## CURRICULUM VITAE

#### **Personal:**

Name: Nicole Alana Lazar Date of Birth: December 14, 1966 Place of Birth: Washington, D.C., U.S.A. Citizenship: American, Canadian, Israeli Address: Department of Statistics University of Georgia Athens, GA 30602 U.S.A. Office Phone: (706) 542-0632 Home Phone: (706) 543-7913 email: nlazar@stat.uga.edu

# Education:

1996 - Ph.D. (Statistics), University of Chicago

Thesis topic: Some Inferential Aspects of Empirical Likelihood

Thesis advisor: Per Mykland, University of Chicago

1993 - M.S. (Statistics), Stanford University

1988 - B.A. (Statistics and Psychology), Tel Aviv University Magna Cum Laude

1984 - Graduate, Katzenelson High School, Kefar Saba, Israel Summa Cum Laude

Languages: Speak, read and write - English, French, Hebrew

## **Experience**:

2014 -	Interim Head, Department of Statistics, University of Georgia
2008 -	Professor, Department of Statistics, University of Georgia
2011 -	Member, Center for Health Statistics, University of Chicago
2004 - 2008	Associate Professor, Department of Statistics, University of Georgia
2005 -	Member, Biomedical and Health Sciences Institute, University of Georgia
2002 - 2004	Associate Professor, Department of Statistics, Carnegie Mellon University
2003	Visiting Scholar, Department of Statistics and Actuarial Science, Hong Kong University (March)
2002 - 2003	Visiting Associate Professor, Center for Health Statistics and Center for Cognitive Medicine, Department of Psychiatry, University of Illinois at Chicago
2001 - 2011	Member, Center for Health Statistics, University of Illinois at Chicago
1997 -	Member, Center for Cognitive Brain Imaging, Carnegie Mellon University
1996 - 2002	Assistant Professor, Department of Statistics, Carnegie Mellon University
1995	Instructor for Statistics 200: Introductory Statistics for the Social Sciences, University of Chicago (Fall quarter)
1993	Research Assistant for Prof. Paul Switzer, Department of Statistics, Stanford University (Summer)
1993	Statistician, Patient Care Services, Research Program, Stanford University Hospital (Summer)
1988 - 1991	Statistics Officer, Department of Behavioral Sciences, Israel Defense Forces (First Lieutenant)

1989 - 1991 Instructor, Introductory Statistics for Research Assistants of Army Psychologists, IDF 1987 - 1988 Research Assistant for Dr. David Green, School of Education, Tel Aviv University

#### Honors and Scholarships:

2014	Fellow, American Statistical Association
2010	Recipient, Sandy Beaver Award for Excellence in Teaching, College of Arts and Sciences, University of Georgia
2008 - 2009	Writing Fellow, Center for Teaching and Learning, University of Georgia
2007	Recipient, M.G. Michael Research Award, College of Arts and Sciences, University of Georgia
2006	Elected member, International Statistical Institute
2004	Listed in Who's Who in Sciences Higher Education
1993 - 1995	Recipient, U.S. Department of Education Fellowship, Department of Statistics, University of Chicago
1988	Recipient of The Eitan Hophri Memorial Scholarship for Academic Achievement, Faculty of Exact Sciences, Tel Aviv University
1987	Recipient of The Mordechai Gaon Memorial Scholarship for Academic Achievement, Faculty of Humanities, Tel Aviv University

1985 - 1986 Dean's List, Faculty of Exact Sciences, Tel Aviv University

### Membership in Professional Societies:

- 2012 International Society for Bayesian Analysis
- 2005 Israel Statistical Association
- 2000 Sigma Xi Research Society
- 1994 Institute of Mathematical Statistics
- 1991 American Statistical Association
- 1988 1991 Israel Statistical Association

### Peer Reviewed Publications:

- Bostrom, J., Crawford-Swent, C., Lazar, N. and Helmer, D. (1994) Learning needs of hospitalized and recently discharged patients. *Patient Education and Counseling*, 23, 83-89.
- Bostrom, J., Tisnado, J., Zimmerman, J. and Lazar, N. (1994) The impact of continuity of nursing care personnel on patient satisfaction. *The Journal of Nursing Administration*, 24, 64-68.
- Lazar, N. and Mykland, P.A. (1998) An evaluation of the power and conditionality properties of empirical likelihood. *Biometrika*, 85, 523-534.
- Lazar, N.A. and Mykland, P.A. (1999) Empirical likelihood in the presence of nuisance parameters. *Biometrika*, 86, 203-211.
- Eddy, W.F., Fitzgerald, M., Genovese, C., Lazar, N., Mockus, A. and Welling, J. (1999) The challenge of functional magnetic resonance imaging. *The Journal of Computational and Graphical Statistics*, 8, 545-558.
- 6. Nagatani, K., Choset, H. and Lazar, N. (1999) The arc-transversal median algorithm: An approach to increasing ultrasonic sensor accuracy. Proceedings of the IEEE International Conference on Robotics and Automation.
- Lazar, N.A., Eddy, W.F., Genovese, C.R. and Welling, J. (2001) Statistical issues in fMRI for brain imaging. *International Statistical Review*, 69, 105–127.

- Genovese, C.R., Lazar, N.A. and Nichols, T.E. (2001) Threshold determination using the false discovery rate. NeuroImage, 15(6, 2 of 2):S124, Abstracts of the 7th Annual Meeting of the Organization for Human Brain Mapping, June 10-14, 2001, Brighton, UK.
- Liu, Y., Lazar, N.A., Rothfus, W.E., Buzoianu, M. and Kanade, T. (2001) Classification-driven feature space reduction for semantic-based neuroimage retrieval. International Symposium on Information Retrieval and Exploration in Large Medical Image Collections, October 14-17, 2001, Utrecht, Netherlands.
- Genovese, C.R., Lazar, N.A. and Nichols, T.E. (2002) Thresholding of statistical maps in functional neuroimaging using the false discovery rate. *NeuroImage*, 15, 870–878.
- Lazar, N.A., Luna, B., Sweeney, J.A. and Eddy, W.F. (2002) Combining brains: A survey of methods for statistical pooling of information. *NeuroImage*, 16, 538–550.
- Luna, B., Minshew, N.J., Garver, K.E., Lazar, N.A., Thulborn, K.R., Eddy, W.F. and Sweeney, J.A. (2002) Neocortical system abnormalities in autism: An fMRI study of spatial working memory. *Neurology*, 59, 834–840.
- Lazar, N.A. and Kadane, J.B. (2002) Movies for the visualization of MCMC output. The Journal of Computational and Graphical Statistics, 11, 863–874.
- Lazar, N.A. and Sidore, D.S. (2003) Math chaps and other oddities: Statisticians in literature. *Chance*, 16, 33–37.
- Lazar, N.A., Kadane, J.B. and Chen, F. (2003) Movies for the visualization of output from a Bayesian analysis of corbelled domes. Proceedings of the 2002 Conference on Computer Applications and Quantitative Methods in Archaeology. M. Doerr and A. Sarris (eds.), Archive of Monuments and Publications, Hellenic Ministry of Culture, 281–286.
- Choset, H., Nagatani, K. and Lazar, N.A. (2003) The Arc-transversal median algorithm: A geometric approach to increasing ultrasonic sensor azimuth accuracy. *IEEE Transactions on Robotics and Automation*, 19, 513–522.
- Freed, B., So, S. and Lazar, N.A. (2003) Language learning abroad: How do gains in written fluency compare with gains in oral fluency in French as a second language? Bulletin of the Association of Departments of Foreign Languages, 34, 34–40.
- Lazar, N.A. (2003) Bayesian empirical likelihood. *Biometrika*, **90**, 319–326.
- Diaz-Campos, M. and Lazar, N. (2003) Acoustic analysis of voiceless initial stops in the speech of study abroad and regular class students: Context of learning as a variable in Spanish second language acquisition. Theory, Practice, and Acquisition: Papers from the 6th Hispanic Linguistics Symposium and the 5th Conference on the Acquisition of Spanish and Portuguese. P. Kempchinsky and C. Pièros (eds.), Somerville: Cascadilla Press, 352-370.
- Kadane, J.B. and Lazar, N.A.(2004) Methods and criteria for model selection. Journal of the American Statistical Association, 99, 279–290.

