

**YAJUN MEI**  
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**PROFESSOR OF STATISTICS**  
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## Research Interests

Statistics, machine learning, and data science, and their applications in engineering and biomedical sciences, particularly, change-point problems, sequential analysis, streaming data analysis, and active/reinforcement learning in Statistics and Machine Learning; quality control, sensor networks, and information theory in Engineering; as well as precision/personalized medicine, hot-spots detection for infectious diseases, longitudinal data analysis, random effects models, and clinical trials in Biostatistics.

## Education

- *Ph.D. in Mathematics with a minor in Electrical Engineering*, California Institute of Technology, Pasadena, CA, 2003.  
Thesis: Asymptotically optimal methods for sequential change-point detection  
Advisor: Dr. Gary Lorden
- *B.S. in Mathematics*, Peking University, Beijing, P.R. China, 1996.

## Work Experience

- Georgia Institute of Technology, Atlanta, GA, 01/2006 – present  
(with tenure effective August 15, 2011)
  - Professor, H. Milton Stewart School of Industrial and Systems Engineering (ISyE), 08/2020 – present
  - Faculty member of the Parker H. Petit Institute for Bioengineering and Bioscience (IBB), 08/2019-present
  - Co-Director of Biostatistics, Epidemiology, Research Design (BERD) at Georgia Tech for Georgia Clinical & Translational Science Alliance (Georgia CTSA), 07/2018-present
  - Program Coordinator, Master of Science in Statistics at ISyE, 08/2018-present
  - Associate Professor with tenure, ISyE, 08/2011-07/2020
  - Coca Cola Associate Professorship, ISyE, 07/2014 – 06/2017
  - Assistant Professor, ISyE, 01/2006-07/2011

- New Researcher Fellow at the Statistical and Applied Mathematical Sciences Institute (SAMSI) and Duke University, Research Triangle Park, NC, 09/2005-12/2005
- Postdoctoral Fellow, Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA (Post Doc Supervisor: Dr. Sarah Holte), 07/2003-09/2005
- Software Engineer and Database Administrator, Information Technology Division, Hubei Branch, China Construction Bank, Wuhan, Hubei, P.R. China, 06/1996-08/1998

## Honors and Awards

1. *Fellow of American Statistical Association (ASA)*, 2023
2. *2021 Star Research Achievement Award* in the 2021 Virtual Critical Care Congress, January 31-February 12, 2021, for the collaborative project entitled “Prophylactic Anticoagulation Dosing in Aneurysmal Subarachnoid Hemorrhage Patients Requiring an EVD” (First Author: Dr. Chidozie Ukpadi, Post Doc at Emory, African American. Dr. Mei’s role is the project’s senior statistician).
3. *2020 Best Paper Competition Award* in the Quality, Statistics & Reliability (QSR) of INFORMS, entitled “Adaptive partially-observed sequential change point detection with multiple failure modes” (collaborated with Xinyu Zhao, Jiuyun Hu and Dr. Hao Yan from Arizona State University).
4. *2019 Bronze Snapshot Award* from the Society of Critical Care Medicine (SCCM) in the 49<sup>th</sup> Critical Care Congress, Orland, Florida during February 16-19, 2019, for the collaborative project entitled “Treating Cerebral Vasospasm with Intrathecal Nicardipine in Subarachnoid Hemorrhage Patients” (PI: Professor Ofer Sadan from Emory. Dr. Mei’s role is the project’s senior statistician).
5. *NSF CAREER Award* (DMS-Statistics), 2010-2016.  
Title: *Streaming Data Analysis in Sensor Networks*.
6. *Thank a Teacher Certificate* from the Center for Teaching and Learning, Georgia Tech, in 2011, 2012, 2016, 2020, 2021, 2022, 2023.
7. *2009 Abraham Wald Prize* in Sequential Analysis.
8. *2008 Best Paper Award* of the 11th International Conference on Information Fusion (Fusion 2008), Cologne, Germany, June 30-July 3, 2008 for “*Optimal stationary binary quantizer for decentralized quickest change detection in hidden Markov models*” (co-author with Prof. Cheng-Der Fuh from Taiwan).
9. *New Researcher Fellow* in the Program “National Defense and Homeland Security” at the Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle Park, NC, Fall 2005.
10. *Travel award* to 8th New Researchers Conference, Minneapolis, MN, August 2-6, 2005.
11. *Travel award* to 2004 IEEE International Symposium on Information Theory, Chicago, IL, 2004.
12. *Travel award* to IPAM workshop on inverse problem, UCLA, Los Angeles, CA, 2003.
13. *Travel award* to the SAMSI workshop on inverse problem, Research Triangular Park, NC, 2002.
14. Fred Hutchinson *SPAC Travel Award* to attend 2005 Joint Statistical Meetings, Minneapolis, MN, April 2005.
15. Fred Hutchinson *SPAC Course scholarship*, Fall and Winter, 2003-2004.

## (Refereed) Publications *(the names of student co-authors in italics)*

### Peer-Reviewed Journal Articles

1. *A. Kumar, M. Y. Hu, Y. Mei, and Y. Fan.* CSSQ: A ChIP-seq Signal Quantifier Pipeline. *Frontiers in Cell and Developmental Biology*, 11:1167111. May 2023. doi: 10.3389/fcell.2023.1167111
2. *Q. Xu and Y. Mei,* “Asymptotic optimality theory for active quickest detection with unknown post-change parameters,” *Sequential Analysis*, vol. 42, no. 2, pages 150-181, 2023.
3. *H. Tian, R. Z. Cohen, C. Zhang, and Y. Mei,* “Active learning-based multistage sequential decision-making model with application on common bile duct stone evaluation”, *Journal of Applied Statistics*, January 2023 (Accepted).
4. *W. Zhang, and Y. Mei,* “Bandit change-point detection for real-time monitoring high-dimensional data under sampling control,” *Technometrics*, Vol. 65, no. 1, pages 33-43, 2023.
5. *S. Philips, Y. Shi, C. M. Coopersmith, O. B. Samuel, C. P. Farias, Y. Mei, O. Sadan, and F. Akbik,* “Surge capacity in the COVID-19 Era: a natural experiment of neurocritical care in general critical care.” *Neurocrit Care*. Vol. 38, pages 320-325, 2023.
6. *Y. Zhao, X. Huo, and Y. Mei,* “Identification of Partial-Differential-Equations-Based Models from Noisy Data via Splines,” *Statistica Sinica*, November 2022 (Accepted).
7. *J. Hu, Y. Mei, S. Holte, and H. Yan,* “Adaptive resource allocation CUSUM for Binomial count data monitoring with application to COVID-19 hotspot detection”, *Journal of Applied Statistic*, August 2022 (Accepted). [doi.org/10.1080/02664763.2022.2117288](https://doi.org/10.1080/02664763.2022.2117288)
8. *X. Zhao, J. Hu, Y. Mei, and H. Yan,* “Adaptive partially-observed sequential change detection and isolation”, *Technometrics*, July 2022 (Accepted). [doi.org/10.1080/00401706.2022.2124307](https://doi.org/10.1080/00401706.2022.2124307)
9. *Y. Zhao, X. Huo, and Y. Mei,* “Hot-spots detection in count data by Poisson assisted smooth sparse tensor decomposition”, *Journal of Applied Statistics*, July 2022 (Accepted). [doi.org/10.1080/02664763.2022.2112557](https://doi.org/10.1080/02664763.2022.2112557)
10. *Y. He, N. Suh, X. Huo, S. Kang, and Y. Mei,* “Asymptotic theory of L1-regularized PDE identification from a single noisy trajectory.” *SIAM/ASA Journal on Uncertainty Qualification*, vol. 10, issue 3, pages 1012-1036, 2022.
11. *R. Zhang, Y. Mei, J. Shi, and H. Xu,* “Robustness and tractability for non-convex M-estimators,” *Statistica Sinica*, vol. 32, pages 1295-1316, 2022.
12. *Y. Zhao, H. Yan, S. Holte, and Y. Mei,* “Rapid detection of hot-spots via tensor decomposition with application to crime rate data”, *Journal of Applied Statistics*, vol. 49, issue 7, pages 1636-1662, 2022.
13. *H. Tian, A. Wang, J. Chen, X. Jiang, J. Shi, C. Zhang, Y. Mei, and B. Wang,* “Treatment effect modeling for FTIR signals subject to multiple sources of uncertainties.” *IEEE Transactions on Automation Science and Engineering*, vol. 19, no.2, pages 895-906, 2022.
14. *R. Zhang, Y. Mei, and J. Shi,* “Robust change detection for large-scale data streams.” *Sequential Analysis*, vol. 41, issue 1, pages 1-19, 2022.

