

# Adam Saltz

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## RESEARCH INTERESTS

Low-dimensional topology  
Interactions between Khovanov homology and Floer homology  
Trisections of four-manifolds and knotted surfaces  
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  
Submitted for publication, 2018  
*arXiv preprint*, [arxiv:1806.05595 \[math.GT\]](https://arxiv.org/abs/1806.05595)

Invariants of knotted surfaces via link homology and bridge trisections  
*arXiv preprint*, [arxiv:1809.06327 \[math.GT\]](https://arxiv.org/abs/1809.06327)

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  
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 Mathematics Graduate Student Association, AMS student chapter

## TEACHING

- Participant in Educator Track of “Geometry and Gerrymandering,” University of San Francisco, Spring 2018  
Faculty co-ordinator for project “Geometry and Gerrymandering” at UGA MathCamp, Summer 2018  
Speaker at UGA MathCamp on knots and braids, Summer 2018  
Speaker at UGA Math Club on Geometry and Gerrymandering, Fall 2018  
Supervising the AP Research project of an Athens high school student on math and gerrymandering, 2018-2019  
Calculus I (Fall 2012 – 2014, Fall 2016 - 2018)  
Calculus II (Spring 2013 – 2015, Spring 2018)  
Finite Probability (Fall 2015)  
Applied Linear Algebra (Spring 2018, Spring 2019)  
Knot Theory (topology graduate topics course) (Fall 2017)  
Differential Geometry of Curves and Surfaces (Spring 2017)  
Topology of Manifolds (Fall 2018)