- Lazar, N.A. (2004)
   A short survey of causal inference, with implications for context of learning studies of second language acquisition.

   Studies in Second Language Acquisition, 26, 329–347.
- Gibbons, R.D., Lazar, N.A., Bhaumik, D.K., Sclove, S.L., Chen, H.Y., Thulborn, K.R., Sweeney, J.A., Hur, K. and Patterson, D. (2004) Estimation and classification of fMRI hemodynamic response patterns. *NeuroImage*, 22, 804–814.
- McNamee, R.L. and Lazar N.A. (2004) Assessing the sensitivity of fMRI group maps. *NeuroImage*, 22, 920–931.
- Lazar, N.A., Kadane, J.B., Chen, F., Cavanagh, W.G. and Litton, C.D. (2004) Corbelled domes in two and three dimensions: The Treasury of Atreus. *International Statistical Review*, **72**, 239–256.
- Lazar, N.A. (2004) Numbers on the brain: The role of statistics in the analysis of functional magnetic resonance images. *Chance*, 17, 48–51.
- Luna, B., Garver, K.E., Urban, T.A., Lazar, N.A. and Sweeney, J.A. (2004) Maturation of cognitive processes from late childhood to adulthood. *Child Development*, **75**, 1357–1372.
- 27. Segalowitz, N., Freed, B., Collentine, J., Lafford, B., Lazar, N. and Diaz-Campos, M. (2004) A comparison of the acquisition of Spanish as a second language in two different contexts of learning: Study Abroad versus the regular academic classroom. *Frontiers: The Interdisciplinary Journal of Study Abroad*, **10**, 1–18.
- Lazar, N.A. (2005)
   Assessing the effect of individual data points on inference from empirical likelihood. Journal of Computational and Graphical Statistics, 14, 626–642.
- Dasgupta, N., Solorzano, E., and Lazar, N.A. (2006) Using numerical methods to find the least favorable configurations when comparing k test treatments to both positive and negative controls. *Journal of Statistical Computation and Simulation*, **76**, 251–265.
- McDowell, J.E., Brown, G.G., Lazar, N., Sharp, R., Camchong, J., Krebs-Thomson, K., Eyler, L.T., Braff, D.L. and Geyer, M.A. (2006) The neural correlates of habituation of response to startling tactile stimuli presented in a functional magnetic resonance imaging environment. *Psychiatry Research: Neuroimaging*, 148, 1–10.
- Mitra, S., Lazar, N.A. and Liu, Y. (2007) Understanding the role of facial asymmetry in human face identification. *Statistics and Computing*, 17, 57–70.
- Lovell, M.R., Pardini, J.E., Welling, J., Collins, M.W., Bakal, J., Lazar, N., Roush, R., Eddy, W.F. and Becker, J.T. (2007) Functional brain abnormalities are related to clinical recovery and time to return to play in athletes. *Neurosurgery*, **61**, 352-360.
- Kao, M.-H., Mandal, A., Lazar, N. and Stufken, J. (2009) Multi-objective optimal experimental designs for event-related fMRI studies. *NeuroImage*, 44, 849-856.

- Bhaumik, D.K., Roy, A., Lazar, N.A., Gibbons, R.D., Sweeney, J.A., Aryal, S., Kapur, K. and Patterson, D. (2009) Hypothesis testing, power and sample size determination for between group comparisons in fMRI experiments. *Statistical Methodology*, 6, 133-146.
- Ye, J., Lazar, N. A. and Li, Y. (2009) Geostatistical analysis in clustering fMRI time series. *Statistics in Medicine*, 28, 2490-2508.
- Kapur, K., Roy, A., Bhaumik, D.K., Gibbons, R.D., Lazar, N.A., Sweeney, J.A., Aryal, S. and Patterson, D. (2009)
   Estimation and classification of BOLD responses over multiple trials. *Communications in Statistics: Theory and Methods*, **38**, 3099-3113.
- Chen, J. and Lazar, N.A. (2010) Quantile estimation for discrete data via empirical likelihood. Journal of Nonparametric Statistics, 22, 237-255.
- Park, C., Lazar, N.A., Ahn, J. and Sornborger, A. (2010) A multiscale analysis of the temporal and spatial characteristics of resting fMRI data. *Journal of Neuroscience Methods*, **193**, 334-342.
- Lazar, N.A. (2010) "Ockham's Razor" Wiley Interdisciplinary Reviews: Computational Statistics, 2, 243-246.
- Lazar, N.A., Reeves, J. and Franklin, C. (2011) A capstone course for undergraduate statistics majors. *The American Statistician*, 65, 183-189.
- Ye, J., Lazar, N.A. and Li, Y. (2011) Sparse principal component analysis and geostatistical analysis in clustering fMRI time series. *Journal of Neuroscience Methods*, **199**, 336-345.
- Chen, J. and Lazar, N.A. (2012) Selection of working correlation structure in generalized estimating equations via empirical likelihood. Journal of Computational and Graphical Statistics, 21, 18-41.
- Sanderlin, J.S., Lazar, N., Conroy, M.J. and Reeves, J. (2012) Cost-efficient selection of a marker panel in genetic studies. *Journal of Wildlife Management*, 76, 88-94.
- D'Angelo, G., Lazar, N.A., Zhou, G., Eddy, W.F., Morris, J.C. and Sheline, Y. (2012) Bootstrapping GEE models for fMRI regional connectivity. *NeuroImage*, 63, 1890-1900.
- Xue, Y. and Lazar, N.A. (2012) Empirical likelihood-based hot deck imputation methods. Journal of Nonparametric Statistics, 24, 629-646.
- 46. Lee, J., Park, C., Dyckman, K.A., Lazar, N.A., Austin, B.P., Li, Q. and McDowell, J.E. (2013) Practice-related changes in neural activation patterns investigated via wavelet-based clustering analysis. *Human Brain Mapping*, 34, 2276–2291.
- 47. Brown, D.A., Lazar, N.A., Datta, G.S., Jang, W. and McDowell, J.E. (2014) Incorporating spatial dependence into Bayesian multiple testing of statistical parametric maps in functional neuroimaging. *NeuroImage*, 84, 97–112.

- Vexler, A., Kim, Y.M., Yu, J., Lazar, N.A. and Hutson, A.D (2014) Computing critical values of exact tests by incorporating Monte Carlo simulations combined with statistical tables. *Scandinavian Journal of Statistics*, 41, 1013–1030.
- Ye, J., Lazar, N.A. and Li, Y. (2015) Nonparametric variogram modeling with hole effect structure in analyzing the spatial characteristics of fMRI data. *Journal of Neuroscience Methods*, 240, 101–115.

### Books:

 Lazar, N.A. (2008) The Statistical Analysis of Functional MRI Data. Springer: New York.