15. O. Canbek, Q. Xu, Y. Mei, N. R. Washburn, and K. E. Kurtis, "Predicting the rheology of limestone calcined clay cements (LC<sup>3</sup>): Linking composition and hydration kinetics to yield stress through machine learning." *Cement and Concrete Research*, vol 160, 106925, 2022.
16. F. Akbik, H.D. Konan, K.P Williams, L. M. Ermias, Y. Shi, O. Takiuddin, J.A. Grossberg, B.M. Howard, F. Tong, C. M. Cawley, Y. Mei, O. B. Samuel, and O. Sadan, "Cannabis use is not associated with aneurysmal subarachnoid hemorrhage complications or outcomes." *Stroke*, 53(8):e375-376. Aug 2022.
17. W. Zhang, S. Krehbiel, R. Tuo, Y. Mei, and R. Cummings, "Single and multiple change-point detection with differential privacy," *Journal of Machine Learning Research (JMLR)*, vol. 22, issue 29, 1-36, 2021.
18. Q. Xu, Y. Mei, and G. Moustakides, "Optimum multi-stream sequential change-point detection with sampling control," *IEEE Transactions on Information Theory*, vol. 67, pages 7627-7636, 2021.
19. C. Feng, P. Griffin, S. Kethireddy, and Y. Mei, "A boosting-inspired personalized threshold method for sepsis screening," *Journal of Applied Statistics*, vol. 48, issue 1, page 154-175, 2021. (The conference version won the best student poster award (1<sup>st</sup> place) in the Georgia Statistics Day, University of Georgia, Athens, GA, October 26, 2018).
20. M. Nabhan, Y. Mei and J. Shi, "Correlation based dynamic sampling for online high-dimensional process monitoring." *Journal of Quality Technology*, vol. 53, issue, 3, pages 289-308, 2021.
21. W. Li, C. Zhang, F. Tsung, and Y. Mei, "Nonparametric monitoring of multivariate data via KNN learning," *International Journal of Production Research*, vol. 59, issue 20, pages 6311-6326, 2021.
22. R. Z. Cohen, H. Tian, C. G. Sauer, F. F. Willingham, M. T. Santore, Y. Mei, and A. J. Freeman, "Creation of a pediatric Choledocholithiasis Prediction Model," *Journal of Pediatric Gastroenterology & Nutrition*, vol. 73, issue 5, pages 636-641, 2021.
23. P.A. Archer, L.F. Sestito, M. P. Manspeaker, M. J. O'Melia, N.A. Rohner, A. Schudel, Y. Mei, and S. N. Thomas, "Quantitation of lymphatic transport mechanism and barrier influences on lymph node-resident leukocyte access to lymph-borne macromolecules and drug delivery systems," *Drug Delivery and Translational Research*, vol. 11, issue 6, pages 2328-2343, 2021.
24. J. L. Woodall, J. A. Sak, K. R. Cowdrick, B. M.B. Munoz, J. H. McElrath, G. R. Trimpe, Y. Mei, R. L. Myhre, J. K. Raine, C. R. Hutchinson, "Repetitive low-level blast exposure and neurocognitive effects in army ranger mortarmen," *Military Medicine*, usab394, pages 1-9, 2021. [doi.org/10.1093/milmed/usab394](https://doi.org/10.1093/milmed/usab394)
25. O. Samuels, O. Sadan, C. Feng, K. Martin, K. Medani, Y. Mei, and D. L. Barrow, "Aneurysmal subarachnoid hemorrhage: trends, outcomes, and predictions from a 15-year perspective of a single neurocritical care unit." *Neurosurgery*. vol. 88, issue 3, pages 574-583, 2021.
26. O. Sadan, H. Waddel, R. Moore, C. Feng, Y. Mei, D. Pearce, J. Kraft, C. Pimentel, S. Matthew, F. Akbik, P. Ameli, A. Taylor, L. Danyluk, K. S. Martin, K. Garner, J. Kolenda, A. Pujari, W. Asbury, B. NR Jaja, R L. Macdonald, C. M. Cawley, D. L. Barrow, O. Samuels, "Does intrathecal nicardipine for cerebral vasospasm following subarachnoid hemorrhage correlate with reduced delayed cerebral ischemia? A

- retrospective propensity score-based analysis.” *Journal of Neurosurgery*, vol. 136, issue 1, pages 115-124, 2021.
27. K. Liu and Y. Mei, “Improved performance properties of the CISPRT algorithm for distributed sequential detection.” *Signal Processing*, vol. 172, 107575, page 1--10, 2020.
  28. C. Feng, Y. Mei and B. Vidakovic, “Wavelet-based robust estimation of Hurst exponent with application in visual impairment classification,” *Journal of Data Science*, vol. 18, issue 4, page 581-605, 2020.
  29. O. Sadan, C. Feng, B. Vidakovic, Y. Mei, K. S. Martin, O. B. Samuels, and C. L. Hall, “Glucose Variability as measured by inter-measurement percentage change is predictive of inpatient mortality in aneurysmal subarachnoid hemorrhage,” *Neurocritical Care*, vol. 33, page 458-467, 2020.
  30. T. Yaacoub, D. M. Goldsman, Y. Mei, and G. Moustakides, “Tandem-width sequential confidence intervals for a proportion using the minimax estimator,” *Sequential Analysis*, vol. 38, issue 2, pages 163-183, 2019.
  31. T. Yaacoub, G. Moustakides, and Y. Mei, “Optimal stopping for interval estimation in Binomial Trials,” *IEEE Transactions on Information Theory*, vol. 65, page 3022-3033, 2019. (The conference poster version won one of the best student poster award in the Georgia Statistics Day in Emory University on October 9, 2017).
  32. K. Liu, R. Zhang, and Y. Mei, “Scalable SUM-Shrinkage schemes for distributed monitoring large-scale data streams,” *Statistica Sinica*, vol. 29, page 1-22, 2019.
  33. R. Zhang, and Y. Mei, “Asymptotic statistical properties of communication-efficient quickest detection schemes in sensor networks,” *Sequential Analysis*, vol. 37, issue 3, page 375-396, 2018.
  34. Y. Wang, Y. Mei and K. Paynabar, “Soft-thresholding-based multivariate principal component analysis for multi-channel profiling monitoring,” *Technometrics*, vol. 60, issue 3, page 360-372, 2018.
  35. R. Zhang, J. Wang and Y. Mei, “Search for evergreen in science: a functional data analysis,” *Journal of Informetrics*, vol. 11, issue 3, page 629-644, 2017.
  36. S.E. Holte, E. K. Lee and Y. Mei, “Symmetric Directional False Discovery Rate Control,” *Statistical Methodology*, vol. 33, pp. 71-82, 2016.
  37. Y. Li and Y. Mei, “Effect of bivariate data’s correlation on sequential tests of circular error probability,” *Journal of Statistical Planning and Inference*, vol. 171, pp. 99-114, 2016.
  38. K. Liu and Y. Mei, “Discussion on ‘Sequential detection/isolation of abrupt changes’ by Igor Nikiforov,” *Sequential analysis*, vol. 35, pp. 316-319, 2016.
  39. Yuan Wang and Y. Mei, “Large-scale multi-stream quickest change detection via shrinkage post-change estimation,” *IEEE Transactions on Information Theory*, vol. 61, issue 12, pp. 6926-6938, 2015.
  40. C.D. Fuh and Y. Mei, “Quickest change detection and Kullback-Leibler divergence for two-state Hidden Markov Models,” *IEEE Transactions on Signal Processing*, vol. 63, issue 18, pp. 4866-4878, 2015.
  41. K. Liu, Y. Mei and J. Shi, “An Adaptive Sampling Strategy for Online High-Dimensional Process Monitoring,” *Technometrics*, vol. 57, issue 3, pp. 305-319, 2015.
  42. J. Wang, Y. Mei and D. Hicks, “Comment on ‘Quantifying long-term scientific impact’,” *Science*, vol. 345 no. 6, pp. 149, July 2014.

