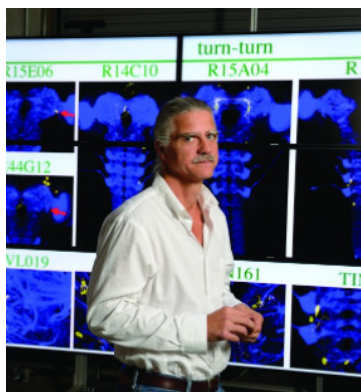# CURRICULUM VITAE

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Carey E. Priebe
Department of Applied Mathematics & Statistics
Whiting School of Engineering
Johns Hopkins University
Baltimore, MD 21218–2682

cep@jhu.edu
http://www.ams.jhu.edu/~priebe

EDUCATION

Ph.D., Information Technology (Computational Statistics), George Mason University, May 1993
M.S., Computer Science, San Diego State University, May 1988
B.S., Mathematics, Purdue University, December 1984

PROFESSIONAL EXPERIENCE

2001 – Present	Professor, Department of Applied Mathematics & Statistics, Johns Hopkins University
1999 – 2001	Associate Professor, Department of Mathematical Sciences, Johns Hopkins University
1994 – 1999	Assistant Professor, Department of Mathematical Sciences, Johns Hopkins University
1991 – 1994	Mathematician, Naval Surface Warfare Center, Dahlgren, VA
1985 – 1991	Scientist, Naval Ocean Systems Center, San Diego, CA

Carey E. Priebe is a Professor of Applied Mathematics and Statistics (AMS) and a founding member of the Center for Imaging Science (CIS) and the Mathematical Institute for Data Science (MINDS) at Johns Hopkins University, where he holds joint appointments in the departments of CS, ECE, and BME, as well as serving as Principle Investigator and Senior Research Scientist at the JHU Human Language Technology Center of Excellence (HLTCOE). He currently serves as the PI on a DARPA D3M project on the foundations of machine learning, and as PI or co-PI on NSF, DARPA, NIH, ONR, AFOSR, and other government and industry projects. He is a leading researcher in theoretical, methodological, and applied statistics, and a long-time participant in DoD and Intelligence Community research and development. Much of his recent work focuses on network analysis and subsequent statistical inference. He won an Office of Naval Research Young Investigator Award in 1995. He was recipient of the 2010 American Statistical Association Distinguished Achievement Award, the 2008 Pond Award for Excellence in Teaching, the 2011 McDonald Award for Excellence in Mentoring and Advising, and in 2008 was named one of six inaugural Vannevar Bush National Security Science and Engineering Faculty Fellows. Prof. Priebe is a Senior Member of the IEEE, an Elected Member of the International Statistical Institute, a Fellow of the Institute of Mathematical Statistics, and a Fellow of the American Statistical Association.

See http://www.cis.jhu.edu/~parky/CEP-Publications/journal.html for a list of publications.

REFEREED JOURNAL PUBLICATIONS

Accepted for Publication

Congyuan Yang, Carey E. Priebe, Youngser Park, David J. Marchette, "Simultaneous Dimensionality and Complexity Model Selection for Spectral Graph Clustering," Journal of Computational and Graphical Statistics, accepted for publication, 2020.
(https://arxiv.org/abs/1904.02926)

Keith Levin, Farbod Roosta-Khorasano, Michael W. Mahoney, Carey E. Priebe, "Limit theorems for out-of-sample extensions of the adjacency and Laplacian spectral embeddings," Journal of Machine Learning Research, accepted for publication, 2020.
(https://arxiv.org/abs/1802.06307)

Jesús Arroyo, Avanti Athreya, Joshua Cape, Guodong Chen, Carey E. Priebe, and Joshua T. Vogelstein, "Inference for multiple heterogeneous networks with a common invariant subspace," Journal of Machine Learning Research, accepted for publication, 2020.
(https://arxiv.org/abs/1906.10026)

Shangsi Wang, Jesus Arroyo, Joshua T. Vogelstein, Carey E. Priebe, "Joint Embedding of Graphs," IEEE Transactions on Pattern Analysis and Machine Intelligence, accepted for publication, 2019.
(https://arxiv.org/abs/1703.03862)

2021

Jesús Arroyo, Daniel L. Sussman, Carey E. Priebe, Vince Lyzinski, "Maximum Likelihood Estimation and Graph Matching in Errorfully Observed Networks," Journal of Computational and Graphical Statistics, vol 0, no ja, pg 1-33, 2021. publisher site
(https://www.tandfonline.com/doi/abs/10.1080/10618600.2021.1872582?journalCode=ucgs20)

Avanti Athreya, Minh Tang, Youngser Park, Carey E. Priebe, "On estimation and inference in latent structure random graphs," Statistical Science, vol 36, no 1, pp 68-88, 2021.
(https://arxiv.org/abs/1806.01401)(https://projecteuclid.org/euclid.ss/1608541219)

2020

Daniel L. Sussman, Vince Lyzinski, Youngser Park, Carey E. Priebe, "Matched Filters for Noisy Induced Subgraph Detection," IEEE Transactions on Pattern Analysis and Machine Intelligence, vol 42, no 11, pp 2887-2900, 2020
(https://arxiv.org/abs/1803.02423) (https://ieeexplore.ieee.org/document/8705338)

Joshua Agterberg, Youngser Park, Jonathan Larson, Christopher White, Carey E. Priebe, and Vince Lyzinski, "Vertex Nomination, Consistent Estimation, and Adversarial Modification," Electronic Journal of Statistics, vol. 14, no. 2, pp. 3230-3267, 2020.
(https://projecteuclid.org/euclid.ejs/1599552374)

Nian Wang, Robert J Anderson, David G Ashbrook, Vivek Gopalakrishnan, Youngser Park, Carey E Priebe, Yi Qi, Joshua T Vogelstein, Robert W Williams, G. Allan Johnson, "Variability and Heritability of Mouse Brain Structure: Microscopic MRI Atlases and Connectomes for Diverse Strains," NeuroImage, vol 222, no 117273, 2020.
(https://www.sciencedirect.com/science/article/pii/S1053811920307606?via%3Dihub)

Cencheng Shen, Li Chen, Carey E. Priebe, "Sparse Representation Classification Beyond L1 Minimization and the Subspace Assumption," IEEE Transactions on Information Theory, vol 66, no 8, pp 5061-5071, 2020.
(https://ieeexplore.ieee.org/document/9037300?source=authoralert)

Gongkai Li, Minh Tang, Nichlas Charon, Carey E. Priebe, "A Central Limit Theorem for Classical Multidimensional Scaling," Electronic Journal of Statistics, vol 14, no 1, pp 2362-2394, 2020.

(https://projecteuclid.org/euclid.ejs/1593569022)

Tyler M. Tomita, James Browne, Cencheng Shen, Jesse L. Patsolic, Jason Yim, Carey E. Priebe, Randal Burns, Mauro Maggioni, Joshua T. Vogelstein, "Sparse Projection Oblique Randomer Forests," Journal of Machine Learning Research, vol 21, no 104, pp 1-39, 2020.
(https://jmlr.org/papers/v21/18-664.html)

Jonathan Rougier, and Carey E. Priebe, "The exact form of the 'Ockham factor' in model selection," The American Statistician, vol 0, no ja, pp 1-16, 2020.
(https://www.tandfonline.com/doi/abs/10.1080/00031305.2020.1764865?journalCode=utas20)

Cencheng Shen, Carey E. Priebe, Jopshua T. Vogelstein, "From Distance Correlation to Multiscale Graph Correlation," Journal of the American Statistical Association, vol 115, no 529, pp 280-291, 2020.
(https://amstat.tandfonline.com/doi/abs/10.1080/01621459.2018.1543125?journalCode=uasa20#.X2ON0y2z1Xt)

Heather G. Patsolic, Youngser Park, Vince Lyzinski, Carey E. Priebe, "Vertex Nomination Via Seeded Graph Matching," Statistical Analysis and Data Mining, vol 13, no 3, pp 229-244, June 2020.
(https://onlinelibrary.wiley.com/doi/full/10.1002/sam.11454)

P-A. G. Maugis, Carey E. Priebe, S. C. Olhede, P. J. Wolfe, "Testing for Equivalence of Network Distribution Using Subgraph Counts," Journal of Computational and Graphical Statistics, vol 0, pp. 1-19, 2020.
(https://www.tandfonline.com/doi/abs/10.1080/10618600.2020.1736085?journalCode=ucgs20)

Jordan Yoder, Li Chen, Henry Pao, Eric Bridgeford, Keith Levin, Donniell Fishkind, Carey E. Priebe, Vince Lyzinski, "Vertex nomination: The canonical sampling and the extended spectral nomination schemes," Computational Statistics and Data Analysis, vol 145, May 2020.
(https://www.sciencedirect.com/science/article/pii/S0167947320300074?via%3Dihub)

2019

Joshua T Vogelstein, Eric W Bridgeford, Qing Wang, Carey E Priebe, Mauro Maggioni, Cencheng Shen, "Discovering and Deciphering Relationships Across Disparate Data Modalities,", eLife, vol. 8 e41690. 15 Jan. doi:10.7554/eLife.41690, 2019
(https://elifesciences.org/articles/41690)

Donniell E. Fishkind, Lingyao Meng, Ao Sun, Carey E. Priebe, Vince Lyzinski, "Alignment Strength and Correlation for Graphs," Pattern Recognition Letters, vol 125, no 2019, pp 295-302, 2019.
(https://arxiv.org/abs/1703.03862)

Runze Tang, Michael Ketcha, Alexandra Badea, Evan D. Calabrese, Daniel S. Margulies, Joshua T. Vogelstein, Carey E. Priebe, Daniel L. Sussman "Connectome Smoothing via Low-rank Approximations," IEEE Transactions on Medical Imaging, vol. 38, no. 6, pp. 1446-1456, June 2019.
(https://ieeexplore.ieee.org/document/8570772)

Youjin Lee, Cencheng Shen, Carey E. Priebe, Joshua T. Vogelstein "Network Dependence Testing via Diffusion Maps and Distance-Based Correlations," Biometrika, vol 106, no 4, pp 857-873, December 2019
(https://academic.oup.com/biomet/article-abstract/106/4/857/5578430)

Joshua Cape, Minh Tang, Carey E. Priebe, "On spectral embedding performance and elucidating network structure in stochastic block model graphs," Network Science, vol 7, no 3, pp 269-291, 2019.
(https://is.gd/qKwuEu)

Joshua Cape, Minh Tang, Carey E. Priebe, "The two-to-infinity norm and singular subspace geometry with applications to high-dimensional statistics," Annals of Statistics, vol 47, no 5, pp 2405-2439, 2019.
(https://projecteuclid.org/euclid.aos/1564797852)

Joshua T Vogelstein, Eric W Bridgeford, Benjamin D Pedigo, Jaewon Chung, Keith Levin, Brett Mensh, Carey E. Priebe, "Connectal coding: discovering the structures linking cognitive phenotypes to individual histories," Current Opinion in Neurobiology, vol 55, no 2019, pp 199-212, 2019.

