

## **CURRICULUM VITA (August 2017)**

**George Michailidis**

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### **1. WORKING EXPERIENCE:**

- Director of the Informatics Institute,  
University of Florida, January 2015 -
- Professor of Statistics, Computer and Information Sciences,  
University of Florida, January 2015 -
- Director Biostatistics and Bioinformatics Core,  
Michigan Regional Comprehensive Metabolomics Resource Center, July 2013 -
- Visiting Professor of Statistics,  
University of Michigan, January 2015 -
- Professor of Statistics, Electrical Engineering and Computer Science,  
The University of Michigan, September 2008 - December 2014
- Graduate and Associate Chair, Department of Statistics,  
The University of Michigan, May 2006 - September 2012
- Associate Professor, Department of Electrical Engineering and Computer Science,  
The University of Michigan, September 2007 - September 2008
- Associate Professor (with tenure), Department of Statistics,  
The University of Michigan, January 2004 - September 2008
- Assistant Professor, Department of Statistics,  
The University of Michigan, September 1998 - December 2003
- Faculty Associate, Department of Computational Medicine and Biology  
The University of Michigan, September 2000 - December 2014
- Faculty Associate, Center for Statistical Genetics,  
The University of Michigan, September 2000 - December 2014
- Senior Fellow, Institute of Pure and Applied Mathematics,  
Los Angeles, CA, Spring 2004
- Senior Fellow, Statistical and Applied Mathematical Sciences Institute,  
Research Triangle Park, NC, Fall 2003, Winter 2011
- Post-Doctoral Fellow, Department of Engineering-Economics Systems & Operations  
Research  
Stanford University, September 1996 - August 1998

## 2. HONORS AND AWARDS:

- Fellow, Institute of Mathematical Statistics, 2012
- Fellow, American Statistical Association, 2010
- Elected Member, International Statistical Institute, 2009
- Editor-in-Chief, Electronic Journal of Statistics, 2013-2015
- Plenary Speaker, Spring Research Conference, Ames, IA, 2007
- 5th Jan de Leeuw Seminar Speaker, UCLA, 2013
- Plenary overview lecturer, Joint Statistical Meetings, Baltimore, MD, 2017
- Best Paper Award, IEEE SmartGridComm, Tainan, Taiwan, 2012
- Best Paper Award, IEEE VAST Challenge, Atlantic City, NJ, 2009
- Best Paper Award, IEEE International Conference on Communications, Glasgow, 2007
- Paper Selected for Best Readings in the SmartGrid Area by the IEEE Communications Society, 2014

## 3. EDUCATION:

- **Ph.D.** in Mathematics,  
*University of California at Los Angeles, 1996*
- **M.A.** in Mathematics,  
*University of California at Los Angeles, 1991*
- **M.A.** in Economics,  
*University of California at Los Angeles, 1990*
- **B.S.** in *Economics*, First Class Honors,  
*University of Athens, Greece, 1987*

## 4. RESEARCH INTERESTS:

1. Modeling and analysis of high-dimensional data
2. Modeling and analysis of networks with applications to finance, biology and engineering
3. Bioinformatics with emphasis on integration of diverse Omics data
4. Stochastic control with emphasis on routing and scheduling problems for computer, communications and electrical power networks

5. Change-point analysis
6. Long-range dependence and heavy-tails with applications to network traffic

## 5. PUBLICATIONS:

### 5.1. Monographs:

Sushmita Mitra, Sujay Datta, Theodore Perkins, George Michailidis (2008)  
 Introduction to Machine Learning and Bioinformatics  
 CRC Press, Boca Raton, FL

### 5.2. Published/Accepted in Journals:

1. Lin, J. and Michailidis, G. (2017), Regularized Estimation and Testing for High-Dimensional Multi-Block Vector-Autoregressive Models, *Journal of Machine Learning Research*, to appear
2. Tarzanagh, D.A. and Michailidis, G. (2017), Estimation of Graphical Models through Structured Norm Minimization, *Journal of Machine Learning Research*, to appear
3. Basu, S., Duren, W., Evans, C., Burant, C., Michailidis, G. and Karnovsky, A. (2017), Sparse Graphical Modeling and Visualization Tools for the Analysis of Metabolic Networks, *Bioinformatics*, 33(10), 1545-1553 (co-corresponding author)
4. Piyarantha, D.W.B. et al. (2017), Distinct Lipidomic Landscapes Associated with Clinical Stages of Urothelial Cancer of the Bladder, *European Urology Focus*, DOI: <http://dx.doi.org/10.1016>
5. Kaushik, A. et al. (2016) (Michailidis is co-corresponding author), Inhibition of Hexosamine Biosynthetic Pathway Promotes Castration Resistant Prostate Cancer, *Nature Communications*, 7, article #: 11612
6. Lin, J., Basu, S., Banerjee, M. and Michailidis, G. (2016), Penalized Maximum Likelihood Estimation of Multi-layered Gaussian Graphical Models, *Journal of Machine Learning Research*, 17(146):151
7. Roy, S., Atcade, Y. and Michailidis, G. (2016), Change-point estimation in High-Dimensional Markov Random Fields, *Journal of the Royal Statistical Society, Series B*, to appear, DOI: 10.1111/rssb.12205
8. Ma, J. and Michailidis, G. (2016), Joint Structural Estimation of Multiple Graphical Models, *Journal of Machine Learning Research*, 17(166):148
9. Ma, J., Shojaie, A. and Michailidis, G. (2016), Network-Based Pathway Enrichment Analysis with Incomplete Network Information, *Bioinformatics*, 32(20): 3165-3174
10. Kallitsis, M., Stoev, S., Bhattacharya, S. and Michailidis, G. (2016), AMON: An Open Source Architecture for Online Monitoring, Statistical Analysis and Forensics of Multi-gigabit Streams, *IEEE transactions on Selected Areas in Communications*, 34(6): 1834-1848

11. Xia, D., Mankad, S. and Michailidis, G. (2016), Measuring Influence in Twitter Ecosystems Using a Counting Process Modeling Framework, *Technometrics*, 58, 360-370
12. Yang, Z. and Michailidis, G. (2016), A Non-negative Matrix Factorization Method for Detecting Modules in Heterogeneous Omics Multi-modal Data, to appear in *Bioinformatics*, 32 (1): 1-8
13. Afshinia, F. et al. (2016), (Michailidis is co-senior author) Lipidomic Signature of Progression of Chronic Kidney Disease in the Chronic Renal Insufficiency Cohort, *Kidney International Reports*, 1(4), 256-268
14. Sas, K. et al. (2016), Tissue Specific Metabolic Reprogramming Drives Nutrient Flux in Diabetic Complications, *Journal of Clinical Investigation Insight*, 1(15),e86976
15. Faradonbeh, M.K.S., Tewari, A. and Michailidis, G. (2015), Optimality of Fast Matching Algorithms for Random Networks with Applications to Structural Controllability, to appear in *IEEE Transactions on Control of Network Systems*, DOI: 10.1109/TCNS.2016.2553366
16. Mallik, A., Sen, B., Banerjee, M. and Michailidis, G. (2016), Asymptotics for P-value based threshold estimation under repeated measurements, *Journal of Statistical Planning and Inference*, 174, 85-103
17. Basu, S. and Michailidis, G. (2015), Regularized Estimation in Sparse High-Dimensional Time Series Models, *Annals of Statistics*, 43, 1535-1567
18. Basu, S., Shojaie, A. and Michailidis, G. (2015), Network Granger Causality with Inherent Group Structure, *Journal of Machine Learning Research*, 16, 417-453
19. Mankad, S and Michailidis, G. (2015), Analyzing Multiview Parliament Networks with Structured Semi-Nonnegative Matrix Factorization: Does Twitter Influence Translate to the Real World?, *Annals of Applied Statistics*, 9, 1950-1972
20. Tang, R., Banerjee, M., Michailidis, G. and Mankad, S. (2015), Two-Stage Plans for Estimating a Threshold Value of a Regression Function, *Technometrics*, 57, 395-407
21. Yudovina, E. and Michailidis, G. (2015), Socially Optimal Charging Strategies for Electric Vehicles, *IEEE Transactions on Automatic Control*, 60(3), 837-842
22. Bayram, I.S., Michailidis, G. and Devetsikiotis, M. (2015), Load Balancing in a Network of Charging Stations Under QoS Guarantees *IEEE Transactions on SmartGrid*, 6(3), 1292-1302
23. Hung, Y.C. and Michailidis, G. (2015), Optimal Routing for Electric Vehicle Service Systems, *European Journal of Operations Research*, 247(2), 515-524
24. Sas, K., Karnovsky, A., Michailidis, G. and Pennathur, S. (2015), Metabolomics and Diabetes: Analytical and Computational Approaches, 64(3), 718-732