43. Yan Wang and Y. Mei, "Quantization Effect on the Log-Likelihood Ratio and Its Application to Decentralized Sequential Detection," *IEEE Transactions on Signal Processing*, vol. 61, issue 6, page 1536-1543, 2013.
44. Y. Mei, "Discussion on 'Change-Points: From Sequential Detection to Biology and Back' by David O. Siegmund," *Sequential Analysis*, vol. 32, page 32-35, 2013.
45. Yan Wang and Y. Mei, "A multistage Procedure for Decentralized Sequential Multi-Hypothesis Testing Problems," *Sequential Analysis*, vol. 31, page 505-527, 2012.
46. Y. Mei, S. W. Han and K. Tsui, "Early detection of a change in Poisson rate after accounting for population size effects," *Statistica Sinica*, vol. 21, page 597-624, 2011.
47. Yan Wang and Y. Mei, "Asymptotic optimality theories for decentralized multi-hypothesis sequential detection," *IEEE Transactions on Information Theory*, vol. 57, issue 10, page 7068-7083, 2011.
48. Y. Mei, "Efficient scalable schemes for monitoring a large number of data streams," *Biometrika*, vol. 97, page 419-433, 2010.
49. Y. Mei, "Discussion on 'Question detection problems: fifty years later' by Professor Shiryaev," *Sequential Analysis*, vol. 29, page 410-414, 2010.
50. Y. Mei, S. B. Kim and K. Tsui, "Linear-Mixed effects models for feature selection in high-dimensional NMR spectra," *Expert Systems with Applications*, vol. 36, page 4703-4708, 2009.
51. Y. Mei, "Is average run length to false alarm always an informative criterion?" (with eight discussion pieces from experts in the field and the Author's responses), *Sequential Analysis*, vol. 27, page 354-419, 2008.
52. Y. Mei, "Asymptotic optimality theory for decentralized sequential hypothesis testing in sensor networks," *IEEE Transactions on Information Theory*, vol. 54, issue 5, page 2072-2089, 2008.
53. Y. Mei, L. Wang, and S. Holte, "A comparison of methods for determining HIV viral set point," *Statistics in Medicine*, vol. 27, page 121-139, 2008.
54. Y.D. Zhao, D. Rahardja, and Y. Mei, "Sample size calculation for the VAN ELTEREN test adjusting for ties," *Journal of Biopharmaceutical Statistics*, vol. 18, page 1112-1119, 2008.
55. Y. Mei, "Sequential change-point detection when unknown parameters are present in the pre-change distribution," *The Annals of Statistics*, vol. 34, no. 1, page 92-122, 2006.
56. Y. Mei, "Comments on 'A note on optimal detection of a change in distribution' by Benjamin Yakir," *The Annals of Statistics*, vol. 34, no. 3, page 1570-1576, 2006.
57. Y. Mei, "Suboptimal properties of Page's CUSUM and Shiryaev-Roberts procedures in change-point problems with dependent observations," *Statistica Sinica*, vol. 16, page 883-897, 2006.
58. Y. Mei, "A discussion on 'Detection of intrusions in information systems by sequential change-point methods' by Tartakovsky, Rozovskii, Blazek, and Kim," *Statistical Methodology*, vol. 3, issue 3, page 304-306, 2006.
59. Y. Mei, "Information bounds and quickest change detection in decentralized decision systems," *IEEE Transactions on Information Theory*, vol. 51, issue 7, page 2669-2681, 2005.

## Peer-Reviewed Conference Papers

60. Y. Shi, A. Deshmukh, Y. Mei, and V. V. Veeravalli. Robust high-dimensional linear discriminant analysis under training data contamination. *2023 IEEE International Symposium on Information Theory (ISIT)*, June 2023 (Accepted).
61. F. Akbik, Y. Shi, N. Foster, M. Williams, S. Andrea, R. Kyei, G. Wetsel, S. Phillips, C. Pimentel, O. B. Samuel, Y. Mei, and O. Sadan, “Intracranial pressure is not altered by jugular vein central line placement.” *Critical Care Medicine*, 51(1): p 409, 2023.
62. W. Zhang, Y. Mei, and R. Cummings, “Private Sequential Hypothesis Testing for Statisticians: Privacy, Error Rates, and Sample Size.” *Proceedings of The 25th International Conference on Artificial Intelligence and Statistics (AISTATS 2022)*, PMLR 151:11356-11373, 2022.
63. Y. Luo, X. Huo, and Y. Mei, “The directional bias helps stochastic gradient descent to generalize in kernel regression models.” *2022 IEEE International Symposium on Information Theory (ISIT)*. pp. 678-683, 2022.
64. Y. Luo, X. Huo, and Y. Mei, “Implicit regularization properties of variance reduced stochastic mirror descent.” *2022 IEEE International Symposium on Information Theory (ISIT)*. pp. 696-701, 2022.
65. Q. Xu and Y. Mei, “Active quickest detection when monitoring multi-streams with two affected streams.” *2022 IEEE International Symposium on Information Theory (ISIT)*, pp. 1915-1920, 2022.
66. Y. Shi and Y. Mei, “Efficient sequential UCB-based Hungarian algorithm for assignment problems,” the 58<sup>th</sup> Annual Allerton Conference on Communication, Control, and Computing, page 1-8, 2022. doi: 10.1109/Allerton49937.2022.9929380.
67. Q. Xu, and Y. Mei, “Multi-stream quickest detection with unknown post-change parameters under sampling control,” *Proceedings 2021 IEEE International Symposium on Information Theory*, page 112-117, 2021.
68. Q. Xu, Y. Mei, and G. Moustakides, “Second-order asymptotically optimal change-point detection algorithm with sampling control,” *Proceedings 2020 IEEE International Symposium on Information Theory*, page 1136-1140, 2020.
69. C. Ukpabi, M. Guo, S. Mathew, O. Samuels, Y. Mei, O. Sadan, K. Greene, and W. Asbury, “Prophylactic Anticoagulation dosing in aneurysmal subarachnoid hemorrhage patients requiring an EVD”, *Critical Care Medicine*, vol. 49, issue 1, page 2, 2021.
70. O. Samuels, O. Sadan, C. Feng, K. Martin, K. Medani, Y. Mei, and D. Barrow, “Aneurysmal subarachnoid hemorrhage: Trends, outcomes, and predictions from a 15-year perspective of a single neurocritical care unit”, *Neurosurgery* 2020; nyaa465, <https://doi.org/10.1093/neuros/nyaa465>
71. O. Sadan, C. Feng, D. T. Pearce, J. Kraft, C. Pimentel, S. Mathew, F. Akbik, P.A. Ameli, A.M. Taylor, L. Danyluk, K. S. Martin, K. Garner, J. Kolenda, A. Pujari, Y. Mei, W. Asbury, O. Samuels. “Intrathecal Nicardipine for cerebral vasospasm post subarachnoid hemorrhage – a single center experience,” *Stroke*, vol 51, suppl\_1, pages A65, 2020.
72. N. Suh, R. Zhang and Y. Mei, “Adaptive online monitoring of the Ising model,” the 57<sup>th</sup> Annual Allerton Conference on Communication, Control, and Computing, page 426-431, 2019.
73. Y. Zhao, H. Yao, S. E. Holte, R. P. Kerani, and Y. Mei, “Rapid detection of hot-spot by tensor decomposition with application to weekly gonorrhoea data,” The XIIIth

- International Workshop on Intelligent Statistical Quality Control, page 289-310, Hong Kong, August 12-14, 2019.
74. R. Cummings, S. Krehbiel, **Y. Mei**, R. Tuo and *W. Zhang*, “Differentially private change-point detection,” Thirty-second Conference on Neural Information Processing Systems (NIPS 2018), Montreal, Canada, December 3-8, 2018. The full paper version is available at Arxiv: <https://arxiv.org/abs/1808.10056>.  
(Authors listed based on alphabet order)
  75. O. Sadan, *C. Feng*, B. Vidakovic, **Y. Mei**, K. S. Martin, O. B. Samuels, C. L. Hall, “Blood glucose variability is associated with clinical outcome in aneurysmal subarachnoid hemorrhage patients,” Neurocritical Care Conference Poster, September 2018.
  76. O. B. Samuels, O. Sadan, *C. Feng*, K. S. Martin, **Y. Mei** and D. Barrow, “Aneurysmal Subarachnoid Hemorrhage: 15 year Trend-outcome analysis,” Neurocritical Care Conference Poster, September 2018.
  77. G. Moustakides, *T. Yaacoub*, and **Y. Mei**, “Sequential estimation based on conditional cost,” Proceedings 2017 IEEE International Symposium on Information Theory, Aachen, Germany, page 436-440, June 25-30, 2017.
  78. Cheng-Der Fuh and **Y. Mei**, “Quickest change detection and Kullback-Leibler divergence for two-state Hidden Markov Models,” Proceedings 2015 IEEE International Symposium on Information Theory, Hong Kong, China, page 141-145, June 14-19, 2015.
  79. *Yuan Wang* and **Y. Mei**, “Parallel online monitoring via hard-thresholding post-change estimation,” Proceedings 2014 IEEE International Symposium on Information Theory, Honolulu, HI, USA, page 3190-3194, June 29-July 4, 2014.
  80. *Yan Wang* and **Y. Mei**, “Quantization Effect on second moment of Log-Likelihood Ratio and Its Application to Decentralized Sequential Detection,” Proceedings 2012 IEEE International Symposium on Information Theory, Cambridge, MA, USA, page 314-318, July 1-6, 2012.
  81. **Y. Mei**, “Quickest detection in censoring sensor networks,” Proceedings 2011 IEEE International Symposium on Information Theory, St. Petersburg, RUSSIA, page 2148-2152, July 31- Aug 5, 2011.
  82. *Yan Wang* and **Y. Mei**, “Decentralized multi-hypothesis sequential detection,” Proceedings 2010 IEEE International Symposium on Information Theory, Austin, Texas, page 1393-1397, June 13-18, 2010.
  83. *Yan Wang* and **Y. Mei**, “Decentralized two-sided sequential tests for a normal mean,” Proceedings 2009 IEEE International Symposium on Information Theory, Seoul, KOREA, pages 2408-2412, June 28-July 3, 2009.
  84. Cheng-Der Fuh and **Y. Mei**, “Optimal stationary binary quantizer for decentralized quickest change detection in hidden Markov models,” The 11<sup>th</sup> International Conference on Information Fusion (FUSION 2008), Cologne, Germany, June 30-July 3, 2008.
  85. **Y. Mei**, “Information bounds for decentralized sequential detection,” Proceedings 2006 IEEE International Symposium on Information Theory (ISIT), Seattle, Washington, page 2647-2651, July 9-14, 2006.
  86. **Y. Mei**, “Information bounds and asymptotically optimal procedures for detecting changes in decentralized decision systems,” Proceedings 2004 IEEE International Symposium on Information Theory, Chicago, IL, page 249, June 27-July 2, 2004.



