

# Kyle Larson

## Employment

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<b>August 2016 - Present</b>	<b>Michigan State University</b> , East Lansing, Michigan. Postdoctoral Researcher
<b>January 2016 - June 2016</b>	<b>Rényi Institute of Mathematics</b> , Budapest, Hungary. Postdoctoral Researcher
<b>August 2009 - December 2015</b>	<b>University of Texas at Austin</b> , Austin, TX. Teaching Assistant Assistant Instructor Research Assistant

## Education

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<b>December 2015</b>	<b>University of Texas at Austin</b> - Austin, Texas. PhD in Mathematics Advisor: Robert E. Gompf Thesis: Some constructions involving surgery on surfaces in 4-manifolds.
<b>May 2009</b>	<b>University of Utah</b> , Salt Lake City, Utah. B.S. in Mathematics, Honors Degree, Summa Cum Laude

## Research Interests

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Low-dimensional topology, especially 4-manifolds and connections to knot theory and 3-manifolds

## Publications

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- Kyle Larson. Generic fibrations around multiple fibers. *New York J. Math.*, 20:1161–1173, 2014.
- Kyle Larson and Jeffrey Meier. Fibered ribbon disks. *Journal of Knot Theory and Its Ramifications*, 24:1550066, 2015.
- Kyle Larson. Surgery on tori in the 4-sphere. 2015. Accepted for publication in *Mathematical Proceedings of the Cambridge Philosophical Society*.
- Paolo Aceto and Kyle Larson. Knot concordance and homology sphere groups. 2016. Preprint available at <https://arxiv.org/abs/1605.07878>
- Paolo Aceto, Marco Golla, and Kyle Larson. Embedding 3-manifolds in spin 4-manifolds. 2016. Preprint available at <https://arxiv.org/abs/1607.06388>

## Invited Talks

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- 4-manifolds conference in Dubrovnik, Croatia, Contributed talk (June 2016)
- University of Ljubljana, seminar (April 2016)
- Ludwig Maximilian University of Munich, seminar (January 2016)
- University of Minnesota, Symplectic Topology Seminar (December 2015)
- Michigan State University, Topology Seminar (November 2015)
- Rice University, Topology Seminar (November 2015)
- University of Pisa, Topology Seminar (July 2015)
- ECSTATIC conference at Imperial College, London (June 2015)
- IMBM in Istanbul, Geometry - Topology Workshop (June 2015)
- Indiana University, informal Topology Seminar (March 2015)
- AMS Sectional Meeting at Michigan State University (March 2015)

## Local Talks

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- Rényi Institute Algebraic Geometry and Differential Topology Seminar, "Knot concordance and homology sphere groups" (May 2016)
- Rényi Institute 4-manifolds seminar, "The Gluck twist" (February 2016)
- Rényi Institute Algebraic Geometry and Differential Topology Seminar, "Surgery on tori and embedding 3-manifolds" (February 2016)
- UT Austin Heegaard Floer Seminar, "Applications of Heegaard Floer Homology" (December 2015)
- UT Austin Dissertation Defense, "Surgery on tori and embedding 3-manifolds" (November 2015)
- UT Austin Junior Topology Seminar, "Surgery on tori in the 4-sphere" (April 2015)
- UT Austin Junior Topology Seminar, "Fibered disks and knots" (October 2014)
- UT Austin Undergraduate Math Club, "Exotic spheres and 2-knots" (October 2014)
- UT Austin Chern-Simons Seminar, "Handle decompositions and surgery" (July 2014)
- UT Austin Junior Topology Seminar, "The annulus twist" (November 2013)
- UT Austin Junior Topology Seminar, "Knot surgery and a window into the world of 4-manifolds" (April 2013)
- UT Austin Candidacy Exam, "The Gluck twist operation on smooth 4-manifolds" (November 2012)
- UT Austin Junior Topology Seminar, "The h-cobordism theorem" (February 2012)

## Conferences Attended

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- Low-dimensional topology summer school, Budapest, Hungary (July 2016)
- **Speaker**, Perspectives in topology and geometry of 4-manifolds, Dubrovnik, Croatia (June 2016)
- Mapping class groups, 3- and 4-manifolds, Cluj-Napoca, Romania (July 2015)
- **Speaker**, ECSTATIC conference, Imperial College, London (June 2015)
- 22<sup>nd</sup> Gökova Geometry/Topology conference, Gökova, Turkey (May 2015)
- **Speaker**, AMS Sectional Meeting at Michigan State University (March 2015)
- 52<sup>nd</sup> Texas Geometry and Topology Conference, University of Texas at Austin (November 2014)
- Workshop and Conference on the Topology and Invariants of Smooth 4-Manifolds, University of Minnesota (July - August 2013)
- Toulouse topological and symplectic spring, Llagonne and Toulouse, France (June 2013)
- Geometry and topology of smooth 4-manifolds, Max Plank Institute, Bonn, Germany (June 2013)
- Tech Topology Conference, Georgia Tech University (December 2012)
- Workshop in Holomorphic Curves and Low Dimensional Topology, Stanford University (July - August 2012)
- CAST Summer School and Conference, Rényi Instituted of Mathematics, Budapest, Hungary (July 2012)
- Georgia Topology Conference, University of Georgia (May 2012)
- Graduate Student Topology Conference X, University of Indiana (March 2012)
- 46<sup>th</sup> Texas Geometry and Topology Conference, University of Texas at Austin (October 2011)

## Awards and Honors

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- RTG Fellowship *Summer 2015, Spring 2014, Summer 2013, Summer 2012*
- J.L. Gibson Senior Award *Given to top graduating math major* (2009)
- President's Club Scholarship *Full-academic undergraduate scholarship* (2005-2009)

## Service to the Profession

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- Organizer, Graduate Student Topology and Geometry Conference, UT Austin (May 2014)
- Organizer, UT Austin Junior Topology Seminar (Fall 2014)
- Invited speaker for UT Austin Undergraduate Math Club (October 2014)
- Mentor in the UT Math Department's Directed Reading Program (DRP) (Spring 2015, Fall 2014, Spring 2014)
- Referee for Geometry & Topology, Michigan Mathematical Journal, and Tsukuba Journal of Mathematics.

## Teaching Experience

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### **University of Texas at Austin, Assistant Instructor** (instructor of record)

- Calculus I (Spring 2015)

### **University of Texas at Austin, Teaching Assistant**

- From Numbers to Chaos, First-Year Signature Course (IBL based) (Fall 2015, Fall 2013)
- Modern Mathematics: Plan II Honors (Spring 2012)
- Introduction to Mathematics (Fall 2011)
- Calculus I (Fall 2014, Fall 2012, Fall 2010, Spring 2010)
- Calculus II (Summer 2014, Spring 2011, Fall 2009)

## Teaching and Curriculum Related Activities

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- Teaching Certificate in First-Year Interdisciplinary Instruction (Fall 2013)
- Participant in weekly Signature Course cohort group (Fall 2013)
- Participant in the College of Natural Science's New Faculty Teaching Workshop (Spring 2013)
- Selected participant in the Supplemental Instruction Program (Fall 2012, Spring 2011, Fall 2010)