RNR Simulation Tool." (2014). *Risk Need Responsivity (RNR): Simulation Strategies to Respond to the Call for a Correctional System that Reduces Recidivism.* Ed. by F. S. Taxman and A. Pattavina.

Edited Book

1. Chen, Z., Aiyi, L., Qu, Y., Tang, L., Ting, N. and Tsong, Y. eds. (2015). *Applied Statistics in Biomedicine and Clinical Trials Design: Selected Papers from 2013 ICSA/ISBS Joint Statistical Meetings,* Springer.

Book Reviews

1. Tang, L. (2010). Review of "Statistics Using SPSS: An Integrative Approach" by Sharon Lawner Weinberg and Sarah Knapp Abramowitz. *The American Statistician.* 64, 361.
2. Tang, L. (2008). Review of "Analyzing Receiver Operating Characteristic Curves with SAS" by Gönen, M. *Biometrics.* 64, 659.

Presentations

Invited Presentations

2025 The 8th International Conference on Econometrics and Statistic, " Accounting for Covariates in Forensic Error Rate Assessment and Evidence Interpretation".

2025 2025 JSM, "Estimating the AUC with a Graphical Lasso Method for High-dimensional Biomarkers with LOD".

2023 2023 ICSA China Conference. "ROC Regression in Forensics."

2023 SDSU Data Science Symposium. "Assessing Error Rates in Multiple Examiner Groups using Regression Methods".

2022 ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop. "Homogeneity Test Based on Covariate-Adjusted Ordinal ROC Curves".

2022 NIJ Forensic Science Research and Development (R&D) Symposium. "Assessing Error Rates in Multiple Examiner Groups Using Regression Methods".

2022 74th American Academy of Forensic Sciences (AAFS) Annual Scientific Conference, Seattle, WA. "Ordinal Regression for Error Rates in a Black-Box Face Recognition Study.

2021 ICSA 2021 Applied Statistics Symposium. "Order Constrained ROC Regression with Application to Facial Recognition". (Virtual presentation).

2020 Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing, China. "Group sequential comparison of positive predictive value curves for correlated biomarker data". (Virtual presentation).

2020 Department of Statistics, University of Central Florida. "Group sequential comparison of positive predictive value curves for correlated biomarker data."

2019 10th International Workshop on Simulation and Statistics, Salzburg, Austria. "ROC Curves And Frequentist/Machine-Learning Based Likelihood Ratios For Source Identification".

2019 Department of Statistics and National Center of Forensic Science, University of Central Florida. "Order-Restricted Inference with Application to Biometrics."

2019 Department of Biostatistics, Georgetown University. "Order-Restricted Inference with Application to Biometrics."

2018 Forensics at NIST Conference, MD. "The Confidence Interval for the Likelihood Ratio with Application to Biometrics."

2018 11th Annual FDA/AdvaMed Medical Devices & Diagnostics Statistical Issues Conference, DC. "Evaluating Rater Difference using the ROC Curve".

2018 International Chinese Statistical Association (ICSA) Applied Statistics Symposium, NJ. "Evaluating accuracy of diagnostic tests without conditional independence assumption."

2017 10th International Conference on Forensic Inference and Statistics. "Likelihood ratios in forensics and their confidence intervals".

2016 Department of Statistics, University of Virginia. "ROC Curve and Likelihood Ratio in Diagnostic Medicine and Forensics".

2016 Forensic Science Brown Bag Seminar, National Institute of Standards and Technology. "Likelihood ratios in forensics: what they are and what they are not".

2016 Department of Mathematical Sciences, NJIT, "ROC Curve and Likelihood Ratio in Diagnostic Medicine and Forensics".

2016 Department of Statistics, GMU, "ROC Curve and Likelihood Ratio in Diagnostic Medicine and Forensics".

2016 ICSA Applied Statistics Symposium, Atlanta, GA. "Least squares regression methods for clustered ROC data".

2016 Social Security Administration, Woodlawn, MD. "Analyzing ODAR's Hearing Offices Performance: Multi-stage Data Envelopment Analysis".

2016 Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing, China. "Semiparametric separation curve approaches for comparing correlated ROC data".

2014 NIH Clinical Center, "Design Issues in Diagnostic Trials".

2013 University of Maryland. "Within-cluster resampling methods for clustered ROC data."

2013 FDA workshop. "Incorporating Interim Analysis in Diagnostic Trials."

2013 International Chinese Statistical Association Applied Statistics Symposium, Bethesda, MD. "Optimal Sampling Ratios in Comparative Diagnostic Trials."

