

Justin Katz

Curriculum Vitae

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Education

- May, 2023 **Ph.D.: Mathematics**, *Purdue University*, West Lafayette, Indiana
(Expected) Thesis: Spectral rigidity, arithmeticity, and symmetry for hyperbolic 2- and 3-manifolds.
Advisor: Prof. D.B. McReynolds
- May, 2015 **B.A.: Mathematics**, *Reed College*, Portland, Oregon
Thesis: Eigenfunction decompositions of functions spaces on various physical domains.
Advisor: Prof. J. Shurman

Awards

- Fall 2022 **Mike Keedy Scholarship for mathematics education**, *Purdue University*,
West Lafayette, Indiana
- Summer **Purdue Research Fellowship**, *Purdue University*, West Lafayette, Indiana
2019-Spring
2020
- Summer **Reed College Science College Science Fellowship Grant**, *Reed College*,
2014 Portland, Oregon

Teaching Experience

Mentorship

- Fall 2022 **Representation theory**, *Purdue University*, West Lafayette, Indiana
instructor for undergraduate reading course
- Fall 2021 **Abstract Algebra**, *Purdue University*, West Lafayette, Indiana
instructor for undergraduate reading course
- Fall 2021 **Galois Theory**, *Purdue University*, West Lafayette, Indiana
instructor for undergraduate reading course
- Spring 2020 **Riemannian Geometry**, *Purdue University*, West Lafayette, Indiana
instructor for undergraduate reading course
- Fall 2019 **Differential Geometry**, *Purdue University*, West Lafayette, Indiana
instructor for undergraduate reading course

Teaching Assistant

- Fall 2016 - **Multivariable Calculus**, *Purdue University*, West Lafayette, Indiana
Spring 2018,
Spring 2019 -
Fall 2020,
Fall 2021

Primary Instructor

Spring 2021 **Applied Calculus**, *Purdue University*, West Lafayette, Indiana

Publication

2019 **Integral Gassman equivalence of algebraic and hyperbolic manifolds**, *Mathematische Zeitschrift* 291, 179-194

In collaboration with D. Arapura, D.B. McReynolds, and P. Solapurkar.

<https://doi.org/10.1007/s00209-018-2077-2>

Select Invited Talks

November 15, 2022 **Spectral rigidity of some hyperbolic 2 and 3 manifolds**, *Topology and Geometric Group Theory Seminar*, The Ohio State University

June 22, 2022 **Spectral rigidity of some arithmetic surfaces**, *Geometry, Arithmetic, and Groups: a conference celebrating the accomplishments and influences of Alan W. Reid*, University of Texas at Austin

May 15, 2021 **Integral equivalence of hyperbolic manifolds**, *54th Spring Topology and Dynamical Systems Conference (virtual)*, Murray State University, Kentucky