

Amitava Dutta

PhD Scholar (*ongoing*)

Computational Geodynamics Lab, ECS, IISER Pune

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Education

- | | | |
|-------------|---|--|
| 2026 – | 📖 | PhD in Geodynamics
Earth and Climate Sciences, IISER Pune, India.
Supervisor: Dr. Ajay Kumar |
| 2019 – 2024 | 📖 | Integrated BS-MS in Geological Sciences
Department of Earth Sciences, IISER Kolkata, India.
MS Project Advisor: Dr. Gaurav Shukla |

Grants & Awards

[1] Awarded the CSIR-JRF in Earth Sciences to be funded by the Ministry of Earth Sciences.

Research

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|-------------|---|---|
| 2024 – 2025 | 📖 | Research Assistant
Computational Geodynamics Lab, IISER Pune, India.
Topic: Thermochemical evolution of continental lithosphere and its relation to mantle cooling: plate-tectonics and beyond.
Advisor: Dr. Ajay Kumar |
| 2023 – 2024 | 📖 | MS project
Computational Mineral Physics Lab, IISER Kolkata, India.
Topic: Effect of Hydration on the Iron Spin Crossover in Bridgmanite using <i>ab initio</i> DFT calculations.
Advisor: Dr. Gaurav Shukla |
| 2022 – 2023 | 📖 | Semester Project
Topic: Crustal evolution of different Archean cratons using receiver functions analysis implementing H-K stacking and Joint Inversion.
Seismic Tomography Lab, IISER Kolkata, India.
Advisor: Dr. Kajaljyoti Borah |
| 2021 | 📖 | Intern
GNSS Lab, Department of Physics, The University of Burdwan, India
Topic: Comparison of GNSS Precise Point Positioning (PPP) using various methods.
Advisor: Dr. Anindya Bose |
| 2019 | 📖 | Intern
GNSS Lab, Department of Physics, The University of Burdwan, India
Topic: Studies on GNSS Pseudorange and Carrier Phase Residuals for Data Quality and Antenna Location Assessment.
Advisor: Dr. Anindya Bose |

Research Publications

Conference Proceedings

- [1] A. Santra, **A. Dutta**, P. Banerjee and A. Bose, “A Study on Multi-GNSS Precise Point Positioning from India,” *URSI GASS 2020, Rome, Italy, August 2020*.

Teaching

Spring 2024



Teaching Assistant

Evolution of Earth & Life (EC1213), IISER Pune.

Skills

Programming & Scripting



Python, Fortran, C/C++, JAVA, Matlab, Bash Shell, Gnuplot, L^AT_EX

Geophysics & Geodynamics



Perple_X, LitMod, Paraview, Seismic Analysis Code (SAC), Generic Mapping Tool (GMT), Quantum Espresso, Vesta

Operating System



Linux, Windows

Languages



Bengali, English, Hindi

Workshops and Seminars

May, 2025



GIAN: Plate Tectonics, Orogenic Cycle and Crustal Deformation, conducted by Interdisciplinary School of Science, Savitribai Phule Pune University, India. Course Instructors: Prof. Olivier Vanderhaeghe (GET, Université Paul Sabatier, Toulouse) and Dr. Mallika Jonnalagadda (SPPU). [Certificate]

April, 2024



Department of Earth Sciences (DES) day poster titled "Effect of Hydration on the Iron Spin Crossover in Bridgmanite". [Poster]

July, 2020



Satellite Photogrammetry and its Applications, conducted by Dr. Anil Kumar and Dr. Hima Pandey of the Indian Institute of Remote Sensing (IIRS). [Certificate]

July, 2020



Application of Geoinformatics in Ecological Studies, conducted by Dr. Hiten-dra Padalia of the Indian Institute of Remote Sensing (IIRS).

Extra Curriculars



Football - Love playing and have played in and organized multiple events.



Photography - Love Still Life and Nature Photography.



Outreach - Active member of the department outreach at IISER Kolkata from 2021 to 2023. [Certificate]

References : Please write me