

Luis Kumanduri

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Education MIT, Ph.D. in Mathematics 2018-2023 (Expected)
Advisor: Larry Guth

Stanford University, B.S.H in Mathematics 2014 - 2018
Thesis Advisor: Prof. Yakov Eliashberg
Thesis: Removal of Singularities for Stein Manifolds

Research Interests Metric Geometry, Quantitative Topology

Publications and Preprints

- [1] Kumanduri, L. A relative h-principle for k-dilation. In preparation. 2021
- [2] Kumanduri, L. 2021 Quantitative Nullhomotopy and the Hopf Invariant. arXiv preprint arxiv:2106.01456 (Submitted)
- [3] Kumanduri, L., Wang, J. 2021. Slope Gap Distributions of Veech Surfaces. arXiv preprint arXiv:2102.10069 (Submitted)
- [4] Menon. S, Sriram. V, Kumanduri. L, Khatib. O, Boahen. K, Controlling a Redundant Articulated Robot in Task Space with Spiking Neurons, The 25th International Conference on Artificial Neural Networks, 2016.

Teaching & Service

MIT Ad Hoc Committee on Graduate Advising and Mentoring Member
MIT Math Diversity & Community Building Committee 2020-2021
MIT Pure Math Graduate Student Seminar Organizer 2019-2020
Mentor for MIT PRIMES 2019, 2021

- Mentored 2020 Regeneron STS Finalist Zander Hill on "Upper Bound on the Distortion of Cabled Knots"

Co-founder, Westchester Area Math Circle

Talks

- [1] MIT PuMaGraSS 2021 "A non-rigorous introduction to the h-principle"
- [2] MIT SPAMS 2019 "Complexity of Problems in Knot Theory"
- [3] 2018 Stanford Math Directed Reading Program "The Arnold Conjectures"
- [4] 2017 Stanford Math Directed Reading Program, "Index Theorems in Topology"
- [5] 2016 SURIM, "Cohomology of Toric Varieties"

Fellowships & Honors

NSF Graduate Research Fellowship 2018-2023
MIT School of Science Fellowship 2018-2021
Stanford Math Department Undergraduate Research Award