## Chapters in Books:

- Fienberg, S. and Lazar, N. (2001) William Sealy Gosset, 1876–1937. Statisticians of the Centuries, C.C. Heyde and E. Seneta (eds.), Springer: New York, 312–317.
- Lazar, N.A. (2006) Entries on Bayes Factors, Behrens-Fisher Test, Categorical Data, Delta Method, Simpson's Paradox. Encyclopedia of Measurement and Statistics, N.J. Salkind (ed.), Sage: Thousand Oaks.
- 53. Lazar, N. (2014) The Arts – Digitized, Quantified, and Analyzed. The Best Writing on Mathematics, 2014, M. Pitici (ed.) Princeton University Press: Princeton, 96–104.

#### Letters and Discussions:

- Lazar, N.A. (2002) Letter to the editor regarding "Thoughts on the origins, concepts and pedagogy of statistics as a 'Separate Discipline'". *The American Statistician*, 56, 338.
- Lazar, N.A. (2003) Discussion of "Efficient construction of reversible jump Markov chain Monte Carlo proposal distributions". Journal of the Royal Statistical Society, Series B, 65, 50–51.
- Lazar, N.A. (2004) Letter to the editor regarding "Keep gender on the agenda". IMS Bulletin, 33(3), 5.
- 57. Lazar, N.A. (2004) Free access to science? IMS Bulletin, 33(3), 7.
- Lazar, N.A. (2005) Participation of women in the Joint Statistical Meetings: 1996-2003. AmStat News, 331, 37–38.
- 59. Lazar, N.A. (2005) Annual Survey 04: First report. IMS Bulletin, 34(2), 4.
- Lazar, N.A. (2005) Annual Survey 04: Annual survey reports rise in temp positions. IMS Bulletin, 34(7), 8.
- 61. Lazar, N.A. (2005) Annual Survey 04: Third report. IMS Bulletin, 34(9), 7.
- Lazar, N. (2005) Participation of women in the Joint Statistical Meetings: 1996-2004. AmStat News, 340, 59–60.
- 63. Lazar, N. (2006) Annual Survey 2005: First report. IMS Bulletin, 35(3), 10.
- 64. Lazar, N. (2006) Annual Survey of the Mathematical Sciences. IMS Bulletin, 35(8), 16.
- Lazar, N. (2006) Participation of women in the Joint Statistical Meetings: 1996-2005. AmStat News, 353, 31–33.
- 66. Lazar, N. (2007) Annual Survey 2005: Third report. IMS Bulletin, 36(2), 12.
- 67. Lazar, N. (2007) Big questions for junior faculty. IMS Bulletin, 36(10), 4.

- Lazar, N.A. (2007) Invited discussion of "Statistical analysis of diffusion tensors in diffusion-weighted magnetic resonance imaging data". *Journal of the American Statistical* Association, 102, 1105–1110.
- Lazar, N. (2008) Annual Survey: Fifty years of Mathematical Sciences reports. IMS Bulletin, 37(1), 10–11.
- Lazar, N.A. (2009) Invited discussion of "Puzzlingly high correlations in fMRI studies of emotion, personality, and social cognition". *Perspectives on Psychological Science*, 4, 308–309.
- Lazar, N.A. (2011) Invited discussion of "Population value decomposition, a framework for the analysis of image populations". *Journal of the American Statistical Association*, 106, 791–796.
- Lazar, N.A. (2013) Professional societies: Still relevant for junior researchers? IMS Bulletin, 42(5), 14–15.

#### **Book Reviews:**

- Lazar, N.A. (2003) Review of Testing Statistical Hypotheses of Equivalence, by S. Wellek. Technometrics, 45, 271–272.
- Lazar, N.A. (2003) Review of Statistical Analysis with Missing Data, Second Edition, by R.J.A. Little and D.B. Rubin. Technometrics, 45, 364–365.
- Lazar, N.A. (2005) Review of Statistics of Extremes: Theory and Applications, by J. Beirlant, Y. Goegebeur, J. Segers and J. Teugels. Technometrics, 47, 376–377.
- Lazar, N.A. (2010) Review of *Elementary Probability for Applications*, by R. Durrett. *Technometrics*, **52**, 467–468.
- Lazar, N.A. (2011) Review of Introduction to Probability Simulation and Gibbs Sampling with R, by E.A. Suess and B.E. Trumbo. Technometrics, 53, 327.
- Lazar, N.A. (2011) Review of Methods Matter: Improving Causal Inference in Educational and Social Science Research by R.J. Murnane and J.B. Willett. The American Statistician, 65, 291.
- Lazar, N.A. (2013) Review of Applied Bayesian Statistics: With R and OpenBUGS Examples by M.C. Cowles. Technometrics, 55, 568.
- Lazar, N.A. (2013) Review of Strength in Numbers: The Rising of Academic Statistics Departments in the U.S. edited by A. Agresti and X.L. Meng. Technometrics, 55, 568–569.
- Lazar, N.A. (2014) Review of Astrostatistical Challenges for the New Astronomy, J.M. Hilbe (ed.). Technometrics, 56, 125.

## Accepted for Publication:

- 82. Jang, W., Lim, J., Lazar, N.A., Loh, J.M. and Yu, D. Some properties of generalized fused lasso and its applications to high dimensional data. (*Journal of the Korean Statistical Society*).
- 83. Terry, D.P., Sabatinelli, D., Puente, A.N., Lazar, N.A. and Miller, L.S. A meta-analysis of fMRI activation differences during episodic memory in Alzheimer's disease and mild cognitive impairment. (*Journal of Neuroimaging*).

## In Revision:

84. Vexler, A., Tao, G., Yu, J., Lazar, N. and Hutson, A. One and two sample empirical likelihood Bayes factor type inferences for quantiles. (*Bernoulli*).

### Nicole LAZAR

- 85. Ye, J., Li, Y., Lazar, N., Schaeffer, D. and McDowell, J. Finding common active regions in fMRI data from multiple subjects by periodogram clustering and clustering ensemble. (*Statistics in Medicine*).
- Jaeger, A.P. and Lazar, N.A. Composite empirical likelihood. (*Canadian Journal of Statistics*).
- Dasgupta, N., Lazar, N.A. and Genz, A. A look at multiplicity through misclassification. (Sankhya).

#### Submitted Papers:

88. Brown, D.A., Datta, G.S. and Lazar, N.A. A Bayesian CAR model for correlated signal detection. (*Statistica Sinica*).