(https://pubmed.ncbi.nlm.nih.gov/31102987/)

Vince Lyzinski, Keith Levin, Carey E. Priebe, "On consistent vertex nomination schemes," Journal of Machine Learning Research, vol 20, no 69, pp 1-39, 2019.
(https://jmlr.org/papers/v20/18-048.html)

Joshua Cape, Minh Tang, Carey E. Priebe, "Signal-plus-noise matrix models: eigenvector deviations and fluctuations," Biometrika, vol 106, no 1, pp 243-250, 2019.
(https://arxiv.org/abs/1802.00381)

Carey E. Priebe, Youngser Park, Joshua T. Vogelstein, John M. Conroy, Vince Lyzinski, Minh Tang, Avanti Athreya, Joshua Cape, and Eric Bridgeford, "On a 'Two Truths' Phenomenon in Spectral Graph Clustering," Proceedings of the National Academy of Sciences, vol. 116, no. 13, pp 5995-6000, 2019.
(https://www.pnas.org/content/116/13/5995)

Donniell E. Fishkind, Sancar Adali, Heather G. Patsolic, Lingyao Meng, Digvijay Singh, Vince Lyzinski, Carey E. Priebe, "Seeded Graph Matching," Pattern Recognition, vol 87, pp 203-215, 2019.
(https://doi.org/10.1016/j.patcog.2018.09.014)

2018

Michael A. Rosen, Aaron S. Dietz, Nam Lee, I-Jeng Wang, Jared Markowitz, Rhonda M. Wyskiel, Ting Yang, Carey E. Priebe, Adam Sapirstein, Ayse P. Gurses, Peter J. Pronovost, "Sensor-based Measurement of Critical Care Nursing Workload: Unobtrusive Measures of Nursing Activity Complement Traditional Task and Patient Level Indicators of Workload to Predict Perceived Exertion," PLOS ONE, vol 13, no 10, pp 1-12, October 12, 2018.
(https://doi.org/10.1371/journal.pone.0204819)

Minh Tang, Carey E. Priebe, "Limit theorems for eigenvectors of the normalized Laplacian for random graphs," Annals of Statistics, vol 46, no 5, pp 2360-2415, 2018.
(https://projecteuclid.org/euclid.aos/1534492839)

Avanti Athreya, Donniell E. Fishkind, Keith Levin, Vince Lyzinski, Youngser Park, Yichen Qin, Daniel L. Sussman, Minh Tang, Joshua T. Vogelstein, Carey E. Priebe, "Statistical inference on random dot product graphs: a survey," Journal of Machine Learning Research, 18(226):1?92, 2018.
(http://jmlr.org/papers/v18/17-448.html)

2017

Da Zheng, Disa Mhembere, Vince Lyzinski, Joshua Vogelstein, Carey E. Priebe, Randal Burns, "Semi-External Memory Sparse Matrix Multiplication for Billion-Node Graphs," IEEE Transactions on Parallel and Distributed Systems, vol. 28, no. 5, pp. 1470-1483, 2017.
(https://arxiv.org/abs/1602.02864)

Vince Lyzinski, Youngser Park, Carey E. Priebe, Michael W. Trosset, "Fast Embedding for JOFC Using the Raw Stress Criterion," Journal of Computational and Graphical Statistics, vol 26, no 4, pp 786-802, 2017.
(https://www.tandfonline.com/doi/full/10.1080/10618600.2017.1321551)

Joshua Cape, Minh Tang, Carey E. Priebe, "The Kato-Temple inequality and eigenvalue concentration," Electronic Journal of Statistics, vol. 11, no. 2, pp 3954-3978, 2017.
(https://arxiv.org/abs/1603.06100)

Yichen Qin, Carey E. Priebe, "Robust Hypothesis Testing via Lq-Likelihood," Statistica Sinica, vol. 27, no. 2017, pp. 1793-1813, 2017.
(http://www3.stat.sinica.edu.tw/statistica/J27N4/J27N422/J27N422.html)

K. Eichler, F. Li, A. L. Kumar, Y. Park, I. Andrade, C. Schneider-Mizell, T. Saumweber, A. Huser, D. Bonnery, B. Gerber, R. D. Fetter, J. W. Truman, Carey E Priebe, L. F. Abbott, A. Thum, M. Zlatic, and A. Cardona, "The complete connectome of a learning and memory center in an insect brain," Nature, no.

548, pp. 175-182, 2017.
(https://www.biorxiv.org/content/early/2017/05/24/141762)

Jordan Yoder, Carey E. Priebe, "Semi-supervised K-means++," Journal of Statistical Computation and Simulation, vol. 87, no. 13, pp. 2597-2608, 2017.
(http://dx.doi.org/10.1080/00949655.2017.1327588)

Cencheng Shen, J. T. Vogelstein, Carey E. Priebe, "Manifold Matching using Shortest-Path Distance and Joint Neighborhood Selection," Pattern Recognition Letters, vol. 92, pp. 41-48, 2017.
(http://www.sciencedirect.com/science/article/pii/S016786551730106X)

Minh Tang, Avanti Athreya, Daniel L. Sussman, Vince Lyzinski, Youngser Park, Carey E. Priebe, "A Semi-parametric Two-sample Hypothesis Testing for Random Dot Product Graphs," Journal of Computational and Graphical Statistics, vol 26, no 2, pp 344-354, 2017.
(https://amstat.tandfonline.com/eprint/iHkd777Y33mCvTIY4Ay2/full)

Vince Lyzinski, Minh Tang, Avanti Athreya, Youngser Park, Carey E. Priebe, "Community Detection and Classification in Hierarchical Stochastic Blockmodels," IEEE Transactions on Network Science and Engineering, vol. 4, no. 1, pp 13-26, 2017.
(http://ieeexplore.ieee.org/document/7769223/)

Minh Tang, Avanti Athreya, Daniel L. Sussman, Vince Lyzinski, Carey E. Priebe, "A Nonparametric Two-sample Hypothesis Testing for Random Dot Product Graphs," Bernoulli Journal, vol. 23, no. 3, pp 1599-1630, 2017.
(http://dx.doi.org/10.3150/15-BEJ789)

2016

S. Adali and C.E. Priebe, "Fidelity-Commensurability Tradeoff in Joint Embedding of Disparate Dissimilarities," *Journal of Classification*, Vol. 33, No. 3, pp. 485–506, 2016. (doi:10.1007/s00357-016-9214-6)

V. Lyzinski, K. Levin, D.E. Fishkind, C.E. Priebe, "On the Consistency of the Likelihood Maximization Vertex Nomination Scheme: Bridging the Gap Between Maximum Likelihood Estimation and Graph Matching," *Journal of Machine Learning Research*, Vol. 17, No. 179, pp. 1–34, 2016.

N. Lee, R. Tang, C.E. Priebe, M. Rosen, "A model selection approach for clustering a multinomial sequence with non-negative factorization," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 38, No. 12, pp. 2345–2358, 2016. (doi:10.1109/TPAMI.2016.2522443)

D.E. Fishkind, C. Shen, Y. Park, C.E. Priebe, "On the Incommensurability Phenomenon," *Journal of Classification*, Vol. 33, No. 2, pp. 185–209, 2016. (http://arxiv.org/abs/1301.1954)

L. Chen, J.T. Vogelstein, V. Lyzinski, C.E. Priebe, "A Joint Graph Inference Case Study: the C.elegans Chemical and Electrical Connectomes," *Worm*, Vol. 5, No. 2, 2016. (doi:10.1080/21624054.2016.1142041)

W. Megarry, G. Cooney, D. Comer, C.E. Priebe, "Posterior Probability Modelling and Image Classification for Archaeological Site Prospection: Building a Survey Efficacy Model for Identifying Neolithic Felsite Workshops in the Shetland Islands," *Remote Sensing*, Vol. 8, No. 529, pp. 1–18, 2016. (doi:10.3390/rs8060529)

A. Athreya, V. Lyzinski, D.J. Marchette, C.E. Priebe, D.L. Sussman, M. Tang, "A limit theorem for scaled eigenvectors of random dot product graphs," *Sankhya*, Vol. 78-A, No. 1, pp. 1–18, 2016. (http://arxiv.org/abs/1305.7388)

S. Suwan, D.S. Lee, R. Tang, D.L. Sussman, M. Tang, C.E. Priebe, "Empirical Bayes Estimation for the Stochastic Blockmodel," *Electronic Journal of Statistics*, Vol. 10, No. 1, pp. 761–782, 2016.

L. Chen, C. Shen, J.T. Vogelstein, C.E. Priebe, "Robust Vertex Classification," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 38, No. 3, pp. 578–590, 2016. (http://arxiv.org/abs/1311.5954)

2015

S. Suwan, D.S. Lee, C.E. Priebe, "Bayesian Vertex Nomination Using Content and Context," *WIREs Computational Statistics*, Vol. 7, No. 6, pp. 400–416, 2015. (doi:10.1002/wics.1365)

C.E. Priebe, D.L. Sussman, M. Tang, J.T. Vogelstein, "Statistical inference on errorfully observed graphs," *Journal of Computational and Graphical Statistics*, Vol. 24, No. 4, pp 930–953, 2015. (http://arxiv.org/abs/1211.3601)

D.E. Fishkind, V. Lyzinski, H. Pao, L. Chen, C.E. Priebe, "Vertex Nomination Schemes for Membership Prediction," *Annals of Applied Statistics*, Vol. 9, No. 3, pp. 1510–1532, 2015. (http://arxiv.org/abs/1312.2638)

V. Lyzinski, D.L. Sussman, D.E. Fishkind, H. Pao, L. Chen, J.T. Vogelstein, Y. Park, C.E. Priebe, "Spectral Clustering for Divide-and-Conquer Graph Matching," *Parallel Computing*, Vol. 47, pp. 70–87, 2015. (http://arxiv.org/abs/1310.1297)

N. Kasthuri, K.J. Hayworth, D.R. Berger, R.L. Schalek, J.A. Conchello, S. Knowles-Barley, D. Lee, A. Vazquez-Reina, V. Kaynig, T.R. Jones, M. Roberts, J.L. Morgan, J.C. Tapia, H.S. Seung, W.G. Roncal, J.T. Vogelstein, R. Burns, D.L. Sussman, C.E. Priebe, H. Pfister, J.W. Lichtman, "Saturated Reconstruction of a Volume of Neocortex," *Cell*, Vol. 162, No. 3, pp. 648–661, 2015.

