

Anusha M. Krishnan

Curriculum vitae

Syracuse University
Dept. of Mathematics
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Employment

2019-present Philip T. Church Postdoctoral Fellow, Syracuse University, USA

Education

2013-2019 Ph.D. in Mathematics, University of Pennsylvania, USA
Advisor : Professor Wolfgang Ziller

2008-2013 M.Sc. (5 year Integrated) in Mathematics, Indian Institute of Technology, Kanpur, India

Research interests

Differential Geometry, Geometric Analysis

Publications and Preprints

1. *Prescribing Ricci curvature on a Product of Spheres* (with T. Buttsworth)
Preprint. arXiv:2010.05118.
2. *Diagonalizing the Ricci tensor*
J. Geom. Anal, to appear. arXiv:1912.12686.
3. *Four-dimensional cohomogeneity one Ricci flow and nonnegative sectional curvature* (with R. Bettiol)
Comm. Anal. Geom., 27 (2019), 511–527. arXiv:1606.00778
4. *Making Matrices Better : Geometry and topology of polar and singular value decomposition* (with D. DeTurck, A. Elsaify, H. Gluck, B. Grossmann, J. Hoisington, J. Zhang)
Not. Amer. Math. Soc. 64 (2017) 876-886. arXiv:1702.02131

Awards and Honors

- 2018 Good Teaching Award, Department of Mathematics, University of Pennsylvania
- 2017 Herbert S. Wilf Memorial Prize, Department of Mathematics, University of Pennsylvania
- 2016 Dean's Scholar Award, University of Pennsylvania
- 2013 Best MSc project in Mathematics, Indian Institute of Technology, Kanpur, India

Grants and Fellowships

- 2018-2019 Dissertation Completion Fellowship, School of Arts and Sciences, University of Pennsylvania
- 2013-2018 Benjamin Franklin Fellowship, University of Pennsylvania
- 2012 WISE Scholarship, DAAD (German Academic Exchange Service)
- 2008-2013 Kishore Vaigyanik Protsahan Yojana (KVPY) *English : Young Scientist Incentive Plan*

Invited talks

- Mar 2021 AMS Virtual Sectional Meeting, Special Session on Recent developments in Differential Geometry
- Mar 2021 North Carolina State University, USA, Geometry-Topology Seminar
- Feb 2021 Tata Institute of Fundamental Research, Mumbai, India, Colloquium
- Nov 2020 Indian Statistical Institute, Bangalore, India, Colloquium
- Nov 2020 University of Georgia, USA, Topology-Geometry Seminar
- Nov 2020 University of Oregon, Topology/ Geometry Zoom Seminar
- Oct 2020 UC Riverside, USA, Differential Geometry Seminar
- Aug 2020 Virtual Workshop on Ricci and Scalar Curvature

- Jun 2020 Dartmouth College, New York, USA, Geometry Seminar
- Apr 2020 CUNY Graduate Center, New York, USA, Geometric Analysis Seminar
- Jan 2020 University of Oklahoma, USA, Symmetry and Geometry on the Southern Great Plains Conference
- Jan 2020 Indian Institute of Science, Bangalore, India, Geometry & Topology Seminar
- Sep 2019 University of Pennsylvania, USA, Workshop on math advice and networking
- Feb 2019 UC Riverside, USA, Colloquium
- Jul 2018 IMPA, Rio de Janeiro, Brazil, Geometry Seminar
- May 2018 University of Florence, Italy, Geometry Seminar
- Mar 2018 AMS Sectional Meeting, Ohio State University, USA, Special Session on symmetry in Differential Geometry
- Jan 2018 AMS Joint Meetings 2018, San Diego, USA, Special Session on Metric Geometry and Topology
- Nov 2017 Kansas State University, USA, Midwest Geometry Conference 2017
- Sep 2017 AMS Sectional Meeting, UNT, USA, Special Session on Differential Geometry of Smooth and Discrete Surfaces in Euclidean and Lorentz spaces
- Aug 2017 St. Joseph's University, USA, Conference on Representations of Riemannian Geometry
- Oct 2016 CUNY Graduate Center, New York, USA, Geometric Analysis Seminar

