

Jordan Dworkin

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Education *University of Pennsylvania*, Philadelphia, PA 2015 –
PhD Candidate in Biostatistics
Advisor: Russell T. Shinohara, PhD
MS in Biostatistics

Haverford College, Haverford, PA 2011 – 2015
BS in Psychology, High Honors
Minor in Statistics, Minor in Mathematics

Awards 2018, 19 Young Investigator Travel Grant, ACTRIMS Congress
2018 Finalist, Blavatnik Family Fellowship
2018 Student Poster Award, Statistical Methods in Imaging Conference
2018 Finalist, Best Poster Presentation, ACTRIMS Congress
2016, 17 Young Investigator Travel Grant, ECTRIMS Congress
2015 Magna Cum Laude, Haverford College
2015 Member Elect, Phi Beta Kappa Academic Honor Society
2015 David Olton '64 Award in Psychology, Haverford College
2014 Member Elect, Psi Chi International Honors Society in Psychology

Scientific Memberships Eastern North American Region of the International Biometric Society
Student member of the North American Imaging in MS Cooperative
Student member of the American Statistical Association

Teaching **Teaching assistant**
Statistics in Experimental Design and Analysis (2017, 2018)
University of Pennsylvania, Biomedical Graduate Studies
Experimental Methods and Statistics (2013)
Bryn Mawr College, Department of Psychology

Guest lecturer
Programming and Computation for Biomedical Data Science (2019)
University of Pennsylvania, Biostatistics Graduate Group
R Workshop for Incoming Students (2017)
University of Pennsylvania, Biostatistics Graduate Group

Service **Reviewer**
Journal of Neuroimaging
NeuroImage: Clinical
Annals of Neurology

Committee member
Student-Faculty Committee, *University of Pennsylvania*, Biostatistics Graduate Group
Faculty Search Committee, *Haverford College*, Department of Psychology

Publications

- [1] **JD Dworkin**, KA Linn, TD Satterthwaite, A Raznahan, R Bakshi, RT Shinohara. [A local group differences test for subject-level multivariate density neuroimaging outcomes](#). *Biostatistics*. 2020.
- [2] **JD Dworkin**. [Network-driven differences in mobility and optimal transitions among automatable jobs](#). *Royal Society Open Science*, 2019; 6 (7), 182124.
- [3] **JD Dworkin**, RT Shinohara, DS Bassett. [The emergent integrated network structure of scientific research](#). *PLoS One*, 2019; 14 (4), e0216146.
- [4] **JD Dworkin**, P Sati, AJ Solomon, D Pham, R Watts, ML Martin, D Ontaneda, MK Schindler, DS Reich, RT Shinohara. [Automated integration of multi-modal MRI for the probabilistic detection of central vein sign in white-matter lesions](#). *American Journal of Neuroradiology*, 2018; 39 (10), 1806 – 1813.
- [5] **JD Dworkin**, RT Shinohara, DS Bassett. [The landscape of NeuroImage-ing research](#). *NeuroImage*, 2018; 183, 872 – 883.
- [6] J Roy, KJ Lum, B Zeldow, **JD Dworkin**, VL Re, MJ Daniels. [Bayesian nonparametric generative models for causal inference with missing at random covariates](#). *Biometrics*, 2018; 74 (4), 1193 – 1202.
- [7] **JD Dworkin**, KA Linn, I Oguz, GM Fleishman, R Bakshi, G Nair, PA Calabresi, RG Henry, J Oh, N Papinutto, D Pelletier, W Rooney, W Stern, NL Sicotte, DS Reich, RT Shinohara. [An automated statistical technique for counting distinct multiple sclerosis lesions](#). *American Journal of Neuroradiology*, 2018; 39 (4), 626 – 633.
- [8] **JD Dworkin**, V Zimmerman, RJ Waldinger, MS Schulz. [Capturing naturally occurring emotional suppression as it unfolds in couple interactions](#). *Emotion*, 2018; 19 (7), 1224 – 1235.
- [9] **JD Dworkin**, EM Sweeney, MK Schindler, S Chahin, DS Reich, RT Shinohara. [PREVAIL: Predicting recovery through estimation and visualization of active and incident lesions](#). *NeuroImage: Clinical*, 2016; 12, 293 – 299.
- [10] **JD Dworkin**, A McKeown, JT Farrar, I Gilron, M Hunsinger, RD Kerns, MP McDermott, BA Rappaport, DC Turk, RH Dworkin, JS Gewandter. [Deficiencies in reporting of statistical methodology in recent randomized trials of nonpharmacologic pain treatments: ACTION systematic review](#). *Journal of Clinical Epidemiology*, 2016; 72, 56 – 65.
- [11] JS Gewandter, MP McDermott, A McKeown, **JD Dworkin**, SM Smith, RA Gross, M Hunsinger, AH Lin, BA Rappaport, ASC Rice, MC Rowbotham, MR Williams, DC Turk, RH Dworkin. [Data interpretation in analgesic clinical trials with statistically non-significant primary analyses: An ACTION systematic review](#). *Journal of Pain*, 2015; 16, 3 – 10.

