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NoahBrenowitz

Noah D. Brenowitz

Education

2012–2017 **Ph.D. Candidate**, *Mathematics and Atmosphere-Ocean Science*.
Center for Atmosphere-Ocean Science (CAOS), Courant Institute of Mathematical Sciences
New York University Advisor: Andrew J. Majda

2007–2011 **B.S.**, *Statistics and Mathematics*.
Stern School of Business
New York University
Summa cum Laude with highest honors in Mathematics

Work Experience

2017–Present **Post-doctoral Research Associate**, *University of Washington*.
Mentors: Christopher S. Bretherton and J. Nathan Kutz

2013–2017 **Research Assistant**, *New York University*.
Supervisor: Andrew J. Majda

2011–2012 **Post-baccalaureate IRTA**, *National Institutes of Health*.
Section on Functional Imaging
Laboratory of Brain and Cognition, National Institute of Mental Health
Supervisors: Peter Bandettini and Souheil Inati
- Analyzed of functional Magnetic Resonance Imaging (fMRI) data

Honors, Awards, and Fellowships

2017 Moore/Sloan & WRF Innovation in Data Science Postdoctoral Fellowship, University of Washington

2012–2017 Henry M. MacCracken Fellowship, New York University

2011–2012 Intramural Research Training Award (IRTA), National Institutes of Health

2011 Graduated *Summa cum Laude* with highest honors in Mathematics, New York University

2010 *Beta Gamma Sigma* undergraduate business honors society

2008–2011 Dean's List, Stern School of Business, New York University

Refereed Articles

2018 Brenowitz, N. D. and C. S. Bretherton. "Prognostic Validation of a Neural Network Unified Physics Parameterization". In: *Geophysical Research Letters* 45.12, pp. 6289–6298. DOI: 10.1029/2018gl078510.

Brenowitz, N. D., A. J. Majda, and Q. Yang. "The Multiscale Impacts of Organized Convection in Global 2D cloud-resolving Models". In: *Journal of Advances in Modeling Earth Systems*. DOI: 10.1029/2018ms001335.

2016 Brenowitz, N. D., Y. Frenkel, and A. Majda. "Non-local convergence coupling in a simple stochastic convection model". In: *Dynamics of Atmospheres and Oceans* 74, pp. 30–49.

Brenowitz, N. D., D. Giannakis, and A. Majda. "Nonlinear Laplacian spectral analysis of Rayleigh–Bénard convection". In: *Journal of Computational Physics* 315, pp. 536–553.

2015 Brenowitz, N. D., Y. Frenkel, and A. J. Majda. "Enhanced persistence of equatorial waves via convergence coupling in the stochastic multicloud model". In: *Journal of the Atmospheric Sciences* 72.12, pp. 4701–4720.

2013 Kundu, P., N. D. Brenowitz, V. Voon, Y. Worbe, P. E. Vértes, S. J. Inati, Z. S. Saad, P. A. Bandettini, and E. T. Bullmore. "Integrated strategy for improving functional connectivity mapping using multiecho fMRI". In: *Proceedings of the National Academy of Sciences* 110.40, pp. 16187–16192.

2012 Gonzalez-Castillo, J., Z. S. Saad, D. A. Handwerker, S. J. Inati, N. Brenowitz, and P. A. Bandettini. "Whole-brain, time-locked activation with simple tasks revealed using massive averaging and model-free analysis". In: *Proceedings of the National Academy of Sciences* 109.14, pp. 5487–5492.

Talks

2016 *NLSA of Rayleigh-Bénard Convection II, MURI Workshop*, January 29, 2016

2015 *Enhanced Persistence of equatorial waves via convergence coupling in the stochastic multicloud model*, Stochasticity and Organization of Tropical Convection, Banff International Research Station, Canada, April 29, 2015

2014 *NLSA of Rayleigh-Bénard Convection I, MURI Workshop*, January 21, 2014

Posters

2015 *Non-local convergence coupling in stochastic models for tropical convection*, Monsoons and the ITCZ Workshop, Columbia University, New York, Sept. 17, 2015

Teaching Experience

Spring 2016 Recitation Leader (TA) for *Fundamental Dynamics of the Earth's Atmosphere and Climate* (undergraduate)

Spring 2015 Grader for *Basic Probability* (graduate)

2013–2015 Private tutor for graduate and undergraduate courses including Calculus, Statistics, and Probability

Leadership Experience

2016 Organized CAOS Student Seminar

2012–2015 Organized CAOS Student Monday Lunch

Technical Skills

Programming Languages Proficient: Python, Fortran 90, MATLAB, Mathematica, julia, shell scripting (sh/bash)

Some Experience: R, C/C++, Clojure, OpenMP, MPI

Operating Systems Linux, Macintosh, Windows

Software LaTeX, Emacs, Vim, Git, Word, Excel, Powerpoint

Interests

Rock climbing (outdoor/indoor), alpine skiing, hiking, backpacking, bread baking, photography, science fiction and fantasy novels