Sayandeep Sarkar

Lockett 280, Loisiana State University, Baton Rouge, LA 70803 — ✉ ssarka9@lsu.edu

I am a 2nd year Graduate student (PhD) supervised by Prof. Andrei Tarfulea, Department of Mathematics, Louisiana State University.

Interests

Boltzmann Equation, Kinetic theory, Elliptic and Parabolic Differential Equations, Mathematical Physics

Education

Louisiana State University   **2024-**
Ph.D. in Mathematics   4.18

Indian Institute of Technology, Kanpur   **2022-2024**
Masters of Science (2-yr) in Mathematics   8.8/10

Ramakrishna Mission Vidyamandira   **2019-2022**
Bachelor of Science in Mathematics   9.34/10

Experience

Teaching
Math 1020/21 (College Algebra)   *F 2025*

Grading/Tutoring
Math Lab   *F 2025*
Math 1552 (Analytic Geometry and Calculus II)   *Sp 2025*
Math 1550-5 (Differential and Integral Calculus)   *F 2024*
Math 1552 (Analytic Geometry and Calculus II)

Subject matter expert at Chegg Inc.   *2022-2024*

Dissertations, Projects

Indian Institute of Technology, Kanpur
- Integral solution for electromagnetic scattering problem   Prof. Akash Anand
- Schauder Estimate of Elliptic PDEs   Prof. Adi Adimurthi

Ramakrishna Mission Vidyamandira
- Wormhole solution on $f(R)$ gravity theory   Prof. Saugata Mitra

Technical Skills

Familiar with the programming languages Matlab, Python, C++(GSL).

Talks

- Fractional Laplacian on water wave model and crystal dislocation model   IIT Kanpur
- Density of $C_0^\infty(\mathbb{R}^n)$ in $W^{s,p}(\mathbb{R}^n)$ IIT Kanpur

Conferences, Workshops, Seminers, Summer Schools

- Attended workshop on "Kinetic Theory: Novel Statistical, Stochastic and Analytical Methods" held at SLmath University of California, Berkeley, from 20th Oct to 24th August, 2025

- Attended workshop on "Geometry, Analysis, Mathematical Physics" held at NISER Bhubaneswar, from 24th July to 2nd August, 2023

- Presented paper entitled "Tensor Calculus and its Application in Wormhole Geome- try", in Department of Mathematics , Ramakrishna Mission Vidyamandira, on 4th June, 2022.

- Participated in presentation competition in Ramakrishna Mission Vidyamandira, held in 2022 on applied mathematics (topic : wormhole), organized by department of mathematics, Ramakrishna Mission Vidyamandira.

- Participated in the Mathematical Training and Talent Search Program in 2021, held online.

Awards, Achievements

- INSPIRE scholar since 2019 to 2024.

- Qualified GATE (2024) with AIR 418.

- Qualified CSIR-NET JRF (June 2022) with AIR 159.

- Awarded with Aryabhata silver medal from Ramakrishna Mission Vidyamandira for securing 2nd rank in B.Sc.

- Qualified JAM 2022, with AIR 1164.

- Qualified JEE mains, WBJEE in 2019.