# Adam Howard

Curriculum Vitae

Montana State University
Wilson Hall 2-232
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### Research Interests

Algebraic and Geometric Topology, Knotted Surfaces in 4-Manifolds, Mathematical Physics

#### Education

2016-present Ph.D. student in Mathematics, Montana State University, Bozeman, MT.

Advisor: Ryan Grady.

2012–2016 B.S. Mathematics, University of Utah, Salt Lake City, UT.

#### Awards

Summer 2019 Gary G. Sackett Research Fellowship, Montana State University.

Fall 2016 Meritorious Award, The Graduate School, Montana State University.

## Teaching Experience

2016-present Instructor of Record, Montana State University.

Responsibilities include organizing and delivering lectures, creating and grading weekly quizzes and assignments, writing and grading exams, holding office hours, and working in the Math Learning Center

## Courses Taught at Montana State University

- M 105 Contemporary Mathematics, (Spring '17).
- M 121 College Algebra, (Fall '16).
- M 171 Calculus I, (Summer '17, Fall '17).
- M 172 Calculus II, (Spring '18, Summer '18, Fall '18).
- M 221 Linear Algebra (TA), (Spring '19).

#### Service

- Spring 2019 Mentor for Directed Reading Program, John Schafer, Naive Lie Theory.
  - Fall 2018 Mentor for Directed Reading Program, Miguel Kennard, A Topological Apertif.
- Spring 2019 Mentor for Big Sky Youth Empowerment.
  - Fall 2018 Tutor for Big Sky Youth Empowerment.

#### Talks

- Jun, 2019 **Trisections of 4-Manifolds**, *University of Wisconsin-Milwaukee*, 36th Annual Workshop in Geometric Topology.
- Apr, 2019 Knotted Surfaces in 4-Manifolds, Montana State University, Graduate Student Seminar.
- Oct, 2018 Working with Differential Forms, Montana State University, Graduate Student Seminar.
- Mar, 2018 The Lamplighter Group, Montana State University, Graduate Student Seminar.
- Oct, 2017 The Braid Group, Montana State University, Graduate Student Seminar.
- Sep, 2017 Some Thoughts about Knots, Montana State University, Graduate Student Seminar.
- Mar, 2017 Prees a.k.a. Pregroups, Montana State University, Graduate Student Seminar.
- Nov, 2016 Folding Finite Graphs and Free Groups, Montana State University, Graduate Student Seminar.

## Conferences and Workshops Attended

- July, 2019 Perspectives on Dehn Surgery, ICERM, Providence, RI.
- June, 2019 36th Annual Workshop in Geometric Topology, Milwaukee, WI.
- May, 2019 Moab Topology Conference, Moab, UT.
- May, 2018 Arches Topology Conference, Moab, UT.
- Aug, 2017 Topological and Geometric Methods in QFT, Bozeman, MT.

## References

Ryan Grady (advisor) Montana State University ryan.grady1@montana.edu Lukas Geyer Montana State University geyer@math.montana.edu

David Ayala Montana State University david.ayala@montana.edu