

Neža Žager Korenjak, PhD

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Research interests: hyperbolic & affine geometry, (higher) Teichmuller theory, geometric group theory

Education	University of Texas at Austin Ph.D. Program in Mathematics advisor: Jeffrey Danciger	<i>Spring 2023</i>
	University of Ljubljana Bologna second cycle master's study program, Mathematics Master's thesis: <i>Hypercyclic Operators</i> ◊ advisor: Roman Drnovšek	<i>2016</i>
	Bologna first cycle academic study program, Mathematics Undergraduate thesis: <i>Theorems on Compactness</i> ◊ advisor: Žiga Virk	<i>2014</i>
Papers	<i>Constructing proper affine actions via strip deformations.</i> arXiv: 2205.14712 (submitted)	<i>2022</i>
	<i>Theorems on compactness.</i> Overview article. <i>Matrika</i> 1 (2014) 4 .	
Research talks & presentations	<i>Proper affine deformations of positive representations</i> University of Texas in Austin geometric geometry seminar	<i>April 2024</i>
	<i>Constructing proper affine actions via higher strip deformations</i> Diverse Aspects of Groups, Geometry and Dynamics, Heidelberg University.	<i>September 2023</i>
	<i>Constructing proper affine actions via higher strip deformations</i> University of Maryland geometry seminar	<i>December 2022</i>
	<i>Constructing proper affine actions via higher strip deformations</i> University of Virginia geometry seminar	<i>September 2022</i>
	<i>Constructing proper affine actions via higher strip deformations</i> Nearly carbon neutral topology & geometry conference (virtual.)	<i>September 2022</i>
	<i>Constructing proper affine actions</i> GT GAPS (virtual.)	<i>July 2022</i>
	<i>Proper affine actions of free groups</i> , lightning talk. Geometry, Arithmetic, and Groups, UT Austin	<i>June 2022</i>
	<i>Constructing proper affine actions of Fuchsian groups</i> , poster presentation. Graduate student topology and geometry conference, Georgia Tech	<i>April 2022</i>
	<i>Constructing proper affine actions</i> TWIMS 2022, Rice	<i>February 2022</i>
	<i>Constructing proper affine actions</i> The University of Sherbrooke, SAG seminar	<i>October 2021</i>
	<i>Constructing proper affine actions</i> , contributed talk GTA Philadelphia (virtual.)	<i>May 2021</i>
	<i>Constructing proper affine actions</i> , contributed talk Graduate student topology and geometry conference (virtual.)	<i>April 2021</i>

Teaching	Assistant Instructor at the University of Texas at Austin	
	<i>Learning assistant experience in math (M 371E)</i>	<i>Fall 2021 - present</i>
	A class for undergraduates about math pedagogy, where they get hands-on experience tutoring at CalcLab, which I am also organizing.	
	Summer mini-course leader	<i>Summer 2021</i>
	<i>Measured laminations and train tracks</i>	
	Led a weeklong online course aimed at graduate students as part of UT's Summer minicourse program	
	Mentor at the University of Texas at Austin's Geometry Lab	<i>Spring 2021</i>
	Mentored a small group of undergraduates in a computer visualization problem in projective geometry, helped make the project's website	
	Teaching Assistant at the University of Texas at Austin	
	<i>Differential Equations with Linear Algebra (M 427J)</i>	<i>Spring 2020</i>
<i>Honors Advanced Calculus for Applications II (M 427L)</i>	<i>Fall 2019</i>	
<i>Advanced Calculus for Applications II (M 427L)</i>	<i>Spring 2019</i>	
<i>Differential Calculus (M 408K)</i>	<i>Fall 2018</i>	
Outreach	Teaching Assistant at the University of Ljubljana	
	<i>Computer Practical</i>	<i>Fall 2015</i>
	<i>Mathematics 1, Grader</i>	<i>Spring 2015 - Summer 2016</i>
	Additional training and certificates	
	<i>Inclusive Classrooms Leadership Certificate</i>	<i>UT Austin, 2022</i>
	<i>Inclusive Instructor Certificate</i>	<i>UT Austin, 2022</i>
	DRP Mentor at the University of Texas at Austin	<i>Spring 2017 - present</i>
	Mentored undergraduates in reading projects on hyperbolic geometry, knot theory, low-dimensional topology, number theory, differential geometry	
	Volunteer at a tutoring pod at local middle school	<i>Fall 2020</i>
	Helped middle school math teachers hold virtual office hours for students.	
Service	Speaker and volunteer at SMMG	
	<i>an outreach program about mathematics aimed at middle and high schoolers</i>	
	Regular volunteer & gave two talks:	
	<i>An invitation to non-Euclidean geometry</i>	<i>Spring 2020</i>
	<i>The Towers of Hanoi</i>	<i>Fall 2018</i>
	UT Math Club speaker	
	<i>Hyperbolic geometry</i>	<i>Spring 2020</i>
	Co-organizer and mentor of MaRS	<i>August 2015</i>
	<i>a Slovenian summer math camp for high schoolers</i>	
	Volunteer tutor for undergraduate students at University of Ljubljana	<i>Fall 2013- Spring 2016</i>
Leader and speaker of a math club for middle schoolers	<i>2010-2011</i>	
<i>dealing with fun math problems and preparations for math competitions</i>		
Service	Graduate Representative	
	serving on an elected committee of math grad students that helps deal with grad student concerns and well-being, organizes social and academic events, and helps mediate between students and faculty	<i>2020-2021,</i> <i>2022-2023</i>
	Graduate Student Association	<i>2020-2021</i>
	Represented the math department graduate students in the legislative association of all UT Austin grad students	
	Organizer of the Junior Topology Seminar	<i>Spring 2020</i>
	The University of Texas at Austin	
	Co-organizer of the Geometric Topology seminar	<i>Spring 2018-Spring 2022</i>
The University of Texas at Austin		
Co-organizer of the Teichmüller theory learning seminar	<i>Spring 2019</i>	
The University of Texas at Austin		