25. Bhowmik, S.K., Ramirez-Pena, E., Arnold, J.M., Putluri, V., Sphyris, N., Michailidis, G., Putluri, N., Ambs, S., Sreekumar, A. and Mani, S.A. (2015), EMT-Induced Metabolite Signature Identifies Poor Clinical Outcome, *Oncotarget*, 6(40):42651-60
26. Guo, J., Cheng, J., Levina, E., Michailidis, G. and Zhu, J. (2015), Estimating Heterogeneous Graphical Models for Discrete Data with an Application to Roll Call Data, *Annals of Applied Statistics*, 9(2), 821-848
27. Guo, J., Levina, E., Michailidis, G. and Zhu, J. (2015), Graphical Models for Ordinal Data, *Journal of Computational and Graphical Statistics*, 24(1), 183-204
28. Lim, N., d'Alche-Buc, F., Auliac, C. and Michailidis, G. (2015), Operator-valued Kernel based Vector Autoregressive Models for Network Inference, *Machine Learning*, 99(3), 489-513
29. Kang, Y.K. et al. (2015), CAPER Is Vital for Energy and Redox Homeostasis by Integrating Glucose-Induced Mitochondrial Functions via ERR--Gabpa and Stress-Induced Adaptive Responses via NF-B-cMYC, *PLoS Genetics*, 11(4):e1005116
30. Senbabaoglu, Y., Michailidis, G. and Li, J. (2014), Critical limitations of consensus clustering in class discovery, *Nature Scientific Reports*, 4, 6207
31. Ross, K., Bambos, N. and Michailidis, G. (2014), Cone Schedules in Random Fluctuating Environments, to appear in the *IEEE Transactions on Automatic Control*
32. Putluri, N. et al. (2014), Pathway-centric integrative analysis identifies RRM2 as a prognostic marker in breast cancer associated with poor survival and tamoxifen resistance, *Neoplasia*, 16(5), 390-402 (co-senior correspondent author)
33. Mankad, S. and Michailidis, G. (2014), Biclustering Three Dimensional Data Arrays with Plaid Models, *J. Computational and Graphical Statistics*, 23(4), 943-965
34. Henderson, J. and Michailidis, G. (2014), Network Reconstruction using Nonparametric Additive ODE Models, *PLoS One*, 10.1371/journal.pone.0094003
35. Shojaie A., Jauhiainen A., Kallitsis M., and Michailidis G. (2014) Inferring Regulatory Networks by Combining Perturbation Screens and Steady State Gene Expression Profiles, *PLoS One*, 10.1371/journal.pone.0082393
36. Kaushik, A. et al. (2014), Metabolomic Profiling identifies Biochemical Pathways Associated with Castrate Resistant Prostate Cancer, to appear in *Journal of Proteomics Research*, 13 (2), 1088-1100 (co-senior correspondent author)
37. Stashi, E. et al. (2014), SRC-2 Is an Essential Coactivator for Orchestrating Metabolism and Circadian Rhythm, *Cell Reports*, 6(4), 633 - 645
38. Michailidis, G. and d'Alche-Buc, F. (2013), Autoregressive models for gene regulatory network inference: sparsity, stability and causality issues, *Mathematical Biosciences*, 246, 326-334

39. Mankad, S. and Michailidis, G. (2013), Structural and Functional Discovery in Dynamic Networks with Non-negative Matrix Factorization, *Physical Review, E*, 88, 042812
40. Senbabaoglu, Y., Lim, N., Michailidis, G., d'Alche-Buc, F. (2013) OKVAR-Boost: a novel boosting algorithm to infer nonlinear dynamics and interactions in gene regulatory networks, *Bioinformatics*, 29, 1416-1423
41. I. S. Bayram, G. Michailidis, M. Devetsikiotis, and F. Granelli (2013), Electric Power Allocation in a Network of Fast Charging Stations, *IEEE Journal on Selected Areas in Communications*, 31, 1235-1246
42. Khan, A.P. et al. (2013), The role of Sarcosine in Prostate Cancer Progression, *Neoplasia*, 15, 491-501
43. Vaughan, J., Stoev, S. and Michailidis, G. (2013), Network-wide Statistical Modeling, Prediction and Monitoring of Computer Traffic, *Technometrics*, 55, 79-93
44. Michailidis, G. (2012), Statistical Challenges in Biological Networks, *Journal of Computational and Graphical Statistics*, 21, 840-855
45. Katenka, N., Levina, E. and Michailidis, G. (2012), Tracking multiple targets using binary decisions from wireless sensor networks, *JASA, CS&A*, 108, 398-410
46. Shojaie A., Basu S. and Michailidis G. (2012) Adaptive Thresholding for Reconstructing Regulatory Networks from Time Course Gene Expression Data, *Statistics in Biosciences*, 4, 66-83
47. Kallitsis, M., Stoev, S. and Michailidis, G. (2012), Fast Algorithms for Optimal Link Selection in Large Scale Network Monitoring, *IEEE Transactions Signal Processing*, 61, 2088-2103
48. Farfan, F. et al. (2012), THINK Back: Knowledge-based Interpretation of High Throughput data, *BMC Bioinformatics*, 13:S4
49. Hung, Y.C. and Michailidis, G. (2012), Stability and Control of Acyclic Stochastic Processing Networks with Shared Resources, *IEEE Transactions on Automatic Control*, 57(2), 489-491
50. Kallitsis, M., Michailidis, G. and Devetsikiotis, M. (2012), Optimal Power Allocation Under Communication Network Externalities, *IEEE Transactions on Smart Grids*, 3(1), 162-1739
51. Jauhainen, A. et al. (2012), Transcriptional and metabolic data integration and modeling for identification of active pathways, *Biostatistics*, 13, 748-761
52. Shaverdian, A., Zhou, H, Michailidis, G. and Jagadish, H.V. (2012), A Graph Algebra for Visual Analytics, *IEEE Transactions on Computer Graphics and Applications*, 32, 26-33

53. Hamidieh, K., Stoev, S. and Michailidis, G. (2012) Intensity Based Estimation of Extreme Loss Event Probability and Value-at-Risk, *Applied Stochastic Models in Business and Industry*, to appear
54. Putluri, N., Shojaie, A. et al. (2011), Metabolomic Profiling Reveals Potential Markers and Bioprocesses Altered in Bladder Cancer Progression, *Cancer Research*, 71(24):7376-8
55. Putluri, N., Shojaie, A., Vasu, V., Thagjam, S., Fischer, S., Michailidis, G. and Sreekumar, A. (2011), Metabolomic Profiling Reveals Potential Markers and Mechanism for Bladder Cancer Progression, *Plos ONE*, 6(7):e21417
56. Mallik, A., Sen, B., Banerjee, M. and Michailidis, G. (2012), Threshold identification based on a p-value framework, *Biometrika*, 98(4), 887-900
57. Guo, J., Levina, E., Michailidis, G. and Zhu, J. (2011), Joint Estimation of Multiple Graphical Models, *Biometrika*, 98, 1-15  
(One of the four winning papers in the 2010 ASA Statistical Learning and Data Mining section paper competition)
58. Stoev, S., Michailidis, G. and Taqqu, M. (2011), Estimating Heavy-tail Exponents through max Self-similarity, *IEEE Transactions on Information Theory*, 57(3), 1615-1635
59. Singhal, H. and Michailidis, G. (2011), Dual Modality Network Tomography, *IEEE Transactions on Information Theory*, 57, 5054-5071
60. Shojaie A. and Michailidis G. (2010), Discovering Graphical Granger Causality Using a Truncating Lasso Penalty, *Bioinformatics*, 26(18), 517-523  
(One of four winning papers in the 2010 Student Paper Competition of the ASA's Statistical Computing and Graphics Sections)
61. Shojaie, A. and Michailidis, G. (2010), Penalized Likelihood Methods for Estimation of Directed Acyclic Graphs with Applications to Biological Networks, *Biometrika*, 97, 519-538
62. Tang, R., Banerjee, M. and Michailidis, G. (2010), A Two-Stage Hybrid Procedure for Estimating an Inverse Regression Function, *Annals of Statistics*, 39, 956-989
63. Shojaie A. and Michailidis G. (2010), Network Enrichment Analysis in Complex Experiments, *Statistical Applications in Genetics and Molecular Biology*, 9(1), article 22
64. Khan, A., Poisson, L.M., Bhat, V., Fermin, D., Zhao, R., Shanker, K.S., Michailidis, G., Nesvizhskii, A.I., Omenn, G.S., Chinnaiyan, A.M. and Sreekumar, A. (2010), Quantitative proteomic profiling of prostate cancer reveals a role for miR-128 in prostate cancer, *Molecular and Cellular Proteomics*, 9(2), 298-312
65. Singhal, H. and Michailidis, G. (2010), Optimal Experiment Design in a Filtering Context with Application to Sampled Network Data, *Annals of Applied Statistics*, 4, 78-93

