

Devesh Rajpal

Curriculum Vitae

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Education

- 2021-2023 **Masters in Mathematics**, *Chennai Mathematical Institute, Chennai, India*, (Ongoing).
Thesis title : Mean Curvature Flow
- 2020 - 2021 **Masters 2 in Mathématiques fondamentales**, *Sorbonne University, Paris, France*.
Thesis title: Ricci flow on Surfaces and Cross Curvature Flow
- 2017-2020 **B.Sc.(Hons) in Mathematics and Physics**, *Chennai Mathematical Institute, Chennai, Tamil Nadu, India*, CGPA : 9.21.
- 2015-2017 **Higher Secondary Education**, *Dronacharya Public School, Raipur, Chhattisgarh, India*,
Aggregate - 86.8%.

Reading Projects

- Summer 2022 Reading Project on Ricci flow under Prof. Ben Andrews
- We covered basics of Ricci flow and Hamilton's paper *Three-manifolds with positive Ricci curvature*
- Summer 2020 Research Project on Spectral Geometry under Prof. Sugata Mondal
- We covered parts of the paper *Berger's Isometric problem and minimal immersion of surfaces* by N. Nadirashvili
- Summer 2019 Reading Project on Riemannian Geometry under Prof. Harish Seshadri. Topics covered :
- Riemannian Manifolds
 - Geodesics and curvature
 - Curvature - Topology theorems
- Summer 2018 Reading Project on Special Relativity under Prof. Alok Laddha. Topics covered :
- Principles of Special Relativity
 - Relativistic Mechanics
 - Geodesics and Schwarzschild Geometry

Talks and Presentations

- Fall 2022 Mean Curvature Flow of Hypersurfaces
- Spring 2021 Ricci flow on Surfaces and Cross Curvature Flow
- Fall 2019 Basics of Homological Algebra in course Commutative Algebra.
- Fall 2018 An economic analogy to thermodynamics in course Thermal Physics.
- Spring 2018 Bohlin Transformations in course Classical Mechanics 2.

Lectures and Workshops attended

- November 2019 "Curvature, torsion and the quadrilateral gaps" by Nitin Nitsure, CMI.
- July 2019 Advanced Instructional Schools on Riemannian Geometry, IISc.

Scholarships

- 2020 - 2021 PGSM Masters Scholarship
- 2017 - 2020 CMI Institutional Fee Waiver
- 2017 - 2020 CMI Scholarship

Other Achievements

1. Third rank in Regional Mathematics Olympiad 2015.
2. Qualified JEE Mains and Advanced.

Extracurriculars

1. Batch representative for academic term 2018-2019.
2. Physics Head of STEMS 2019, 2020, an annual math contest organised by CMI students.
3. Coordinator for Tessellate 2019, 2020, the annual CMI fest.

Skills

- Programming Languages Haskell, Python
- Tools LaTeX
- Languages Hindi (native), English (fluent), French(Basic)