## **Classified Publications:**

- Lazar, N. (1988) Evaluation of an Officer Training Course for Special Populations. ADV-1325 Department of Behavioral Sciences, IDF
- Moreno, Z. and Lazar, N. (1988) Examination of the Validity of the New Selection Process for Officer Candidates - 1986. COM-1008 Department of Behavioral Sciences, IDF
- 3. Lazar, N. (1989) A Follow-Up Study on Soldiers Who Arrived at the IDF Psychological Testing Center for Officer Candidates, but Did Not Serve as Officers. COM(1)-0110 Department of Behavioral Sciences, IDF
- Lazar, N. (1989) The Quality of the Regular Army 1983-1988. ADV(1)-0410 Department of Behavioral Sciences, IDF
- Lazar, N. (1989) Another Look at the Quality of the Regular Army. ADV(1)-0365 Department of Behavioral Sciences, IDF
- Druch, A. and Lazar, N. (1989) Analysis of the Appeal Process in the Selection System for Women Officers. COM(1)-0474 Department of Behavioral Sciences, IDF
- Lazar, N. (1990) The California Psychological Inventory as a Predictor of Success in Officer Training Courses. ADV(1)-0620 Department of Behavioral Sciences, IDF
- Lazar, N. (1990)
   Examination of the Validity of the Selection Process for Officer Candidates 1987-88. COM(1)-0612
   Department of Behavioral Sciences, IDF

9. Lazar, N. and Druch, A. (1990)

The Effects of Sleep Deprivation on Cognitive Performance and Mood. Department of Behavioral Sciences, IDF

### **Editorial Work:**

Editor-in-Chief: The American Statistician (2015–2018) Member, Editorial Board: Computers in Biology and Medicine (2013-) Associate Editor: STAT, (2012–2014) Column Editor: "The Big Picture" Chance (2012-) Associate Editor: The Annals of Applied Statistics (2010–) Associate Editor: The American Statistician (2008–2014) Contributing Editor: IMS Bulletin (2007–2013) Associate Editor: IMS Bulletin (2004–2006) Referee: Annals of Applied Statistics; Annals of the Institute of Statistical Mathematics; Annals of Statistics; Archives of General Psychiatry; Behavior Research Methods, Instruments, and Computers; Biological Psychiatry; Biometrical Journal; Biometrics; Biometrika; Biostatistics; Canadian Journal of Statistics; Communications in Statistics - Simulation and Computation; Communications in Statistics - Theory and Methods; Computational Statistics and Data Analysis; Econometrics Reviews; Electronic Journal of Statistics; Frontiers in Computational Neuroscience; Human Brain Mapping; IEEE Transactions on Signal Processing; International Journal of Statistics and Management Systems: Journal of the American Statistical Association: Journal of Applied Statistics: Journal of Clinical Epidemiology; Journal of Computational and Graphical Statistics;

Journal of Computational Neuroscience; Journal of Interdisciplinary History; Journal of Magnetic Resonance Imaging; Journal of Multivariate Analysis; Journal of Probability and Statistics; Journal of Psychiatric Research; Journal of the Royal Statistical Society, Series B; Journal of the Royal Statistical Society, Series C; Journal of Statistical Computation and Simulation; Journal of Statistical Planning and Inference; Journal of Statistical Software; Language Learning; Medical Image Analysis; NeuroImage; Pakistan Journal of Statistics; PLoS One; Scandinavian Journal of Statistics; Scholarpedia; Statistics; Statistics and Computing; Statistical Methodology; Statistics in Medicine; Statistics and Probability Letters; Statistical Science; Statistica Sinica; Technometrics; TEST; The American Statistician.

Referee: National Science Foundation grants (statistics; neuroscience)

Referee: U.S.-Israel Binational Science Foundation grants (statistics)

Referee: National Security Agency grants (statistics)

Referee: Regional European Funding Agencies (Belgium, Italy; area of statistics)

- Member, Program Committee: Computer Vision for Biomedical Image Applications: Current Techniques and Future Trends (an International Conference on Computer Vision workshop), Beijing, China, Oct. 21, 2005.
- Panelist: National Science Foundation Collaborations in Mathematical Geosciences Joint Panel, June 4-6, 2007.
- Organizer: First NOGGINS workshop, University of Georgia, October 30, 2008.
- Organizer: Second NOGGINS workshop, University of Georgia, April 23, 2010.

Panelist: National Science Foundation Collaborations in Mathematical Geosciences Joint Panel, June 2-4, 2010.

- Co-Organizer: Third NOGGINS workshop, University of Georgia, April 20, 2012.
- Co-Organizer: Fourth NOGGINS workshop, University of Georgia, April 11, 2014.
- Program Co-Chair: Southern Regional Council on Statistics Summer Research Conference, June 2015.

Co-Organizer: First GA Statistics Day, University of Georgia, October 30, 2015.

#### Grants and Funding:

- Co-PI, NSF funded grant "Advanced methods for the statistical analysis of functional magnetic resonance imaging data", 1997–2000.
- Supported on NIH grants on the study of autism, administered through University of Pittsburgh Medical School, 2001–2003.
- Contributor to Carnegie Mellon University, Department of Statistics, SCREMS grants, 1999 and 2002.
- Supported on CIEE funded grant "A comparison of the acquisition of Spanish as an L2 in two different contexts of learning: Study abroad versus the academic classroom", 2002.
- Co-PI, University of Georgia, Department of Statistics, SCREMS grant, 2006.
- PI, NSF funded grant "Empirical likelihood for the analysis of longitudinal data", 2007–2010.
- PI, NIH funded grant "Analysis for incomplete data in oral health/ventilator-associated pneumonia study" (subaward from SUNY Buffalo), 2013–2014.

#### **Professional Committees:**

- 2013– Liaison Committee Chair and Member, Executive Committee, ASA Section on Mental Health Statistics
- 2012–2013 Member, Program Committee, SAMSI Summer Program on Neuroimaging Data Analysis
- 2012–2017 Member, ASA Leadership Support Council, Awards Council Vice Chair
- 2011–2012 Liaison Committee Chair, proposed ASA Section on Mental Health Statistics
- 2011 Member, charter working group, ASA Interest Group on Statistics in Mental Health Research
- 2010 Member, Search Committee for editor of *Chance*
- 2007–2011 ASA Representative to the Joint Committee on Women in the Mathematical Sciences
- 2006–2007 Vice-Chair, ASA Committee on Women in Statistics
- 2004–2007 Member, ASA Committee on Women in Statistics
- 1999–2001 Member, IMS Committee on New Researchers

1998–2003 Member, Committee on ASA Archives and Historical Materials

## PhD Students:

Jien Chen (Statistics, 2008; Applications of empirical likelihood to quantile estimation and longitudinal data)

Jun Ye (Statistics, 2008; Geostatistical methods for spatio-temporal analysis of fMRI data) Taniya Mandal (Statistics, 2010; Comparing statistically pooled brain maps in fMRI studies using parametric and non-parametric methods)

Yijie Xue (Statistics, 2012; Applications of empirical likelihood to nonresponse problem and changepoint detection)

Ashley Askew (Statistics, 2012; Numerical optimization and empty set problem in application of empirical likelihood methods)

Andrew Brown (Statistics, 2013; joint with G. Datta; Bayesian multiple testing under dependence with application to functional magnetic resonance imaging)

Lin Sun (Statistics, 2013; Bayesian factor analysis for fMRI data)

Adam Jaeger (Statistics, 2015; Composite empirical likelihood: A derivation of multiple nonparametric likelihoods)

Yuan Zhuang (Statistics, 2015; Time series clustering using copula-based higher order Markov process)

Adel Bedoui, Alexei Ionan, Minsoo Kim, Zhengbo Ma, Chul Moon

#### PhD Thesis Committees:

Tom Nichols (statistics, 2001), Nikhil Arora (chemical engineering, 2003), Yangang Zhang (statistics, 2004), Elena Erosheva (statistics, 2002), David Algranati (statistics and public policy, 2002), Fang Chen (statistics, 2004), Sinjini Mitra (statistics, 2005), Dipankar Bandyopadhyay (statistics, 2006), Ying Zhao (statistics, 2005), Yi Mei Cai (statistics, 2007), Jamie Skvarla Sanderlin (forestry, 2009), Jing Xu (statistics, 2009), Susanta Tewari (statistics, 2008), Ross Iaci (statistics, 2007), Feiming Li (educational psychology, 2008), Krishna Pacifici (forestry, 2011), Amy Vaughan (statistics, 2009), Ming-Hung Kao (statistics, 2009), Ben Neustifter (statistics, 2009), Jaejun Lee (statistics, 2010), Jinae Lee (statistics, 2013), Christopher O'Neal (statistics, 2012), Andrea Goijman (forestry, 2014), Sandra Addo (statistics, 2014), Yaser Samadi (statistics, 2014), Adrijo Chakraborty (statistics), 2014), Nicolette Schwarz (psychology, 2015), Natalia Shim (engineering), Alex Lyford (statistics), Shiyao Wang (statistics), Tiffany Vidal (forestry), Mohamad Hasan (statistics), Wenhao Pan (statistics)