Manuscripts in Progress

- [1] **JD Dworkin**, KA Linn, E Teich, P Zurn, RT Shinohara, DS Bassett. [The extent and drivers of gender imbalance in neuroscience reference lists](#). *Submitted*.
- [2] **JD Dworkin**, ML Martin, A Oganisian, KA Linn, RT Shinohara. [Gaussian mixture modeling for the detection and probabilistic clustering of multiple sclerosis lesions](#). *In preparation*.

Other Articles

- JD Dworkin** & I Blinderman. [Why the tech sector may not solve America's looming automation crisis](#). *The Pudding*, 2018.
- JD Dworkin**. [Stranger Things: Analyzing scripts to understand emotion](#). *Data Driven Journalism*, 2017.
- JD Dworkin**. [A statistical curiosity voyage through the emotion of Stranger Things](#). *FreeCodeCamp*, 2017.
- JD Dworkin**. [Could an alternative voting system have stopped Trump?](#) *Towards Data Science*, 2016.

Software & Programming

- mmdt. R package, 2019.
- The landscape of neuroimaging research. R Shiny application, 2018.
- Read, Act. Website and Google Chrome extension, 2017.

Presentations

Invited talks

- 2019 *Advances in statistical methods for neuroimaging data analysis in multiple sclerosis*
Haverford/Bryn Mawr Bi-College Math Colloquium, Philadelphia, PA
- 2019 *An automated probabilistic algorithm for the detection of central vein sign in multiple sclerosis*
Americas Committee for Treatment and Research in MS (ACTRIMS) Congress, Dallas, TX
- 2018 *An automated probabilistic algorithm for the detection of central vein sign in multiple sclerosis*
Statistical Methods in Imaging (SMI) Conference, Philadelphia, PA

Contributed posters

- 2019 *A local group differences test for subject-level multivariate density neuroimaging outcomes*
Joint Statistical Meetings (JSM), Denver, CO
Organization for Human Brain Mapping (OHBM) Annual Meeting, Rome, Italy
Eastern North American Region of the International Biometric Society (ENAR), Philadelphia, PA
- Multi-modal MRI intensity distributions reveal differences across MS subtypes*
ACTRIMS Congress, Dallas, TX
- 2018 *Multi-modal MRI intensity distributions reveal differences across MS subtypes*
European Committee for Treatment and Research in MS (ECTRIMS) Congress, Berlin, Germany
- A local group differences test for subject-level multivariate density neuroimaging outcomes*
Joint Statistical Meetings, Vancouver, Canada
- Distance-based tests for group differences in non-local processes on MRI*
ENAR Spring Meeting, Atlanta, GA
- A fully automated statistical technique for counting pathologically distinct multiple sclerosis lesions*
ACTRIMS Congress, San Diego, CA
- 2017 *Statistical separation of spatially confluent but temporally distinct white matter lesions*
ECTRIMS Congress, Paris, France
- Predicting recovery through estimation and visualization of active and incident lesions*
SMI Conference, Pittsburgh, PA
ENAR Spring Meeting, Washington, DC
- 2016 *Predicting recovery through estimation and visualization of active and incident lesions*
North American Imaging in MS (NAIMS) General Meeting, Toronto, Canada
ECTRIMS Congress, London, United Kingdom