Colby Kelln

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Education

2020-Present	**Cornell University** PhD Candidate. Mathematics MS 2022.
2016-2019	**University of Michigan** Honors Mathematics, BS.

Publications and Preprints

[1] **Dynamical Moduli Spaces and Polynomial Endomorphisms of Configurations** *Arnold Mathematical Journal: Volume 8, Issue 2 (2022).* With T. Blum, J.R. Doyle, T. Hyde, H. Talbott, and M. Weinreich. [Journal] [ArXiv]

Grants and Awards

2023	**Cornell Graduate Student Travel Grant.** *($700)*
2022	**Cornell AWM Emerging Mathematicians Travel Grant.** *($500)*
2020-2025	**NSF Graduate Research Fellowship.** *($138,000)*
2020-2021	**Cornell Deans Excellence Fellowship.** *($32,000)* Recruitment fellowship and DEI programming.
2020	**Outstanding Achievement in Mathematics.** *Awarded by the University of Michigan department of mathematics.*
2020	**Outstanding Poster.** *MAA Undergraduate Student Poster Session at JMM.*
2018	**Outstanding Presentation.** *MAA Student Paper Sessions at MathFest.*

Talks

Oct. 2024	**AMS Northeastern Sectional Special Session on GGT:** *Modifications of Higher Dimensional Hyperbolic Manifolds and Group Theoretic Consequences.*
May 2024	**Cornell Topology Festival:** *Workshop pre-talk for Bruno Martelli's talk.*
Nov. 2023	**Vassar College Math Colloquium:** *The Mathematics of Tilings.*
Sept. 2023	**Ventotene Lightning Talk Session:** *Filling the Ratcliffe-Tschantz Hyperbolic 5-Manifold.*
Dec. 2022	**Morse Theory Student Seminar at Cornell:** *PL Morse Theory and Finiteness Properties of Groups.*
Nov. 2022	**Olivetti Club (graduate student seminar) at Cornell:** *The Figure 8 Knot and Volumes.*
Dec. 2021	**Olivetti Club (graduate student seminar) at Cornell:** *Why is Geometric Group Theory?*
Dec. 2021	**Michigan Math Circle:** *Set (the Game) Theory.*

Teaching

Spring 2024	**Teaching Development Fellow.**

Spring 2024	**Instructor.** *Math 1110: Calculus I.*
Fall 2023	**Head Teaching Assistant.** *Math 1910: Calculus II for Engineers.*
Summer 2022	**Teaching Assistant.** *Math 1110: Calculus I.*
Summer 2021	**Course design.** *Math 4520: Classical Geometries and Modern Applications.*
	Collaborated with Katie Mann and another graduate student to redesign Math 4520 to be an active learning course.
2020-Present	**Directed Reading Program mentor.**
	Facilitated four projects in complex analysis, introductory proof-based math, shape theory, and hyperbolic groups.

Conferences and Workshops Attended

Jan. 2025	**IMPA: Hyperbolic Manifolds, their Submanifolds and Fundamental Groups.**
Oct. 2024	**AMS Northeastern Sectional Special Session on GGT.**
July 2024	**Canaryfest 6.2.**
May 2024	**Cornell Topology Festival.**
Mar. 2024	**Bielefeld University: Topological and Homological Methods in Group Theory.**
Sept. 2023	**Ventotene: Groups and Rigidity around the Zimmer Program.**
Aug. 2023	**Tufts University: Groups, Actions, and Geometries.**
May 2023	**Université de Montréal: Geometry of Subgroups.**
July 2022	**Gerogia Tech: Topology Students Workshop.**
June 2022	**UT Austin: Geometry, Arithmetic, and Groups.**
May 2022	**ICMAT - Madrid: Agol Lab Summer School.** *GGT and low-dimensional topology.*
July 2021	**Park City Mathematics Institute: Illustrating Mathematics.** *Workshop on creating mathematical graphic novels.*

Service

2021-Present	**Mentor.** *Cornell's AWM mentorship program for undergraduate gender minorities in math.*
2021-Present	**Mentor.** *Cornell graduate student mentorship program for new math PhD students.*
Fall 2023	**Seminar Co-organizer.** *Olivetti Club–Cornell's graduate student seminar.*
March 2023	**Module Co-leader for Math Explorer's Club.** *Outreach for local middle and high schoolers to learn extracurricular math.*
Spring 2022	**Seminar Co-organizer.** *Olivetti Club–Cornell's graduate student seminar.*
Fall 2020	**Seminar Co-organizer.** *"What is...?" Seminar: accessible talks by faculty aimed at early graduate students meant to aid in the advisor search.*

Miscellaneous

2021-Present	**Cornell Outdoor Education Instructor.** *Taught cross country skiing and rock climbing.*