2013 Department of Biostatistics, Columbia University, New York, New York. "Sampling Ratios in Diagnostic Trials."

2013 Department of Biostatistics, University at Buffalo, Buffalo, New York. "Sampling Ratios in Diagnostic Trials."

2013 Department of Department of Applied Mathematics, The Hong Kong Polytechnic University, Hong Kong, China. "Optimal Sampling Ratios in Diagnostic Trials."

2012 ICSA Applied Statistics Symposium, Boston, MA. "Homogeneity Tests for Correlated Diagnostic Markers in High Dimensional Settings."

2012 Joint Seminar by Department of Statistics & Division of Biostatistics, Oregon State University, Corvallis, OR. "Homogeneity Tests for Correlated Diagnostic Markers in High Dimensional Settings."

2011 International Conference on Advances in Probability and Statistics - Theory and Applications, Hong Kong, China. "A Random-Sum Wilcoxon Statistic and Its Application to Analysis of ROC and LROC Data."

2011 ICSA Applied Statistics Symposium, New York, NY. "A Class of Generalized Nonparametric ROC Summary Statistics for Clustered Diagnostic Marker Data."

2011 Fourth Annual International Symposium on the Evaluation of Clinical Trials Methodologies and Applications, Beijing, China. "A General Framework of Marker Validation Designs with Optimal Allocation."

2011 Biostatistics & Bioinformatics Branch, Eunice Kennedy Shriver National Institute of Child Health and Human Development. "A Class of Generalized Nonparametric ROC Summary Statistics for Clustered Diagnostic Marker Data."

2010 Seminar Celebrating Bill Schucany's 40 Years in Statistical Science at SMU. "Sample Size Recalculation in Sequential Diagnostic Trials."

2010 Division of Biostatistics, University of Maryland Greenebaum Cancer Center, Baltimore, MD. "Semiparametric Least Squares Procedure for Correlated ROC Data."

2010 First Biostatistics Symposium, Bejing, China. "A Two-stage Procedure to Choose the Optimal Ratio of Cases to Controls in Diagnostic Trials."

2010 Eastern North American Region of the International Biometric Society (ENAR) Meeting, New Orleans, LA. "Adaptive Designs to Validate Cancer Biomarkers."

2009 EMMES, Rockville, MD. "Semiparametric Least Squares Procedure for Correlated ROC Data."

2009 Design and Analysis of Experiments Conference, Columbia, MO. "A Two-Stage Allocation Procedure for Monitoring Comparative Diagnostic Trials."

2009 Western North American Region of the International Biometric Society (WNAR) Meeting, Portland, OR. "A Random-Sum Wilcoxon Statistic with Applications to LROC Data."

2008 Institute of Statistics, National University of Kaohsiung, Taiwan. "A Sequential Procedure for Recalculating Sample Sizes and Monitoring Comparative Diagnostic Trials."

2008 2008 IEEE International Conference on BioMedical Engineering and Informatics, Hainan, China. "A Family of Nonparametric Statistics for LROC Curves."

2008 Eastern North American Region Meeting of the International Biometric Society Meeting, Arlington, VA. "Semiparametric Least Squares Procedure for Correlated ROC Data."

2007 Center for Devices and Radiological Health, U.S. Food and Drug Administration, Rockville, MD. "Nonparametric Group Sequential Methods for Comparing Accuracy of Diagnostic Tests."

2007 Department of Statistics, George Mason University, Fairfax, VA. "Least Squares Receiver Operating Characteristic Estimation for Correlated Biomarker Data."

2007 Department of Medicine, Division of Biostatistics, Indiana University, Indianapolis, IN. "Least Squares Receiver Operating Characteristic Estimation for Correlated Biomarker Data."

2007 Children's Hospital Boston, Harvard Medical School, Boston, MA. "Least Squares Receiver Operating Characteristic Estimation for Correlated Biomarker Data."

2007 Department of Quantitative Health Sciences, Cleveland Clinic, Cleveland, OH. "Least Squares Receiver Operating Characteristic Estimation for Correlated Biomarker Data."

2007 Jiann-Ping Hsu College of Public Health, Georgia Southern University, Statesboro, GA. "Least Squares Receiver Operating Characteristic Estimation for Correlated Biomarker Data."

2006 ICSA Applied Statistics Symposium, Storrs, CT. "Parametric Least Squares Procedure for Correlated ROC Data."

2005 Department of Biostatistics, University of Washington, Seattle, WA. "Undercoverage of Wavelet-Based Resampling Confidence Intervals and A Parametric Spatial Bootstrap."

