

Sayandeep Sarkar

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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

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| Louisiana State University Ph.D. in Mathematics | 2024- 4.18 |
| Indian Institute of Technology, Kanpur Masters of Science (2-yr) in Mathematics | 2022-2024 8.8/10 |
| Ramakrishna Mission Vidyamandira Bachelor of Science in Mathematics | 2019-2022 9.34/10 |

Experience

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| Grading/Tutoring <i>Math 1552 (Analytic Geometry and Calculus II)</i> | <i>Sp 2025</i> |
| <i>Math 1550-5 (Differential and Integral Calculus)</i> <i>Math 1552 (Analytic Geometry and Calculus II)</i> | <i>F 2024</i> |
| <i>Subject matter expert at Chegg Inc.</i> | <i>2022-2024</i> |

Dissertations, Projects

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| 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

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| ✧ 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, Seminars, Summer Schools

- ✧ 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 Geometry”, 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.
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