M.A. Rosen, A.S. Dietz, T. Yang, C.E. Priebe, P.J. Pronovost, "An Integrative Framework for Sensor-Based Measurement of Teamwork in Healthcare," *Journal of the American Medical Informatics Association*, Vol. 22, No. 1, pp. 11-–18, 2015.

J.T. Vogelstein and C.E. Priebe, "Shuffled Graph Classification: Theory and Connectome Applications," *Journal of Classification*, Vol. 32, No. 1, pp. 3-–20, 2015. (http://arxiv.org/abs/1112.5506)

A.F. Alkaya, V. Aksakalli, C.E. Priebe, "A Penalty Search Algorithm for The Obstacle Neutralization Problem," *Computers & Operations Research*, Vol. 53, pp. 165–175, 2015.

D.J. Marchette, S.-Y. Choi, A. Rukhin, C.E. Priebe, "Neighborhood Homogeneous Labelings of Graphs," *Journal of Combinatorial Mathematics and Combinatorial Computing*, Vol. 93, pp. 201-–220, 2015.

2014

V. Lyzinski, D.E. Fishkind, C.E. Priebe, "Seeded graph matching for correlated Erdos-Renyi graphs," *Journal of Machine Learning Research*, Vol. 15, pp. 3513-–3540, 2014. (http://arxiv.org/abs/1304.7844)

V. Lyzinski, D.L. Sussman, M. Tang, A. Athreya, C.E. Priebe, "Perfect clustering for stochastic blockmodel graphs via adjacency spectral embedding," *Electronic Journal of Statistics*, Vol. 8, No. 2, pp. 2905-–2922, 2014. (http://arxiv.org/abs/1310.0532)

J.T. Vogelstein, Y. Park, T. Ohyama, R. Kerr, J.W. Truman, C.E. Priebe*, M. Zlatic*, "Discovery of Brainwide Neural-Behavioral Maps via Multiscale Unsupervised Structure Learning," *Science*, Vol. 344, No. 6182, pp. 386-–392, April 2014. (doi:10.1126/science.1250298)

D.L. Sussman, M. Tang, C.E. Priebe, "Consistent Latent Position Estimation and Vertex Classification for Random Dot Product Graphs," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 36, No. 1, pp. 48-–57, 2014. (http://arxiv.org/abs/1207.6745)

H. Wang, M. Tang, Y. Park, C.E. Priebe, "Locality statistics for anomaly detection in time series of graphs," *IEEE Transactions on Signal Processing*, Vol. 62, No. 3, pp. 703–717, 2014. (http://arxiv.org/abs/1306.0267)

C. Shen, M Sun, M Tang, C.E. Priebe, "Generalized Canonical Correlation Analysis for Classification," *Journal of Multivariate Analysis*, Vol. 130, pp. 310–322, 2014. (http://arxiv.org/abs/1304.7981)

2013

M. Tang, D.L. Sussman, C.E. Priebe, "Universally consistent vertex classification for latent positions graphs," *Annals of Statistics*, Vol. 41, No. 3, pp. 1406-–1430, 2013. (http://arxiv.org/abs/1212.1182)

Y. Qin and C.E. Priebe, "Maximum Lq-Likelihood Estimation via the Expectation Maximization Algorithm: A Robust Estimation of Mixture Models," *Journal of the American Statistical Association*, Vol. 108, No. 503, pp. 914–928, 2013.

J.T. Vogelstein, W. Gray, R.J. Vogelstein, C.E. Priebe, "Graph Classification using Signal Subgraphs: Applications in Statistical Connectomics," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 35, No. 7, pp. 1539–1551, 2013. (http://arxiv.org/abs/1108.1427)

C.E. Priebe, D.J. Marchette, Z. Ma and S. Adali, "Manifold Matching: Joint Optimization of Fidelity and Commensurability," *Brazilian Journal of Probability and Statistics*, Vol. 27, No. 3, pp. 377-–400, 2013. (http://arxiv.org/abs/1112.5510)

D.E. Fishkind, D.L. Sussman, M. Tang, J.T. Vogelstein, C.E. Priebe, "Consistent adjacency-spectral partitioning for the stochastic block model when the model parameters are unknown," *SIAM Journal on Matrix Analysis*, Vol. 34, No. 1, pp. 23–39, 2013. (http://arxiv.org/abs/1205.0309)

N.H. Lee, M. Tang, J. Yoder, C.E. Priebe, "On Latent Position Inference from Doubly Stochastic Messaging Activities," *Multiscale Modeling and Simulation*, Vol. 11, No. 3, pp. 683-–718, 2013. (http://arxiv.org/abs/1205.5920)

C.E. Priebe, J.T. Vogelstein and D. Bock, "Optimizing the quantity/quality trade-off in connectome inference," *Communications in Statistics: Theory and Methods*, Vol. 42, No. 19, pp. 3455–3462, 2013. (http://arxiv.org/abs/1108.6271)

M. Sun and C.E. Priebe, "Efficiency Investigation of Manifold Matching for Text Document Classification," *Pattern Recognition Letters*, Vol. 34, pp. 1263-–1269, 2013.

M. Tang, Y. Park, N.H. Lee, C.E. Priebe, "Attribute fusion in a latent process model for time series of graphs," *IEEE Transactions on Signal Processing*, Vol. 61, No. 7, pp. 1721–1732, 2013.

Y. Park, C.E. Priebe and A. Youssef, "Anomaly Detection in Time Series of Graphs using Fusion of Invariants," *IEEE Journal of Selected Topics in Signal Processing*, Vol. 7, No. 1, pp. 67–75, 2013. (http://arxiv.org/abs/1210.8429)

M. Sun, C.E. Priebe, and M. Tang, "Generalized Canonical Correlation Analysis for Disparate Data Fusion," *Pattern Recognition Letters*, Vol. 34, pp. 194–200, 2013. (http://arxiv.org/abs/1209.3761)

2012

D.L. Sussman, M. Tang, D.E. Fishkind and C.E. Priebe, "A consistent dot product embedding for stochastic blockmodel graphs," *Journal of the American Statistical Association*, Vol. 107, No. 499, pp. 1119–1128, 2012. (http://arxiv.org/abs/1108.2228)

A. Rukhin and C.E. Priebe, "On the Limiting Distribution of a Graph Scan Statistic," *Communications in Statistics: Theory and Methods*, Vol. 41, No. 7, pp. 1151–1170, 2012.

C.E. Priebe, J.L. Solka, D.J. Marchette and A.C. Bryant, "Quantitative Horizon Scanning for Mitigating Technological Surprise: Detecting the potential for collaboration at the interface," *Statistical Analysis and Data Mining*, Vol. 5, No. 3, pp. 178-–186, 2012.

Z. Ma, D.J. Marchette and C.E. Priebe, "Fusion and Inference from Multiple Data Sources in Commensurate Space," *Statistical Analysis and Data Mining*, Vol. 5, No. 3, pp. 187-–193, 2012.

2011

T. Yang and C.E. Priebe, "The Effect of Model Misspecification on Semi-supervised Classification," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 33, No. 10, pp. 2093–2103, 2011.

N.H. Lee and C.E. Priebe, "A Latent Process Model for Time Series of Attributed Random Graphs," *Statistical Inference for Stochastic Processes*, Vol. 14, No. 3, pp. 231–253, 2011.

A. Aksakalli, D.E. Fishkind, C.E. Priebe and X. Ye, "The Reset Disambiguation Policy for Navigating Stochastic Obstacle Fields," *Naval Research Logistics*, Vol. 58, No. 4, pp. 389–399, 2011.

H. Pao, G.A. Coppersmith and C.E. Priebe, "Statistical Inference on Random Graphs: Comparative Power Analyses via Monte Carlo," *Journal of Computational and Graphical Statistics*, Vol. 20, No. 2, pp. 395–416, 2011.

X. Ye, D.E. Fishkind, L. Abrams, and C.E. Priebe, "Sensor Information Monotonicity in Disambiguation Protocols," *Journal of The OR Society (JORS)*, Vol. 62, No. 1, pp. 142-151, 2011.

A. Rukhin and C.E. Priebe, "A Comparative Power Analysis of the Maximum Degree and Size Invariants for Random Graph Inference," *Journal of Statistical Planning and Inference*, Vol. 141, pp. 1041-1046, 2011.

N. Ram Mohan, C.E. Priebe, Y. Park, and M. John, "Statistical Analysis of Hippocampus Shape Using a Modified Mann-Whitney-Wilcoxon Test," *International Journal of Bio-Science and Bio-Technology (IJB-SBT)*, Vol. 3, No. 1, pp. 19–26, 2011.

C.E. Priebe, "Fisher's Conditionality Principle in Statistical Pattern Recognition," *The American Statistician*, Vol. 65, No. 3, pp. 167–169, 2011.

J.T. Vogelstien, R.J. Vogelstien and C.E. Priebe, "Are mental properties supervenient on brain properties?," *Scientific Reports*, Vol. 1, No. 100, doi:10.1038/srep00100, 2011.

2010

Z. Ma, A. Cardinal-Stakenas, Y. Park, M.W. Trosset, and C.E. Priebe, "Dimensionality Reduction on the Cartesian Product of Embeddings of Multiple Dissimilarity Matrices," *Journal of Classification*, Vol. 27, No. 3, pp. 307-321, 2010.

J. Blatz, D.E. Fishkind and C.E. Priebe, "Effcient, Optimal Stochastic-Action Selection When Limited by an Action Budget," *Mathematical Methods of Operations Research*, Vol. 72, No. 1, pp. 63-74, 2010.