66. Guo, J., Levina, E., Michailidis, G. and Zhu, J. (2010) Pairwise variable selection for high-dimensional model-based clustering, *Biometrics*, 66, 793-804 (One of four winning papers in the 2009 ASA Student Paper Competition sponsored by the Statistical Computing Section)
67. Culp, M., Michailidis, G. and Johnson, K. (2010), The Ensemble Bridge Algorithm: A New Modeling Tool for Drug Discovery Problems, *Journal of Chemical Information and Modeling*, 50(2), 309-316
68. Stoev, S. and Michailidis, G. (2010), On the Estimation of the Heavy Tail Exponent in Time Series using the Max-Spectrum, *Applied Stochastic Models in Business and Industry*, 26, 224 -253
69. Chen, X., Sans, M.D., Strahler, J., Vogel, N., Ersnt, S., Michailidis, G., Andrews, P.C. and Williams, J.A. (2009), Quantitative organellar proteomics analysis of rough endoplasmic reticulum from normal and acute pancreatitis rat pancreas, *Journal of Proteome Research*, 9(2), 885-896
70. Guo, J., James, G., Levina, E., Michailidis, G. and Zhu, J. (2009) Principal component analysis with sparse fused loadings, to appear in *Journal of Computational and Graphical Statistics*, (One of the winning papers in the 2009 ENAR Student Paper Competition)
71. Culp M., Johnson K., Michailidis G. (2009), On Adaptive Regularization Methods in Boosting, to appear in *Journal of Computational and Graphical Statistics*
72. Singh, A., Wirtz, M., Parker, N., Hogan, M., Strahler, J., Michailidis, G., Schmidt, S., Vidal-Puig, A., Diano, S., Andrews, P.C., Brand, M. and Friedman (2009), Leptin-Mediated Changes in Hepatic Mitochondrial Metabolism, Structure, and Protein Levels, *Proceedings of the National Academies of the USA*, 106, 13000-13005
73. Kallitsis, M., Michailidis, G. and Devetsikiotis, M. (2009), Measurement-based Optimal Resource Allocation of Network Services Pricing Differentiation, *Performance Evaluation*, 66, 505-523
74. Culp, M. and Michailidis, G. (2009), A Co-Training Algorithm for Multi-view Data, *Journal of Chemometrics*, 23, 294-303
75. Keshamouni, V., Jagtap, P., Michailidis, G., Strahler, J., Kuick, R., Reka, A., Papoulias, P., Krishnapuram, R., Srirangam, A., Standiford, T., Andrews, P.C. and Omenn, G.S. (2009), Temporal Quantitative Proteomics by iTRAQ 2D-LC-MS/MS and Corresponding mRNA Expression Analysis Identify Post-Transcriptional Modulation of Actin-Cytoskeleton Regulators During TGF- $\beta$ -Induced Epithelial-Mesenchymal Transition, *Journal of Proteome Research*, 8, 35-47
76. Shojaie, A. and Michailidis, G. (2009), Analysis of Gene Sets Based on the Underlying Regulatory Network, *Journal of Computational Biology*, 16, 406-427 (Editor's pick for the 2009 March issue and one of the winning papers in the 2009 ENAR Student Paper Competition)



77. Lan, Y., Banerjee, M. and Michailidis, G. (2009), Change-point estimation under adaptive sampling, *Annals of Statistics*, 37, 1752-1791
78. Culp, M., Michailidis, G. and Johnson, K. (2009), On Multi-view Learning with Additive Models, *Annals of Applied Statistics*, 3, 292-318
79. Hamidieh, K., Stoev, S. and Michailidis, G. (2009), On the Estimation of the Extremal Index based on Scaling and Resampling, *Journal of Computational and Graphical Statistics*, 18, 731-755
80. Culp, M. and Michailidis, G. (2008), An Iterative Algorithm for Extending Learners to a Semi-Supervised Setting, *Journal of Computational and Graphical Statistics*, 17, 545-571
81. Katenka, N., Levina, E. and Michailidis, G. (2008), Robust Target Localization From Binary Decisions in Wireless Sensor Networks, *Technometrics*, 50, 448-461
82. Ranjan, P., Bingham, D. and Michailidis, G. (2008), Sequential Experiment Design for Contour Estimation From Complex Computer Codes, *Technometrics*, 50, 572-541
83. Culp, M., and Michailidis, G. (2008), Graph Based Semi-Supervised Learning, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 30, 174-179
84. Katenka, N., Levina, E. and Michailidis, G. (2008), Local-Vote Decision Fusion for Target Detection in Wireless Sensor Networks, *IEEE Transactions on Signal Processing*, 56, 329-338
85. Hung, Y.C. and Michailidis, G. (2008), Modeling, Scheduling and Simulation of Switched Processing Systems, *ACM Transactions on Modeling, Analysis and Computer Simulation*, 18, article 12
86. Yocum, A., Gratsch, T.E., Leff, N., Strahler, J.R, Hunter, C.L, Walker, A., Michailidis, G., Omenn, G.S., O'Shea, S., and Andrews, P.C. (2008), Coupled Global and Targeted Proteomics of Human Embryonic Stem Cells during Induced Differentiation, *Molecular and Cellular Proteomics*, 7, 750-764
87. Singhal, H. and Michailidis, G. (2007), Identifiability of Flow Distributions from Link Measurements in Computer Networks, *Inverse Problems*, 23, 1821-1850
88. Afshartous, D. and Michailidis, G. (2007), Distributed Multilevel Modeling, in *Journal of Computational and Graphical Statistics*, 16, 901-924
89. Denby, L., Landwehr, J., Mallows, C., Meloche, J., Tuck, J., Xi, B., Michailidis, G. and Nair, V.N. (2007), Statistical Aspects of the Analysis of Data Networks, *Technometrics*, 49, 318-334
90. Lawrence, E., Michailidis, G. and Nair, V.N. (2006), Flexicast Delay Tomography, *Journal of the Royal Statistical Society, Series B*, 68, 785-814

