Neža Žager Korenjak, PhD

Postdoctoral researcher, MPI Leipzig ⋄ https://neznez.github.io/ ⋄ neza.zager@mis.mpg.de
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	*Spring 2023*
	University of Ljubljana	
	Bolognia second cycle master's study program, Mathematics Master's thesis: *Hypercyclic Operators* ⋄ advisor: Roman Drnovšek	*2016*
	Bolognia first cycle academic study program, Mathematics Undergraduate thesis: *Theorems on Compactness* ⋄ advisor: Žiga Virk	*2014*
Papers	*Proper affine deformations of positive representations.* Joint with J.-P. Burelle. arXiv: 2405.14658	*2024*
	Constructing proper affine actions via strip deformations. arXiv: 2205.14712 (submitted)	*2022*
	Theorems on compactness. Overview article. Matrika **1** (2014) **4.**	
Research talks & presentations	*Proper affine deformations of positive representations* University of Texas in Austin geometric geometry seminar	*April 2024*
	Constructing proper affine actions via higher strip deformations Diverse Aspects of Groups, Geometry and Dynamics, Heidelberg University.	*September 2023*
	Constructing proper affine actions via higher strip deformations University of Maryland geometry seminar	*December 2022*
	Constructing proper affine actions via higher strip deformations University of Virginia geometry seminar	*September 2022*
	Constructing proper affine actions via higher strip deformations Nearly carbon neutral topology & geometry conference (virtual.)	*September 2022*
	Constructing proper affine actions GT GAPS (virtual.)	*July 2022*
	Proper affine actions of free groups, lightning talk. Geometry, Arithmatic, and Groups, UT Austin	*June 2022*
	Constructing proper affine actions of Fuchsian groups, poster presentation. Graduate student topology and geometry conference, Georgia Tech	*April 2022*
	Constructing proper affine actions TWIMS 2022, Rice	*February 2022*
	Constructing proper affine actions The University of Sherbrooke, SAG seminar	*October 2021*
	Constructing proper affine actions, contributed talk GTA Philadelphia (virtual.)	*May 2021*
	Constructing proper affine actions, contributed talk Graduate student topology and geometry conference (virtual.)	*April 2021*

Teaching	**Assistant Instructor at the University of Texas at Austin**	
	Learning assistant experience in math (M 371E)	*Fall 2021 - present*
	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	*Summer 2021*
	Measured laminations and train tracks	
	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*	*Spring 2021*
	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	
	Differential Equations with Linear Algebra (M 427J)	*Spring 2020*
	Honors Advanced Calculus for Applications II (M 427L)	*Fall 2019*
	Advanced Calculus for Applications II (M 427L)	*Spring 2019*
	Differential Calculus (M 408K)	*Fall 2018*
	Teaching Assistant at the University of Ljubljana	
	Computer Practical	*Fall 2015*
	Mathematics 1, Grader	*Spring 2015 - Summer 2016*
	Additional training and certificates	
	Inclusive Classrooms Leadership Certificate	*UT Austin, 2022*
	Inclusive Instructor Certificate	*UT Austin, 2022*
Outreach	**DRP Mentor at the University of Texas at Austin**	*Spring 2017 - present*
	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	*Fall 2020*
	Helped middle school math teachers hold virtual office hours for students.	
	Speaker and volunteer at SMMG	
	an outreach program about mathematics aimed at middle and high schoolers	
	Regular volunteer & gave two talks:	
	An invitation to non-Euclidean geometry	*Spring 2020*
	The Towers of Hanoi	*Fall 2018*
	UT Math Club speaker	
	Hyperbolic geometry	*Spring 2020*
	Co-organizer and mentor of MaRS	*August 2015*
	a Slovenian summer math camp for high schoolers	
	Volunteer tutor for undergraduate students	*Fall 2013- Spring 2016*
	at University of Ljubljana	
	Leader and speaker of a math club for middle schoolers	*2010-2011*
	dealing with fun math problems and preparations for math competitions	
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	*2020-2021, 2022-2023*
	Graduate Student Association	*2020-2021*
	Represented the math department graduate students in the legislative association of all UT Austin grad students	
	Organizer of the *Junior Topology Seminar*	*Spring 2020*
	The University of Texas at Austin	
	Co-organizer of the *Geometric Topology seminar*	*Spring 2018-Spring 2022*
	The University of Texas at Austin	
	Co-organizer of the *Teichmuller theory learning seminar*	*Spring 2019*
	The University of Texas at Austin	

Co-organizer of Directed Reading Program, UT Austin		*Spring 2019 - Spring 2021*

*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*

Honors and Awards	**Frank Gerth III teaching excellence award** ◇ *UT Autin*	*2020*
	Provost's Graduate Excellence Fellowship ◇ *UT Austin*	*2016 - 2021*
	State merit scholarship (Zois scholarship)	*2007 - 2014*
	rewarded by Republic of Slovenia	
	Dean's Award for academic achievement in the first year of study	*2012*
	University of Ljubljana	
	Honorable mention at International Mathematical Olympiad	*2011*
	Bronze medal at Middle-European Mathematical Olympiad	*2010*

Conferences attended	*Nearly Carbon Neutral Geometric Topology* ◇ virtual	*September 2022*
	Geometry, Arithmetic, and Groups ◇ UT Austin	*June 2022*
	Groups, Geometry and Dynamics ◇ Cargèse	*June 2022*
	GTA Philadelphia ◇ Temple University	*May 2022*
	Graduate Student Topology and Geometry Conference Georgia Tech	*April 2022*
	Texas Geometry and Topology Conference ◇ UT Dallas	*February 2022*
	TWIMS ◇ Rice	*February 2022*
	Virginia Topology Conference (Geometry and dynamics in hyperbolic space) University of Virginia	*November 2021*
	Workshop on Anosov representations ◇ Aussois	*September 2021*
	Beyond Hyperbolicity ◇ The Ohio State University	*July 2021*
	Nearly Carbon Neutral Geometric Topology ◇ virtual	*June 2021*
	GTA Philadelphia ◇ virtual	*May 2021*
	Graduate Student Geometry and Topology Conference University of Indiana Bloomington (virtual)	*April 2021*
	Virtual Topology Festival ◇ NUS(virtual)	*January 2021*
	Nearly carbon neutral geometric topology ◇ virtual	*June 2020*
	Aspects of Geometric Group Theory ◇ IHES	*July 2019*
	yGGT VIII ◇ Bilbao	*June 2019*
	Young Topologists Meeting ◇ Copenhagen	*July 2018*
	Representation variees and geometric structures in low dimensions ◇ Warwick	*July 2018*
	Thin groups in Number Theory, Geometry and Topology ◇ Rice	*May 2018*
	Geometry of Teichmuller space and mapping class groups ◇ Warwick	*April 2018*
	Texas Geometry and Topology Conference ◇ UT Austin	*November 2017*
	Young Topologists Meeting ◇ Stockholm	*July 2017*
	Graduate Student Conference in Algebra, Geometry, and Topology Temple University	*June 2017*
	Graduate Student Conference in Geometry and Topology Michigan State University	*April 2017*
	Texas Geometry and Topology Conference ◇ Texas A&M	*November 2016*
	Summer School on Computational Topology ◇ University of Ljubljana	*June 2015*