### **MS Students:**

Eun-Jeong Lee (Statistics, 2005; Cross-nation examination of CCI and CPI with an emphasis on Korea)

Sarah Bednarski (Statistics, 2009; The coordination of design and analysis techniques for functional magnetic resonance imaging data)

Jamie Skvarla Sanderlin (Statistics, 2009; Misidentification error in non-invasive genetic mark-recapture sampling: Case study with the central Georgia black bear population)

Krishna Pacifici (Statistics, 2012; A Bayesian hierarchical model for West Nile Virus in New York City: Evaluating an approach to handle large spatial data sets)

John Averick (Statistics, 2013; The use of bootstrapping to measure image differences in fMRI data)

Kristen Poole (Statistics, 2014; Discriminant function analysis of Major League Baseball steroid use)

## MS Thesis Committees:

Corey Green (forestry, 2015), Tara Gancos Crawford (forestry)

### **BS** Honors Students:

Aileen Thomas (statistics, 2008)

#### **Outside Reader/Examiner:**

Wing Sze Lok (M. Phil. statistics, Hong Kong University) Ruth Heller (Ph.D. statistics, Tel Aviv University)

### Supervision of Data Analysis Projects:

Undergraduate Data Analysis Projects –

Andrew Jones, Huan Chan, Crag Wolfe, Marc Ware and Michael Grosberg (Spring 1999; Analysis of seismic data for oil exploration). Jason Deichler, Amanda Tishkoff, Boris Solovey and Matt Unger (Spring 1999; Physiological noise in fMRI data).

Paula Pfleiger, Elizabeth Legowski and Michelle Rose (Spring 2000; Teenagers' knowledge of sexually transmitted diseases).

Daniel Isaacs, Danyale Monteleone, Amy Reckdenwald and Mike Hutsko (Spring 2000; Faculty course evaluations).

Kriti Bhandari, Julia Lin and Scott Ziolko (Spring 2000; Analysis of facial expression data).

Brian Yuen, Dan Naylor and Sanjiva Persad (Spring 2001; Technology IPOs).

Jennifer Goetz, Zeljka Buturovic and Jahnavi Bhagwati (Spring 2001; Civil War reenlistments).

John B. Lee, Liz Page-Gould and Janelle Rooks (Spring 2001; Satisfaction with roommates at CMU).

Wesley C. Barnhart, Steven Han and Paige Stover (Spring 2004; Facial asymmetry and emotional expression in males and females).

Amanda Holloway and Christina Black (Spring 2008; Latin and Indian art markets).

Alex Mote and Kimberly Smith (Spring 2008; Analysis of fMRI saccade task data for schizophrenics, their relatives, and unrelated controls).

Colin Feeney, Angela Fife and Adam Jaeger (Spring 2009; Mortality rates of dogs based upon interbreed variation and disease states).

Hayley Nelson and John Price (Spring 2009; Comparing multiple subject groups using fMRI data from an eye movement study).

Corey Green and William Linthicum (Spring 2009; Analysis of use of preterit vs. present perfect tense by Spanish speakers).

Alex Lyford, Manoj Rema and Matthew Mangum (Spring 2011; Water usage of hydrangeas).

Ralph Maddox, Xiao Cheng and Lutfiyya Muhammad (Spring 2011; What strategies improve stuttering?).

Alexa Fuquay, Danielle Ledon and Hayley Crowder (Spring 2012; The effects of age and social context on prelinguistic volubility).

Ashley Bullard and Priya Vin (Spring 2012; The influence of therapy in stuttering adults).

Christopher Rink and Matthew Passarello (Spring 2013; Variation in compound and simple past forms of verbs in Bolivian Spanish).

Daniel Robinson, Lauren Langhorne and Morgan Webb (Spring 2013; The effects of age and social context on prelinguistic volubility).

Sara Lindsey, Hao Peng and Jay Cromwell (Spring 2013; Family stress: Mother-child interactions).

Allison Griffin, Colton Holder and Joe Powell (Spring 2014; Molecular conformations of sucrose).

Obiamaka Achukwu, Doretha Canion and Hyejin Park (Spring 2014; Discrimination in the workplace: Race and gender in America).

Audrey Brasuell, Reina Chau, Joe Fang and Pia Kolmers (Spring 2014; Bacterial vaginosis: The influence of bacteria and behavior).

M.S. Statistical Practice Projects -

Nicoleta Serban and Rhiannon Weaver (Spring 2001; Asymmetry measures for expression-invariant face recognition).

Kinman Au, Manuela Buzoianu and Hoa Nguyen (Spring 2001; Classification of pathological brain images).

Marnie Bertolet and Edoardo Airoldi (Spring 2001; Analysis of event related potentials; joint with Brian Junker).

Sotirios Damouras and Maria Isabel Giannini (Spring 2004; Different approaches for estimating pose in 3D faces).

PhD Advanced Data Analysis Projects –

Sinjini Mitra (Spring 2002–Fall 2002; Expression-invariant face recognition).

Kary Myers (Spring 2002–Fall 2002; The progression of occupational asthma: Assessing data quality for studying changes in nasal airway volume via magnetic resonance imaging of mice). Jeff Palmer (Spring 2003–Fall 2003; Quantification of 3D facial asymmetry in human faces). Jason Connor (Fall 2003; Alternative medical technologies: Choosing the best point-of-care testing device via a randomized trial).

### University Service:

- 2014 Member, Franklin College IT taskforce.
- 2013 2014 Member, Committee on Big Data and steering committee on Big Data.
- 2012 2013 Member, Department of Statistics faculty review committee.
- 2012 2014 Member, Department of Statistics research development committee.
- 2012 2014 Member, University of Georgia Program Review and Assessment Committee.
- 2012 2013 Member, Franklin College awards committee.
- 2010 2013 Member, Franklin College promotion and tenure committee.
- 2011 2011 Chair, Department of Statistics personnel committee.
- 2010 2012 Member, Department of Statistics faculty recruitment committee.
- 2010 2011 Member, Department of Statistics personnel committee.
- 2009 2011 Member, Department of Statistics faculty review committee.
- 2008 2010 Member, Department of Statistics ad hoc committee on graduate affairs.
- 2008 2009 Chair, Department of Statistics research development committee.
- 2008 2009 Member, Department of Statistics undergraduate committee.
- 2007 2008 Member, Bio-Imaging Research Center hiring committee.
- 2006 2008 Member, Department of Statistics graduate committee.
- 2006 2008 Member, Department of Statistics personnel committee.
- 2005 2006 Chair, Department of Statistics research development committee.
- 2005 2007 Member, Department of Statistics undergraduate committee.
- 2004 2006 Member, Department of Statistics faculty recruitment committee.
- 2004 2005 Co-chair, Department of Statistics colloquium committee.
- 2004 2005 Member, Department of Statistics research development committee.
- 2003 2004 Member, Department of Statistics graduate admissions committee.
- 2000 2004 Member, University disciplinary committee.
- 1999 2001 Department of Statistics representative to the Faculty Senate.
- 1999 2002 Member, Department of Statistics graduate admissions committee.
- 1999 Member, H&SS Dean's committee for evaluation of Statistics Department chair.
- 1996 1999 Chair, Department of Statistics seminar committee.