91. Xi, B., Michailidis, G. and Nair, V.N. (2006), Estimating Network Loss Rates Using Active Tomography, *Journal of the American Statistical Association*, 101, 1430-1448
92. Jagtap, P., Michailidis, G., et al. (2006), Early Events of Bacillus Anthracis Germination Identified by Time Course Quantitative Proteomics, *Proteomics*, 6, 5199-5211
93. Keshamouni, V.G., Michailidis, G., Grasso, C.S., et al. (2006), Differential Protein Expression Profiling by iTRAQ-2LC-MS/MS of Lung Cancer Cells Undergoing Epithelial-Mesenchymal Transition Reveals a Migratory/Invasive Phenotype, *Journal of Proteome Research*, 5, 1143-1154
94. Culp, M., Johnson, K. and Michailidis, G. (2006), ada: an R package for Stochastic Boosting, *Journal of Statistical Software*, vol 17, issue 2
95. Xu, P., Michailidis, G. and Devetsikiotis, M. (2006), Large Profit-Oriented Resource Allocation Using Online Scheduling in Flexible Heterogeneous Networks, *Telecommunications Systems*, 31, 289-303
96. Wasserman, K.M, Michailidis, G. and Bambos, N. (2006), Stability and Buffer Analysis of a General Parallel Processing System, *Performance Evaluation*, 63, 1-14
97. Stoev, S., Taquq, M.S., Park, C., Michailidis, G. and Marron, J.S. (2006), LASS: a tool for the local analysis of self-similarity in Internet traffic, *Computational Statistics and Data Analysis*, 50, 2447-2471
98. Lawrence, E., Michailidis, G. and Nair, V.N. (2005), Local Area Network Analysis using End-to-end Delay Tomography, *Performance Evaluation Review*, 33, 39-45
99. Haab, B., Geierstanger, B.H, Michailidis, G., Vitzhum, F., Forrester, S., Okon, R., Saviranta, P., Brinker, A., Sorette, M., Perlee, L., Suresh, S., Drwal, G., Adkins, J.N. and Omenn, G. (2005), Immunoassay and antibody microarray analysis of the HUPO PPP reference specimens: systematic variation between sample types and calibration of mass spectrometry data, *Proteomics*, 13, 3278-3291
100. Rolls, D., Michailidis, G. and Hernandez-Campos, F. (2005), Queueing Analysis of Network Traffic: Theoretical Framework and Visualization Tools, *Computer Networks*, 48, 447-473
101. Bambos, N. and Michailidis, G. (2005), Queueing Networks of Random Link Topology: Stationary Dynamics of Maximal Throughput Schedules *Queueing Systems: Theory and Applications*, 50, 5-52
102. Michailidis, G. and de Leeuw, J. (2005), Homogeneity Analysis using Absolute Deviations, *Computational Statistics and Data Analysis*, 48, 587-603
103. Qiu, J., Madoz, J.G., Misek, D.E., Kiuck, R., Brenner, D.E., Michailidis, G., Haab, B.B., Omenn, G.S. and Hanash, S. (2004), Development of Natural Protein Microarrays for Diagnosing Cancer Based on an Antibody Response to Tumor Antigens, *Journal of Proteome Research*, 3, 261 - 267

104. De Leeuw, J. and Michailidis, G. (2004), Weber Correspondence Analysis: The One-dimensional Case, *Journal of Computational and Graphical Statistics*, 13, 946-953
105. Bambos, N. and Michailidis, G. (2004), Queueing and Scheduling in Random Environments, *Advances in Applied Probability*, 45, 293-317
106. Wu, W.B., Michailidis, G. and Zhang, D. (2004), Simulating Sample Paths of Stable Fractional Motion, *IEEE Transactions on Information Theory*, 50, 1086-1096
107. Sousa, B. and Michailidis, G. (2004), A New Diagnostic Plot for the Tail Index of Heavy Tailed Distributions, *Journal of Computational and Graphical Statistics*, 13, 974-1001
108. Michailidis, G. and Shedden, K. (2003), The Application of Rule-Based Methods to Class Prediction Problems in Genomics, *Journal of Computational Biology*, 10, 689-698
109. Schwartz, D.R., Kardia, S.L.R., Shedden, K.A., Kuick, R., Michailidis, G., Taylor, J.M.G., Misek, D.E., Wu, R., Zhai, Y., Darrah, D.H., Reed, H., Ellenson, L.H., Giordano, T.J., Fearon, E.R., Hanash, S.M. and Cho, K.R. (2002), Gene Expression in Ovarian Cancer Reflects Both Morphology and Biological Behavior, Distinguishing Clear Cell from Other Poor-Prognosis Ovarian Carcinomas, *Cancer Research*, 62, 4722-4729
110. Li, Y.J., Lescure, P., Misek, D., Lai, Y.M., Kuick, R. Thompson, R., Demo, B., Kurnit, D., Michailidis, G., Hanash, S. and Gantz, I. (2002), Food Deprivation-induced Expression of Minoxidil Sulfotransferase in the Hypothalamus Uncovered by Microarray Analysis, *The Journal of Biological Chemistry*, 277, 9069-9076
111. Xia, C., Michailidis, G., Bambos, N. and Glynn, P. (2002), Optimal Control of Parallel Queues with Batch Service, *Probability in the Engineering and Information Sciences*, 16, 289-307
112. Bambos, N. and Michailidis, G. (2002), On Parallel Queueing with Random Server Connectivity and Routing Constraints, *Probability in the Engineering and Information Sciences*, 16, 185-203
113. Xia, C., Michailidis, G. and Bambos, N. (2001), Dynamic Online Task Scheduling on Parallel Processors, *Performance Evaluation*, 46, 219-233
114. Michailidis, G. and de Leeuw, J. (2001), Data Visualization through Graph Drawing, *Computational Statistics*, 16, 435-450
115. Michailidis, G. and de Leeuw, J. (2000), Multilevel Homogeneity Analysis with Differential Weighting, *Computational Statistics and Data Analysis*, 32, 411-442
116. Michailidis, G. and de Leeuw, J. (1998), The Gifi System of Descriptive Multivariate Analysis, *Statistical Science*, 13, 307-336
117. Bond, J. and Michailidis, G. (1997), Interactive Correspondence Analysis in a Dynamic Object-Oriented Environment, *Journal of Statistical Software*, 2, issue 8

118. Bond, J. and Michailidis, G. (1996), Homogeneity Analysis in Lisp-Stat, *Journal of Statistical Software*, 1, issue 2
119. Donatos, G. and Michailidis, G. (1996), A Monte Carlo Study of Some Limited and Full Information Simultaneous Equation Estimators with Normal and Nonnormal Autocorrelated Disturbances, *Journal of Statistical Planning and Inference*, 50, 273-282
120. Donatos, G. and Michailidis, G. (1993), A Simulation Study of Least Squares and Ridge Estimators for Normal and Nonnormal Autocorrelated Disturbances, *Journal of Statistical Computation and Simulation*, 47, 49-66
121. Donatos, G. and Michailidis, G. (1990), Small Sample Properties of Ridge Estimators with Normal and Nonnormal Disturbances, *Communications in Statistics, Simulation and Computation*, 19, 935-950
122. Kioulafas, K., Donatos, G. and Michailidis, G. (1991), Public and Private Sector Wage Differentials in Greece, *International Journal of Manpower*, 12, 9-14

### 5.3. Refereed Conference Papers:

1. Bambos, N. and Michailidis, G. (1995), "On the Stationary Dynamics of Parallel Queues with Random Server Connectivities," *Proceedings of the 34<sup>th</sup> Conference on Decision and Control*, New Orleans, LA
2. Bambos, N. and Michailidis, G. (1996), "Dynamic Server Allocation to Parallel Queues with Randomly Modulated Service Rates; Resource Allocation in Wireless Communication Networks," *Proceedings of the 30<sup>th</sup> Conference on Information Sciences and Systems*, Princeton, NJ
3. Hung, Y.C. and Michailidis, G. (2002), "On the Design of Efficient Simulations for Complex Stochastic Processing Networks", *Proceedings of the 36th Conference on Information Sciences and Systems*, Princeton, NJ
4. Zhang, D., Michailidis, G., Wasserman, K. and Wu, W.B. (2002), "A Low Complexity Network Traffic Predictor using Aggregation", *Proceedings of the 36th Conference on Information Sciences and Systems*, Princeton, NJ
5. Wu, W.B., Michailidis, G. and Zhang, D. (2002), "Fast Simulations of Fractional Stable Motion", *Proceedings of the 2002 Winter Simulation Conference*, San Diego, CA
6. Michailidis, G. (2002), "Classifying Gene Expression Data through Pairwise Comparisons", *Proceedings of Workshop on Genomic Signal Processing and Statistics*, Raleigh, NC
7. Xi, B., Michailidis, G. and Nair, V.N. (2003), "Least Squares Estimates of Network Link Loss Probabilities using End-to-End Multicast Measurements", *Proceedings of the 37th Conference in Information Sciences and Systems*, Baltimore, MD