J. Gupchup, A. Terzis, Z. Ma and C.E. Priebe, "Classification-Based Event Detection in Ecological Monitoring Sensor Networks," *Electronic Journal of Structural Engineering*, Special Issue: Wireless Sensor Networks and Practical Applications, pp. 36–44, 2010.

C.E. Priebe, Y. Park, D.J. Marchette, J.M. Conroy, J. Grothendieck, and A.L. Gorin, "Statistical Inference on Attributed Random Graphs: Fusion of Graph Features and Content: An Experiment on Time Series of Enron Graphs," *Computational Statistics and Data Analysis*, Vol. 54, pp. 1766-1776, 2010.

J. Grothendieck, C.E. Priebe, and A.L. Gorin, "Statistical Inference on Attributed Random Graphs: Fusion of Graph Features and Content," *Computational Statistics and Data Analysis*, Vol. 54, pp. 1777-1790, 2010.

S. Carliles, T. Budavari, S. Heinis, A.S. Szalay, and C.E. Priebe, "Random Forests for Photometric Redshifts," *The Astrophysical Journal*, Vol. 712, pp. 511-515, 2010.

X. Ye and C.E. Priebe, "A Graph-Search based Navigation Algorithm for Traversing A Potentially Hazardous Area with Disambiguation," *International Journal of Operations Research and Information Systems*, Vol. 1, No. 3, pp. 14-27, 2010.

2009

M.I. Miller, C.E. Priebe, Qiu, A., Fischl, B., Kolasny, A., Brown, T., Park, Y., Ratnanather, J.T., Busa, E., Jovicich. J., Yu, P., Dickerson, B.C., Buckner, R.L. and the Morphometry BIRN, "Collaborative Computational Anatomy: An MRI Morphometry Study of the Human Brain via Diffeomorphic Metric Mapping," *Human Brain Mapping*, Vol. 30, pp. 2132-2141, 2009.

A. Rukhin, C.E. Priebe, and D.M. Healy, "On the Monotone Likelihood Ratio Property for the Convolution

of Independent Binomial Random Variables," *Discrete Applied Mathematics*, Vol. 157, pp. 2562–2564, 2009.

2008

K.E. Giles, M.W. Trosset, D.J. Marchette, and C.E. Priebe, "Iterative Denoising," *Computational Statistics*, Vol. 23, No. 4, pp. 497–517, 2008.

C.E. Priebe and W.D. Wallis, "On the Anomalous Behaviour of a Class of Locality Statistics," *Discrete Mathematics*, Vol. 308, pp. 2034–2037, 2008.

D. Karakos, S. Khudanpur, D.J. Marchette, A. Papamarcou, and C.E. Priebe, "On the Minimization of Concave Information Functionals for Unsupervised Classification via Decision Trees," *Statistics & Probability Letters*, Vol. 78, No. 8, pp. 975–984, 2008.

D.J. Marchette and C.E. Priebe, "Scan Statistics for Interstate Alliance Graphs," *Connections*, Volume 28, Issue 2, pp. 43–64, 2008.

Y. Park, C.E. Priebe, M.I. Miller, N. Ram Mohan and K.N. Botteron, "Statistical Analysis of Twin Populations using Dissimilarity Measurements in Hippocampus Shape Space," *Journal of Biomedicine and Biotechnology*, Vol. 2008, Article ID 694297, 5 pages, 2008.

D.J. Marchette and C.E. Priebe, "Predicting Unobserved Links in Incompletely Observed Networks," *Computational Statistics and Data Analysis*, Vol. 52, pp. 1373–1386, 2008.

N.A. Lee, C.E. Priebe, M.I. Miller, and J.T. Ratnanather, "Validation of Alternating Kernel Mixture Method: Application to Tissue Segmentation of Cortical and Sub-cortical Structures," *Journal of Biomedicine and Biotechnology*, Vol. 2008, Article ID 346129, 8 pages, 2008.

M.W. Trosset and C.E. Priebe, "The Out-of-Sample Problem for Classical Multidimensional Scaling," *Computational Statistics and Data Analysis*, Vol. 52, No. 10, pp. 4635-4642, 2008.

M.W. Trosset, C.E. Priebe, Y. Park, and M.I. Miller, "Semisupervised Learning from Dissimilarity Data," *Computational Statistics and Data Analysis*, Vol. 52, No. 10, pp. 4643-4657, 2008.

2007

D.E. Fishkind, C.E. Priebe, K. Giles, L.N. Smith, and A. Aksakalli, "Disambiguation Protocols Based on Risk Simulation," *IEEE Transactions on System, Man and Cybernetics, Part A*, Vol. 37, No. 5, pp. 814–823, 2007.

E. Ceyhan, C.E. Priebe, and D.J. Marchette, "A New Family of Random Graphs for Testing Spatial Segregation," *Canadian Journal of Statistics*, Vol. 35, No. 1, pp. 27–50, 2007.

M. John and C.E. Priebe, "A data-adaptive methodology for finding an optimal weighted generalized Mann-Whitney-Wilcoxon statistic," *Computational Statistics and Data Analysis*, Vol. 51, No. 9, pp. 4337–4353, 2007.

2006

J.G. DeVinney and C.E. Priebe, "A new family of proximity graphs: class cover catch digraphs," *Discrete Applied Mathematics*, Vol. 154, No. 14, pp. 1975–1982, 2006.

E. Ceyhan and C.E. Priebe, "On the Distribution of the Domination Number of a New Family of Parametrized Random Digraphs," *Model Assisted Statistics and Applications,* Vol. 1, No. 4, pp. 231–255, 2006.

C.E. Priebe, D.J. Marchette, Y. Park, and R.R. Muise, "An Application of Integrated Sensing and Processing Decision Trees for Target Detection and Localization on Digital Mirror Array Imagery," *Applied Optics*, Vol. 45, No. 13, pp. 3022–3030, 2006.

C.E. Priebe, M.I. Miller, and J.T. Ratnanather, "Segmenting Magnetic Resonance Images via Hierarchical Mixture Modelling," *Computational Statistics and Data Analysis*, Vol. 50, No. 2, pp. 551–567, 2006.

E. Ceyhan, C.E. Priebe, and J.C. Wierman, "Relative Density of the Random r-Factor Proximity Catch Digraph for Testing Spatial Patterns of Segregation and Association," *Computational Statistics and Data Analysis*, Vol. 50, No. 8, pp. 1925–1964, 2006.

2005

C.E. Priebe, J.M. Conroy, D.J. Marchette, and Y. Park, "Scan Statistics on Enron Graphs," *Computational and Mathematical Organization Theory*, Vol. 11, No. 3, pp. 229-247, 2005.

C.E. Priebe, D.E. Fishkind, L.A. Abrams, and C.D. Piatko, "Random Disambiguation Paths for Traversing a Mapped Hazard Field," *Naval Research Logistics*, Vol. 52, No. 3, pp. 285–292, 2005.

C.K. Eveland, D.A. Socolinsky, C.E. Priebe, and D.J. Marchette, "A Hierarchical Methodology for Class Detection Problems with Skewed Priors," *Journal of Classification*, Vol. 22, No. 1, pp. 17–48, 2005.

E. Ceyhan and C.E. Priebe, "The use of domination number of a random proximity catch digraph for testing segregation/association," *Statistics and Probability Letters*, Vol. 73, No. 1, pp. 37–50, 2005.

2004

C.E. Priebe, D.J. Marchette, and D.M. Healy, "Integrated Sensing and Processing Decision Trees," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 26, No. 6, pp. 699–708, 2004.

L.A. Abrams, D.E. Fishkind, and C.E. Priebe, "The Generalized Spherical Homeomorphism Theorem for Digital Images," *IEEE Transactions on Medical Imaging*, Vol. 23, No. 5, pp. 655–657, 2004.

D.A. Johannsen, E.J. Wegman, J.L. Solka, and C.E. Priebe, "Simultaneous selection of features and metric for optimal nearest neighbor classification," *Communications in Statistics: Theory and Methods*, Vol. 33, Issue 9, pp. 2137–2158, 2004.

2003

M.I. Miller, M. Hosakere, A.R. Barker, C.E. Priebe, N. Lee, J.T. Ratnanather, L. Wang, M. Gado, J.C. Morris, J.G. Csernansky, "Labeled Cortical Mantle Distance Maps of the Cingulate Quantify Differences Between Dementia of the Alzheimer Type and Healthy Aging," *Proceedings of the National Academy of Sciences*, Vol. 100, No. 25, pp. 15172-15177, 2003.

C.E. Priebe, J.L. Solka, D.J. Marchette, and B.T. Clark, "Class Cover Catch Digraphs for Latent Class Discovery in Gene Expression Monitoring by DNA Microarrays," *Computational Statistics and Data Analysis*, Vol. 43, No. 4, pp. 621-632, 2003.

R.S. Pilla, P. Tao, and C.E. Priebe, "Adaptive Methods for Spatial Scan Analysis via Semiparametric Mixture Models," *Journal of Computational and Graphical Statistics*, Vol. 12, No. 2, pp. 332-353, 2003.

C.E. Priebe, D.J. Marchette, J.G. DeVinney, and D.A. Socolinsky, "Classification Using Class Cover Catch Digraphs," *Journal of Classification*, Vol. 20, No. 1, pp. 3-23, 2003.

T. Olson, J.S. Pang, and C.E. Priebe, "A Likelihood–MPEC Approach to Target Classification," *Mathematical Programming*, Ser. A, Vol. 96, pp. 1-31, 2003.

D.J. Marchette and C.E. Priebe, "Characterizing the Scale Dimension of a high dimensional classification problem," *Pattern Recognition*, Vol. 36, No. 1, pp. 45-60, 2003.

2002

L.A. Abrams, D.E. Fishkind, and C.E. Priebe, "A Proof of the Spherical Homeomorphism Conjecture for Surfaces," *IEEE Transactions on Medical Imaging*, Vol. 21, No. 12, pp. 1564–1566, 2002.

J.L. Solka, B.T. Clark, and C.E. Priebe, "A Visualization Framework for the Analysis of Hyperdimensional Data," *International Journal of Image and Graphics*, Vol. 2, No. 1, pp. 145–161, 2002.

J. Xie and C.E. Priebe, "A Weighted Generalization of the Mann–Whitney–Wilcoxon Statistic," *Journal of*

Statistical Planning and Inference, Vol. 102, No. 2, pp. 441–466, 2002.