Co-organizer of Directed Reading Program, UT Austin
*pairing graduate students in mathematics and related fields with
 undergraduate students interested in getting started in mathematical
 research to work on a reading project together, and organising
 the symposium for students to present their work*

Spring 2019 - Spring 2021

Honors and Awards	Frank Gerth III teaching excellence award \diamond <i>UT Austin</i>	<i>2020</i>
	Provost's Graduate Excellence Fellowship \diamond <i>UT Austin</i>	<i>2016 - 2021</i>
	State merit scholarship (Zois scholarship) <i>rewarded by Republic of Slovenia</i>	<i>2007 - 2014</i>
	Dean's Award for academic achievement in the first year of study <i>University of Ljubljana</i>	<i>2012</i>
	Honorable mention at International Mathematical Olympiad	<i>2011</i>
	Bronze medal at Middle-European Mathematical Olympiad	<i>2010</i>
Conferences attended	<i>Nearly Carbon Neutral Geometric Topology</i> \diamond virtual	<i>September 2022</i>
	<i>Geometry, Arithmetic, and Groups</i> \diamond UT Austin	<i>June 2022</i>
	<i>Groups, Geometry and Dynamics</i> \diamond Cargèse	<i>June 2022</i>
	<i>GTA Philadelphia</i> \diamond Temple University	<i>May 2022</i>
	<i>Graduate Student Topology and Geometry Conference</i> Georgia Tech	<i>April 2022</i>
	<i>Texas Geometry and Topology Conference</i> \diamond UT Dallas	<i>February 2022</i>
	<i>TWIMS</i> \diamond Rice	<i>February 2022</i>
	<i>Virginia Topology Conference (Geometry and dynamics in hyperbolic space)</i> University of Virginia	<i>November 2021</i>
	<i>Workshop on Anosov representations</i> \diamond Aussois	<i>September 2021</i>
	<i>Beyond Hyperbolicity</i> \diamond The Ohio State University	<i>July 2021</i>
	<i>Nearly Carbon Neutral Geometric Topology</i> \diamond virtual	<i>June 2021</i>
	<i>GTA Philadelphia</i> \diamond virtual	<i>May 2021</i>
	<i>Graduate Student Geometry and Topology Conference</i> University of Indiana Bloomington (virtual)	<i>April 2021</i>
	<i>Virtual Topology Festival</i> \diamond NUS(virtual)	<i>January 2021</i>
	<i>Nearly carbon neutral geometric topology</i> \diamond virtual	<i>June 2020</i>
	<i>Aspects of Geometric Group Theory</i> \diamond IHES	<i>July 2019</i>
	<i>yGGT VIII</i> \diamond Bilbao	<i>June 2019</i>
	<i>Young Topologists Meeting</i> \diamond Copenhagen	<i>July 2018</i>
	<i>Representation varieties and geometric structures in low dimensions</i> \diamond Warwick	<i>July 2018</i>
	<i>Thin groups in Number Theory, Geometry and Topology</i> \diamond Rice	<i>May 2018</i>
	<i>Geometry of Teichmuller space and mapping class groups</i> \diamond Warwick	<i>April 2018</i>
	<i>Texas Geometry and Topology Conference</i> \diamond UT Austin	<i>November 2017</i>
	<i>Young Topologists Meeting</i> \diamond Stockholm	<i>July 2017</i>
	<i>Graduate Student Conference in Algebra, Geometry, and Topology</i> Temple University	<i>June 2017</i>
	<i>Graduate Student Conference in Geometry and Topology</i> Michigan State University	<i>April 2017</i>
	<i>Texas Geometry and Topology Conference</i> \diamond Texas A&M	<i>November 2016</i>
	<i>Summer School on Computational Topology</i> \diamond University of Ljubljana	<i>June 2015</i>