## Peer-Reviewed Book Chapters

87. Y. Zhao, H. Yao, S. E. Holte, R. P. Kerani, and Y. Mei, “Rapid detection of hot-spot by tensor decomposition with application to weekly gonorrhoea data,” in Knoth and Schmid (ed.) “*Frontiers in Statistical Quality Control 13*”, Cham, Switzerland: Springer, page 265-286, 2020.
88. C. Feng, Y. Mei and B. Vidakovic, “Mammogram diagnostics using robust wavelet-based estimator of Hurst exponent,” in Y. Zhao and D. G. Chen (ed.) *New Frontiers in Biostatistics and Bioinformatics*, Cham, Switzerland: Springer, pages 109-140, 2018. (The conference poster version won one of the best student poster awards in the 6<sup>th</sup> workshop on Biostatistics and Bioinformatics, Georgia State University, Atlanta, GA, on May 4-6, 2018).
89. R. Zhang, Y. Mei and J. Shi, “Wavelet-based profile monitoring using order-thresholding recursive CUSUM schemes,” in Y. Zhao and D. G. Chen (ed.) *New Frontiers in Biostatistics and Bioinformatics*, Cham, Switzerland: Springer, pages 141-159, 2018.
90. S. E. Holte and Y. Mei, “Precision in the specification of ordinary differential equations and parameter estimation in modelling biological processes”, in C. Chan, M. G. Hudgens, and S.-C. Chow (ed.) *Quantitative Methods for HIV/AIDS Research*, Boca Raton: CRC press, page 257-282, 2017.

## Other Refereed Materials

91. C. Feng, S. Kethireddy, P. Griffin and Y. Mei, “The age adjusted 12-year incidence and mortality rates of sepsis using the Third International Consensus Definitions for Sepsis and Septic Shocks (Sepsis-3) on MIMIC-III Data,” *CHEST Journal*, vol. 152, issue 4, Supplement, Page A402, 2017.
92. G. Fellouris, G. Moustakides and Y. Mei, “Epidemic detection using CUSUM.” 2010 International Workshop on Applied Probability (IWAP 2010), Universidad Carlos III de Madrid, Colmenrejo, Madrid, Spain, July 5-8, 2010.

## Presentations

### Invited Conference and Workshop Presentations

1. Invited speaker in a workshop on clinical trial designs during September 18-19, 2023 in Bethesda, MD, which is organized by the Office of Biostatistics Research (OBR) at the National Heart, Lung, and Blood Institute (**expected**).
2. “Bandit Sequential Change-Point Detection and its applications,” as one of **Plenary Speakers** in the 8<sup>th</sup> International Workshop in Sequential Methodologies (IWSM), which is scheduled to be held in the Department of Mathematics at Utah Valley University in Orem, Utah, USA during May 21-24, 2024 (**expected**). It was originally scheduled to be held during June 20-23, 2023 in Federal University of Ouro Preto, Minas Gerais, Brazil, which was canceled at the last minute and rescheduled to 2024.
3. “Bandit sequential change-point detection,” Mini-Symposium on Change-point analysis and analysis of structural changes in 2022 Mathematics of Risk (MATRIX), Creswick, Australia, November 7, 2022 (zoom presentation).

4. "Active change-point detection," 2022 Annual INFORMS meeting, Indianapolis, IN, October 17, 2022.
5. "Efficient sequential UCB-based Hungarian algorithm for assignment problems," 2022 Annual Allerton Conference, on Communication, Control, and Computing, University of Illinois at Urbana-Champaign, September 28, 2022.
6. "Active sequential change-point detection under sampling control," 2022 International Chinese Statistical Association (ICSA) Applied Statistics Symposium, University of Florida, Gainesville, FL, June 20, 2022.
7. "Detection of hot-spots based on tensor decomposition," 2021 Annual INFORMS meeting, October 24-27, 2021 (virtual).
8. "Detection of hot-spots in count data by Poisson-based tensor decomposition," 2021 International Chinese Statistical Association (ICSA) Applied Statistics Symposium, September 12-15, 2021 (virtual).
9. 54th Annual Conference on Information Sciences and Systems (CISS), Department of Electrical Engineering, Princeton University, Expected March 18-20, 2020 but cancelled due to COVID-19 pandemic.
10. Rapid Fire Research Presenter, the annual forum at the Center for Health and Humanitarian System, titled "Health Systems: the Next Generation", Georgia Institute of Technology, Atlanta, November 12, 2019.
11. "Rapid detection of hot-spot by Tensor decomposition," 57<sup>th</sup> Annual Allerton Conference, on Communication, Control, and Computing, University of Illinois at Urbana-Champaign, September 24-27, 2019.
12. "Rapid detection of hot-spot by Tensor decomposition," International Workshop on Intelligent Statistical Quality Control, Hong Kong, August 13-15, 2019.
13. "A Multi-Armed Bandit Approach for Online Monitoring High-Dimensional Data in Resource Constrained Environments," 2018 Western Meeting of American Mathematical Society (AMS), Oct 27-28, 2018.
14. "Scalable robust monitoring of high-dimensional profile monitoring in the presence of outliers," 56<sup>th</sup> Annual Allerton Conference on Communication, Control, and Computing, University of Illinois at Urbana-Champaign, October 2-5, 2018.
15. "Scalable robust monitoring of large-scale data streams," 52th Annual Conference on Information Sciences and Systems (CISS), Department of Electrical Engineering, Princeton University, March 23, 2018.
16. "Scalable robust schemes for monitoring large-scale data streams," 6<sup>th</sup> International Workshop in Sequential Methodologies (IWSM 2017), University of Rouen, France, June 20-23, 2017.
17. "Monitoring multivariate data via KNN learning," 5<sup>th</sup> Workshop on Biostatistics and Bioinformatics, Georgia State University, Atlanta, May 5-7, 2017.
18. "Scalable SUM-Shrinkage algorithm for monitoring large-scale data," The 10<sup>th</sup> ICSA International Conference on Global Growth of Modern Statistics in the 21<sup>st</sup> Century, Shanghai Jiao Tong University, Shanghai, China, December 19-22, 2016.
19. "D-ary sequential tests of circular error probability," 2016 International Workshops on Applied Probability, Toronto, Canada, June 20-23, 2016.
20. "Batch effects: symmetric directional false discovery rate control," 2015 Institute of Mathematical Statistics (IMS)-China International Conference on Statistics and Probability, Kunming, Yunan, China, July 1-4, 2015.