Contributed talks

- Feb 2019 Australian-German Workshop on Differential Geometry in the Large, MATRIX, Australia
- Jun 2018 Oberwolfach, Germany, Geometrie Workshop
- Jan 2018 CUNY (Graduate Center), New York, USA, Workshop on Scalar Curvature
- Apr 2017 Max Planck Institute for Mathematics, Bonn, Germany, Young Women in Geometry Workshop
- May 2016 Temple University, USA, Graduate Student Conference in Algebra, Geometry and Topology
- Oct 2015 University of Pennsylvania, USA, Graduate Pizza Seminar
- Oct 2014 Univ. of the Sciences, Philadelphia, USA, Eastern Pennsylvania and Delaware Section meeting of the MAA
- 2013-2018 University of Pennsylvania, USA, Graduate Geometry-Topology Seminar

Conferences and workshops

- Mar 2021 AMS Virtual Sectional Meeting
- Aug 2020 Virtual Workshop on Ricci and Scalar Curvature
- Jan 2020 Symmetry and Geometry on the Southern Great Plains, University of Oklahoma, USA
- Feb 2019 Australian-German Workshop on Differential Geometry in the Large, MATRIX, Creswick, Australia
- Jan 2019 AMS Joint Meetings, Baltimore, USA
- Jul 2018 Modern Trends in Differential Geometry, University of São Paulo, Brazil
- Jun 2018 Geometrie Workshop, Oberwolfach, Germany
- Apr 2018 33rd Geometry Festival, University of Pennsylvania, USA
- Mar 2018 AMS Sectional Meeting, Ohio State University, USA
- Jan 2018 Workshop on Scalar Curvature, CUNY (Graduate Center), New York, USA
- Jan 2018 AMS Joint Meetings, San Diego, USA
- Nov 2017 Midwest Geometry Conference 2017, Kansas State University, USA
- Sep 2017 AMS Sectional Meeting, University of North Texas, Denton, USA
- Aug 2017 Representations of Riemannian Geometry (in honor of W. Ziller's 65th birthday), Saint Joseph's University, Philadelphia, USA
- Jul 2017 Summer School in Geometric Analysis, Fields Institute, Toronto, Canada
- Jun 2017 Lie Group Actions in Riemannian Geometry, Dartmouth College, USA
- Jun 2017 Graduate Student Conference in Algebra, Geometry, and Topology, Temple University, Philadelphia, USA
- Apr 2017 Young Women in Geometry, Max Planck Institute for Mathematics, Bonn, Germany
- Oct 2016 Geometric Analysis Conference 2016, Rutgers University, USA
- Aug 2016 Reflections on Global Riemannian Geometry (in honor of K. Grove's 70th birthday), Townsend, USA
- Jul 2016 Differential Geometry in the Large (in honor of W. Meyer's 80th birthday), Florence, Italy
- May 2016 Graduate Student Conference in Algebra, Geometry and Topology, Temple University, Philadelphia, USA
- Apr 2016 31st Geometry Festival, Princeton University, USA
- Jan 2016 Introductory Workshop : Modern Riemannian Geometry, MSRI, Berkeley, USA
- Dec 2015 ATM Workshop on Topology, Indian Statistical Institute, Kolkata, India
- Jul 2015 Workshop on Curvature and Global Shape, University of Münster, Germany

Jul 2015 Summer School in Geometric Analysis, Northwestern University, Evanston, USA
May 2015 Workshop on Ricci Curvature, Northwestern University, Evanston, USA
May 2015 30th Geometry Festival, Courant Institute of Mathematical Sciences, New York, USA
Feb 2013 ATM Workshop on Topology, Institute of Mathematical Sciences, Chennai, India
Jul 2012 Young Women in Topology, Ruhr Universität Bochum, Germany

Teaching experience

Syracuse University, USA

Spring 2021 MAT 331, Linear Algebra
Fall 2020 MAT 295, Calculus I
MAT 990, Independent Study Course on Lie Groups
Spring 2020 MAT 331, Linear Algebra
Fall 2019 MAT 295, Calculus I

University of Pennsylvania, USA

Summer 2016 Math 114, Calculus II

Department Service

Syracuse University

2020-2021 Primary organizer of the weekly Geometry-Topology seminar
Fall 2019 Co-organizer of the Putnam problem-solving seminar

University of Pennsylvania

2015-2019 Conducted workshops to train and evaluate first-time TAs