2001

L.F. James, C.E. Priebe, and D.J. Marchette, "Consistent Estimation of Mixture Complexity," *Annals of Statistics*, Vol. 29, No. 5, pp. 1281–1296, 2001.

C.E. Priebe, "Olfactory Classification via Interpoint Distance Analysis," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 23, No. 4, pp. 404–413, 2001.

C.E. Priebe and D. Chen, "Spatial Scan Density Estimates," *Technometrics*, Vol. 43, No. 1, pp. 73–83, 2001.

C.E. Priebe, J.G. DeVinney, and D.J. Marchette, "On the Distribution of the Domination Number for Random Class Cover Catch Digraphs," *Statistics and Probability Letters*, Vol. 55, No. 3, pp. 239–246, 2001.

C.E. Priebe, D.Q. Naiman, and L. Cope, "Importance Sampling for Spatial Scan Analysis: Computing Scan Statistic p–Values for Marked Point Processes," *Computational Statistics and Data Analysis*, Vol. 35, No. 4, pp. 475–485, 2001.

D.Q. Naiman and C.E. Priebe, "Computing Scan Statistic p–Values using Importance Sampling, with Applications to Genetics and Medical Image Analysis," *Journal of Computational and Graphical Statistics*, Vol. 10, No. 2, pp. 296–328, 2001.

2000

C.E. Priebe and D.J. Marchette, "Alternating Kernel and Mixture Density Estimates," *Computational Statistics and Data Analysis*, Vol. 35, No. 1, pp. 43–65, 2000.

J. Xie and C.E. Priebe, "Generalizing the Mann–Whitney–Wilcoxon Statistic," *Journal of Nonparametric Statistics*, Vol. 12, pp. 661–682, 2000.

D.S. Lee and C.E. Priebe, "Exact Mean and Mean Squared Error of the Smoothed Bootstrap Mean Integrated Squared Error Estimator," *Computational Statistics*, Vol. 15, No. 2, pp. 169–181, 2000.

1999

C.E. Priebe and L.J. Cowen, "A Generalized Wilcoxon–Mann–Whitney Statistic," *Communications in Statistics: Theory and Methods*, Vol. 28, No. 12, pp. 2871–2878, 1999.

H.S. Friedman and C.E. Priebe, "Smoothing Bandwidth Selection for Response Latency Estimation," *Journal of Neuroscience Methods*, Vol. 87, pp. 13–16, 1999.

1998

J.L. Solka, E.J. Wegman, C.E. Priebe, W.L. Poston, and G.W. Rogers, "Mixture Structure Analysis Using the Akaike Information Criterion and the Bootstrap," *Statistics and Computing,* Vol. 8, pp. 177–188, 1998.

H.S. Friedman and C.E. Priebe, "Estimating Stimulus Response Latency," *Journal of Neuroscience Methods,* Vol. 83, pp. 185–194, 1998.

1997

C.E. Priebe, T. Olson, and D.M. Healy, "A Spatial Scan Statistic for Stochastic Scan Partitions," *Journal of the American Statistical Association,* Vol. 92, No. 440, pp. 1476–1484, 1997.

C.E. Priebe, D.J. Marchette, and G.W. Rogers, "Segmentation of Random Fields via Borrowed Strength Density Estimation," *IEEE Transactions on Pattern Analysis and Machine Intelligence,* Vol. 19, No.5, pp. 494–499, 1997.
(An expanded version of this work is available as Technical Report No. 547, Department of Mathematical Sciences, Johns Hopkins University, Baltimore, MD 21218-2682.)

C.E. Priebe, D.J. Marchette, and G.W. Rogers, "Semiparametric Nonhomogeneity Analysis," *Journal of Statistical Planning and Inference,* Vol. 59, No. 1, pp. 45–60, 1997.

L.J. Cowen and C.E. Priebe, "Randomized Nonlinear Projections Uncover High–Dimensional Structure," *Advances in Applied Mathematics,* Vol. 9, pp. 319–331, 1997.

W.L. Poston, E.J. Wegman, C.E. Priebe, and J.L. Solka, "A Deterministic Method for Robust Estimation of Multivariate Location and Shape," *Journal of Computational and Graphical Statistics,* Vol. 6, No. 3, pp. 300–313, 1997.

D.J. Marchette, R.A. Lorey, and C.E. Priebe, "An Analysis of Local Feature Extraction in Digital Mammography," *Pattern Recognition,* Vol. 30, No. 9, pp. 1547–1554, 1997.

B.W. Wallet, J.L. Solka, and C.E. Priebe "A Method for Detecting Microcalcifications in Digital Mammograms" *Journal of Digital Imaging,* Vol. 10, No. 3, pp. 136–139, 1997.

1996

C.E. Priebe, "Nonhomogeneity Analysis Using Borrowed Strength," *Journal of the American Statistical Association,* Vol. 91, No. 436, pp. 1497–1503, 1996.

D.J. Marchette, C.E. Priebe, G.W. Rogers, and J.L. Solka, "Filtered Kernel Density Estimation," *Computational Statistics,* Vol. 11, pp. 95–112, 1996.

1995

G.W. Rogers, J.L. Solka, and C.E. Priebe, "A PDP Approach to Localized Fractal Dimension Computation with Segmentation Boundaries," *Simulation,* Vol. 65, pp. 26–36, 1995.

R.A. Lorey, C.E. Priebe, J.L. Solka, G.W. Rogers, and D.J. Marchette, "Mammographic Computer Assisted Diagnosis Using Computational Statistics Pattern Recognition," *Real–Time Imaging,* Vol. 1, pp. 95–104, 1995.

1994

C.E. Priebe, "Adaptive Mixtures," *Journal of the American Statistical Association,* Vol. 89, No. 427, pp. 796–806, 1994.

C.E. Priebe, J.L. Solka, R.A. Lorey, G.W. Rogers, W.L. Poston, M. Kallergi, W. Qian, L.P. Clarke, and R.A. Clark, "The Application of Fractal Analysis to Mammographic Tissue Classification," *Cancer Letters,* Vol. 77, pp. 183–189, 1994.

W.L. Poston, G.W. Rogers, C.E. Priebe, and J.L. Solka, "A Qualitative Analysis of the Resistive Grid Kernel Estimator," *Pattern Recognition Letters,* Vol. 15, pp. 219–225, 1994.

1993

C.E. Priebe and D.J. Marchette, "Adaptive Mixture Density Estimation," *Pattern Recognition,* Vol. 26, No. 5, pp. 771–785, 1993.

K.S. Woods, C.C. Doss, K.W. Bowyer, J.L. Solka, C.E. Priebe, and W.P. Kegelmeyer, "Comparative Evaluation of Pattern Recognition Techniques for Detection of Microcalcifications in Mammography," *International Journal of Pattern Recognition and Artificial Intelligence,* Vol. 7, No. 6, pp. 1417–1436, 1993.

G.W. Rogers, J.L. Solka, D.S. Malyevac, and C.E. Priebe, "A Self Organizing Network for Computing A Posteriori Conditional Class Probability," *IEEE Transactions on Systems, Man, and Cybernetics,* Vol. 23, No. 6, pp. 1672–1682, 1993.

1992

J.L. Solka, C.E. Priebe, and G.W. Rogers, "An Initial Assessment of Discriminant Surface Complexity for Power Law Features," *Simulation,* Vol. 58, pp. 311–318, 1992.

G.W. Rogers, J.L. Solka, C.E. Priebe, and H.H. Szu, "Optoelectronic Computation of Waveletlike–Based Features," *Optical Engineering,* Vol. 31, No. 9, pp. 1886–1892, 1992.

1991

C.E. Priebe and D.J. Marchette, "Adaptive Mixtures: Recursive Nonparametric Pattern Recognition," *Pattern Recognition,* Vol. 24, No. 12, pp. 1197–1209, 1991.

1990

D.J. Marchette and C.E. Priebe, "Adaptive Kernel Neural Network," *Mathematical and Computer Modelling,* Vol. 14, pp. 328–333, 1990.

SUBMITTED FOR PUBLICATION IN REFEREED JOURNALS

Al-Fahad M. Al-Qadhi, Carey E. Priebe, Hayden S. Helm, Vince Lyzinski "Subgraph nomination: Query by Example Subgraph Retrieval in Networks," Submitted, 2020
(http://www.cis.jhu.edu/~parky/CEP-Publications/submitted.html)

Douglas C. Comer, Ioana A. Dumitru, Carey E. Priebe, Jesse L. Patsolic, "Sampling Methods for Archaeological Predictive Modeling: Spatial Autocorrelation and Model Performance," Submitted, 2020

Ketan Mehta, Rebecca F. Goldin, David Marchette, Joshua T. Vogelstein, Carey E. Priebe, Giorgio A. Ascoli, "Neuronal Classification from Network Connectivity via Adjacency Spectral Embedding," submitted, 2020
(https://www.biorxiv.org/content/10.1101/2020.06.18.160259v1)

Disa Mhembere, Da Zheng, Carey E. Priebe, Joshua T. Vogelstein, Randal Burns, "clusterNOR: A NUMA-Optimized Clustering Framework," submitted, 2020
(https://arxiv.org/abs/1902.09527)

Vivek Gopalakrishnan, Jaewon Chung, Eric Bridgeford, Benjamin D. Pedigo, Jesús Arroyo, Lucy Upchurch, G. Allan Johnson, Nian Wang, Youngser Park, Carey E. Priebe, Joshua T. Vogelstein, "Multiscale Comparative Connectomics," submitted, 2020
(https://arxiv.org/abs/2011.14990)

Joshua Agterberg, Minh Tang, Carey E Priebe, "Nonparametric Two-Sample Hypothesis Testing for Random Graphs with Negative and Repeated Eigenvalues," submitted, 2020
(https://arxiv.org/abs/2012.09828)

Hayden S. Helm, Ronak D. Mehta, Brandon Duderstadt, Weiwei Yang, Christoper M. White, Ali Geisa, Joshua T. Vogelstein, Carey E Priebe, "A partition-based similarity for classification distributions," submitted, 2020
(https://arxiv.org/abs/2011.06557)

Runbing Zheng, Vince Lyzinski, Carey E. Priebe, Minh Tang, "Vertex nomination between graphs via spectral embedding and quadratic programming," submitted, 2020
(https://arxiv.org/abs/2010.14622)