8. Lawrence, E., Michailidis, G. and Nair, V.N. (2003), "Maximum Likelihood Estimation of Internal Network Link Delay Distributions using Multicast Measurements", *Proceedings of the 37th Conference on Information Sciences and Systems*, Baltimore, MD
9. Hung, Y.C. and Michailidis, G. (2003), "Developing Efficient Simulation Methodology for Complex Queuing Networks", *Proceedings of the 2003 Winter Simulation Conference*, New Orleans, LA
10. Michailidis, G. (2003), "Optimal Allocation in a Queuing System with Shared Resources", *Proceedings of the 42nd IEEE Conference on Decision and Control*, Maui, Hawaii
11. Xu, P., Michailidis, G. and Devetsikiotis, M. (2005), "Online Scheduling for optimal resource allocation in flexible heterogeneous networks", *Proceedings of the 39th Conference on Information Sciences and Systems*, Baltimore, MD
12. Grasso, C., Michailidis, G. and Andrews, P. (2005), "Analyzing Duplex iTRAQ Experiments to Detect Differentially Expressed Proteins", *Proceedings of the 13th Annual Conference on Intelligent Systems for Molecular Biology (ISMB)*, Detroit, MI
13. Lawrence, E., Michailidis, G. and Nair, V.N. (2005), Local Area Network Analysis using End-to-end Delay Tomography, Large Scale Network Inference Workshop, Banff, AB
14. Michailidis, G. and Bambos, N. (2005), On the Singular Behavior of a Queueing System with Random Connectivity, *Proceedings of the 44th IEEE Conference on Decision and Control*, Seville, Spain
15. Hung, Y.C. and Michailidis, G. (2006), Improving Quality of Service for Switched Processing Systems, to appear *Proceedings of 11th Workshop on Computer-Aided Modeling, Analysis and Design of Communication Networks*, Trento, Italy (31% acceptance rate)
16. Yang, L. and Michailidis, G. (2006), Estimation of Flow Lengths from Sampled Traffic, *Proceedings of Globecom*, San Francisco, CA (30% acceptance rate)
17. Yang, L. and Michailidis, G. (2007), Sampled Based Estimation of Network Traffic Flow Characteristics, in *Proceedings of Infocom*, Anchorage, AK (18% acceptance rate)
18. Kallitsis, M., Michailidis, G. and Devetsikiotis, M. (2007), Pricing and Resource Allocation in next Generation Network Services, in *Proceedings Sarnoff Symposium*, Princeton, NJ
19. Hung, Y.C. and Michailidis, G. (2007), A Measurement Based Dynamic Policy for Switched Processing Systems, in *Proceedings of International Conference on Communications*, Glasgow, Scotland (26% acceptance rate), *Best Paper Award*

20. Singhal, H. and Michailidis, G. (2008), Optimal Sampling in State Space Models with Applications to Network Monitoring, *Proceedings of Sigmetrics*, Annapolis, MD (17% acceptance rate)
21. Kallitsis, M., Callaway, R., Devetsikiotis, M. and Michailidis, G. (2008), Distributed and Dynamic Resource Allocation for Delay Sensitive Network Services, *Proceedings of Globecom*, New Orleans, LA (28% acceptance rate)
22. Shaverdian, A., Zhou, H., Michailidis, G. and Jagadish, H.V. (2009), Algebraic Visual Analysis of the Catalano Phone Call Data Set, *KDD Visual Analytics Workshop*, Paris, France (30% acceptance rate)
23. Zhou, H., Shaverdian, A., Jagadish, H.V. and Michailidis, G. (2009), Multiple Step Social Structure Analysis with Cytoscape, *Proceedings of IEEE VAST Challenge*, Atlantic City, NJ (25% acceptance rate), *Best Paper Award*
24. Stoev, S., Michailidis, G. and Vaughn, J. (2009), Global Modeling of Network Traffic, *Proceedings of IEEE Infocom*, San Diego, CA (17% acceptance rate)
25. Shojaie, A. and Michailidis, G. (2010), Penalized Principal Component Regression on Graphs for Analysis of Subnetworks, *Proceedings of Neural Information Processing Systems*, Vancouver, Canada, (24% acceptance rate)
26. Basu S., Shojaie A. and Michailidis G. (2011) Estimating Regulatory Networks from Time Course Gene Expression Data via Adaptive Penalization, *Proceedings of 26th NIPS Workshop on Machine Learning in Computational Biology*
27. Bayram, I.S., Michailidis, G. et al. (2011) Local energy storage sizing in plug-in hybrid electric vehicle charging stations under blocking probability constraints, *Proceedings of IEEE SmartGridComm*, Brussels, Belgium, (27% acceptance rate)
28. Shaovakarphan, B., Michailidis, G. and Devetsikiotis, M. (2011), Aggregated-DAG Scheduling for Job Flow Maximization in Heterogeneous Cloud Computing, *Proceedings of IEEE Globecom*, Houston, TX (30% acceptance rate)
29. Kallitsis, M., Michailidis, G. and Devetsikiotis, M. (2011), Network Decomposition in Practice: an Application to Optimal Resource Allocation, *Proceedings of IEEE Globecom*, Houston, TX (30% acceptance rate)
30. Bayram, I.S, Michailidis, G., Devetsikiotis, M. and Parkhideh, B. (2012), Strategies for Competing DC Energy Storage Technologies for Fast Charging Stations, *Proceedings of IEEE SmartGridComm*, Tainan, taiwan, (Best Paper Award)
31. Michailidis, G. (2013), Power Allocation to a Network of Charging Stations based on Network Tomography Monitoring, *Proceedings of IEEE 18th Digital Signal Processing Conference*, Santorini, Greece, (30% acceptance rate)

32. Bayram, I.S., Michailidis, G. and Devetsikiotis, M. (2013), Electric Power Resource Provisioning for Large Scale Public EV Charging Facilities, *Proceedings of IEEE SmartGridComm*, Vancouver, Canada (28% acceptance rate)
33. Kallitsis, M., Tout, S. and Michailidis, G. (2015), Correlative Monitoring for Detection of False Data Injection Attacks in Smart Grids, *Proceedings of IEEE SmartGridComm*, Miami, FL (28% acceptance rate)
34. Kallitsis, M., Bhattacharya, S., Stoev, S. and Michailidis, G. (2016), Adaptive Statistical Detection of False Data Injection Attacks in Smart Grids, *Proceedings of IEEE GlobalSIP*, Washington, DC (25% acceptance rate)

#### 5.4. Other Publications: Refereed Articles in Books and Invited Discussions:

1. Bayram, S., Michailidis, G., Devetsikiotis, M., Granelli, F. and Bhattacharya, S. (2011), Smart Vehicles in the Smart Grid: Challenges, Trends and Application to the Design of Charging Stations, in *Control and Optimization Methods for the Smart Grid*, Chakraborty and Ilic (eds), 133-145
2. Michailidis, G. (2006), Data Visualization Through Their Graph Representations, *Handbook of Computational Statistics: Data Visualization*, 103-120, Chen, Hardle, Unwin (eds), Springer, Heidelberg
3. Lawrence, E., Michailidis, G. and Nair, V.N, (2006), Discussion of Monitoring Networked Applications with Incremental Quantile Estimation, *Statistical Science*, 21, 479-482
4. Lawrence, E., Michailidis, G. and Nair, V.N, (2006), Statistical Inverse Problems in Active Network Tomography, in *Complex Datasets and Inverse Problems: Tomography, Networks and Beyond*, Liu, Strawderman & Zhang (eds.), IMS Lecture Notes, vol 54, 12-44, Beachwood, OH
5. Lawrence, E., Michailidis, G., Nair, V.N. and Xi, B. (2006), Network Tomography: A Review and Recent Developments, in *Frontiers in Statistics*, 345-364, Fan and Koull (eds), World Scientific, Hackensack, NJ
6. Michailidis, G. (2006), Principal Components Analysis, in *Encyclopedia of Measurement and Statistics*, N. Salkind (ed.), SAGE Publications, Thousand Oaks, CA
7. Michailidis, G. (2006), Correspondence Analysis, in *Encyclopedia of Measurement and Statistics*, ed. N. Salkind, SAGE, Thousand Oaks, CA
8. Michailidis, G. (2005), Minimum Spanning Trees: Computations and Applications, in *Encyclopedia of Behavioral Statistics*, B. Everitt and D. Howell (eds), Wiley, New York
9. Michailidis, G. (2005), Some Extensions to Principal Components Analysis, in *Encyclopedia of Behavioral Statistics*, B. Everitt and D. Howell (eds), Wiley, New York

