Mark Agrios

magrios@gmail.com | markagrios.net | (703).638.9648

Research Interests

Computational and theoretical neuroscience. Applications of algebraic topology and differential geometry in studying neural manifolds and neural coding. Emergence and criticality in self organizing systems.

Positions

Research Technologist: The Miri Lab, Northwestern University [https://mirilab.org]

- August 2019 - present

Tutor: Calculus, statistics, physics, linear algebra, biophysics

- August 2018 - May 2019

Teaching Assistant: Biostatistics

- August 2018 - May 2019

Academic Training

B.S. Neuroscience *cum laude*, College of William & Mary, Spring 2019
B.S. Mathematics *cum laude*, College of William & Mary, Spring 2019

Leadership Positions

Pi Mu Epsilon Math honors society president at William & Mary

- Fall 2018 - Spring 2019

Grants Awarded

NSF, William & Mary EXTREEMS-QED program

- Summer 2017

William & Mary honors fellow

- Summer 2018
- Project: *Simplicial Homology and Burst-Synchronizing Neural Networks* (in progress) Advisors: Prof Sarah Day (department of mathematics) Prof Drew LaMar (department of biology)

Conferences Presented

Undergraduate research project

Summer research colloquium, William and Mary (talk)	July 2017
SUMS, James Madison University (talk)	October 2017
JMM national conference, San Diego (talk)	January 2018
SIAM-SEAS, UNC (talk, invited)	March 2018
Summer research colloquium, William and Mary (talk, invited)	June 2018
SIAM, the University of Delaware (talk)	September 2018

Work with the Miri Lab

Society for Neuroscience in Chicago (poster)	October 2019

Conferences Attended

BAMM at VCU	May 2017

Computational Experience [https://github.com/markagrios]

Python
Matlab
Electrophysiology and spike-sorting software

- SpikeGLX
- Kilosort/Kilosort2
- Phy