Carey E. Priebe, Cencheng Shen, Ningyuan (Teresa) Huang, Tianyi Chen, "A Simple Spectral Failure Mode for Graph Convolutional Networks," submitted, 2020
(https://arxiv.org/abs/2010.13152)

Anton A. Alyakin, Joshua Agterberg, Hayden S. Helm, Carey E. Priebe, "Correcting a Nonparametric Two-sample Graph Hypothesis Test for Graphs with Different Numbers of Vertices," submitted, 2020
(https://arxiv.org/abs/2008.09434)

Chen, Guodong; Arroyo, Jesús; Athreya, Avanti; Cape, Joshua; Vogelstein, Joshua; Park, Youngser; White, Christopher; Larson, Jonathan; Yang, Weiwei; Priebe, Carey E., "Multiple Network Embedding for Anomaly Detection in Time Series of Graphs," submitted, 2020
(https://arxiv.org/abs/2008.10055)

Michael J. Harrower, Joseph C. Mazzariello, A. Catherine D'Andrea, Smiti Nathan, Habtamu Mekonnen, Ioana A. Dumitru, Carey E. Priebe, Kifle Zerue, Youngser Park, "Aksumite Settlement Patterns: Site Size Hierarchy and Spatial Clustering Analyses," submitted, 2020

Cong Mu, Angelo Mele, Lingxin Hao, Joshua Cape, Avanti Athreya, Carey E. Priebe, "On identifying unobserved heterogeneity in stochastic blockmodel graphs with vertex covariates," submitted, 2020
(https://arxiv.org/abs/2007.02156)

Lingxin Hao, Angelo Mele, Joshua Cape, Avanti Athreya, Cong Mu, Carey E. Priebe, "Latent Communities in Employment Relations and Wage Distributions: A Network Approach," submitted, 2020

Hayden S. Helm, Amitabh Basu, Avanti Athreya, Youngser Park, Joshua T. Vogelstein, Michael Winding,

Marta Zlatic, Albert Cardona, Patrick Bourke, Jonathan Larson, Chris White, Carey E Priebe, "Learning to rank via combining representations," submitted, 2020
(https://arxiv.org/abs/2005.10700)

Keith Levin, Carey E Priebe,Vince Lyzinski, "On the role of features in vertex nomination: Content and context together are better (sometimes)," submitted, 2020
(https://arxiv.org/pdf/2005.02151.pdf)

Joshua T. Vogelstein, Hayden S. Helm, Ronak D. Mehta, Jayanta Dey, Weiwei Yang, Bryan Tower, Will LeVine, Jonathan Larson, Chris White, Carey E Priebe, "A general approach to progressive learning," submitted, 2020
(https://arxiv.org/abs/2004.12908)

Carey E Priebe, Joshua Vogelstein, Florian Engert, Christopher M White, "Modern Machine Learning: Partition & Vote," submitted, 2020
(https://www.biorxiv.org/content/10.1101/2020.04.29.068460v1)

Michael W. Trosset, Mingyue Gao, Minh Tang, Carey E Priebe, "Learning 1-Dimensional Submanifolds for Subsequent Inference on Random Dot Product Graphs," submitted, 2020
(https://arxiv.org/abs/2004.07348)

Zachary M. Pisano, Joshua S. Agterberg, Carey E Priebe, Daniel Q. Naiman, "Spectral graph clustering via the Expectation-Solution algorithm," submitted, 2020
(https://arxiv.org/abs/2003.13462)

Joshua Agterberg, Minh Tang, Carey E Priebe, "On Two Distinct Sources of Nonidentifiability in Latent Position Random Graph Models," submitted, 2020
(https://arxiv.org/abs/2003.14250)

Donniell E. Fishkind, Avanti Athreya, Lingyao Meng, Vince Lyzinski, Carey E Priebe, "On a complete and sufficient statistic for the correlated Bernoulli random graph model," submitted, 2020
(https://arxiv.org/abs/2002.09976)

Jesús Arroyo, Vince Lyzinski, Carey E Priebe, Vince Lyzinski "Graph matching between bipartite and unipartite networks: to collapse, or not to collapse, that is the question," submitted, 2020
(https://arxiv.org/abs/2002.01648)

Anton Alyakin, Yichen Qin, Carey E Priebe "LqRT: Robust Hypothesis Testing of Location Parameters using Lq-Likelihood-Ratio-Type Test in Python," submitted, 2019
(https://arxiv.org/abs/1911.11922)

Oscar Hernan Madrid Padilla, Yi Yu, Carey E Priebe "Change point localization in dependent dynamic nonparametric random dot product graphs," submitted, 2019
(https://arxiv.org/abs/1911.07494)

Cencheng Shen, Carey E Priebe, Joshua T. Vogelstein "The Exact Equivalence of Independence Testing and Two-Sample Testing," submitted, 2019
(https://arxiv.org/abs/1910.08883)

Ian Gallagher, Anna Bertiger, Carey E Priebe, Patrick Rubin-Delanchy "Spectral clustering in the weighted stochastic block model," submitted, 2019.
(https://arxiv.org/abs/1910.05534)

Angelo Mele, Lingxin Hao, Joshua Cape, Carey E Priebe, "Spectral inference for large Stochastic Block-models with nodal covariates," submitted, 2019.
(https://arxiv.org/abs/1908.06438)

Konstantinos Pantazis, Daniel L. Sussman, Youngser Park, Carey E Priebe, Vince Lyzinski, "Multiplex graph matching matched filters," submitted, 2019.

(https://arxiv.org/abs/1908.02572)

Disa Mhembere, Da Zheng, Joshua Vogelstein, Carey E. Priebe, Randal Burns, "Graphyti: A Semi-External Memory Graph Library for FlashGraph," submitted, 2019.
(https://arxiv.org/abs/1907.03335)

Hayden Helm, Joshua Vogelstein, Carey E. Priebe, "Vertex Classification on Weighted Networks," submitted, 2019.
(https://arxiv.org/abs/1906.02881)

Michael Trosset, Carey E. Priebe, "Approximate Information Tests on Statistical Submanifolds," submitted, 2019.
(https://arxiv.org/abs/1903.08656)

Jesús Arroyo, Daniel L. Sussman, Carey E. Priebe, Vince Lyzinski, "Maximum Likelihood Estimation and Graph Matching in Errorfully Observed Networks," submitted, 2018.
(https://arxiv.org/abs/1812.10519)

Fangzheng Xie, Yanxun Xu, Carey E. Priebe, Joshua Cape, "Bayesian Estimation of Sparse Spiked Covariance Matrices in High Dimensions," submitted, 2018.
(https://arxiv.org/abs/1808.07801)

Shangsi Wang, Cencheng Shen, Alexandra Badea, Carey E. Priebe, Joshua T. Vogelstein, "Signal Subgraph Estimation Via Vertex Screening," submitted, 2018.
(https://arxiv.org/abs/1801.07683)

Youjin Lee, Cencheng Shen, Carey E. Priebe, Joshua T. Vogelstein "Network Dependence Testing via Diffusion Maps and Distance-Based Correlations," submitted 2017.
(https://arxiv.org/abs/1703.10136)

Vince Lyzinski, Keith Levin, Carey E. Priebe, "On consistent vertex nomination schemes," submitted, 2017.
(https://arxiv.org/abs/1711.05610)

Minh Tang, Joshua Cape, Carey E. Priebe, "Asymptotically efficient estimators for stochastic blockmodels: the naive MLE, the rank-constrained MLE, and the spectral," submitted, 2017.
(https://arxiv.org/abs/1710.10936)

Patrick Rubin-Delanchy, Carey E. Priebe, Minh Tang "The generalised random dot product graph," submitted, 2017.
(https://arxiv.org/abs/1709.05506)

Runze Tang, Minh Tang, Joshua T. Vogelstein, Carey E. Priebe, "Robust Estimation from Multiple Graphs under Gross Error Contamination," submitted, 2017.
(https://arxiv.org/abs/1707.03487)

Keith Levin, Avanti Athreya, Minh Tang, Vince Lyzinski, Carey E. Priebe, "A central limit theorem for an omnibus embedding of random dot product graphs," submitted, 2017.
(https://arxiv.org/abs/1705.09355)

P. Rubin-Delanchy, C.E. Priebe, M. Tang, "Consistency of adjacency spectral embedding for the mixed membership stochastic blockmodel," submitted, 2017.
(https://arxiv.org/abs/1705.04518)

C.E. Priebe, Y. Park, M. Tang, A, Athreya, V. Lyzinski, J. Vogelstein, Y. Qin, B. Cocanougher, K. Eichler, M. Zlatic, A. Cardona, "Semiparametric spectral modeling of the Drosophila connectome," submitted, 2017.
(https://arxiv.org/abs/1705.03297)

Avanti Athreya, Minh Tang, Vince Lyzinski, Youngser Park, Bryan Lewis, Michael Kane, Carey E. Priebe, "Numerical tolerance for spectral decompositions of random dot product graphs," submitted, 2016.
(https://arxiv.org/abs/1608.00451)

Michael W. Trosset, Mingyue Gao, Carey E. Priebe, "On the Power of Likelihood Ratio Tests in Dimension-Restricted Submodels," submitted, 2016.
(https://arxiv.org/abs/1608.00032)

Jordan Yoder, Carey E. Priebe, "A Model-based Semi-Supervised Clustering Methodology," submitted, 2015.
(https://arxiv.org/abs/1412.4841)

Nam Lee, Carey E. Priebe, Youngser Park, I-Jeng Wang, Michael Rosen, "Techniques for clustering interaction data as a collection of graphs," submitted, 2014.
(https://arxiv.org/abs/1406.6319)

Vince Lyzinski, Sancar Adali, Joshua T. Vogelstein, Youngser Park, Carey E. Priebe, "Seeded Graph Matching Via Joint Optimization of Fidelity and Commensurability," submitted, 2014.
(https://arxiv.org/abs/1401.3813)

Damianos Karakos, Shuai Huang, Sanjeev Khudanpur, Carey E. Priebe, "Information-Theoretic Aspects of Iterative Denoising," submitted, 2013.

