

Anunoy Chakraborty

Office Address: Department of Mathematical Sciences,
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Date of Birth: 1998, Kolkata, India.

Citizenship: Indian

Education

- 2023 – Present **George Mason University (GMU)** – Fairfax, Virginia
PhD in Mathematics
Advisor: Sean Lawton.
- 2020 – 2023 **Indian Institute of Science Education and Research (IISER)** – Mohali, Punjab
MS in Mathematics
Advisor: Krishnendu Gongopadhyay.
- 2017 – 2020 **St. Xavier's College** – Kolkata, West Bengal
BSc. with Honours in Mathematics, minor in Statistics and Economics.

Research interests

Geometric structures on manifolds, character varieties and low dimensional topology.

Publications

- (In preparation) $SU(2)$ -character variety of the angled RAAG. Joint with Sean Lawton.

Research experience

- Summer, 2024 $SU(2)$ -character varieties
Mentor: Sean Lawton (GMU).

August, 2022 – April, 2023	Hyperbolic 3-manifolds (<i>MS Thesis</i>) Mentor: Krishnendu Gongopadhyay (IISER Mohali).
July, 2022 – September, 2022	Introduction to geometric topology Mentor: Krishnendu Gongopadhyay (IISER Mohali).
May, 2022 – June, 2022	Algebraic curves Mentor: Utsav Choudhury (Indian Statistical Institute, Kolkata).
September, 2021 – January, 2022	Differential topology Mentor: Krishnendu Gongopadhyay (IISER Mohali).
May, 2021 – August, 2021	Algebraic Topology Mentor: Pranab Sardar (IISER Mohali).

Teaching experience

George Mason University

Spring 2025	Teaching Assistant, Math 214: Differential Equations
Fall 2024	Teaching assistant, Math 113: Calculus-1.
Spring 2024	Teaching assistant, MATH 114: Calculus-2.
Fall 2023	Teaching assistant, MATH 113: Calculus-1.

IISER Mohali

January, 2022 – April, 2022	Help session, MTH 101: Groups and symmetries.
January, 2022 – April, 2022	Help session, MTH 202: Probability and Statistics.
October, 2021 – December, 2021	Help session, MTH 201 - Curves and Surfaces.
July, 2021 – September, 2021	Help session, MTH 102 - Analysis in One Variable.

January 2021 - April 2021 Help session, MTH 101 - Groups and Symmetries.

Honors and scholarships

2020 – 2023 Institute Fellowship for integrated PhD (IISER Mohali).
2023 Summer Research Fellowship (SRFP) (Indian Academy of Sciences).
2021 Academic excellence award (IISER Mohali).

Talks and conferences

April, 2025 *Lorentzian, Affine, and Hyperbolic Differential Geometry - in Memory of Todd Drumm, Brin Mathematics Research Center, University of Maryland.*

October, 2024 *20 years of Anosov representations, Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany.*

September, 2024 *Poster presentation on $SU(2)$ -character varieties at GAP XIX: Moduli spaces and higher structures, Sapienza University of Rome, Italy.*

March, 2024 *Surfaces, manifolds and related topics (SMaRT) conference, University of Luxembourg.*

January, 2024 *Riverside workshop on Geometric group theory, University of California, Riverside.*

November, 2023 *Binghamton University Graduate Combinatorics, Algebra, and Topology Conference (BUGCAT), Binghamton University, New York.*

September, 2023 *Gave a talk on hyperbolic 3-manifolds at StReeTs, George Mason University.*

2019 *Madhava Mathematics Camp, St. Xavier's College, Ahmedabad.*

Professional activities

2024 - Present Involved with the Mason Experimental Geometry Lab (MEGL).

Summer, 2024 Worked in the management team for the Mason Math Odyssey Camp at George Mason University, a seven day summer workshop for 6th - 9th graders.

2022 - 2023 Organized weekly seminars on hyperbolic geometry at IISER Mohali.

2019 Organized Analytica, 2019, the department of mathematics annual fest at St. Xavier's College, Kolkata.

Technical skills

Programming languages

Proficient in: JAVA and \LaTeX .

Familiar with: Mathematica and C.

Languages

English (fluent), Bengali (fluent) and Hindi (advanced).

Reference

Sean Lawton

slawton3@gmu.edu.

Krishnendu Gongopadhyay

krishnendu@iisermohali.ac.in.