10. Michailidis, G. (2003), Visual Exploration of Data through their Graph Representations, in *Recent advances and trends in nonparametric statistics*, 169-182, Eds: M.G. Akritas and D.N. Politis, Elsevier, Amsterdam
11. De Leeuw, J, and Michailidis, G. (2000), Graph-Layout Techniques and Multidimensional Data Analysis, *Papers in Honor of T.S. Ferguson*, Le Cam, L. and Bruss, F.T. (eds), 219-248 IMS Monograph Series, Hayward, CA
12. De Leeuw, J. and Michailidis, G. (2000), Discussion of Optimization Transfer Using Surrogate Objective Functions by Lange et al. *Journal of Computational and Graphical Statistics*, 9, 26-31
13. De Leeuw, J, Michailidis, G. and Wang, D. (1999), Correspondence Analysis Techniques, in *Multivariate Analysis, Design of Experiments and Survey Sampling*, S. Ghosh (ed), 523-546, New York: Marcel Dekker
14. Donatos, G. and Michailidis, G. (1996), Ridge Regression: Twenty Five Years After, in *Research Studies in Economic Quantitative Analysis*, Thalassinos (ed.), 194-213, University of Piraeus, Greece

### **Under Review**

1. Kirilenko, A., Mankad, S. and Michailidis, G. (2017), Do U.S. Regulators Listen to the Public? Testing the Regulatory Process with the RegRank Algorithm, *Journal of The Royal Statistical Society, Series A*
2. Brunetti, C. Harris, J., Mankad, S. and Michailidis, G. (2015), Interconnectedness in the Interbank Market, *Journal of Financial Economics*, revised for *Journal of Financial Economics*
3. Skrypnikov, A. and Michailidis, G. (2017), High-dimensional estimation of fused VAR models, *Journal of Computational and Graphical Statistics*
4. Basu, S., Das, S., Michailidis, G. and Purnanadam, A. (2017), System-wide Approach to Measure Connectivity in the Financial Sector, *Review of Financial Studies*
5. Tarzanagh, D.A. and Michailidis, G. (2017), Fast Monte Carlo Algorithms for Tensor Operations, *SIAM Journal on Computing*
6. Roy, S., Atchade, Y. and Michailidis, G. (2016), Likelihood Inference for Large Scale Stochastic Blockmodels with Covariates based on a Divide-and-Conquer Parallelizable Algorithm with Communication, revised for *Journal of Computational and Graphical Statistics*
7. Ghosh, S., Khare, K. and Michailidis, G. (2017), Bayesian VAR Models, revised for *Journal of the American Statistical Association*



8. Bhattacharjee, M., Banerjee, M. and Michailidis, G. (2017), Change Point Estimation for Panel Data, *Journal of Econometrics*
9. Basu, S., Li, X. and Michailidis, G. (2017), Fast Algorithms for Structured Learning in High-Dimensional Vector Autoregressive Models, *Journal of Machine Learning Research*
10. Zhang, S. and Michailidis, G. (2017), Structure Discovery in Time Evolving Networks, *IEEE Transactions on Pattern Analysis and Machine Intelligence*
11. Hung, Y.C. and Michailidis, G. (2017), Modeling and Optimization of Time-Of-Use Electricity Pricing Systems, *IEEE Transactions on Smart Grid*
12. Faradonbeh, M.K.S, Tewari, A. and Michailidis, G. (2017), Finite Sample Estimation in Non-stationary Vector Autoregressive Models, *NIPS 2017*
13. Tarzanagh, D.A. and Michailidis, G. (2017), Tensor Outlier Pursuit, *NIPS 2017*
14. Lu, Z., Banerjee, M. and Michailidis, G. (2017), Intelligent sampling for multiple change-points in very long time series: the needles in haystack problem, *Journal of the Royal Statistical Society, B*
15. Niaki, A.S., George, C.P., Michailidis, G. and Beal, C. (2017), The Impact of an Online Tutoring Program for Algebra Readiness on Mathematics Achievements; Results of a Randomized Experiment, *Computers and Education*

## **6. STUDENT SUPERVISION:**

### **Ph.D Graduates, University of Michigan:**

- (1) Ying-Chao Hung (2002), “Modeling and Analysis of Stochastic Processing Networks with Shared Resources”,  
currently Professor, Department of Statistics, Chengchi University, Taiwan
- (2) Bruno Sousa (2002), “A Contribution to the Estimation of the Tail Index of Heavy Tailed Distributions”,  
currently Research Fellow at the Centre for Malaria and Tropical Diseases, Associated Laboratory (CMDT.LA), Universidade Nova de Lisboa, Portugal
- (3) Bowei Xi (2004) (joint with V. Nair), “Estimating Internal Link Loss Rates Using Active Tomography”,  
currently Associate Professor, Department of Statistics, Purdue University, USA
- (4) Earl Lawrence (2005) (joint with V. Nair), “Flexicast Network Delay Tomography”,  
currently Member of the Technical Staff, Los Alamos National Laboratories, USA
- (5) Xiadong Yang (2006) (joint with V. Nair), “Design of Probing Experiments for Online Monitoring of Network Performance”,  
currently at Amazon, China

- (6) Marc Culp (2007), “Multi-view Learning with Additive Models on Graphs”, currently Associate Professor, Department of Statistics, West Virginia University, USA
- (7) Yan Lan (2007) (joint with M. Banerjee), “Topics On Change-Point Estimation Under Adaptive Sampling Procedures”, currently Senior Analyst, Bank of America, USA.
- (8) Hamidieh, K. (2008) (joint with S. Stoev), “Topics in Statistical Modeling and Estimation of Extremes and their Dependence”, currently Teaching Associate Professor, Department of Statistics, University of Texas, Austin, USA
- (9) Yang, L. (2008), “Sample Based Estimation of Network Traffic Flow Characteristics”, currently Senior Analyst, Credit Risk Group, Bank of America, USA.
- (10) Harsh Singhal (2009), “Inverse Problems on Graphs with Applications to Network Tomography”, currently Senior Vice President, Consumer Credit Analysis Group, Bank of America, USA
- (11) Natallia Katenka (2009) (joint with L. Levina), “Statistical Problems in Wireless Sensor Networks”, currently Assistant Professor, Department of Mathematics, University of Rhode Island, USA
- (12) Ali Shojaie (2010), “Analysis of High Dimensional Networks with Applications to Biological Systems” currently Associate Professor, Biostatistics Department, University of Washington, USA.
- (13) Hao Zhou (2011), “Tools and Techniques for Visual Analytics”, currently Analytics Manager, Accenture, USA.
- (14) Runlong Tang (2011) (joint with M. Banerjee), “Asymptotics for Monotone Regression under Different Grid Resolution Schemes for the Covariate, with Applications to Detecting Functionals of Interest”, currently Assistant Professor, Department of Statistics, Virginia Tech, USA.
- (15) Jian Guo (2011) (joint with L. Levina and J. Zhu), “Topics on Unsupervised Statistical Learning Problems”, currently Assistant Professor, Department of Biostatistics, Harvard University, USA.
- (16) Yasin Senbabaoglu (2012) (joint with J. Li), “Developing and Application of Statistical Algorithms on High-Dimensional Biological Data Analysis”, currently postdoc Memorial Sloan Kettering Cancer Center, New York, USA
- (17) Joel Vaughan (2012) (joint with S. Stoev), “Problems in Spatio-temporal Modeling, Krieging and Prediction of Computer Network Traffic”, currently Assistant Professor, Quinnipiac University, USA.

- (18) Shawn Mankad (2013), “Statistical Techniques for the Exploratory Analysis of Structured Three-Way and Dynamic Network Data,”  
currently Assistant Professor, Johnson Business School, Cornell University, USA.
- (19) Nirupam Chakrabarty (2014) (joint with M. Banerjee), Semi-parametric Estimation of Target Location in Wireless Sensor Networks,  
currently Financial Analyst at Well Fargo Bank, USA
- (20) Sumanta Basu (2014), Modeling and Estimation of High-dimensional Vector Autoregressions, currently Assistant Professor, Department of Biological Statistics and Computational Biology, Cornell University, USA
- (21) Jing Ma (2015), Estimation and Inference for High-Dimensional Gaussian Graphical Models with Structural Constraints,  
Assistant Professor, Fred Hutchison Cancer Center, USA
- (22) Donggeng Xia (2015), “Measuring Influence and Topic Dependent Interactions in Social Media Networks Based on a Counting Process Modeling Framework”,  
currently Research Analyst, Consumer Credit Risk Group, Bank of America, USA
- (23) James Henderson (2015), “Methods for Reconstructing Networks with Incomplete Information”,  
currently Postdoctoral Fellow, Urology Department, U. of Michigan
- (24) Sandipan Roy (2015) (joint with Yves Atchade), “Statistical Inference and Computational Methods for Large High-Dimensional Data with Network Structure”,  
currently Postdoctoral Fellow, Department of Statistics, University College London, UK
- (25) Zi Yang, “Statistical Methods for Integrating High-Dimensional Omics Data”,  
currently Analyst Ford Motor Credit Co.
- (26) Kazem Shirani, “Non-asymptotic Adaptive Control of Linear-Quadratic Systems”,  
currently Postdoctoral Fellow, University of Florida

**Ph.D. Graduates: North Carolina State University**

- (1) Michael Kallitsis (2010) (joint with M. Devetsikiotis, ECE), “Optimal Resource Allocation for Next Generation Network Services”, currently Research Scientist, Merit Network, USA
- (2) Safak Bayram (2013) (joint with M. Devetsikiotis, ECE), “A Three-Layered System Level Modeling Approach to Electric Transportation”,  
currently Assistant Professor Hamad Bin Khalifa University, Qatar

**Ph.D. Graduates: U of Florida**

- (1) Andrey Skripnikov (2017), “Topics in Joint Estimation of Vector Autoregressive Models”,  
currently Postdoctoral Fellow, University of Houston, USA.