Minh Tang, Youngser Park, and Carey E. Priebe, "Out-of-sample Extension for Latent Position Graphs," submitted, 2013.
(https://arxiv.org/abs/1305.4893)

L. Chen, C.E. Priebe, D.L. Sussman, D.C. Comer, W.P. Megarry, and J.C. Tilton, "Enhanced Archaeological Predictive Modelling in Space Archaeology," submitted, 2013.
(https://arxiv.org/abs/1301.2738)

Lucy F. Robinson, C.E. Priebe, "Detecting Time-dependent Structure in Network Data via a New Class of Latent Process Models," submitted, 2012.
(https://arxiv.org/abs/1212.3587v2)

G.A. Coppersmith, C.E. Priebe, "Vertex Nomination via Content and Context," submitted, 2012.
(https://arxiv.org/abs/1201.4118)

PATENTS

Invention Disclosure: University of Florida Invention Disclosure UF#10098, April 6, 1999, "Optimized Classification System and Method."

Patent Pending: Provisional Patent Application 07662/013001 C–1351 filed September 26, 1997, "ADC Clustering System and Method."

US Patent No. 5,671,294, Issued 23 SEP 1997, "A System and Method for Incorporating Segmentation Boundaries into the Calculation of Fractal Dimension Features for Texture Discrimination."

US Patent No. 5,517,531, Issued 14 MAY 1996, "Kernel Adaptive Interference Suppression System."

US Patent No. 5,499,399, Issued 12 MAR 1996, "Two–Dimensional Kernel Adaptive Interference Suppression System."

US Patent No. 5,384,895, Issued 24 JAN 1995, "Self Organizing Neural Network for Classifying Pattern Signatures Using A Posterior Conditional Class Probability."

US Patent No. 5,365,472, Issued 15 NOV 1994, "Non–Linear Resistive Grid Kernel Estimator Useful in Single Feature, Two–Class Pattern Classifiacation."

US Patent No. 5,351,311, Issued 27 SEP 1994, "Neural Network for Detection and Correction of Local Boundary Misalignments Between Images."

GRANTS AND CONTRACTS

Principal Investigator, DARPA, "What Would Tukey Do?" 04/11/17 – 04/10/2021

Co-Principal Investigator, NSF, "NeuroNex Technology Hub: Towards the International Brain Station for Accelerating and Democratizing Neuroscience Data Analysis and Modeling," 09/01/2017 – 08/31/2019

Co-Principal Investigator, AFRL, Lifelong Learning Forests (PI: Vogelstein) 03/05/2018 – 10/31/2019

Co-Principal Investigator, NSF, "Multiscale Generalized Correlation: A Unified Distance-Based Correlation Measure for Dependence Discovery," 05/01/2017 – 04/30/2020

Co-Principal Investigator, Air Force Office of Scientific Research / University of Massachusetts (Subaward), "Universally Useful Primitives for Aligning Networks Across Time and Space," 12/20/2017 – 12/20/2019

Co-Principal Investigator, Air Force Office of Scientific Research, "Foundations and Algorithms for Statistics and Learning for Data in Metric Spaces," 7/01/2017 – 6/30/2020

Principal Investigator, DARPA "Fusion and Inference from Multiple and Massive Disparate Distributed Dynamic Data Sets," 09/10/2012 – 03/09/2017

Co-Principal Investigator, NSF, "Brain Comp Infra: EAGER: BrainLab CI: Collaborative, Community Experiments with Data-Quality Controls," 1/15/2017 – 10/31/2018

Principal Investigator, National Science Foundation, "NSF BRAIN EAGER: Discovery and characterization of neural circuitry from behavior, connectivity patterns and activity patterns," 09/01/14–08/31/16 ($300,000).

Principal Investigator, Defense Advanced Research Project Agency, "DARPA SIMPLEX: From RAGs to Riches: Utilizing Richly Attributed Graphs to Reason from Heterogeneous Data," 05/11/2015–05/31/2018 ($779,596)

Principal Investigator, Defense Advanced Research Project Agency, "DARPA GRAPHS: Scalable Brain Graph Analyses using Big-Memory, High-IOPS Compute Architectures," 05/14/2014–02/28/16 ($39,882).

Principal Investigator, Defense Advanced Research Project Agency, "DARPA XDATA: Fusion and Inference from Multiple and Massive Disparate Distributed Dynamic Data Sets," 09/10/12–03/09/17 ($1,467,000).

Johns Hopkins University Human Language Technology Center of Excellence, "Streaming Content in Context," 01/13/07–01/12/16 ($1,948,268).

Principal Investigator, National Security Science and Engineering Faculty Fellowship Program, "NSSEFF: Fusion and Inference from Multiple and Massive Disparate Data Sources," 02/09/09–02/08/14 ($2,738,211).

Principal Investigator, BBN Technologies, "SWAT - Scalable Workflow Analytic Toolkit", 11/8/2012–09/13/2014 ($125,000).

Principal Investigator, Cultural Site Research and Management, "Institutionalizing Protocols for Wide-Area Inventory of Archaeological Sites (Z. Lubberts)", 06/01/2013–08/31/2013 ($11,340).

Principal Investigator, Cultural Site Research and Management, "Institutionalizing Protocols for Wide-Area Inventory of Archaeological Sites (L. Chen)", 06/01/2012–12/31/2012 ($10,854).

Principal Investigator, Cultural Site Research and Management, "Institutionalizing Protocols for Wide-Area Inventory of Archaeological Sites (D. Sussman)", 06/01/2011–09/30/2011 ($10,860).

Principal Investigator, Air Force Office of Scientific Research, "Information Fusion: Inference from Graphs and Feature Matrices," 06/01/09–11/30/11 ($375,000).

Principal Investigator, Office of Naval Research, "Disparate Information Fusion: Embedding & Exploitation of Disparate Measurements," N00014-07-1-0328, 11/29/06–12/31/09 ($239,999).

National Science Foundation, "Novel Approaches to Unsupervised Classification via Integrated Sensing and Processing Decision Trees," (Damianos Karakos, PI) 09/01/07–08/31/10 ($299,996).

Raytheon, "Analysis of Fast Algorithms," 02/01/2008–09/30/2009 ($71,000).

Principal Investigator, Office of Naval Research, "Random Disambiguation Paths for Adaptive Navigation through Mine and Obstacle Fields: Basic Research," N00014-06-1-0013 10/1/05–12/31/08 ($300,001).

Principal Investigator, DARPA MTO, "A Compressed Sensing Approach to SIGINT Processing," N66001-06-1-2009, 02/02/06–12/31/08 ($415,928).

Co-Principal Investigator (with Michael I. Miller), NIH, "Conte Center," P20-MH071616 E31-2044, project ends 08/31/09.

Co-Principal Investigator (with Tilak Ratnanather), NIH, "Temporal Gyrus," R01-MH064838 E31-2038, project ends 12/31/07.

Principal Investigator, DARPA/AlgoTek, "Visual Brain," 06/29/05–06/28/06 ($27,000).

Principal Investigator, DARPA/AlgoTek, "BICA," 04/10/06-1/30/07 ($30,559).

DSTO, "Analysis Of Time Series Of Graphs," –6/30/07 ($50,000).

ORMS, "Analysis Of Time Series Of Graphs," –9/22/05

Principal Investigator, DARPA Applied and Computational Mathematics Program, "The Adaptive Data Cube for Integrated Sensing and Processing," DOD F49620-01-1-0395, 07/01/2001–06/30/2005 ($1,365,210)

Principal Investigator, Office of Naval Research, "Random Disambiguation for Adaptive Mine Countermeasures Path Planning," N00014-04-1-0483, 04/19/2004–07/31/2005 ($100,000)

DARPA Applied and Computational Mathematics Program, (subcontract from Lockheed Martin) "ISP Phase II," 09/01/2004–09/30/2006 ($150,030).

Raytheon, "Transitioning Automatic Target Recognition/Classification Algorithms to Signals and Image Domains," 8/15/2005–12/31/2005 ($33240).

DARPA, (subcontract from AlgoTek's Contract MDA972-03-C0014) "Novel Mathematical and Computational Approaches to Exploitation of Massive, Non-physical Data," 06/01/03–09/30/04 ($192,090)

Principal Investigator, Office of Naval Research, "Methodological Research in Statistical Pattern Recognition," N00014-01-1-0011, 10/01/00–12/31/03 ($346,524)

ASEE/ONR Sabbatical Leave Fellow 2000–2001, N00014-97-C-0171 and N00014-97-1-1055, 09/01/00–05/31/01 ($43,352)

Office of Naval Research (subcontract from Johns Hopkins University Applied Physics Laboratory) "Probabilistic Classification and Planning for Mine Countermeasures Command and Control," N00024-98-D-8124, 05/01/00–09/30/02 ($79,901)

Principal Investigator, Air Force Office of Scientific Research / DARPA Applied and Computational Mathematics Program, "Advanced Data Analysis Methods for Analyte Recognition from Optical Sensor Arrays," DOD F49620-99-1-0213, 04/01/99–03/31/01 ($398,965)

Principal Investigator, Office of Naval Research, "Semiparametric Nonhomogeneity Analysis (renewal)," N00014-95-1-0777, 11/16/97–11/14/00 ($264,686)

Principal Investigator, Office of Naval Research Young Investigator Program Award, "Semiparametric Nonhomogeneity Analysis," N00014-95-1-0777, 05/01/95–04/98 ($225,000)

Principal Investigator, National Science Foundation, "Detection of Land Mines via Spatial Statistics and Robust Detection," 07/97–06/99 ($71,000)

Principal Investigator, Power Spectra, "Detection of Land Mines via Spatial Statistics and Robust Detection," 07/97–06/99 ($40,000)

Office of Naval Research (subcontract from Dartmouth College), "Real Time Statistical Retargeting," 12/95–11/97 ($165,000)

Naval Surface Warfare Center, "IPA Agreement," 10/94–09/96 ($16,604)

1999 New Researchers Conference:
• National Science Foundation ($12000)
• National Security Agency: ($10000)
• Office of Naval Research ($6300)
• Acheson J. Duncan Fund for the Advancement of Research in Statistics ($9000)

Consultant: RedOwl, Campbell, AlgoTek, Animetrics, Centice, Cephos, Advanced Computation Technology Division, NSWC, Center for Computing Sciences, National Security Agency

STUDENTS SUPERVISED

peaches and plums everywhere ...

