

LINH TRUONG

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- APPOINTMENTS **University of Michigan**, Ann Arbor, MI
Assistant Professor 2021 –
Postdoctoral Assistant Professor 2020 – 2021
- Institute for Advanced Study**, Princeton, NJ
Member and NSF Postdoctoral Fellow 2019 – 2020
- Columbia University**, New York, NY
Ritt Assistant Professor 2018 – 2019
NSF Postdoctoral Fellow 2017 – 2018
- Massachusetts Institute of Technology**, Cambridge, MA
NSF Postdoctoral Fellow 2016 – 2017
- EDUCATION **Princeton University**, Princeton, NJ
Ph.D. in Mathematics 2016
Thesis: *Applications of Heegaard Floer Homology to Knot Concordance*
Advisors: Peter Ozsváth and Zoltán Szabó
- University of Pennsylvania**, Philadelphia, PA
B.A., M.A. in Mathematics 2011
- PUBLICATIONS
& PREPRINTS **Khovanov homology and the involutive Heegaard Floer homology of branched double covers**, (with A. Alishahi and M. Zhang), preprint (2023), arXiv:2305.07172.
- A note on knot Floer thickness and the dealternating number**, *Topology Appl* **337** (2023), Paper No. 108638, 5.
- Homology concordance and knot Floer homology** (with I. Dai, J. Hom, and M. Stoffregen), to appear in *Math. Ann.*
- A combinatorial description of the LOSS Legendrian knot invariant** (with D. He), *J. Knot Theory Ramifications* 31 (2022), no. 13, 2250093.
- Comparing Bennequin-type inequalities** (with E. Aceves and K. Kawamuro), *New York J. Math.* 27 (2021), 124-140.
- Braids, fibered knots, and concordance questions** (with D. Hubbard, K. Kawamuro, F. C. Kose, G. Martin, O. Plamenevskaya, K. Raoux, and H. Turner), *Research directions in symplectic and contact geometry and topology*, 293–324, Assoc. Women Math. Ser., 27, Springer, Cham, 2021.
- On the Upsilon invariant of fibered knots and right-veering open books** (with D. He and D. Hubbard), *Math. Res. Lett.* 29 (2022), no. 2, 421-444.

Annular link invariants from the Sarkar-Seed-Szabó spectral sequence (with M. Zhang), *Michigan Math. J.* 71 (2022), no. 4, 725-763.

A slicing obstruction from the 10/8+4 theorem, *2019-20 MATRIX Annals*, MATRIX Book Ser., Springer (2021), pp. 167-172.

More concordance homomorphisms from knot Floer homology (with I. Dai, J. Hom, and M. Stoffregen), *Geom. Topol.* 25 (2021) 275-338.

An infinite rank summand of the homology cobordism group (with I. Dai, J. Hom, and M. Stoffregen), *Duke Math. J.* 172 (2023), no. 12, 2365-2432.

A refinement of the Ozsváth-Szabó large integer surgery formula and knot concordance, *Proc. Amer. Math. Soc.* 149 (2021), no. 4, 1757-1771.

Truncated Heegaard Floer homology and knot concordance invariants, *Algebr. Geom. Topol.* 19 (2019), no. 4, 1881-1901.

Extremal Measures and Clockwise Overlays (with H. Bercovici and W.S. Li), *Discrete Math.* 315, 2014, p 53-64.

AWARDS
& GRANTS

NSF CAREER Grant DMS-2237131 (PI; \$550,000) 2023 – 2028

LSA Teaching Academy Grant Professional Development Grant 2022 – 2024

NSF Grant DMS-2005539, DMS-2104309 (PI; \$107,908) 2020 – 2023

NSF Mathematical Sciences Postdoctoral Research Fellowship 2016 – 2020

NSF Graduate Research Fellowship Program Honorable Mention 2013

Dean's Scholar, University of Pennsylvania 2010
Awarded by the College of Arts and Sciences annually to nine undergraduate students, nominated by faculty, for outstanding academic achievements.

