

James McInerney

Education

- 2016–present Georgia Institute of Technology, Atlanta, GA
Ph.D. Physics
- 2012–2016 University of Massachusetts, Amherst, MA
B.S. *magna cum laude* Physics
Thesis: “Critical phenomena of Kerr-de Sitter black holes”

Publications

- [1] K. Higginbotham, B. Khamesra, J. P. McInerney, K. Jani, D. M. Shoemaker, and P. Laguna, “Coping with spurious radiation in binary black hole simulations,” *Phys. Rev. D*, vol. 100, p. 081501, Oct 2019.
- [2] James P. McInerney, Perry W. Ellis, D. Zeb Rocklin, Alberto Fernandez-Nieves, and Elisabetta A. Matsumoto, “Geometric Twist and Chiral Instabilities in Homeotropic Tori”, *Soft Matter*, 2019, **6**, 1210-1214.
- [3] Perry W. Ellis, Karthik Nayani, James P. McInerney, D. Zeb Rocklin, Jung Ok Park, Mohan Srinivasarao, Elisabetta A. Matsumoto, and Alberto Fernandez-Nieves, “Curvature-Induced Twist in Homeotropic Nematic Tori”, *Phys. Rev. Let.*, 2018, **121**, 247803.
- [4] James McInerney, Gautam Satishchandran, and Jennie Traschen, “Cosmography of KNdS black holes and isentropic phase transitions”, *Class. Quantum Grav.*, 2016, **33** 105007.

Talks

- [1] “Pairing global symmetries with folding mechanics to transform all periodically triangulated origami”, 2019, American Physical Society March Meeting.
- [2] “Inducing chirality in homeotropic nematics via confinement geometry”, 2019, American Physical Society March Meeting.
- [3] “Geometric properties of liquid crystals”, 2018, Brandeis IGERTS Summer School.
- [4] “How Hidden Geometric Symmetries in Origami Generate New Folding Mechanisms”, 2018, Soft Matter Frontiers.

Posters

- [1] “Inducing twist in homeotropic nematics via confinement geometry”, July 2019, Liquid Crystals Gordon Research Conference.
- [2] “Pairing global symmetries with rigid folding motions of periodic origami”, June 2019, UMass Summer School on Soft Solids and Complex Fluids.
- [3] “Pairing global symmetries with rigid folding motions of periodic origami”, February 2019, Georgia Tech CRIDC.
- [4] “Pairing global symmetries with rigid folding motions of periodic origami”, October 2018, Georgia Tech STAMI Industry Day.
- [5] “Pairing global symmetries with rigid folding motions of periodic origami”, May 2017, Southeast Meeting on Soft Materials.

Awards and Fellowships

Spring 2020–Fall 2020

STAMI Graduate Fellowship (\$5,000), Georgia Tech

Fall 2016–present

President’s Fellowship (\$5,500 / year), Georgia Tech

March 2019 Amelio Endowment Travel Award (\$500), Georgia Tech, School of Physics

March 2019 Graduate Conference Fund (\$250), Georgia Tech, Student Government Association

March 2019 Doctoral Student Travel Supplement (\$250), Georgia Tech, College of Natural Science

Spring 2016 Hasbrouck Scholarship Award (\$600), University of Massachusetts Amherst, Physics Department

Outreach and Service

Fall 2017–Spring 2019

Graduate Student Representative, School of Physics Colloquium Committee, Georgia Tech

Spring 2018–Spring 2019

President, Graduate Association of Physicists, Georgia Tech

October 2018 Georgia Institute of Technology Junior STEM “Stepping into STEM”: demonstrations on angular momentum

March 2018 Atlanta Science Festival “Taste of Science”: the crystallization of chocolate

October 2017 Georgia Institute of Technology Junior STEM “Stepping into STEM”: demonstrations on magnetism

March 2017 Atlanta Science Festival “Science of Beer”

March 2017 Atlanta Science Festival “Science of the Circus”

Fall 2016–Spring 2018

Host, Physics Forum Graduate Colloquium