Contributed Conference Presentations

2021 Joint Statistical Meetings (JSM) (Virtual). "Covariate-Adjusted ROC Curves: An Introduction and Application to Characterizing Hidden Behavior in Biometric Matching System".

2016 JSM, Chicago, IL. "Least Squares Regression Methods for Clustered ROC Data with Discrete Covariates".

2015 JSM , Seattle, WA. "Least Squares ROC Method for Tests with the Absence of the Gold Standard".

2012 JSM, San Diego, CA. "The Optimal Sampling Ratios in Comparative Diagnostic Trials".

2009 JSM, Washington, DC. "A Class of Generalized Nonparametric ROC Summary Statistics for Clustered Diagnostic Marker Data".

2009 JSM, Denver, CO. "Nonparametric Adaptive Sample Size Calculation in Diagnostic Trials".

2006 ENAR Meeting, Tempa, FL"A Unified Family of Nonparametric ROC Area Estimators in Group Sequential Designs".

Contributed Conference Presentations by Co-authors

2022 "Interpretation of Handwriting Evidence Using Error Rates and Score-based Likelihood Ratios" Danica Ommen, Larry Tang Joint Statistical Meetings, American Statistical Association; Washington, D.C.

2022 "Interpretation of Handwriting Evidence Using Error Rates and Score-based Likelihood Ratios" Danica Ommen, Larry Tang International Association for Identification's Educational Conference; Omaha, NE.

2020 "A Method of Forensic Evidence Interpretation Using Error Rates" Danica Ommen, Larry Tang, and Christopher Saunders ICSA 2020 Applied Statistics Symposium; International Chinese Statistical Association; Virtual Conference Dec.

2020 "A Method of Forensic Evidence Interpretation Using Error Rates". Danica Ommen, Larry Tang, and Christopher Saunders Joint Statistical Meetings 2020; American Statistical Association; Virtual Conference.

2020 Vision Sciences Society Annual Meeting , "Building calibrated face-identification ability test with Item Response Theory". Géraldine Jeckeln; Ying Hu; Jacqueline G. Cavazos; Amy N. Yates; Carina A. Hahn; Larry Tang; Alice J. O'Toole; P. Jonathon Phillips

2019 "Statistical Infrastructure for the Use of Error Rate Studies in the Interpretation of Forensic Evidence". Danica Ommen, Larry Tang, Cami Fuglsby, Christopher Saunders, Susan Vanderplas. CSAFE All-Hands Meeting; Ames, IA

Short Courses

2022 AAFS, Seattle, WA "Workshop on Determining Sufficiency for the Identification of Gasoline."

2019 Tutorial at 10th IEEE International Conference on Biometrics: Theory, Applications and Systems (BTAS), Tampa, FL. "Estimation of Soft-biometrics from fingerprints." Joint with Emanuela Marasco from George Mason University.

2011 Fourth Annual International Symposium on the Evaluation of Clinical Trials Methodologies and Applications, Beijing, China. "Statistical Methods in Single Patient Trials."

Conference Organizing Committee

- Invited session organizer, 2020 ICSA Applied Statistics Symposium.
- 2018 ASA/AdvaMed Conference Organizing Committee
- 2013 10th International Conference on Health Policy Statistics Scientific Organizing Committee
- 2012 ENAR Meeting Organizing Committee
- Invited session organizer, 2011 ICSA Applied Statistics Symposium, New York, NY.
- Invited session organizer, 2010 ENAR Meeting, New Orleans, LA.
- Invited session organizer, 2010 International Conference on Statistical Analysis of Complex Data, Yunnan, China.
- Invited session organizer/chair, 2009 WNAR Meeting, Portland, OR.
- Invited session organizer, 2008 ENAR Meeting, Arlington, VA.
- Invited session organizer, 2008 IEEE International Conference on BioMedical Engineering and Informatics, Hainan, China.