#### Lectures and Papers Presented:

- Jan. 3, 1994 Invited lecture, Department of Behavioral Sciences, IDF: Introduction to Logistic Regression.
- Sept. 30, 1994 Contributed paper, IMS Special Topics Meeting on Generalized Linear Models, Gainesville, FL:
  - Empirical Likelihood in the Presence of Nuisance Parameters Do the Usual Higher-order Properties Hold?

- June 26, 1995 Contributed paper, IMS/ WNAR Joint Meetings, Stanford, CA: A Comparison of the Efficiency of Empirical and Parametric Likelihood.
- July 10, 1995 Contributed paper, IMS/ SSC Joint Meetings, Montréal, Québec: The Higher-Order Properties of Empirical Likelihood in the Presence of Nuisance Parameters.
- March 23, 1996 Contributed paper, Symposium on Estimating Functions, Athens, GA: Identifiability in Empirical Likelihood with Nuisance Parameters.
- Dec. 31, 1996 Invited lecture, Department of Statistics, Tel Aviv University: Some Inferential Aspects of Empirical Likelihood.
- July 25, 1997 Participant in the Third Annual New Reseachers' Conference, Laramie, WY: A Look at the Efficiency of Empirical Likelihood.
- Sept. 26, 1997 Invited paper, Workshop on Symbolic Computation, Centre de Recherches Mathématiques, Montréal, Québec: Conditionality Properties of Empirical Likelihood.
- Jan. 29, 1998 Invited lecture, Department of Statistics, The Pennsylvania State University: Some Inferential Aspects of Empirical Likelihood.
- March 23, 1998 Invited lecture, Department of Statistics, Rice University: Some Inferential Aspects of Empirical Likelihood.
- March 30, 1998 Invited paper, IMS/ ENAR Joint Meetings, Pittsburgh, PA: Statistical Issues in Functional Magnetic Resonance Imaging.
- June 29, 1998 Invited paper, IMS/ WNAR Joint Meetings, San Diego, CA: The Higher-Order Asymptotics of Empirical Likelihood with Nuisance Parameters.
- Dec. 27, 1998 Annual Meeting of the Modern Language Association, San Francisco, CA: Fluency in Writing: Are There Differences Between Students Who have Studied Abroad and Those Who Have Not? Freed, B.F., Lazar, N.A. and So, S.
- March 7, 1999 Annual Meeting of the American Association of Applied Linguistics, Stamford, CT (peer reviewed conference):
  Perceptions of Oral and Written Fluency in Second Language Use.
  Freed, B.F., So,S. and Lazar, N.A.
- May 12, 1999 IEEE International Conference on Robotics and Automation, Detroit, MI (peer reviewed conference):
  The Arc-Transversal Median Algorithm: An Approach to Increasing Ultrasonic Sensor Accuracy. Choset, H., Nagatani, K. and Lazar, N.A.
- Aug. 11, 1999 Invited paper, Joint Statistical Meetings, Baltimore, MD: Bayesian Inference for "Artificial" Likelihoods – A First Look.
- Nov. 11, 1999 Invited lecture, Department of Statistics and Actuarial Science, University of Waterloo: Bayesian Inference for "Artificial" Likelihoods (With an Emphasis on Empirical Likelihood) – A First Look.
- Jan. 13, 2000 Invited lecture, Department of Mathematics and Statistics, Boston University: Functional Magnetic Resonance Imaging for Statisticians.
- Jan. 14, 2000 Invited lecture, Department of Statistics, Harvard University: Through the Bayesian Looking-Glass: Some New Perspectives on Empirical Likelihood.
- Feb. 11, 2000 Invited lecture, Department of Statistics, University of Pittsburgh: Functional Magnetic Resonance Imaging for Statisticians.
- March 21, 2000 Special Contributed Paper, IMS/ ENAR Joint Meetings, Chicago IL: Adding and Subtracting Brains – Combining and Comparing Subjects in Imaging Experiments. Eddy, W.F. and Lazar, N.A.

- July 2, 2000 Invited lecture, Faculty of Industrial Engineering and Management, Technion: Functional Magnetic Resonance Imaging for Statisticians.
- July 3, 2000 Invited lecture, Department of Statistics, Tel Aviv University: Functional Magnetic Resonance Imaging for Statisticians.
- July 13, 2000 Invited paper, Workshop on Inference and Asymptotics, Ascona, Switzerland: A Bayesian Perspective on Empirical Likelihood.
- Nov. 10, 2000 Invited lecture, Department of Mathematics and Statistics, Dalhousie University: Through the Looking-Glass: Bayesian Perspectives on Empirical Likelihood.
- June, 2001 Poster, 7th Annual Meeting of the Organization for Human Brain Mapping Brighton, UK: Threshold Determination Using the False Discovery Rate.
  - Genovese, C.R., Lazar, N.A. and Nichols, T.E.
- Oct. 18, 2001 International Symposium on Information Retrieval and Exploration in Large Medical Image Collections (VISIM 2001). (In conjunction with the Fourth International Conference on Medical Image Computing and Computer-Assisted Intervention), Utrecht, The Netherlands (peer reviewed conference):

Classification-Driven Feature Space Reduction for Semantic-Based Neuroimage Retrieval. Liu, Y., Lazar, N.A., Rothfus, W.E., Buzoianu, M. and Kanade, T.

Nov. 16, 2001 - Invited lecture, Center for Health Statistics, Division of Psychiatry and Division of Biostatistics joint seminar, University of Illinois at Chicago: Combining Brains: Statistical Pooling of Information in Imaging Experiments.

April 5, 2002 - Computer Applications and Quantitative Methods in Archaeology Heraklion, Crete (peer reviewed conference): Movies for the Visualization of Output from a Bayesian Analysis of Corbelled Domes. Lazar, N.A., Kadane, J.B. and Chen, F.

- May 24, 2002 Poster, International Society for Magnetic Resonance in Medicine. Honolulu, Hawaii (peer reviewed conference):
  What is One Subject Worth in an fMRI Experiment?
  Lazar, N.A., McNamee, R.L., Eddy, W.F. and Welling, J.
- July 15, 2002 Invited paper, International Conference on Current Advances and Trends in Nonparametric Statistics, Crete, Greece: Empirical Likelihood Diagnostics.
- July 30, 2002 Invited paper, Annual Meeting of the IMS, Banff, Alberta: Empirical Likelihood Diagnostics.
- Aug. 14, 2002 Invited paper, Joint Statistical Meetings, New York, NY: Data Processing for High–Noise Medical Images. Welling, J., Eddy, W.F. and Lazar, N.A.
- Aug. 15, 2002 Invited paper, Joint Statistical Meetings, New York, NY: Visualization of Markov Chain Monte Carlo Output. Lazar, N.A. and Kadane, J.B.
- Sept. 26, 2002 Invited lecture, Department of Biostatistics, The University of Pittsburgh: New Methods for the Analysis of Functional Neuroimaging Data.
- Oct. 18–20, 2002 Hispanic Linguistic Symposium, Iowa City, IA (peer reviewed conference): Acoustic Analysis of Voiceless Initial Stops in the Speech of Study Abroad and Regular Class Students: Context of Learning as a Variable in Spanish Second Language Acquisition. Diaz-Campos, M., Lazar, N., Freed, B., Segalowitz, N., Lafford, B. and Collentine, J.
- Oct. 18–20, 2002 Hispanic Linguistic Symposium, Iowa City, IA (peer reviewed conference): The Development of Linguistic Complexity in a Study-Abroad Context by Foreign-Language Learners of Spanish.
  - Collentine, J., Lafford, B., Freed, B., Segalowitz, N., Diaz-Campos, M. and Lazar, N.

