Michael C. Kopreski

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RESEARCH INTERESTS
Geometric group theory, low-dimensional topology, Polish groups and their geometric, topological, and algebraic structure

POSITIONS

University of the Basque Country
Bilbao, Bizkaia, Spain
Postdoctoral researcher · October 2025–

EDUCATION

University of Utah
Salt Lake City, Utah, USA
Ph.D. in Mathematics · August 2025
Advisor: Mladen Bestvina

University of Cambridge
Cambridge, United Kingdom
Master of Advanced Study (MASt) in Pure Mathematics · July 2019

College of William & Mary
Williamsburg, Virginia, USA
B.S. in Mathematics (Honors) and Physics (Honors) · May 2017
Summa cum laude; GPA 4.0/4.0

PUBLICATIONS

"Geometric models and asymptotic dimension for infinite-type surface mapping class groups"
In peer review. arXiv:2508.06679 (2025).
(Joint G. Shaji)

"Automorphisms of the sphere complex of an infinite graph"
To appear in Groups Geom. Dyn. arXiv:2410.06531 (2024).
(Joint work with T. Hill, R. Rechkin, G. Shaji and B. Udall)

"The asymptotic dimension of the grand arc graph is infinite"
Preprint. arXiv:2402.03603 (2024).

"Multiarc and curve graphs are hierarchically hyperbolic"
In peer review. arXiv:2311.04356 (2023).

"Prescribed arc graphs"
Geometriae Dedicata **219** no. 60 (2025). arXiv:2305.05316

"Maximum average degree and relaxed coloring"
Discrete Mathematics **340** (2017) 2528–2530. *(Joint work with G. Yu)*

DISSERTATION
"Graph models for surface mapping class groups" · April 2025
University of Utah

HONORS & AWARDS

NSF Research and Training Grant Fellowship (U. of Utah)	2020–22, 2025
NSF Research and Training Grant Summer Fellowship (U. of Utah)	2022-2024
Early-career AMS–NSF–Simons–ICM Travel Grant & Kovalevskaya Grant	Jan 2022
Fulbright Scholar (Research, Switzerland)	Mar 2017
Swiss Government Excellence Scholarship	Mar 2017
William & Mary Prize in Mathematics	May 2017
Phi Beta Kappa	Dec 2016

	Outstanding Presentation Award, Joint Mathematics Meeting	Jan 2016
	William & Mary James Monroe Scholar	Dec 2015
	William & Mary NSF EXTREEMS-QED recipient	May 2015

SELECTED TALKS

"Geometric models for infinite-type surface mapping class groups"
Group Theory Seminar, ICMAT — Dec 2025

"Geometric models for infinite-type surface mapping class groups"
Algebra Seminar, University of the Basque Country — Nov 2025

"Geometric models for infinite-type surface mapping class groups"
Geometry and Topology Seminar, CUNY — Sep 2025

"Asymptotic dim. of graphs of arcs and curves on infinite-type surfaces"
Topology Seminar, University of Michigan — Oct 2024

"Quasi-isometry types of graphs of arcs and curves "
RTG Seminar on Geometry, Dynamics and Topology, University of Michigan — Oct 2024

"Asymptotic dimension bounds for surface combinatorial models" (poster)
Young Geometric Group Theorists XII, Bristol — Apr 2024

"Multiarc and curve graphs are classified by their witnesses"
Geometric Topology Grad and Postdoc Seminar (GT GAPS) — Feb 2024

"Multiarc and curve graphs are hierarchially hyperbolic"
Max Dehn Seminar, University of Utah — Dec 2023

"Prescribed arc graphs" (lightning talk)
Group Actions and Low-Dimensional Topology, El Barco de Ávila, Spain — July 2023

"Pseudo-Anosovs of surfaces via stable laminations" (minicourse)
Learning seminar for *Groups acting on fractals* trimester program
Institut Henri Poincaré, Paris — Apr 2022

"A general basis for finitely supported G-equivariant maps"
University of Cambridge Part III Seminar Series — Nov 2018

"Relaxed coloring of sparse graphs"
George Washington University EXTREEMS-QED Conference — Apr 2016

PART III ESSAY

"Combinatorial Morse Theory"
Assessor: Henry Wilton
University of Cambridge — May 2019

HONORS THESES

"Relaxed coloring of sparse graphs"
Mathematics, Advisor: Gexin Yu
College of William & Mary — Dec 2016

"Holographic non-perturbative thermodynamic systems"
Physics, Advisor: Joshua Erlich
College of William & Mary — May 2017

PRIOR RESEARCH EXPERIENCE	**École Polytechnique Fédérale de Lausanne**, Lausanne, Switzerland	
	Field and Strings Laboratory, Institute of Physics *Fulbright researcher, 1 year* Advisor: João Penedones	2017–2018
	College of William & Mary, Williamsburg, Virginia, USA	
	William & Mary Graph Theory Group, Department of Mathematics *Undergraduate researcher, 21 months* Advisor: Gexin Yu	2015–2017
	William & Mary High Energy Theory Group, Department of Physics *Undergraduate researcher, 17 months* Advisor: Joshua Erlich	2016–2017
CONFERENCE ABSTRACTS	Kopreski, M., Zhan, A., and Majumdar, A., "Metasurface-based spin-selective optical cavity".	Oct 2016
	Frontiers in Optics, Optical Society of America and American Physical Society Division of Laser Science, Rochester, NY. *Poster.*	
	Kopreski, M., "Relaxed coloring of sparse graphs".	Jan 2016
	Joint Mathematics Meeting, American Mathematical Society and Mathematical Association of America, Seattle, WA. *Abstracts for the MAA Undergraduate Poster Session, abstract 134, page 41.*	
SERVICE & OUTREACH	**U. of Utah Association for Women in Math.**, *Outreach chair* Responsible for organizing and facilitating community outreach events for the U. of Utah Association for Women in Math.	AY 2024–25
	BRIDGES, *Teaching Assistant* Facilitated exercise sessions for Kim Ruane's minicourse in geometric group theory and hyperbolic groups.	July 2024
	Young Geometric Group Theorists XII, *Discussion session leader* Lectured in and facilitated a discussion session introducing mapping class groups of surfaces and relevant techniques.	April 2024
	Madsen–Weiss Reading Seminar, *Organizer, speaker* Organized and facilitated a seminar exploring techniques relevant to the Madsen–Weiss theorem and several extensions.	Spring 2024
	Geometric Topology Learning Seminar, *Organizer, speaker* Presented weekly lectures on the theory of geodesic laminations on surfaces and the Nielsen-Thurston classification.	Fall 2022
	University of Cambridge STIMULUS, *Volunteer* Prepared and facilitated a weekly afterschool *Code Club* program for primary school students.	Spring 2019
TEACHING	**University of Utah**	
	Math 1320 Engineering Calculus II *(Instructor)*	Spring 2024
	Math 3140 Vector Calculus and PDEs for Engineers *(Lab TA)*	Spring 2023
	Math 1320 Engineering Calculus II *(Instructor)*	Fall 2022
	Math 1060 Trigonometry *(Instructor)*	Fall 2021
	Math 1320 Engineering Calculus II *(Lab TA)*	Spring 2021