

Ann Sizemore

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<https://aesizemore.com>

Education

- Present Ph.D. University of Pennsylvania, Bioengineering
Advisor: Dr. Danielle Bassett
- 2015 M.S.E University of Pennsylvania, Bioengineering
Advisors: Dr. Danielle Bassett, Dr. Chad Giusti
Thesis: “Cliques and cycles: a complementary pair of homological features detects structures in weighted networks”
- 2014 B.S. Boston College, Biology
Advisor: Dr. Evan Kantrowitz
Thesis: “Pi-Pi stacking interactions in aspartate transcarbamoylase”
- B.A. Boston College, Mathematics

Articles

Ann E. Sizemore, Chad Giusti, Danielle S. Bassett, “Classification of weighted networks through mesoscale topological features”
Journal of Complex Networks

Ann E. Sizemore, Chad Giusti, Richard Betzel, Danielle S. Bassett “Cliques and cavities in the human structural connectome”
<http://arxiv.org/pdf/1608.03520v2.pdf>

Awards

- 2016 Second place poster in the DBIO section of the American Physical Society March Meeting
- 2014 Balkema Award for top Honors thesis in the Biology Department at Boston College
- 2014 Phi Beta Kappa Membership

- 2014 Pi Mu Epsilon Membership
2012 Undergraduate Research Fellowship (through 2014).

Presentations

Invited Talks and Seminars

- 2017 Apr. College of the Holy Cross Mathematics Seminar
2017 Feb. Brown University Applied Topology Seminar
2016 Dec. Union College Mathematics Conference
“Closures and cavities in the human connectome.”
2016 May Experimental Chaos in Complexity
“Exposing mesoscale connectivity patterns in the structural brain network.””

Public Talks

- 2016 June University of Pennsylvania, Penn Network Visualization Program
“Shapes in the brain.”
2015 May American Association of University Women Girls Recognition Reception
“Pursuing Science.”
2014 May Boston College Biology Undergraduate Honors Thesis Presentations
“Pi-Pi Stacking interactions in aspartate transcarbamoylase.”

Posters

- 2016 Nov. Society for Neuroscience
“Functional role of topological cycles in the human structural connectome.”
2016 July Society for Industrial and Applied Mathematics, Network Science Workshop
“Exposing mesoscale connectivity patterns in the structural brain network.”
2016 Mar. American Physical Society
“A novel perspective on neural network architecture: connections and dissections of homological features.”
2016 Feb. Computational and Systems Neuroscience
“A novel perspective on neural network architecture: connections and dissections of homological features.”
2014 Aug. Summer Scholars Poster Session at the Stowers Institute of Medical Research
“Studying the codiffusion of the secretory complex components through FCCS.”

2014 Aug. Boston College Chemistry Undergraduate Research Day.
“The importance of pi-pi stacking interactions in aspartate transcarbamoylase.”

Software Packages

Network Generation and Analysis Toolbox

<https://sites.google.com/a/seas.upenn.edu/weighted-network-toolbox/home>