21. "Monitoring large-scale data streams via shrinkage," Invited speaker for 2014 Fall American Mathematical Society (AMS) Western Sectional Meeting, San Francisco, October 25, 2014.
22. "Monitoring large-scale data streams via shrinkage," The International Workshop on Change-Point and Related Topics, Department of Mathematics, Shanghai Jiao Tong University, May 9-10, 2014.
23. "From offline shrinkage estimation to online shrinkage monitoring," International Workshop on Sequential Methods and Their Applications, University of Rouen, France, June 4-8, 2012.
24. "Monitoring a large number of data streams via Thresholding," 3<sup>rd</sup> international workshop in Sequential Methodologies (IWSM), Stanford University, California, June 14-16, 2011.
25. "The 2-CUSUM process model for two-choice reaction time: an information-discounting and memory-forgetting model." The 43<sup>rd</sup> Annual meeting of the Society for Mathematical Psychology (MathPsych 2010), August 8 -10, 2010.
26. "Robust rapid change-point detection in multi-sensor data fusion and behavior research," AFOSR Joint Program Review --- Cognition and Decision Program and Human-System Interface Program, Jan 27-29, Arlington, VA, 2010.
27. "Early detection of a change in Poisson rate after accounting for population size effects," 2<sup>nd</sup> international workshop in Sequential Methodologies (IWSM), University of Technology of Troyes, France, June 15-17, 2009.
28. "Online monitoring of high-dimensional data streams," Symposium on "New Directions in Asymptotic Statistics" at the Georgia Center, May 15-16, 2009.
29. "Monitoring multiple data streams," 12<sup>th</sup> Biennial CDC Symposium on Statistical Methods (Info-Fusion: Utilization of Multi-source Data), April 4-8, 2009.
30. "Robust rapid change-point detection in multi-sensor data fusion and behavior research," AFOSR Joint Program Review --- Cognition and Decision Program and Human-System Interface Program, Jan 28-30, Arlington, VA, 2009.
31. "Monitoring multiple data streams," 2008 International Workshop on Applied Probability (IWAP 2008), University of Technology of Compiègne, France, July 7-10, 2008.
32. "Identification of major metabolite features in high-resolution NMR." Second workshop on Artificial Intelligence and Data Mining (WAID 2007), Seattle, Washington, November 3, 2007. (acceptance rate is 19/31=61%).
33. "Decentralized sequential hypothesis testing in sensor networks," First International workshop in sequential Methodologies (IWSM 2007), Auburn University, Auburn, AL, July 22-25, 2007.
34. "Change-Point problems and information fusion." The 8<sup>th</sup> New Researchers Conference, Minneapolis, MN, August 4, 2005.

### **Regular Conference and Workshop Presentations**

35. "Robust high-dimensional linear discriminant analysis under training data contamination," 2023 IEEE International Symposium on Information Theory, Taipei, Taiwan, June 29, 2023

36. "Implicit regularization properties of variance reduced stochastic mirror descent," 2022 IEEE International Symposium on Information Theory, Espoo, Finland, June 27, 2022
37. "Active quickest detection when monitoring multi-streams with two affected streams," 2022 IEEE International Symposium on Information Theory, Espoo, Finland, June 29, 2022
38. "Asymptotically optimal change-point detection algorithm with sampling control," The NSF Algorithms for Threat Detection (ATD) PI Meeting, November 9-10, 2020 (virtual online).
39. "A multi-armed bandit approach for online monitoring high-dimensional streaming data," The NSF Algorithms for Threat Detection (ATD) PI Meeting, George Washington University, October 21-13, 2019.
40. "Adaptive and Rapid Spatial-Temporal Threat Detection over Networks," The NSF Algorithms for Threat Detection (ATD) PI Meeting, American University, October 10-11, 2018.
41. "Quickest change detection and Kullback-Leibler divergence for two-state Hidden Markov Models," 2015 IEEE International Symposium on Information Theory, Hong Kong, China, June 14-19, 2015
42. "Quantization effect on second moment of log-likelihood ratio and its application to decentralized sequential detection," 2012 IEEE International Symposium on Information Theory, Cambridge, MA, USA, July 1-6, 2012.
43. "Quickest detection in censoring sensor networks," 2011 IEEE International Symposium on Information Theory (ISIT), Saint Petersburg, RUSSIA, July 31-August 5, 2011.
44. "Decentralized two-sided sequential tests for a normal mean," 2009 IEEE International Symposium on Information Theory (ISIT), Seoul, KOREA, June 28-July 3, 2009.
45. "Identification of major metabolite features in high-resolution NMR." INFORMS Annual Meeting 2007, Seattle, Washington, November 4-7, 2007.
46. "Sequential hypothesis testing in sensor networks," 2007 Joint Statistical Meetings, Salt Lake City, Utah, July 29- August 2, 2007.
47. "Identification of major metabolite features in high-resolution NMR." 2007 Spring meetings of the Eastern North American Region (ENAR) of the International Biometric Society, Atlanta, Georgia, March 11-14, 2007.
48. "Information bounds for decentralized sequential detection." 2006 IEEE International Symposium on Information Theory, Seattle, WA. July 2006.
49. "A cost-effective design for longitudinal or cluster studies." 2005 Joint Statistical Meetings, Minneapolis, MN, August 6-11, 2005.
50. "Information bounds and asymptotically optimal procedures for detecting changes in decentralized decision systems." 2004 IEEE International Symposium on Information Theory, Chicago, IL. July 2004.
51. "A new look at detection of abrupt changes." 4th International Conference on Mathematical Methods in Reliability. Santa Fe, New Mexico, June 2004.

## Invited Seminar Presentations

52. College of Health Solutions, Arizona State University, March 20, 2023
53. Department of Industrial & Enterprise Systems Engineering, University of Illinois at Urbana-Champaign, February 24, 2023
54. Department of Epidemiology & Biostatistics, University of Georgia, Athens, February 22, 2023
55. Department of Biostatistics, School of Global Public Health, New York University, January 26, 2023
56. “Introduction to sequential analysis and change-point detection”, Data & Analytics University Session, Equifax, January 4, 2023
57. “Bandit multi-stream sequential change-point detection,” The StatScale seminar series, University of Cambridge and Lancaster University, February 25, 2022 (virtual).
58. “Bandit change-point detection and its application”, Department of Mathematics, University of Alabama, November 8, 2019.
59. “Data Science: Research and Teaching,” Tecnologico de Monterrey, Mexico, January 25, 2019.
60. “Multi-Armed Bandit Techniques for High-dimensional Streaming Data Analysis,” Department of Statistics, Columbia University, April 1, 2019.
61. “A Multi-Armed Bandit Approach for Online Monitoring High-Dimensional Streaming Data,” Department of Statistics, University of Minnesota, November 8, 2018.
62. “A Multi-Armed Bandit Approach for Online Monitoring High-Dimensional Streaming Data,” Department of Statistics, University of Georgia, November 1, 2018.
63. “Online Learning: efficient scalable schemes for online monitoring large-scale data streams,” Department of Statistics, University of Pittsburgh, February 12, 2018.
64. “Scalable robust schemes for monitoring large-scale data streams,” Department of Operations Management, Shanghai Jiao Tong University, Shanghai, China, December 26, 2016.
65. “Scalable SUM-Shrinkage algorithm for monitoring large-scale data,” Department of Statistics, University of California, Davis, CA, May 12, 2016.
66. “Scalable SUM-Shrinkage algorithm for monitoring large-scale data,” Department of Statistics, University of California, Riverside, CA, May 10, 2016.
67. “Change-Point detection: SUM-Shrinkage schemes for monitoring large-scale data,” Department of Biostatistics & Epidemiology, Georgia Regents University, Augusta, March 13, 2015.
68. “Monitoring large-scale data streams via shrinkage,” Center for Signal and Information Processing (CSIP), Georgia Institute of Technology, April 18, 2014.
69. “Sequential change-point detection in sensor networks,” Department of Statistics, George Mason University, March 29, 2013.
70. “Monitoring a large number of data streams via Thresholding,” School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, GA, October 21, 2010.
71. “Online monitoring a large number of data streams,” Graduate Institute of Statistics, National Central University, Taiwan, May 18, 2010.

