

Curriculum Vitae

Peter K. Johnson

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Basic Information

Contact: Peter K. Johnson
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Education

Ph.D. Candidate, Mathematics, University of Virginia, (in progress, Fall 2016 - Present).

Thesis advisor: Thomas Mark.

M.S. in the Division of Physical Sciences, University of Chicago, December 2014.

Thesis advisor: John Boller. Thesis title: The Conjugacy Classes of $O(3, q)$.

B.S. in Mathematical Economics, University of Richmond, May 2012.

The General Course Study Abroad Program, London School of Economics and Political Science, 2010-2011 Academic Year.

Teaching

- UVa Directed Reading Program mentor, Spring 2021.
- TA for UVa REU, Summer 2020 and Summer 2021.
- TA for UVa Math Circle, Fall 2019 and Fall 2018.
- Teaching Mentor for 2nd year UVa math graduate students, Fall 2020 and Fall 2018.
- UVa Flipped Calculus Workshop participant, Summer 2018.
- The following is a list of the courses I've taught at the University of Virginia.
 - MATH 1320 Calculus II, Fall 2021(current) and Fall 2018.
 - MATH 1140 Financial Mathematics, Fall 2020.
 - MATH 1210 A Survey of Calculus I (formerly called Applied Calculus I), Spring 2018, Fall 2017, Spring 2017.
 - TA for two discussion sections of MATH 1310 Calculus I, Fall 2016.

Research Interests

Low dimensional topology. More specifically, using tools from symplectic topology and gauge theory such as Floer homology to study 3 and 4 dimensional manifolds.

Talks

- A zero surgery obstruction from involutive Heegaard Floer Homology, University of Alabama Algebra-Topology Seminar, March 2021 (virtual)
- A zero surgery obstruction from involutive Heegaard Floer Homology, UVa Geometry Seminar, March 2021 (virtual)
- An introduction to Seifert Fibered Spaces, UVa Graduate Students Seminar, April 2020. (virtual)
- Lightning talk: Small Seifert Fibered Zero Surgery, Georgia Tech Topology Conference, December 2019.

Conferences Attended

- Tech Topology Conference, Georgia Institute of Technology, Atlanta, GA (Virtual), December 2020, December 2019, December 2017.
- Virginia Topology Conference, University of Virginia, Charlottesville, VA, December 2018.
- The topology and geometry of low dimensional manifolds: a celebration of the mathematics of Bob Gompf, University of Texas at Austin, Austin, TX, July 2018.
- Tech Topology Conference, Georgia Institute of Technology, Atlanta, GA, December 2017.

Summer Schools Attended and Other Professional Activities

- Participant of American Institute of Mathematics 4d Topology Community, Spring 2021 (virtual)
- Current Progress in Low Dimensions Summer School: Institut des sciences mathématiques Université du Québec à Montréal, August 2019
- Park City Mathematics Institute Graduate Summer School: Quantum Field Theory and Manifold Invariants, Park City, Utah, June-July 2019.

Awards

- Jefferson Scholars Foundation Research Prize, 2021
- All-University Graduate Teaching Award, UVa 2020-2021

Professional Membership

- American Mathematical Society 2016-Present.