**Ph.D. Candidates: U. of Michigan**

- (1) Wei Bao, “Community Detection in Time Varying Networks” (expected graduation Winter 2017)
- (2) Teal Guidici, “Correlation Networks and their Applications to Omics Data” (expected graduation Winter 2017)
- (3) Jiahe Lin, “Multi-layer Graphical Models” (joint with Mouli Banerjee) (expected graduation Winter 2018)
- (4) Julian Lu, “Change-point detection under Computational Constraints” (joint with Mouli Banerjee) (expected graduation Winter 2018)
- (5) Shrijita Bhattacharya, “Anomaly Detection for False Data Injection Attacks in Electric Power Networks” (joint with Stilian Stoev) (expected graduation Winter 2018)

**Ph.D. Candidates: U of Florida**

- (1) Pei Li Wang (expected graduation Fall 2017)
- (2) Tao Jin (expected graduation Spring 2018)
- (3) Shaojun Zhang (expected graduation Spring 2018)
- (4) Satyajit Ghosh (joint with Kshitij Khare, expected graduation Summer 2018)
- (5) Davoud Ataee Tarzanagh (expected graduation Summer 2019)
- (6) Sabha Niaki (expected graduation Spring 2019)
- (7) David Lindberg (expected graduation Spring 2020)
- (8) Peyman Jalali (expected graduation Summer 2019)

**Postdoctoral advisees:**

- (1) Catherine Grasso (joint with P. Andrews), 2004-2006  
currently Senior Research Associate, Oregon Health & Science University
- (2) Alexandra Jauhiainen, 2010-2011, currently Senior Research Scientist, Astra Zeneca, Sweden
- (3) Michael Kallitsis, 2010-2012, currently Research Scientist at Merit Networks and EECS Department, University of Michigan
- (4) Ali Shojaie, 2010-2011, currently Associate Professor, Department of Biostatistics, University of Washington
- (5) Elena Yudovina, 2012-2014, currently Fellow at the Minnesota Center for Financial and Actuarial Mathematics, University of Minnesota

- (6) Clint George, 2016-
- (7) Monika Batthacharya, 2016-
- (8) Annaliza McGilvrey, 2016-
- (9) Mohamed Sahin, 2016-
- (10) Alex Kripnich, 2016-
- (11) Subhabrata Majumdar, 2017-

#### **Undergraduate Student Mentoring:**

1. Yinghan Yan (2004-2005), U of Michigan student, worked on developing a Matlab package for visualizing and processing network flow data
2. Liza Stiles (Summer 2007), student from Carleton University, under the auspices of the University's Summer Research Opportunity program, worked on recommender systems algorithms
3. Matthew Lomont (Winter 2010), U of Michigan student, supervised his Honors Thesis on pathway testing methods using a P-value framework

#### **Bioinformatics Students Lab Rotations:**

1. Chad Creighton (2003-2004)  
Currently Associate Professor of Medicine, Baylor College of Medicine
2. Lee Sam (2007-2008)  
Working on his Ph.D. thesis under Dr. Arul Chinnayian's supervision, Department of Pathology, University of Michigan
3. Yasin Senbabaoglu (2008-2009)  
Currently Postdoctoral Fellow, Memorial Sloan Kettering Cancer Center
4. Mitch Fernandez, (2014)

#### **7. RESEARCH POLICY ASSIGNMENTS:**

1. NIH, Biodata Management and Analysis Section, standing member of the panel, 2011-2017 (chair 2017)
2. NIH, Biodata Management and Analysis Section panelist, December 2009, February 2010, June 2010, February 2011
3. NIH review panelist, July 2010, November 2011
4. NSF Computer and Information Sciences & Engineering program, June 2000, November 2001, November 2002, November 2003, May 2006, April 2007

5. NSF Information Technology Research special competition, March 2002, June 2004
6. NSF Civil, Mechanical and Manufacturing Innovation program, April 2006
7. NSF Statistics program, February 2012, 2013. 2016
8. World Class Universities - Korea Science and Engineering Foundation program, November 2008, March 2009, September 2010, September 2012, August 2013
9. Qatar National Research Fund reviewer, February 2008, February 2009
10. Florida Institute for the Commercialization of Public Research, reviewer, February 2010, November 2010, February 2012

## **8. SERVICE TO THE PROFESSION:**

### **8.1. EDITORIAL BOARDS:**

1. Editor-in-Chief, *Electronic Journal of Statistics*, 2013-2015
2. Associate Editor, *Journal of the American Statistical Association, Theory and Methods*, 2001-2005, 2011-2014, 2017-2020
3. Associate Editor, *Journal of Computational and Graphical Statistics*, 1998-present
4. Associate Editor, *Technometrics*, 2004-2012
5. Associate Editor, *Journal of Statistical Software*, 1999-2012
6. Associate Editor, *Journal of Statistical Planning and Inference*, 2012-2016
7. Associate Editor, *Journal of Nonparametric Statistics*, 2008-2011
8. Editor, *ASA-SIAM Series on Statistics and Applied Probability*, 2009-present
9. Associate Editor, *Applied Stochastics Models in Business and Industry*, 2009-2014

### **8.2. TECHNICAL PROGRAM COMMITTEES:**

1. Chair, Technical Program Committee, 3rd IEEE Conference on Smartgrid Communications, Tainan City, Taiwan, Nov 2012
2. Chair, Technical Program Committee, IEEE International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (CAMAD), Barcelona, Spain, Sept 2012
3. Organizer, SAMSI workshop on statistical and applied math problems for the SmartGrid (as part of the annual Uncertainty Quantification SAMSI program), Oct 2011
4. Member, Technical Program Committee, IEEE Globecom, Houston, Dec 2011

5. Member, Technical Program Committee, IEEE ICC, Kyoto, Japan, June 2011
6. Member, Technical Program Committee, 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), San Diego, Aug 2011
7. Member, Technical Program Committee, 18th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), Beijing, China, Aug 2012
8. Member, Technical Program Committee, European Conference on Computational Biology, Basel, Switzerland, Sept 2012
9. Member, Technical Program Committee, IEEE International Conference on Communications (ICC), Cape Town, 2010
10. Member, Scientific Program Committee, ISBIS-2010 International Symposium on Business and Industrial Statistics, Portoroz, July 2010
11. Member, Technical Program Committee, IEEE Globecom, Honolulu, Hawaii, December 2009
12. Co-Chair, IEEE Workshop on "Enabling the Future Service-Oriented Internet", Honolulu, Hawaii, December 2009
13. Chair, Scientific Program, ISBIS-2008 International Symposium on Business and Industrial Statistics, Prague, July 2008
14. Member, Scientific Program Committee, Interface Meeting, Research Triangle Park, NC, May 2008
15. Member, Technical Program Committee, IEEE Globecom, New Orleans, November 2008
16. Member, Technical Program Committee, IEEE Globecom, Washington, DC, November 2007
17. Co-Chair, IEEE Workshop on "Enabling the Future Service-Oriented Internet", Washington, DC, November 2007
18. Member, Technical Program Committee, IEEE International Conference on Communications (ICC), Glasgow, July 2007
19. Member, Technical Program Committee, IEEE Globecom, San Francisco, November 2006
20. Member, Technical Program Committee, Interface Meeting, Pasadena, May 2006
21. Member, Technical Program Committee, IEEE International Conference on Communications (ICC), Istanbul, June 2006
22. Member, Technical Program Committee, IEEE International Conference on Communications (ICC), Seoul, May 2005

23. Chair, Contributed Program, ISBIS Conference, Cairns, April 2005

Further, I have organized technical sessions at a number of statistical (e.g. Spring Research Conference, Quality and Productivity research Conference, Interface Meeting, Statistical Society of Canada Annual Meeting) and Operations Research (e.g. Informs International meeting, Informs Applied Probability Conference) conferences.