72. "Online monitoring a large number of data streams," Department of Mathematics and Statistics, University of Missouri, Kansas City, October 9, 2009.
73. "Early detection of a change in Poisson rate after accounting for population size effects," Department of Statistics, Kansas State University, October 8, 2009.
74. "Change-Point detection in sensor networks." Department of Statistics, University of Georgia, Athens, GA, November 13, 2008.
75. "Sequential hypothesis testing in sensor networks," Opening Workshop on Environmental Sensor Networks program at the Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle Park, NC, January 15, 2008.
76. "Sequential decision problems in sensor networks," Department of mathematics and Statistics, Peking University, Beijing, P.R. China, May 8, 2007.
77. "Analysis and design of HIV viral dynamic studies." Department of Biostatistics, Emory University, Atlanta, GA. April 26, 2007.
78. "Sequential Decision Problems in Sensor Networks," Georgia State University, Department of mathematics and Statistics, April 14, 2006.
79. "Change-point problems in sensor networks." Columbia University, Department of Statistics, New York, NY, March 2005.
80. "Change-point problems in sensor networks." Georgia Institute of Technology, School of Mathematics and School of Industrial and Systems Engineering, Atlanta, GA, February 2005.
81. "Introduction to sequential change-point problems," National Defense and Homeland Security program at the Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle Park, NC September 29, 2005.
82. "Sequential change-point detection problems for composite pre-change hypotheses." Fred Hutchinson Cancer Research Center, Division of Public Health Sciences, Seattle, WA. December 2003.
83. "Asymptotically optimal methods for sequential change-point detection." California Institute of Technology, Department of Mathematics, Pasadena, CA. May 2003.
84. "Change-point problems for composite pre-change hypotheses." University of California, San Diego, Department of Mathematics, San Diego, CA. February 2003.

## Grants and Contracts

1. Title of Project: *Novel threat detection methodology to detect HIV outbreak in Washington*  
 Agency/Company: National Institutes of Health (NIH).  
 Total Dollar Amount: \$441,358  
 Role: co-PI (PI is Dr. Roxanne Kerani from University of Washington)  
 Period of Contract: 8/12/2022-07/31/2024  
 Candidate's share: 0.5 summer month support and \$1K travel per year for Dr. Mei
2. Title of Project: Georgia Clinical & Translational Science Alliance (Georgia CTSA). Dr. Mei's role is the co-director of the Biostatistics, Epidemiology, Research, design (BERD) at Georgia Tech.  
 Agency/Company: National Institutes of Health (NIH).

Total Dollar Amount: \$60,286,442

Role: Senior Personnel (PIs are Drs. Willian Robert Taylor from Emory (contact), Andres Garcia, Elizabeth O Ofili, Bradley G Philips),

Period of Contract: 7/1/2022 – 6/30/2027

Candidate's Share: 10% annual effort (i.e., 1.2 months support) and 6 months GRA support per year for Dr. Mei.

3. Title of Project: *Active Sequential Change-Point Analysis of Multi-Stream Data*  
Agency/Company: National Science Foundation (NSF), DMS  
Total Dollar Amount: \$210,000  
Role: PI  
Period of Contract: 8/15/2020-07/31/2024 (after the no-cost-extension)  
Candidate's share: 100%
4. Title of Project: *ATD: Collaborative Research: Adaptive and Rapid Spatial-Temporal Threat Detection over Networks*  
Agency/Company: NSF (DMS-1830344)  
Total Dollar Amount: \$119,168  
Role: PI (Dr. Mei is the overall leading PI of the collaborative projects with Arizona State University and Fred Hutchinson Cancer Research Center, as he assembles the collaboration teams. The overall budget is \$250K, and Dr. Mei got about the half.)  
Collaborators: Dr. Hao Yan (ASU), and Dr. Sarah Holte (FHCRC)  
Period of Contract: 9/1/2018-8/31/2021  
Candidate's share: 100%
5. Title of Project: Seminar series of the center for statistical science at Georgia Tech  
Agency/Company: The GT Funds for Advancing Interdisciplinary Collaboration Program, Executive Vice President for Research (EVPR), GT  
Total Dollar Amount: \$4,000  
Role: PI  
Co-PI: Drs. Xiaoming Huo, Vladimir Koltchinskii, Jeff Wu  
Period of Contract: 1/1/2020 – 6/30/2020  
Candidate's Share: 100% (As the statistics seminar chair in Spring 2020, I am fully responsible for this EVPR grant and the statistics seminars)
6. Title of Project: Georgia Clinical & Translational Science Alliance (Georgia CTSA). Dr. Mei's role is the co-director of the Biostatistics, Epidemiology, Research, design (BERD) at Georgia Tech.  
Agency/Company: National Institutes of Health (NIH).  
Total Dollar Amount: \$43,705,705  
Role: Senior Personnel  
Period of Contract: 7/1/2018 – 6/30/2023 (NCE)  
Candidate's Share: \$226,829 for Dr. Mei.

7. Title of Project: *Predicting a patient's risk for severe sepsis and septic shock*  
 Agency/Company: ISyE/George Family Foundation Seed Grant  
 Total Dollar Amount: \$10,000  
 Role: Co-PI  
 Collaborators: Paul Griffin (PI)  
 Period of Contract: 5/1/2015-4/30/2016  
 Candidate's share: ~50% (\$5K)
  
8. Title of Project: *Collaborative Research: Online Monitoring of high-dimensional streaming data using adaptive order shrinkage*  
 Agency/Company: NSF (CMMI-1362876)  
 Total Dollar Amount: \$224,271  
 Role: PI  
 Collaborators: Jan Shi (GT), Kaibo Liu (UW-Madison).  
 Period of Contract: 8/1/2014-7/31/2018  
 Candidate's share: ~50% (\$112K)
  
9. Title of Project: *CAREER: Streaming Data Analysis in Sensor Networks*  
 Agency/Company: NSF (DMS-0954704)  
 Total Dollar Amount: \$400,000  
 Role: PI  
 Period of Contract: 6/1/2010-5/31/2016  
 Candidate's share: 100%
  
10. Title of Project: *Statistical Inference for Censored Preference Data*  
 Agency/Company: NSF (DMS-0907466)  
 Total Dollar Amount: \$175,881  
 Role: Co-PI  
 Collaborators: Guy Lebanon (PI)  
 Period of Contract: 8/1/2009-7/31/2012  
 Candidate's share: ~50% (\$88K)
  
11. Title of Project: *Fundamental Bounds on Decentralized Adaptive Detection in Hidden Markov Models*  
 Agency/Company: NSF (CCF-0830472)  
 Total Dollar Amount: \$183,817  
 Role: PI  
 Period of Contract: 9/1/2008-8/31/2012  
 Candidate's share: 100%
  
12. Title of Project: *Robust Rapid Change-Point Detection in Multi-Sensor Data Fusion and Behavior Research*  
 Agency/Company: Air Force Office of Scientific Research (FA9550-08-1-0376)  
 Total Dollar Amount: \$240,008  
 Role: PI



Period of Contract: 7/1/2008-11/30/2010  
Candidate's share: 100%

13. Title of Project: *Mathematica and Experimental Models for HIV Dynamics*  
Agency/Company: National Institutes of Health. As a subcontract from Dr. Sarah Holte, Fred Hutchinson Cancer Research Center, WA.  
Total Dollar Amount: \$11,672  
Role: PI  
Period of Contract: 4/1/2007-3/31/2008  
Candidate's share: 100%

## Education Activities

### Students Advisements

#### Graduated Ph.D. Students

1. Mr. Sung Won Han, graduated in May 2010 (Co-advise with Kwok Tsui).  
Thesis title: Efficient change detection methods for Bio and healthcare surveillance  
First Position: Post-Doc, Department of Biostatistics and Epidemiology, University of Pennsylvania (2010-2012).  
Current Position: **Associate Professor**, School of Industrial Management Engineering, Korea University, since March 2019.
2. Mr. Yan Wang, graduated in May 2011 (Co-advise with Jeff Wu).  
Thesis title: Asymptotic Theory for Decentralized Sequential Hypothesis Testing Problems and Sequential Minimum Energy Design Algorithm  
Position: Quantitative Analyst at Credit Suisse
3. Ms. Yuan Wang, graduated in June 2016 (Co-advise with Jeff Wu)  
Thesis title: Shrinkage in change detection and uncertainty quantization  
First Position: Analyst/Statistician at Wells Fargo, Charlotte, NC  
Current Position: Quantitative Analytics Manager, Consumer Modeling – Causal Inference, Wells Fargo
4. Ms. Kun Liu, graduated in April 2018  
Thesis title: Efficient data integration techniques in some modern applications  
First Position: Analyst at Wells Fargo, San Francisco, CA  
Current Position: Analyst at JP Morgan
5. Mr. Tony Yaacoub, graduated in Summer 2018 (Co-advise with David Goldsman)  
Thesis title: Sequential interval estimation for a Binomial proportion  
(Tony won a best poster award in Georgia Statistics Day, Emory, Oct 2017)  
Positions: Data Scientist at Delta Airline, Amazon  
Current Position: Manager, Pricing and Inventory Optimization, Delta Air Lines
6. Mr. Mohammad Nabhan, graduated in Spring 2019 (Co-advise with Jan Shi)  
Thesis title: Dynamic robust sparse modelling and sampling of high-dimensional streaming data for online monitoring and change detection