INVITED
CONFERENCE
& WORKSHOP
TALKS

Georgia Topology Conference May 2024
University of Georgia

New developments in 3- and 4-manifold topology June 2023
University of Virginia

Gauge theory and low-dimensional topology April 2023
IMSA, University of Miami

Floer homotopical methods in low dimensional & symplectic topology November 2022
Simons Laufer Mathematical Sciences Institute (previously MSRI)

Women and Gender Minorities in Symplectic and Contact Geometry April 2022
AMS-AWM Special Session, Joint Mathematics Meetings

Geometric Topology October 2021
AMS Fall Central Sectional Meeting Special Session

	<i>Low-Dimensional Topology</i> [cancelled due to COVID] AMS Sectional Special Session, Purdue University	April 2020
	<i>Geometry and Topology workshop</i> Institute for Pure & Applied Mathematics, UCLA	January 2020
	<i>Floer Homology in Dimensions 3 and 4</i> AMS Fall Central Sectional Meeting Special Session	September 2019
	<i>Women in Symplectic and Contact Geometry and Topology workshop</i> ICERM at Brown University	July 2019
	<i>Thirty Years of Floer Theory for 3-Manifolds Workshop</i> Casa Matemática Oaxaca	August 2017
INVITED COLLOQUIA & SEMINAR TALKS	UC Davis <i>Geometry/Topology seminar</i>	February 2024
	Gauge Theory Virtual seminar	February 2022
	K-OS Knot online seminar	February 2022
	University of Georgia <i>Topology seminar</i>	October 2021
	Stanford University <i>Topology seminar</i>	May 2021
	Boston College <i>Geometry/Topology/Dynamics virtual seminar</i>	April 2021
	University of Massachusetts Amherst <i>Colloquium</i>	March 2021
	Michigan State University <i>Geometry and Topology seminar</i>	February 2021
	UC San Diego <i>Topology seminar</i>	October 2020
	Lafayette-Lehigh <i>Geometry & Topology seminar</i> [cancelled due to COVID]	March 2020
	Haverford and Bryn Mawr <i>Colloquium</i> [cancelled due to COVID]	March 2020
	North Carolina State University <i>Colloquium</i>	February 2020
	Duke University <i>Colloquium</i>	February 2020
	University of Notre Dame <i>Colloquium</i>	February 2020
	University of Illinois at Chicago <i>Colloquium</i>	January 2020
	Fordham University <i>Colloquium</i>	December 2019
Rice University <i>Topology seminar</i>	November 2019	
Princeton University <i>Noetherian Ring seminar</i>	November 2019	
Institute for Advanced Study <i>Mathematical Conversations</i>	October 2019	
Princeton University <i>Topology seminar</i>	October 2019	

	University of Michigan <i>RTG seminar Geometry, Topology, and Dynamics</i>	October 2019
	University of Michigan <i>Colloquium</i>	October 2019
	University of Virginia <i>Geometry seminar</i>	October 2019
	Institute for Advanced Study <i>Short talks by postdoctoral members</i>	September 2019
	CIRGET, University of Montréal <i>Geometry and Topology seminar</i>	September 2019
	Dartmouth College <i>Topology seminar</i>	May 2019
	Massachusetts Institute of Technology <i>Geometry and Topology seminar</i>	April 2019
	Michigan State University <i>Geometry and Topology seminar</i>	April 2019
	Louisiana State University <i>Virtual Topology seminar</i>	April 2019
	UC Davis <i>Geometry/Topology seminar & Student-run G&T seminar</i>	February 2019
	Georgia Institute of Technology <i>Geometry Topology seminar</i>	April 2018
	Stony Brook University <i>Topology and Symplectic Geometry seminar</i>	February 2018
	California Institute of Technology <i>Geometry and Topology seminar</i>	October 2017
	Brandeis University <i>Topology seminar</i>	February 2017
	Princeton University <i>Topology seminar</i>	February 2016
INVITED WORKSHOPS	<i>Floer Homotopy Theory and Low-Dimensional Topology workshop</i> University of Oregon	August 2019
	<i>Frontiers in Floer homology</i> Boston College	July 2019
	<i>Simons Collaboration on Homological Mirror Symmetry</i> Simons Foundation	November 2018
CONTRIBUTED TALKS	<i>Research Program: Quantum Field Theory and Manifold Invariants</i> Park City Mathematics Institute	July 2019
	<i>Workshop in Geometric Topology</i> University of Wisconsin – Milwaukee	June 2019
	<i>Lightning Talks, Tech Topology Conference (2 talks)</i> Georgia Institute of Technology	December 2017, 2018
EXPOSITORY TALKS	University of Michigan <i>Learning seminar in Algebraic Combinatorics</i>	January 2022
	University of Michigan <i>RTG Representation Theory seminar</i>	November 2021