- Nov. 10, 2002 Invited paper, American Mathematical Society, Orlando, FL: Diagnostics for Empirical Likelihood Inference.
- Jan. 18, 2003 Invited paper, Workshop on Nonparametric Statistics, Tallahassee, FL: Diagnostics for Empirical Likelihood Inference.
- March 13, 2003 Invited lecture, Department of Statistics and Actuarial Science, Hong Kong University:
  - Assessing the Importance of Individual Data Points on Empirical Likelihood Inferences.
- March 17, 2003 Workshop on Empirical Likelihood, Department of Statistics and Actuarial Science, Hong Kong University.
- June 28, 2003 Invited paper, Miniconference on Non/Semi–Parametric Models and Sequential Analysis, University of Kentucky: Using Jackknife Influence Functions and the Bootstrap to Understand the Effect of Individual Data Points on Empirical Likelihood Inference.
- Aug. 4, 2003 Invited paper, Joint Statistical Meetings, San Francisco, CA: New Methods for the Analysis of Functional Neuroimaging Data.
- Nov. 14, 2003 Invited lecture, Department of Mathematical Sciences, Worcester Polytechnic Institute: Warping, Combining, and Jackknifing Brains.
- May 1, 2004 American Association for Applied Linguistics, Portland, OR (peer reviewed conference): Textual Coherence and Cohesion: A Case of Japanese-as-a-Second-Language Student Writers. So, S., Lee, N. I. and Lazar, N. A.
- May 14, 2004 Invited paper, Fifth Biennial International Conference on Statistics, Probability and Related Areas, International Indian Statistical Association, University of Georgia: Using Jackknife Influence Functions and the Bootstrap to Understand the Effect of Individual Data Points on Empirical Likelihood Inference.
- July 17, 2004 Invited paper, International Federation of Classification Societies Conference, Chicago, IL: Are All fMRI Subjects Created Equal?
- Feb. 11, 2005 Invited lecture, Department of Statistics, Universidad Carlos III de Madrid: A Look at Bayesian Model Selection, with Applications in Archaeology.
- April 7, 2005 Invited lecture, School of Industrial and Systems Engineering, Georgia Institute of Technology: Warning Combining and Lackhrifting Proinc
  - Warping, Combining, and Jackknifing Brains.
- May 24, 2005 Invited lecture, Department of Statistics, Tel Aviv University: The Use of Resampling and Visualization for the Comparison of Changepoint Location in Two Independent Curves.
- May 30, 2005 Invited lecture, Department of Statistics, Hebrew University, Jerusalem: Diagnostics for Empirical Likelihood Inference.
- Aug. 8, 2005 Topic contributed paper, Joint Statistical Meetings, Minneapolis, MN: Model Selection for fMRI.
- Sept. 9, 2005 Invited lecture, Institute of Statistics and Decision Sciences, Duke University: Some Issues Involved in the Comparison of Changepoint Location in Two Independent Curves.
- Sept. 21, 2005 Invited lecture, Department of Genetics, University of Georgia: A Gentle Introduction to Bayesian Statistics, with Applications in Genetics.
- Dec. 3, 2005 Invited paper, Twelfth International Conference, Forum for Interdisciplinary Mathematics: Statistics, Combinatorics, Mathematics and Applications, Auburn University: An Introduction to the Statistical Analysis of fMRI Data.

- Dec. 4, 2005 Contributed paper, Twelfth International Conference, Forum for Interdisciplinary Mathematics: Statistics, Combinatorics, Mathematics and Applications, Auburn University:
  - Is the Human Face Symmetrical The Role of "Asymmetry"' in Face Recognition. Lazar, N. and Mitra, S.
- March 29, 2007 Invited lecture, Department of Statistics, Texas A&M University: Do Different Parts of the Brain Have Different Dependence Structure?
- April 13, 2007 International Symposium on Biomedical Imaging, Washington, D.C. (peer-reviewed conference):
  Feature-based vs. Intensity-based Brain Image Registration: Comprehensive Comparison Using Mutual Information.
  Teverovskiy, L., Carmichael, O., Aizenstein, H., Lazar, N. and Liu, Y.
- Aug. 2, 2007 Topic contributed paper, Joint Statistical Meetings, Salt Lake City, UT: The Use of Multiscale Methods to Characterize Resting fMRI Data.
- Oct. 5, 2007 Invited lecture, Department of Biostatistics, Emory University: Do Different Parts of the Brain Have Different Dependence Structure?
- Jan. 2, 2008 Invited paper, International Conference on Statistical Paradigms: Recent Advances and Reconciliations, Indian Statistical Institute, Kolkata: On Combining and Contrasting Brains.
- March 14, 2008 Invited paper, Society for Industrial and Applied Mathematics, Southeast Atlantic Section, Orlando, FL:

Quantile Estimation for Discrete Data via Empirical Likelihood.

- March 17, 2009 Invited paper, ENAR, San Antonio, TX: On Combining and Contrasting Brains.
- March 26, 2009 Invited lecture, Department of Biostatistics, SUNY Buffalo: Selection of Working Correlation Structure in GEE via Empirical Likelihood.
- June 17, 2009 Invited paper, Israel Statistical Association Annual Meeting, Beersheba: On Combining and Contrasting Brains.
- Aug. 5, 2009 Invited paper, International Association for Mathematics and Computers in Simulation World Congress on Computational and Applied Mathematics and Applications in Science and Engineering, Athens, GA: Creating and Comparing Group Maps from fMRI Data.
- Oct. 31, 2009 Invited paper, American Mathematical Society, Southeast Regional Meeting, Boca Raton, FL:

On the Use of Empirical Likelihood for the Analysis of Longitudinal Data.

- Nov. 13, 2009 Invited paper, Workshop on Imaging and Inference, Institute for Mathematical Behavioral Sciences, UC Irvine: On Combining and Contrasting Brains.
- May 12, 2010 Invited paper, Neuroscience, Behavior and Cognition Symposium Institute for Behavioral Research, University of Georgia: Statistical Issues in Multigroup fMRI Analysis.
- June 23, 2010 Invited paper, International Chinese Statistical Association Applied Statistics Symposium, Indianapolis, IN: On the Use of Empirical Likelihood for the Analysis of Longitudinal Data. Lazar, N. and Chen, J.
- Aug. 4, 2010 Contributed paper, Joint Statistical Meetings, Vancouver, British Columbia: Empirical Imputation: A New Imputation Method. Xue, Y. and Lazar, N.

- Aug. 4, 2010 Contributed paper, Joint Statistical Meetings, Vancouver, British Columbia: Probability Maps for Brain Activity via fMRI.
  Seymour, L., Bargo, A., Mandal, A., Lazar, N. and McDowell, J.
  March 22, 2011 - Invited paper, ENAR, Miami, FL: Social Network Models for fMRI.
  March 22, 2011 - Invited paper, ENAR, Miami, FL:
- Estimation and Classification of BOLD Responses Over Multiple Trials. Kapur, K., Hines, E., Roy, A., Bhaumik, D.K., Gibbons, R.D., Lazar, N., Sweeney, J.A., Aryal, S. and Patterson, D.
- April 6, 2011 Invited paper, The Seventh IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, GA: Practice-Related Changes in Neural Circuitry Supporting Movements Investigated via Wavelet-Based Clustering Analysis.