Departmental and School Service

University of Central Florida

- College of Science Research Incentive Awards Selection Committee, 2019-present
- Associate Chair and Course Scheduler, 2020-2022
- College of Science National Center for Forensic Science (NCFS) Research Committee, 2019-present
- NCFS Graduate Admission Committee, 2020-present
- Department Ph.D. Big Data Analytics Program Assessment Committee (Coordinator), 2019-present
- Department Graduate Curriculum Committee (Chair), 2019-present
- Department lecturer/instructor position search committee, 2023
- Department promotion and tenure committee (Member and Interim Chair), 2021
- Department tenure-track position search committee (Chair), 2021
- Department visiting position search committee (Chair), 2021
- Department Promotion and Tenure Criteria revision Committee, 2020-2021
- Department AESP revision Committee, 2019-2021
- Department Colloquium Committee (Chair), 2019-2020
- Department Advisory board, 2020-2021

George Mason University

- Co-chair of University Academic Program Review peer review committee, 2019
- Member of University Academic Program Review peer review committee, 2016-2019
- Founding Member of the Study Group on Interventions in Behavioral and Health Sciences
- Volgenau School of Engineering (VSE) Research Council, 2017 - 2019
- VSE Entrepreneurship Faculty Advisory Group, 2017 - 2019
- University Academic Program Review Peer Review Committee, 2017-2019
- Graduate Program Coordinator, M.S. in Biostatistics, 2013 - 2019
- Lead Faculty in the Development of M.S. Program in Biostatistics, 2012
- Member, VSE Graduate Studies Committee, 2011–2012
- Applied Statistics Qualifying Exam Committee, 2010-2018
- Member, Chair Renewal Evaluation Committee, 2009
- Member, Statistics Master Program Review Committee, 2009–2018
- Chair, Statistics Seminar Series, 2007–2010

Student and Postdoc Advising

Doctoral Dissertations Supervised

- Ngoc Ty Nguyen (Statistics) , to graduate in 2023
- Hanyun Li (Statistics), "Classification Accuracy Estimation With Applications In Biomedical Areas'", to graduate in 2023
- Xiaochen Zhu (Statistics), "Contributions To ROC Curve And Likelihood Ratio Estimation for Forensic Evidence Interpretation", graduated in 2020, now at Bristol Myers Squib (co-advising with Slawski)
- Jirui Wang (Statistics), "Inferring Implicit Network Structure Using Generalized Hub Models", graduated in Winter 2018, now at Medpace (co-advising with Zhao)
- Xuan Ye (Statistics), "Group Sequential Methods for ROC Curves", graduated in 2015, now at U.S. Food and Drug Administration
- Zhuang Miao (Statistics), "Within-cluster resampling methods for clustered receiver operating characteristic (ROC) data", graduated in 2014, now at U.S. Food and Drug Administration
- Ting Dong (Statistics), "Procedures to Optimize Sampling Ratios and to Combine Multiple Diagnostic Markers", graduated in 2011, now at Microstrategy

Member of Doctoral Studies Committee at UCF

- Phuong Pho (Statistics), graduated in 2022
- Geraldine Jeckeln, 2022-
- Jillian Morgan (Forensics/Chemistry), 2021-
- Safiya Best (Forensics/Chemistry), 2021-
- Kaitlin Huffman (Forensics/Chemistry), graduated in 2022
- Frances Whitehead (Forensics/Chemistry), 2019-
- John Lucchi (Forensics/Chemistry), 2019-
- Jessica Sprague (Forensics/Chemistry), 2019-
- Emily Lennert (Forensics/Chemistry), graduated in 2022
- David Hernandez Funes (Forensics/Chemistry), 2020-

Graduate Research Assistants and Postdocs at UCF

- Mahtab Hajebi (Postdoc in Forensic Statistics), 2021-2023, now at Bristol Myers Squib
- Daniel Gluck (GRA in Statistics), 2019-2021, now at IBM
- Ngoc Ty Nguyen (GRA in Statistics) , 2019-
- Mengling He (GRA in Statistics) , 2019- 2021

Member of Doctoral Studies Committee at GMU

- Qin He (Statistics), 2021-
- Brandon Park (Statistics), graduated in 2019
- Yanying Wang (Statistics), graduated in 2019
- Charles Weko (Statistics), graduated in 2015
- Harutyun Hovsepyan (Statistics), graduated in 2015
- Hui Shao (Statistics), graduated in 2015
- Saugandhika Minnikanti (Department of Electrical and Computer Engineering), graduated in 2013
- Parwen Parhat (Statistics), graduated in 2013
- Brad Patterson (Statistics), graduated in 2012
- Victoria Plamadeala (Statistics), graduated in 2011
- Liang Li (Statistics), graduated in 2011
- Zorayr Manukyan (Statistics), graduated in 2010

M.S. Student (Research Project) at GMU

- Xiaochen Zhu (Statistics), graduated in 2017
- Albert Appiah (Statistics), graduated in 2016
- Runyu Wu (Statistics), graduated in 2016
- Brenden Leavitt (Statistics), graduated in 2015