	Reading seminar in Heegaard Floer homology (online) <i>Virtual Low-dimensional Topology / University of Virginia</i>	May 2020
	Columbia University <i>Michael Zhao Memorial Student Colloquium</i>	March 2019
	Columbia University <i>Informal Topology Reading Seminar (4 talks)</i>	2016 – 2019
	Princeton University <i>Graduate Student Seminar</i>	February 2015
	Princeton University <i>Informal Graduate Topology Seminar (11 talks)</i>	2012 – 2014
CONFERENCE & SEMINAR ORGANIZATION	Michigan Topology Intercity Symposium	November 2023
	University of Michigan <i>Topology Seminar</i>	2020 – present
	Princeton University <i>Horizons Seminar</i>	Spring 2021
	Nearly Carbon Neutral Topology Conference (online) <i>Topic session: “Floer homology and low-dimensional topology”</i>	June 2020
	Columbia University <i>Symplectic Geometry, Gauge Theory & Categorification seminar</i>	2017 – 2019
	Princeton University <i>Informal Graduate Topology Seminar</i>	2013 – 2015
	Princeton University <i>Noetherian Ring</i>	Spring 2013
	Institute for Advanced Study <i>Women and Mathematics Program</i>	Spring 2013
SERVICE	Honors Committee, Michigan Math	2023 – 2024
	Ombuds Committee, Michigan Math	2023 – 2024
	Undergraduate Research REU Committee, Michigan Math	2021 – 2022, 2023-2024
	Admissions & Fellowships Math Committee, Michigan Math	2021 – 2022
	Climate and Inclusion Committee, Princeton University	2020 – 2024
	NSF grant review panelist	2021
	Referee for numerous math journals	
TEACHING	University of Michigan , Instructor	
	Math 697: Topics in Topology	Fall 2023
	Math 490: Introduction to Topology	Fall 2023
	Math 590: Introduction to Topology	Winter 2022
	Math 215: Calculus III	Fall 2021
	Math 697: Topics in Topology	Winter 2021
	Math 115: Calculus I	Fall 2020

	Columbia University , Instructor	
	Math UN1201: Calculus III	Spring 2019
	Math UN1101: Calculus I	Fall 2017, 2018
	Math UN2000: Introduction to Higher Mathematics	Fall 2018
	Princeton University , Instructor	
	Math 201: Multivariable Calculus	Fall 2014
	Princeton University , Teaching Assistant	
	Linear algebra, calculus, analysis, and algebraic topology	2012 – 2015
ADDITIONAL TEACHING & MENTORSHIP	ICERM Perspectives on Dehn Surgery , Teaching Assistant	July 2019
	Yi Ni’s course on Heegaard Floer homology and Dehn surgery	
	PCMI Graduate Summer School , Teaching Assistant	July 2019
	Jen Hom’s course on Heegaard Floer homology	
	Columbia University, Supervised Reading course	Spring 2019
	Topic: Khovanov homology and knot Floer homology	
	Columbia Summer Undergraduate Research Program	Summer 2018
	Co-supervised six students in knot theory and grid homology	
OUTREACH	AWM Mentoring Program , University of Michigan	2023-2024
	Mentor for a group of six undergrads, grad students and postdoc	
	GradFUTURES , Princeton University	April 2022
	Panelist, “Pursuing a career in academia with math and physics PhD”	
	Ypsi Super Saturdays , Math Corps at University of Michigan	2020 – 2021
	I volunteered to tutor students from Ypsilanti Community Middle School.	
	Mentor Network , Association for Women in Mathematics (AWM)	Spring 2021
	Prospective Ph.D. Preview (P3) , Princeton University	October 2020
	I co-hosted the Math Open House for the P3 program, which aims to recruit first-generation or low-income students and those from historically underrepresented groups.	
	AWM Lunch with the speaker , University of Virginia	October 2019
	I led an informal discussion with students on career questions.	
	Association for Women in Mathematics , Columbia University	2018 – 2019
	I served as a faculty mentor for three women undergraduate math majors.	
	Meeting of the LSU chapter of the AWM , Louisiana State Univ.	April 2019
	I led an informal discussion with graduate students on career questions.	
	Graduate Research Symposium , Women in Science at Columbia	April 2018
	I reviewed scientific abstracts submitted by women graduate students.	
	Scientista Symposium , Scientista Foundation	April 2018

I judged the S.T.E.M. poster fair for women undergraduates and graduate students in science, engineering and mathematics.

S.T.E.M. Outreach Colloquium, NYC Department of Education March 2018
I gave a knot theory presentation for high school students and teachers in the NYC High School Science Research Pathways Program.

Columbia Undergraduate Math Society, Columbia University March 2018
I gave a talk on Khovanov homology for undergraduate math majors.

Princeton University Math Competition, Princeton University November 2014
I proctored for PUMaC, a math contest for high school students.

Women and Mathematics, IAS and Princeton University May 2012
Panelist for discussion on graduate school and career plans.

Mentoring Möbius, Princeton Math Club 2011 – 2012
Mentor for undergraduates pursuing a mathematics major.

Penn Undergraduate Math Society, University of Pennsylvania April 2011
Panelist for info session on applying to math graduate school.