- Position: **Assistant Professor**, King Fahd University of Petroleum and Minerals, Saudi Arabia (starting from June 2019).
7. Ms. Chen (Chelsea) Feng, graduated in August 2019 (Co-advise with Brani Vidakovic)  
Thesis title: feature learning and personalized screening techniques in healthcare (Chelsea won the best poster award (first place) in Georgia Statistics Day at University of Georgia, October 2018, and won the best poster award in the biostatistics and bioinformatics workshop at Georgia State University, May 2018).  
Position: Analyst at Wells Fargo.
  8. Mr. Ruizhi Zhang, graduated in August 2019 (Co-advise with Jan Shi)  
Thesis title: Robust sparse learning and monitoring of high-dimensional data (Ruizhi received Alice and John Jarvis Ph.D. Student Research Award (honorable mention) at ISyE in April 2019, was one of the best student paper award finalists in Quality, Statistics, and Reliability Section of INFORMS in November 2018, and won the best student poster award in the biostatistics and bioinformatics workshop at Georgia State University, May 2017).  
First Position: Tenure-track Assistant Professor, Department of Statistics, University of Nebraska.  
Current Position: Tenure-track **Assistant Professor**, Department of Statistics, University of Georgia, Athens, since August 2022.
  9. Mr. Zhuonan Li, graduated in August 2020 (Co-advise with David Goldsman)  
Thesis title: Computational advances for big data analytics and medical decision making  
Position: Data Scientist, Uber
  10. Ms. Yujie Zhao, graduated in August 2021 (Co-advise with Xiaoming Huo)  
Thesis title: New progress in hot-spots detection in spatial-temporal data, partial-differential-equation-based model identification, and statistical computing  
Position: Senior Scientist, Merck
  11. Ms. Hongzhen (Jenny) Tian, graduated in August 2021 (co-advise with Chuck Zhang)  
Thesis title: Information extraction from messy data: noisy spectra, incomplete data, and unlabeled images.  
Position: Data & Applied Scientist, Microsoft, Redmond, Washington
  12. Ms. Wanrong Zhang, graduated in August 2021 (Co-advise with Rachel Cummings)  
Thesis title: Privacy-preserving statistical tools: Differential Privacy and Beyond  
Position: **Post-Doc** at Harvard University  
[Wanrong was funded by NSF as a 2021 Computing Innovation Fellow (CIFellow)]
  13. Ms. Yiling Luo, graduated in December 2022 (Co-advise with Xiaoming Huo)  
Thesis title: Stochastic methods in model estimation: new algorithms and new properties  
First Position: Analyst at Wells Fargo
  14. Mr. Namjoon Suh, graduated in December 2022 (Co-advise with Xiaoming Huo)  
Thesis title: Statistical viewpoints on network model, PDE identification, and low-rank matrix estimation and deep learning

First Position: **Post-Doc** at UCLA

15. Mr. Yuyang Shi, graduated in May 2023  
Thesis title: Efficient robust algorithms for linear discriminant analysis and sequential matching problems  
First Position: Data Scientist at Chevron

### **In Process Ph.D. Students**

1. Mr. Qunzhi Xu, 4<sup>th</sup> year student on Ph.D. IE/Statistics  
Passed thesis proposal in Spring 2022, expected to be graduated in December 2023
2. Mr. Paul Horton, 1<sup>st</sup> year PhD student, Ph.D. Machine Learning, 2022
3. Ms. Xinyuan Zhang, Ph.D. Machine Learning, 2023 (expected)

### **M.S. Students** (Indicate thesis option for each student)

1. Ms. Xinyuan Zhang, M.S. Statistics, Spring 2022, Summer 2022, Fall 2022 (recruited as a PhD student at Georgia Tech in Fall 2023)
2. Ms. Jinghong Miao, M.S. OR (non-thesis), Spring 2022
3. Mr. Anjie Ding, M.S. OR (non-thesis), Spring 2022
4. Ms. Yinzhu Quan, M.S. CSE (non-thesis), Fall 2021.
5. Mr. Heejune Sheen, M.S. Statistics (non-thesis), Fall 2020.  
Admitted to the Ph.D. Statistics at Yale University in Fall 2021.
6. Mr. Moyi Guo, M.S. Quantitative & Computational Finance (non-thesis), Spring 2019, Fall 2019. Admitted to the Ph.D. Industrial Engineering at Georgia Tech in Fall 2020.
7. Mr. Namjoon Suh, M.S. Statistics (non-thesis), Fall 2017 (Graduated in Spring 2018).  
Admitted to the Ph.D. Machine Learning program at Georgia Tech in Fall 2018.

### **Undergraduate Students**

1. Mr. Nicholas Stockton, Spring 2022
2. Ms. Jingyu Zhu, Fall 2014, Spring & Summer 2015 (Admitted to Ph.D. IE, Northwestern, Fall 2016).
3. Mr. Richard Lu, Fall 2013 (Admitted to Ph.D. IE, Berkeley, Fall 2014).
4. Mr. Sovandy Hang, Fall 2008.

### **Course Taught** (in recent 8 years)

(\* cross-listed and counted as a single course in each semester)

Semester, Year	Course Number	Course Title	Number of Students
Spring 2023	ISyE 7406QCF	Data Mining and Stat Learning	36
	ISyE 7406OAN	Data Mining and Stat Learning	343
Fall 2022	ISyE 6412	Theoretical Statistics	35
	ISyE 7406OAN	Data Mining and Stat Learning	399

Spring 2022	ISyE 6421	Biostatistics	41
	ISyE 7406QCF	Data Mining and Stat Learning	66
	ISyE 7406OAN	Data Mining and Stat Learning	295
Fall 2021	ISyE 6412	Theoretical Statistics	54
	ISyE 6414	Regression Analysis	75
	ISyE 7406OAN	Data Mining and Stat Learning	296
Spring 2021	ISyE 6414A/Q	Regression Analysis	85
	ISyE 7406A/Q	Data Mining and Stat Learning	38
	ISyE 7406OAN	Data Mining and Stat Learning	164
Fall 2020	ISyE 6412	Theoretical Statistics	29
Spring 2020	ISyE 6414	Regression Analysis	77
	ISyE 7406	Data Mining and Stat Learning	65
Fall 2019	ISyE 6412	Theoretical Statistics	61
Summer 2019	ISyE 2027	Probability & Apps	5
	ISyE 3770	Statistics and Applications	17
Spring 2019	ISyE 2027	Probability & Apps	67
Fall 2018	ISyE 6412A	Theoretical Statistics	48
	ISyE 4106AB	Senior Design	30
Spring 2018	BMED 6700*	Biostatistics	18
	ISyE 6421A*	Biostatistics	22
	ISyE 6421MSA*	Biostatistics	3
Fall 2017	ISyE 6412A	Theoretical Statistics	49
	ISyE 3770B	Statistics and Applications	66
Spring 2017	ISyE 7406A*	Data Mining and Stat Learning	82
	ISyE 7406Q*	Data Mining and Stat Learning	5

Fall 2016	ISyE 6412A	Theoretical Statistics	51
	ISyE 3770MW	Statistics & Applications	74
Spring 2016	ISyE 7406A*	Data Mining and Stat Learning	68
	ISyE 7406Q*	Data Mining and Stat Learning	10
Fall 2015	ISyE 6412A	Theoretical Statistics	42
	ISyE 3770MW	Statistics & Applications	70

### **Educational Innovations and Other Contributions**

1. Developed the online version for ISyE 7406 “Data Mining and Statistical Learning”, a useful course for Master of Science and Ph.D. students, including those M.S. students in Business Analytics and distance learning students, and teach it in Spring 2021 (with about 200 students), Fall 2021 and Spring 2022 (around 300 students), and Fall 2022 (around 400 students) and Spring 2023 (around 350 students).
2. Modernizes and is currently the primary instructor for ISyE 6412 “Theoretical Statistics”, one of the core courses for the Ph.D. degree programs in Machine Learning and Industrial Engineering.
3. Developed ISyE 6421 (cross-listed as BMED 6700) “Biostatistics” in 2009 (with Professor Brani Vidakovic, then at Department of Biomedical Engineering, and Professor Jung Choi at Department of Biology).
4. Supervised the undergraduate Senior Design team, sponsored by Cox Automotive, on the project “Vehicle Remarketing System Scalability”, which won the ISyE Judges Award (with monetary prize of \$1000) at Georgia Tech Capstone Expo on December 4, 2018.
5. Supervised the undergraduate Senior Design team, sponsored by GE Energy, on the project “Parts Allocation for GE energy”, which was chosen as the first-place winner in the ISyE Best of Senior Design competition in Fall 2010.

