

Adam Saltz

Math Department, University of Georgia
630 Boyd Graduate Studies
Athens, GA 30602

<http://www.adamsaltz.com/>
adam.saltz@uga.edu
610-283-9759

RESEARCH INTERESTS

Low-dimensional topology
Interactions between Khovanov homology and Floer homology
Trisections of four-manifolds
Contact topology and transverse links

EMPLOYMENT

2016 – Present University of Georgia
Assistant Professor (limited-term), Mathematics
Supervised by David Gay

EDUCATION

2016 **Boston College**, Chestnut Hill, MA
Ph.D. in Mathematics
Advisor: John Baldwin

2010 **Johns Hopkins University** (JHU), Baltimore, MD
Master of Arts in Mathematics and Bachelor of Arts in Mathematics

PAPERS

An annular refinement of the transverse invariant in Khovanov homology
With Diana Hubbard. *Algebraic & Geometric Topology*. 16-4 (2016), 2305-2324.
DOI 10.2140/agt.2016.16.2305, [arxiv:1507.06263 \[math.GT\]](https://arxiv.org/abs/1507.06263)

The Ozsváth-Szabó spectral sequence and combinatorial link homology
Submitted for publication, 2017.
[arxiv preprint, arxiv:1510.02819 \[math.GT\]](https://arxiv.org/abs/1510.02819)

Strong Khovanov-Floer Theories and Functoriality
Submitted for publication, 2018
[arxiv preprint, arxiv:1712.08272 \[math.GT\]](https://arxiv.org/abs/1712.08272)

Mutation-invariance of Khovanov-Floer theories
[arxiv preprint, arxiv:1806.05595, 2018](https://arxiv.org/abs/1806.05595)

Invariants of knotted surfaces via link homology and bridge trisections
Draft available at <http://www.adamsaltz.com/trisectionsdraft.pdf>

A tangle theory for Szabó's geometric link homology theory
With John Baldwin and Cotton Seed.
Draft available at <http://www.adamsaltz.com/images/szabotanglesdraft.pdf>

INVITED TALKS

- 2018 University of Virginia, Virginia Topology Conference
IUC Dubrovnik, “Geometric structures on 3 and 4 manifolds”
AMS Southeastern sectional meeting, special session on “Interactions between Contact and Symplectic Geometry and Low-dimensional Topology”
Duke University, Triangle Topology Seminar
Joint Mathematics Meeting, special session on “Quantum link invariants, Khovanov homology, and low-dimensional manifolds,” San Diego.
AMS Eastern sectional meeting, special session on “Connections between Trisections of 4-manifolds and Low-dimensional Topology,” Northeastern University
Michigan State University, geometry and topology seminar
Rice University, topology seminar
- 2017 University of Virginia, topology seminar
Participant, American Institute of Mathematics trisections workshop
Syracuse University, topology seminar
Binghamton University (SUNY), topology seminar
- 2016 Georgia Institute of Technology, topology seminar
AMS Western sectional meeting, special session on “Floer-theoretic invariants of knots and three-manifolds”, University of Denver
AMS Southeastern sectional meeting, special session on “Low-dimensional topology and geometry”, University of Georgia.
AMS Graduate Student Conference in Geometry and Topology, Brown University.
- 2015 Louisiana State University, topology seminar.

SUBMITTED TALKS

- 2017 Tech Topology Conference, Georgia Institute of Technology.
2016 Advances in Quantum and Low-Dimensional Topology, University of Iowa.
2015 Moab Topology Conference, Utah State University.
Graduate Student Conference in Geometry and Topology, Temple University.

SERVICE

- 2018 Organizer, UGA Graduate Student Topology Seminar
Organizer, UGA-Tech Joint Topology Seminar
Organizer, Georgia Topology Conference
Faculty co-ordinator for the project “Geometry and Gerrymandering” at UGA Math Camp
Supervising the AP Research project of an Athens high school student on math and gerrymandering
Referee, *Proceedings of 2017 Georgia International Topology Conference*
Reviewer, Zentralblatt
- 2017 Organizer, Georgia International Topology Conference
Organizer, UGA-Tech Joint Topology Seminar
Organizer, UGA Graduate Student Topology Seminar
Referee, *Journal of the London Mathematical Society*
- 2013 – 2016 Representative to the Graduate Arts & Sciences Association at BC
2012 – 2015 Organizer of Graduate Student “Floer-ish” seminar
President of BC’s Mathematics Graduate Student Association and American Mathematical Society student chapter

TEACHING

- Calculus I (Fall 2012 – 2014, Fall 2016 - 2018)
Calculus II (Spring 2013 – 2015, Spring 2018)
Applied Linear Algebra (Spring 2018)
Knot Theory (topology graduate topics course) (Fall 2017)
Differential Geometry of Curves and Surfaces (Spring 2017)
Topology of Manifolds (Fall 2018)
Finite Probability (Fall 2015)
In Spring 2018 I attended the Educator track of the “Geometry of Redistricting Workshop” at the University of SF.