Lee, J., Park, C., Austin, B., Dyckman, K., Lazar, N., Li, Q. and McDowell, J.

- May 13, 2011 Invited lecture, Department of Biostatistics, Washington University in St. Louis:
  - Social Network Models for fMRI.
- June 1, 2011 Panel moderator, Conference on Statistical Methods for Very Large Data Sets, Baltimore, MD.
- June 3, 2011 Invited paper, Conference on Statistical Methods for Very Large Data Sets, Baltimore, MD: Social Network Models for fMRI.
- July 2, 2011 Invited paper, Korean Statistical Society International Conference on Statistics and Probability, Busan, Korea:
  Practice-Related Changes in Neural Circuitry Supporting Movements Investigated via Wavelet-Based Clustering Analysis.
  Lee, J., Park, C., Austin, B., Dyckman, K., Lazar, N., Li, Q. and McDowell, J.
- Aug. 1, 2011 Contributed paper, Joint Statistical Meetings, Miami, FL: Practice-Related Changes in Neural Circuitry Supporting Eye Movements Investigated via Wavelet-Based Clustering Analysis. Lee, J., Park, C., Austin, B., Dyckman, K., Li, Q., McDowell, J.E. and Lazar, N.
- Aug. 3, 2011 Contributed paper, Joint Statistical Meetings, Miami, FL: Bayesian Multiple Testing Under Dependence with Application to Functional Magnetic Resonance Imaging. Brown, D.A., Lazar, N. and Datta, G.S.
- Aug. 3, 2011 Contributed paper, Joint Statistical Meetings, Miami, FL: Generalized Estimating Equation and Bootstrapping Approaches to Evaluate Functional Connectivity. D'Angelo, G.M., Lazar, N. and Zhou, G.
- Aug. 3, 2011 Invited discussion, Joint Statistical Meetings, Miami, FL: Discussion of "Population Value Decomposition: A Framework for the Analysis of Image Populations."
- Aug. 3, 2011 Contributed paper, Joint Statistical Meetings, Miami, FL: Empirical Likelihod Based Changepoint Detection Method. Xue, Y. and Lazar, N.
- Sept. 2, 2011 Poster, 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Boston, MA (peer reviewed conference):
  A General Estimating Equations Approach for Resting-State Functional MRI Group Analysis. D'Angelo, G., Lazar, N., Eddy, W., Morris, J. and Sheline, Y.

Feb. 16, 2012 - Invited lecture, Department of Biostatistics Distinguished Women Scholars in Statistics Series, SUNY Buffalo: Empirical Likelihood-Based Imputation Methods.
<ul> <li>March 28, 2012 - Invited paper, Research and Collaboration Forum for Southeastern Researchers in Mathematical Modeling of Biological Systems, Augusta, GA: Practice-Related Changes in Neural Circuitry Supporting Movements Investigated via Wavelet-Based Clustering Analysis.</li> <li>Lee, J., Park, C., Austin, B., Dyckman, K., Lazar, N., Li, Q. and McDowell, J.</li> </ul>
<ul> <li>May 5, 2012 - Invited paper, Workshop on Biostatistics and Bioinformatics, Georgia State University, Atlanta, GA:</li> <li>Practice-Related Changes in Neural Circuitry Supporting Movements Investigated via Wavelet-Based Clustering Analysis.</li> <li>Lee, J., Park, C., Austin, B., Dyckman, K., Lazar, N., Li, Q. and McDowell, J.</li> </ul>
<ul> <li>June 4, 2012 - Invited paper, Southern Regional Council on Statistics</li> <li>Summer Research Conference, Jekkyl Island, GA:</li> <li>Practice-Related Changes in Neural Circuitry Supporting Movements Investigated</li> <li>via Wavelet-Based Clustering Analysis.</li> <li>Lee, J., Park, C., Austin, B., Dyckman, K., Lazar, N., Li, Q. and McDowell, J.</li> </ul>
June 26, 2012 - Invited paper, International Society for Bayesian Analysis, Kyoto, Japan: Empirical Likelihood Weighting.
<ul><li>July 12, 2012 - State of the Art lecture, International Meeting of the Psychometric Society, Lincoln, NE:</li><li>The Challenges of Functional Magnetic Resonance Imaging Data.</li></ul>
Aug. 1, 2012 - Invited paper, Joint Statistical Meetings, San Diego, CA: An Overview of Statistical Issues in fMRI Data Analysis.
Aug. 1, 2012 - Contributed paper, Joint Statistical Meetings, San Diego, CA: Empirical Likelihood Based CUSUM Method. Xue, Y. and Lazar, N.
Feb. 8, 2013 - Invited lecture, CBIS Five-Year Anniversary Symposium, Emory University, Atlanta, GA: Assessing fMRI Regional Connectivity via Generalized Estimating Equations.
June 14, 2013 - Invited lecture, SAMSI Workshop on Neuroimaging Data Analysis, SAMSI, NC: Statistical Challenges in the Analysis of Group Imaging Data.
July 25, 2013 - Invited lecture, St. Jude Children's Research Hospital, Department of Biostatistics, Memphis, TN:
The Challenges of Functional Magnetic Resonance Imaging Data. Aug. 26, 2013 - Invited paper, World Statistics Congress, Hong Kong:
HORSES: Hexagonal Operator for Regression with Shrinkage and Equality Selection. Lim, J., Jang, W., Lazar, N., Loh, JM.
Dec. 4, 2013 - Invited panelist, ASA Webinar on The Role and Variety of Undergraduate Statistics Capstones.
Jan. 31, 2014 - Invited lecture, Chicago Chapter of the American Statistical Association, Chicago, IL: Data Visualization and Effective Communication.
March 7, 2014 - Invited lecture, Statistical Consulting Center Focus Group on Big Data, Department of Statistics, University of Georgia, Athens, GA: Multiplicity Issues in Big Data
Aug. 3, 2014 - Invited paper, Joint Statistical Meetings, Boston MA: Big Data: Challenges and Opportunities.

- Aug. 4, 2014 Contributed paper, Joint Statistical Meetings, Boston MA: Model-Based Time Series Clustering using CHOMP. Zhuang, Y. and Lazar, N.
- Aug. 5, 2014 Contributed paper, Joint Statistical Meetings, Boston MA: Composite Empirical Likelihood: A Derivation of Multiple Nonparametric Likelihoods. Jaeger, A. and Lazar, N.
- June 16, 2015 Invited paper, International Chinese Statistical Association Applied Statistics Symposium/Graybill Conference, Fort Collins, CO: Composite Empirical Likelihood. Lazar, N. and Jaeger, A.
- Aug. 9, 2015 Topic Contributed paper, Joint Statistical Meetings, Seattle, WA: Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging. Brown, A., Lazar, N.A., Datta, G.S., Jang, W. and McDowell, J.E.
- Aug. 10, 2015 Topic Contributed paper, Joint Statistical Meetings, Seattle, WA: Topological Data Analysis for Functional Neuroimaging.
- Aug. 10, 2015 Contributed paper, Joint Statistical Meetings, Seattle, WA: Nonparametric Variogram Modeling with Hole Effect Structure in Analyzing the Spatial Characteristics of fMRI Data. Ye, J., Lazar, N.A. and Li, Y.