### **8.3. MANAGEMENT COMMITTEES:**

1. Spring Research Conference (IMS Representative), 2008-2010
2. Journal of Computational and Graphical Statistics (ASA Representative), 2010-2016
3. Vice President for Membership, International Society of Business and Industrial Statistics, 2009-2011
4. Board Member, Interface Society, 2008-2012
5. Secretary, IEEE Technical Committee on Communications Systems Integration and Modeling, 2011-2013
6. Secretary, IEEE Technical Committee on SmartGrid Communications, 2010-present

### **9. SERVICE TO THE UNIVERSITY:**

#### **Department of Statistics, University of Michigan:**

1. Graduate and Associate Chair 2006-2012
2. Executive Committee, Member: 2003-2005, 2006-2012
3. Tenure and Promotion Review Committee, Member: 2004-2005, 2007-2010, 2013, Chair: 2008, 2013
4. Three year Review Committee for Assistant Professors, Member: 2003-2005, 2008-2009, Chair: 2005-2006, Chair: 2011-2012
5. Computing Committee, Member: 1998-2000, Chair: 2001-present
6. Graduate Admissions Committee, Member: 2000-2013, Chair: 2006-2012
7. Qualifying Review Committee, Member: 1999-2000, 2006-2008, 2013-2014, Chair: 2008-2012
8. Graduate Curriculum Committee, Member: 2003-present
9. Nominations and Awards Committee, Member: 2009-present
10. Undergraduate Curriculum Committee, Member: 2000-2002



### **Department of Linguistics, university of Michigan**

1. Tenure Review Committee, External Member, 2004-2005

### **Bioinformatics Program, University of Michigan**

1. Graduate Admissions Committee, Member: 2006-2008
2. Graduate Affairs Committee, member: 2008-2014

### **University of Florida**

1. Member of the Executive Committee of Biodiversity Institute
2. Member of the Advisory Committee on Informatics, U of Florida Libraries
3. Member of the Advisory Committee Clinical and Translational Sciences Institute

### **10. SELECTED INVITED LECTURES (LAST 3 YEARS):**

1. Estimating Biological Networks from High-Dimensional Omics Data, *Plenary Overview Lecture*, Joint Statistical Meetings, Baltimore, MD, July 2017
2. An integrative Framework for Multi-modal Omics Integration, invited presentation, Joint Statistical Meetings, Baltimore, MD, July 2017
3. Measuring connectivity in the financial sector, invited presentation, International Statistical Institute World Congress, Marrakech, Morocco, July 2017
4. Regularized Estimation and Testing for High-Dimensional Multi-Block Vector Autoregressive Models, *Keynote presentation*, Greek Stochastics  $\iota$ , Milos, Greece, July 2017
5. A System-Wide Approach to Measure Connectivity in the Financial Sector, invited presentation, The 16th Conference on Research on Economic Theory and Econometrics, Milos, Greece, July 2017
6. Adaptive Sampling for Identifying Thresholds in Observed Databases and Time Series, invited presentation, The 6th IMS-China International Conference on Statistics and Probability, Nanning, China, June 2017
7. Regularized Estimation and Testing for High-Dimensional Multi-Block Vector Autoregressive Models and its applications to equity markets contagion, *Plenary presentation*, The 7th International Conference on Network Analysis, Nizny Novgorod, Russia, June 2017
8. Regularized Estimation and Testing for High-Dimensional Multi-Block Vector Autoregressive Models, *Plenary presentation*, International Workshop in Perspectives of High-Dimensional Analysis, Guanajuato, Mexico, June 2017

9. Fast randomized algorithms for tensor operations, SIAM Conference on Optimization, Vancouver, BC, Canada, May 2017
10. Regularized estimation and testing for high dimensional multi-block vector autoregressive models and its applications to equity markets contagion, Department of Statistics, U of Chicago, Chicago, IL, May 2017
11. Regularized estimation and testing for VAR-X models, invited presentation, Spring Research Conference, New Brunswick, NJ, May 2017
12. Regularized estimation and testing for high dimensional multi-block vector autoregressive models and its applications, Keynote Address for the 180th Anniversary of the School of Economic and Political Sciences, University of Athens, Athens, Greece, May 2017
13. A Short Course on Statistical Analysis of High-Dimensional Metabolomics Data, Michigan Regional Comprehensive Metabolomics Resource Core, Ann Arbor, MI, May 2017
14. A multi-layer graphical model for vertical integration of multi-modal Omics data, Department of Computational Biology, U. of Southern California, Los Angeles, CA, April 2017
15. Vector Autoregressive Models: Modeling, Inference and Optimization, Isaac Institute for the Mathematics Sciences, University of Cambridge, UK, December 2016
16. Vector Autoregressive Models: Modeling, Inference and Optimization, Institute of Mathematics and Its Applications workshop on Transdisciplinary Foundations of Data Science, Minneapolis, MN, September 2016
17. Estimation of High Dimensional Vector Autoregressive Processes, Department of Statistics, U. of Texas, Austin, September 2016
18. A System-wide Approach to Measure Connectivity in the Financial Sector, invited presentation, 16th Annual Bank Research Conference: Sponsored by the Federal Deposit Insurance Corporation's Center for Financial Research and the Journal of Financial Services Research, Washington, DC, September 2016
19. Multi-layer network models for vertical integration of Omics data, Department of Biostatistics, MD Anderson Cancer Center, September 2016
20. Vector Autoregressive Models: Modeling, Inference and Optimization, *Keynote speaker*, International Workshop on Machine learning, Optimization and Big Data - MOD 2016, Volterra, Italy, August 2016
21. Introduction to Graphical models, *Short course*, Greek Stochastics  $\theta$ , Tinos, Greece, July 2016
22. A Short Course on Statistical Analysis of High-Dimensional Metabolomics Data, Michigan Regional Comprehensive Metabolomics Resource Core, Ann Arbor, MI, June 2016

23. Sparse and Related Methods for High-Dimensional Data Analysis, invited tutorial, International Workshop on Machine learning, Optimization and Big Data - MOD 2015, Taormina, Italy, July 2015
24. Estimation of Directed Acyclic Graphs using BIC under Path Restrictions, invited talk, IMS Meeting, Kunming, China, July 2015
25. Big Data: Some Theoretical and Practical Statistical Challenges, short course, Department of Statistics, Chengchi University, Taipei, Taiwan, June 2015
26. A Presentation on the UFII, Big Data Institute and Department of Industrial Organization, Seoul National University, Seoul, Korea, June 2015
27. A Short Course on Statistical Analysis of High-Dimensional Metabolomics Data, Michigan Regional Comprehensive Metabolomics Resource Core, Ann Arbor, MI, June 2015
28. Network Reconstruction by Integrating Observational and Experimental Data, plenary talk, Statistical Learning of Biological Systems from Perturbations Workshop organized by ETH Zurich, Ascona, Switzerland, June 2015
29. Statistical Methods for Reconstructing Pathway Reactions in Global Profiling Metabolomics Profiles, plenary talk, South-Eastern Center for Integrative Metabolics Annual Workshop, Gainesville, FL, June 2015
30. Recent Developments in Change-point Analysis of Networks, Statistical and computational challenges in networks and cybersecurity, Centre de Recherches Mathematiques, U. of Montreal, Montreal, Canada, May 2015
31. Introduction and Vision of the UF Informatics Institute and some Statistical Challenges in the era of Big Data, plenary talk, UFII Inaugural Symposium, Gainesville, FL, March 2015
32. Penalized Maximum Likelihood Estimation of Chain-Graphs, invited talk, ENAR Annual Meeting, Miami, FL, March 2015
33. Statistical Methods for Identifying Unknown Features in Untargeted Metabolomics Profiles, Department of Computational Medicine and Biology, U. of Michigan, February 2015
34. Statistical Methods for Network with Applications to Roll Call Voting Data, Department of Political Science, U. of Florida, January 2015