

Atrajit Sarkar

PhD Aspirant in Mathematics

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India

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Research Interests

Number Theory, Algebra, Real and Complex Analysis, Topology, Functional Analysis

Currently exploring Multiple Zeta Values and their analytical structure

Education

2022–2024 **MSc in Mathematics**, Indian Institute of Technology (IIT), Delhi

○ Completed rigorous coursework in Algebraic Number Theory, Galois Theory, Commutative Algebra, Functional Analysis, Measure Theory, Algebraic Topology, Complex Analysis.

○ **MSc Project:** *Reading-based project on 3D manifolds and Morse Theory*, under supervision of Dr. Biplab Basak.

○ Independently explored introductory Knot Theory (via *The Knot Book* by Colin C. Adams and online lectures).

2019–2022 **BSc in Mathematics (Honours)**, Belur Ramkrishna Mission Vidyamandira

○ Studied foundational topics in Number Theory (Burton), Complex Analysis, L^p Spaces, Group Theory, and Topology.

○ **BSc Project:** *Reading-based project on L^p Spaces* under Dr. ArnabJyoti Dasgupta.

Projects and Independent Study

Multiple Zeta Values	Explored lecture notes and coursework by Prof. Henrik Bachmann. Deep interest in developing research in this area.
Knot Theory	Self-studied from Colin Adams' <i>The Knot Book</i> , supplemented with YouTube lectures.
Morse Theory	Engaged in a structured study of Morse functions and 3D manifolds through a semester-long guided reading project.

Programming & Technical Skills

Languages	Python, C
Development	Android App Development using Jetpack Compose
Projects	Developed a WhatsApp-style messaging app <i>myChattingApp</i> as a personal project

Statement

I am deeply passionate about the beauty and depth of mathematics, particularly in number theory and analysis. I aim to pursue research that bridges classical problems with modern methods. With a solid foundation and a keen interest in independent exploration, I am looking forward to contributing to your group and the broader mathematical community.

Languages

English	Fluent (Academic and Conversational)
Bengali	Native
Hindi	Proficient

Personal Information

Full Name Atrajit Sarkar
Email atrajit.sarkar@alumni.iitd.ac.in
Current Kolkata, West Bengal, India
Location
Available for April 2026 Session
PhD