绿野堂开占物华，
路人指道令公家。
令公桃李满天下，
何用堂前更种花。
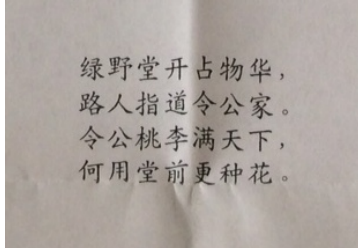
Mathematics Genealogy Project: https://www.mathgenealogy.org/id.php?id=47110&fChrono=1

Heather Gaddy Patsolic, Ph.D. (2020)
Dissertation Title: Graph Matching and Vertex Nomination
Defended: March 2020
Heather is now at Accenture Federal Services: hmgaddy@icloud.com

Joshua Cape, Ph.D. (2019)
Dissertation Title: Statistical Analysis and Spectral Methods for Signal-Plus-Noise Matrix Models
Defended: March 2019
Joshua is now Assistant Professor position at University of Pittsburgh: joshua.cape@pitt.edu

Gongkai (Percy) Li, Ph.D. (2019)
Dissertation Title: Dissimilarity Learning under Noise: Classical Multidimensional Scaling and Randomer Forests
Defended: May 2019
Percy is now at Constellation Energy: ligkpercy@gmail.com

Mingyue Gao, Ph.D. (2019)
Dissertation Title: On Manifold Learning Subsequent Inference
Defended: March 2019
Mingyue is now at Financial Industry Regulatory Authority: mygao90@gmail.com

Congyang Yuan, Ph.D. (2019)
Dissertation Title: Simultaneous Dimensionality and Complexity Model Selection for Spectral Graph Clustering
Defended: January 2019
CY is now at Sensagrate, LLC: yangcy.ee@gmail.com

Shangsi Wang, Ph.D. (2018)
Dissertation Title: Statistical Inference on Multiple Graphs
Defended: January 2018
Shangsi is now at Two Sigma: swang127@jhu.edu

Runze Tang, Ph.D. (2017)
Dissertation Title: Robust Estimation from Multiple Graphs
Defended: July 2017
Runze is now Quantitative Associate at Citi: tangrunze@gmail.com

Keith Levin, Ph.D. (2016)
Dissertation Title: Graph Inference with Applications to Low-Resource Audio Search and Indexing
Defended: December 2016
Keith is now Assistant Professor at University of Wisconsin: keith.levin@gmail.com

Jordan Yoder, Ph.D. (2016)
Dissertation Title: On Model-Based Semi-Supervised Clustering
Defended: March 2016
Jordan is now Senior Quantitative Analyst at Exelon Corporation: jordan.yoder@gmail.com

Heng Wang, Ph.D. (2015)
Dissertation Title: Community Detection using Locality Statistics
Defended: December 2015
Heng is now Platform Engineering research scientist at MachineZone: whalessandro@gmail.com

Cencheng Shen, Ph.D. (2015)
Dissertation Title: Matching and Inference for Multiple Correlated Data Sets
Defended: March 2015
Cencheng is now Assistant Professor at University of Delaware: charlie.cshen@gmail.com

Li Chen, Ph.D. (2015)
Dissertation Title: Pattern Recognition on Random Graphs
Defended: March 2015
Lee is now Data Scientist at Intel

Sancar Adali, Ph.D. (2014)
Dissertation Title: Joint Optimization of Fidelity and Commensurability for Manifold Alignment
Defended: March 2014
Sancar is now at BBN

Daniel Sussman, Ph.D. (2014)
Dissertation Title: Foundations of Adjacency Spectral Embedding
Defended: December 2013
Daniel is now Assistant Professor in the Department of Mathematics Statistics at Boston University: dpmcsuss@gmail.com

Ming Sun, Ph.D. (2013)
Dissertation Title: Data Fusion via Manifold Matching
Defended: September 2013
Ming is now Machine Learning Scientist at Amazon

Yichen Qin, Ph.D. (2013)
Dissertation Title: Robust Inference via Lq-Likelihood
Defended: June 2013
Yichen is now Associate Professor at the University of Cincinnati: yichenqin@gmail.com

Adam Cardinal-Stakenas, Ph.D. (2011)
Dissertation Title: Choosing a Dissimilarity Representation for Classification
Defended: February 2011
Adam is employed with DoD

Ting Yang, Ph.D. (2010)
Dissertation Title: The Effect of Model Misspecification on Semi-supervised Classification
Defended: December 2010
Ting is now at Armstrong Institute: ty.tingyang@gmail.com

Zhiliang Ma, Ph.D. (2010)
Dissertation Title: Disparate Information Fusion in the Dissimilarity Framework
Defended: October 2010
Zhiliang is now at facebook: zhiliang.ma@gmail.com

Andrey Rukhin, Ph.D. (2009)
Dissertation Title: Asymptotic Analysis of Various Statistics for Random Graph Inference
Defended: April 2009
Andrey is Senior Research Scientist at Metron, Inc.: rukhin@gmail.com

Libby Beer, Ph.D. (2009)
Dissertation Title: Latent Position Random Graphs: Theory, Inference, and Applications
Defended: February 2009
(Co-advisor with Ed Scheinerman)
Libby is now at Center for Computing Sciences (IDA/CCS-Bowie): libby.beer@gmail.com

Xugang Ye, Ph.D. (2008)
Dissertation Title: Random Disambiguation Paths: Models, Algorithms, and Analysis
Defended: September 2008
(Co-advisor with Shih-Ping Han)
Xugang is now at Microsoft Bing Information Platform: xugangye@microsoft.com

Al Aksakalli, Ph.D. (2007)
Dissertation Title: Protocols for Stochastic Shortest Path Problems with Dynamic Learning
Defended: March 2007
(Co-advisor with Donniell Fishkind)
Al is now Associate Professor at Department of Mathematical Sciences, RMIT University, Australia: vural.aksakalli@rmit.edu.au

Kendall Giles, Ph.D. (2007)
Dissertation Title: Knowledge Discovery in Computer Network Data: A Security Perspective
Defended: October 2006
Kendall is now Assistant Professor at Department of Electrical and Computer Engineering, Virginia Tech University: kendallgiles@gmail.com

Majnu John, Ph.D. (2005)
Dissertation Title: A data-adaptive methodology for finding an optimal weighted generalized MWW statistic
Defended: January 2005
Majnu John is Institute Scientist in the Feinstein Institute and Director of Biostatistics in the Department of Psychiatry at LIJ: mjohn5@nshs.edu

Elvan Ceyhan, Ph.D. (2005)
Dissertation Title: An Investigation of Proximity Catch Digraphs in Delaunay Tessellations
Defended: October 2004
Elvan is now Associate Professor at Auburn University: elvanceyhan@gmail.com

Jason DeVinney, Ph.D. (2003)
Dissertation Title: The Class Cover Problem and its Applications in Pattern Recognition
Defended: November 2002
Jason DeVinney is now at Center for Computing Sciences (IDA/CCS-Bowie): jasondevinney@gmail.com

Adam Cannon, Ph.D. (2001)
Dissertation Title: Approximate Distance Methods in Classification
Defended: May 2000
(Co-advisor with Lenore Cowen)
Adam Cannon is now at Columbia University: cannon@cs.columbia.edu

Peng Tao, Ph.D. (2000)
Dissertation Title: The Generalized Borrowed Strength Method and the Application to Image Recognition
Defended: March 2000
Peng Tao is now at AccuImage

Dalei Chen, Ph.D. (2000)
Dissertation Title: Borrowed Strength Density Estimation and Applications
Defended: November 1999
Dalei Chen is now at Bristol–Myers Squibb

Jingdong Xie, Ph.D. (1999)
Dissertation Title: Generalizing the Mann–Whitney–Wilcoxon Statistic
Defended: April 1999
Jingdong Xie is now at Forest Research Institute

Dominic Lee, Ph.D. (1996)
Dissertation Title: Advancing the Resampling Paradigm
Dominic is Senior Lecturer at University of Canterbury, Christchurch, New Zealand

Masters Theses:
Anton Alyakin, M.S. (2019)
Hayden Helm, M.S. (2018)
Nikhil Ram Mohan , M.S. (2009)
Allison Barker, M.S. (2003)
Karen Shahar, M.S. (2000)

Current Doctoral Research Advisees:
Joshua Agterberg (AMS doctoral student)
Guodong Chen (AMS doctoral student)
Cong Mu (AMS doctoral student)
Aranyak Acharyya (AMS doctoral student)

Current Undergraduate Research Advisees:
• Yi Qi Zhu

Current Masters Research Advisees:
• Anton Alyakin
• Ali Saad-Eldin

Current Postdoctoral Research Advisees:
• Jesus Arroyo

PostDocs Supervised
Daniel Sussman (01/01/2014–present); Minh Tang (09/01/2010–present); Vince Lyzinski (01/01/2013–present); Nam Lee (AY 2008, then Assistant Research Professor –present); Youngser Park (AY 2003, then Assistant/Associate Research Scientist –present); Ali Fuat Alkaya (10/01/2011–9/30/2012); Joshua Vogelstein (01/01/2010–12/31/2011, then Assistant Research Scientist 01/01/2012 - 08/15/2012); Bennett Landman (09/01/2008–06/30/2009); Damianos Karakos (AY 2003–2005); Diego Socolinsky (AY 2000–2004); Rida Mustafa (AY 2001–2002); Sung Ahn (AY 1998–1999); Tim Olson (AY 1997–1998)

HONORS

Heilbronn Distinguished Professor of Data Science (2019)

McDonald Award for Excellence in Mentoring and Advising (2011)

American Statistical Association Distinguished Achievement Award (2010)

ASEE Sabbatical Leave Fellow, 2009–2010

Erskine Fellow, University of Canterbury, Christchurch, New Zealand, 2009, 2013

National Security Science and Engineering Faculty Fellow, 2008

Robert B. Pond, Sr., Excellence in Teaching Award, 2008

Senior Member, IEEE (Elected 2008)

Elected Member of the International Statistical Institute (Elected 2007)

Fellow of the American Statistical Association (Elected 2002)

ASEE Sabbatical Leave Fellow, 2000–2001

Office of Naval Research Young Investigator Award, 1995–1998

Oraculum Award for Excellence in Teaching, Johns Hopkins University, 1994

Outstanding Ph.D. Dissertation in Statistical Sciences Award, George Mason University, 1993

EDITORIAL POSITIONS

Associate Editor, *Computational Statistics and Data Analysis*, 1999–

Associate Editor, *Journal of Computational and Graphical Statistics*, 2000–

Associate Editor, *Computational Statistics*, 2004–