### **Service**

#### **Editorial Board Memberships**

1. Associate Editor for *Technometrics*: January 2023-present
2. Associate Editor for *Statistica Sinica*: August 2014-present
3. Associate Editor for *Journal of Applied Statistics*, January 2017-present
4. Associate Editor for *Sequential Analysis*, January 2020-present
5. Guest Co-Editor of a special issue “Mathematical Fundamentals of Machine Learning” for *Frontiers in Applied Mathematics and Statistics*, 2019-2021

6. Guest Lead Editor of a special issue on “Modern Steaming Data Analytics” for *Journal of Applied Statistics*, 2021-2023

### **Society Offices, Activities, and Membership**

1. Management committee member for the journal *Technometrics*, 2022-2024 (one main task is to choose the editor-in-chief of the journal).
2. President, Georgia Chapter of American Statistical Association (ASA), 2018-2019. My main contributions are as follows:
  - Increased the diversity of the chapter and enhanced the relationship with universities in Georgia other than CDC/Emory/GT/UGA by recruiting liaison officers from Augusta University, Georgia Southern, Georgia State University, and Kennesaw State University;
  - Engaged and developed future members by relocating more financial resources to support high-school, undergraduate and graduate students through the best student poster awards in various workshops in Georgia;
  - Initialized to create ASA Georgia chapter awards to honor chapter members and past officers, and presented two inaugural chapter awards in the chapter business meeting on November 13, 2018: the lifetime achievement award to Dr. Michael Kutner, the founder of ASA Georgia Chapter, and the outstanding chapter service award to Dr. Jose Binongo, the long-time chapter officer.
  - Applied for and received the ASA stimulus funding of \$1000 for the Georgia Chapter to elevate chapter enthusiasm and growth in the membership;
  - Applied for and got a traveling course from the ASA for the Georgia Chapter. I also organized the traveling course, which was held in ISyE at Georgia Tech during 8:30am-5:00pm on Saturday, March 24, 2018. There were 36 attendees, including undergraduate, graduate, post doc, faculty and professionals.
  - Co-organized the 2018 ASA Georgia Chapter Fall Meeting, which was held in Emory University on November 13, 2018. There were 42 attendees.
3. Vice-President, Georgia Chapter of ASA, 2017-2018.
4. Life-Active member of American Statistical Association (ASA), since 01/01/2017.
5. Life member of Institute of Mathematical Statistics (IMS), since 2016 (regular member during 2003-2016).
6. Permanent member of International Chinese Statistical Association (ICSA), since 2016.
7. Previous society memberships include American Mathematical Society (AMS), International Biometric Society (IBS)/Eastern North American Region (ENAR), Institute of Electrical and Electronics Engineers (IEEE) Information Theory Society, Institute for Operations Research and the Management Sciences (INFORMS).

### **Organization and Chairmanship of Technical Sessions, Workshops and Conferences**

1. The 2023 ICSA China Conference, Scientific Program Committee. I am co-organizing two invited sessions on modern statistical process control and change-point problems with 8 invited speakers, June 30-July 3, 2023.

2. The 2022 INFORMS Annual Conference. I am co-organizing one invited session on streaming data analysis. October 2022.
3. The 2022 ICSA Applied Statistics Symposium Program Committee  
I am co-organizing 3 invited sessions with 12 invited speakers for the ICSA Applied Statistical symposium in June 19-22, 2022.
4. The 2021 ICSA Applied Statistics Symposium Program Committee  
I am co-organizing 5 invited sessions with 20 invited speakers for the ICSA Applied Statistical symposium in September 12-15, 2021.
5. Scientific Program Committee for the Biennial International Workshop in Sequential Methodologies (IWSM) since 2007. I am responsible to organize one or more invited sessions. In particular, in IWSM 2017 that was hosted in the University of Rouen, France, June 20-23, 2017, I organized four (4) invited sessions by inviting 12 speakers.
6. Organizing committee of “WuFest: A conference on Engineering Statistics and Related Topics”, Georgia Institute of Technology, May 10-11, 2019.
7. Organizing committee of 2019 Georgia Statistics Day, Georgia Institute of Technology, October 14, 2019.
8. Local Committee of the 25<sup>th</sup> ICSA applied Statistics Symposium, Atlanta, Georgia, June 12-15, 2016 (organize three (3) sessions on change-point problems by inviting 12 speakers, and help symposium local organizations).
9. Session Chair for 2005 Joint Statistical Meetings, Minneapolis, MN, August 6-11, 2005.

### Technical Journal or Conference Referee Activities

1. Referee for Statistical journals such as *The Annals of Statistics*, *Journal of the American Statistical Association (JASA)*, *Journal of the Royal Statistical Society (JRSS)*, *Techometrics*, *Statistica Sinica*, *Sequential Analysis*, *Bernoulli*, *Bayesian Statistics*, *Communications in Statistics – Theory and Methods*
2. Referee for Engineering journals such as *IEEE Transactions on Information Theory*, *IEEE Transactions on Signal Processing*, *IIE Transactions*, *Journal of Quality Technology*
3. Referee for other journals/conferences: *Mathematics of Operations Research*, *Naval Research Logistics*, *IEEE International Symposium on Information Theory*

### Proposal Panels and Reviews

1. Panelist, NSF DMS, 2013, 2019, 2021, 2023
2. Panelist, NSF CMMI, 2022
3. Reviewer, NSF CCF-CIF, 2012
4. Reviewer, Pilot Grants Programs of the Georgia Clinical and Translational Science Alliance, 2019, 2020, 2021, 2022, 2023.
5. Reviewer, Israel Science Foundation, 2011 & 2013.

## **Institute Contributions**

- Co-Director of Biostatistics, Epidemiology, Research Design (BERD) at Georgia Tech for Georgia Clinical & Translational Science Alliance (Georgia CTSA), since Fall 2018. In particular, I provided free weekly in-person and/or online biostatistical consulting services on proposals, journal/conference papers, and research to the bio-researchers in Georgia Tech and Emory, especially junior researchers such as undergraduate, graduate, Post Doc, and junior faculty:
  - 11 persons/projects in Fall 2018 & 14 persons/projects in Spring 2019
  - 17 persons/projects in Fall 2019 & 16 persons/projects in Spring 2020
  - 28 persons/projects in Fall 2020 & 24 persons/projects in Spring 2021
  - 16 person/projects in Fall 2021 & 18 person/projects in Spring 2022
  - 15 person/projects in Fall 2022 & 16 person/projects in Spring 2023
- China Summer Program, an undergraduate study abroad program at Georgia Tech
  - Associate Program Director during 2019-2021,
  - Program co-Director since Fall 2022.
- Coordinator, the Master of Science in Statistics program at Georgia Tech, since Fall 2018. Dr. Mei's main tasks are:
  - Lead and organize the 5-year Academic Program Review in October 2021
  - Prepare for and submit the annual update on the program APR action plan to Dean's office since Fall 2018
  - Supervise and advise current MS statistics students including regular meetings, course selection suggestions, career advisements, and providing recommendation letters for jobs or Ph.D. studies.
  - Recruit and interact prospective MS statistics students

## **School Committee Service**

1. Served on the ISyE Graduate Curriculum Committee (GCC), 2016-2018, 2018-2020 (committee chair in 2019-2020), 2022-2024.
2. Served on the ISyE IT Committee, 2020-2021
3. Served on the ISyE Periodic Review Committee, 2017-2018, 2021-2022.
4. Served on the ISyE Awards Committee, 2015-2017.
5. Served on the ISyE Faculty Search Committee, 2011-2014.
6. Served on the ISyE PhD Comprehensive Exam (statistics) committee, 2022-2023 (committee chair), 2019-2020 (committee chair), 2016-2017 (committee chair), 2015-2016, 2013-2014, 2011-2012, 2009-2010, 2007-2008.
7. Served on the ISyE Undergraduate Curriculum Committee, 2008-2010.



8. Served as the ISyE Statistics seminar chair, 2006 -2007, Spring 2020.
9. Served as a committee member for initiative in biostat and medical OR, 2006
10. Served as ISyE representative in the MS program in Statistics, 2006

### **Program Development**

1. Coordinate to modernize Ph.D. IE/statistics curriculum so that the students can concentrate earlier on research, Spring & Fall 2018, and the proposal of reducing course work load for Ph.D. IE/statistics students from 14 courses to 11+X was passed in ISyE faculty meeting in Fall 2018.
2. Coordinate to propose modernized core courses for Quality and Statistics Concentration, IE BS program, Spring 2017.
3. Coordinate the recruitment and admissions of Ph.D. IE/statistics students during 2014~2019, with the focus of recruiting top Ph.D. statistics students while keeping the student populations diverse.