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http://aaronjfisher.github.io

# Aaron Fisher

#### Education

2011-Present

PhD Candidate in Biostatistics, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD.

Advisors: Vadim Zipunnikov & Brian Caffo

2006-2010

**BA in Economics**, *University of Rochester*, Rochester, NY. Summa cum laude

## Academic Papers

Peer-Reviewed Publications **A. J. Fisher**, G. B. Anderson, R. Peng, J. Leek (2014). A randomized trial in a massive online open course shows people don't know what a statistically significant relationship looks like, but they can learn. *PeerJ.* (<u>link</u>; 3,437 unique visitors as of December 3, 2014).

Submitted

**A. J. Fisher**, B. Caffo, B. Schwartz, V. Zipunnikov (2014). Fast, Exact Bootstrap Principal Component Analysis for p > 1 million. Resubmitted at Journal of the American Statistical Association (TM). (link).

Y. Webb-Vargas, S. Chen, A. J. Fisher, A. Mejia, Y. Xu, C. Crainiceanu, B. Caffo, M. A. Lindquist (2014). Big Data and Neuroimaging. (*Invited Submission*).

**A.J. Fisher**, H Jaffee, M Rosenblum (2014). interAdapt – An Interactive Tool for Designing and Evaluating Randomized Trials with Adaptive Enrollment Criteria. (<u>link</u>).

Reviewer

2014 Risk Analysis

#### Software

bootSVD

An R package for implementing fast, exact bootstrap principal component analysis and singular value decompositions for high dimensional data (i.e. > 1 million covariates). The GitHub version of this package allows for matrices too large for memory to be entered as class ff objects, with contents stored on disk. (CRAN link; GitHub link)

ggBrain An R package for beautiful brain image figures (GitHub link)

interAdapt An interactive tool for designing and evaluating randomized trials with adaptive enrollment criteria (Shiny App link; CRAN link; Github link).

Professional Experience

2010 (Summer) Structured Decisions Corporation, Newton, MA.

Intern Analyst - Background research project for a linear programming application

Computer skills

Advanced I Skills

Basic Skills git, Python, MATLAB, stata, shell scripting, LATEX

Awards and Scholarships

2014 **The June B. Culley Award:** Honors outstanding achievement by a Biostatistics student on his or her schoolwide oral examination paper

2012-present Doctoral Training Grant in Environmental Biostatistics: Provides funding for at least three years

2006-2010 Undergraduate Awards: Phi Beta Kappa; John Dows Mairs Prize (University of Rochester Economics Dept); Omicron Delta Epsilon International Honor Society for Economics; Theta Chi Long, Walter, Ott Award; Theta Chi Valentine H. Zahn Fund

Teaching

Guest Lecturer

2013 Essentials of Probability and Statistical Inference I-II, JHSPH

Teaching Assistant

- 2014 Statistical Methods in Public Health I-II (with lab component in term II), *JHSPH*
- 2012-2014 Essentials of Probability and Statistical Inference I-IV (with lab component), *JHSPH* 
  - 2012 Statistical Reasoning I and II, JHSPH Summer Institute of Epidemiology and Biostatistics

### Presentations

- 2014 "Fast, Exact Bootstrap Principal Component Analysis for p > 1 Million." (4th Annual Hopkins Imaging Conference) Baltimore, MD, Invited Short Talk & Poster.
- 2014 "Fast Exact Bootstrap Principal Component Analysis for p>1 million: Leveraging Low-Dimensional Structure Across High-Dimensional Bootstrap Samples." JSM, Boston, MA. Contributed Speed Session & Poster.
- 2014 "People Can't See Statistical Significance: A Massive Randomized Trial on the Visual Perception of Relationships." ENAR Spring Meeting, Baltimore, MD, Contributed Talk.

# Other Leadership Roles

2013-2014 JHU Biostatistics Vegetarian Chili Champion

2012-2013 Co-organizer of JHU Biostatistics Computing Club, with Prasad Patil (speaker schedule link)

Last updated: January 24, 2015