Giridharan Sankar | CV

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Education

Integrated BS-MS in Physics   **Pune, India**
Indian Institute of Science Education and Research   *2020–2025 (expected)*
CGPA: 8.9/10

Grade 12   **Tiruchirappalli, India**
Sri Vignesh Vidyalaya Senior Secondary School (CBSE)   *2019–2020*
95.8% overall

Awards & Scholarships

2020–: DST INSPIRE Scholarship for Higher Education

June - September 2024: NSTC - International Internship Pilot Program, Taiwan

Skills

Programming Languages: *Basic:* Java, R *Intermediate:* Python, C++, Fortran

Miscellaneous: Proficient in LaTeX and MSOffice; can work on Windows and Linux systems

Project work

Radiative transfer interface in Python

Earth and Planetary Sciences   *Dec 2022 - May 2024*
In this project, I worked with Dr Joy Monteiro, IISER Pune, build an interface between the Fortran based radiative transfer model (RTM) SOCRATES and the Python RTM climt. The libraries of SOCRATES can be used in simulations of planetary atmospheres. This allows for more flexibility in the models used, facilitated by SOCRATES, and easier accessibility of code with climt.

Understanding transmission spectroscopy

Earth and Planetary Sciences   *May 2022 - July 2022*
Over two months, I undertook this project under Dr Jayesh Goyal, Faculty at the School of Earth and Planetary Sciences, NISER Bhubaneshwar. I worked to understand the idea behind transmission spectroscopy used in detecting exoplanets and the idea of inverse theory and parameter estimation employed to find the atmospheric characteristics of the planet under consideration.

Conferences/Workshops

Mathematical Modeling of Climate, Ocean, and Atmosphere processes

International Centre for Theoretical Sciences (ICTS)   *June 2023*
Attended a 5-day workshop on how climate and oceanic sciences utilize mathematical modeling to understand problems.

Exoplanets: A short course

Pune Knowledge Cluster   *February 2023*
Attended a month-long introductory course on exoplanets.

Other experiences

Strange New Worlds: The Exploration of Exoplanets **IISER Pune**
Volunteer *August 2023*
Helped in maintaining emails and iron out the schedule of the program.

Quiz Club **IISER Pune**
Coordinator *2021-22*
Coordinator of the IISER Pune Quiz Club. Involved in making question sets for the weekly quizzes dubbed MNQs (Monday Night Quizzes).

Kalpa, IISER Pune Students' Media Body **IISER Pune**
Editor *2021-22*
Worked in the editorial team of Kalpa, the independent media body of students of IISER Pune.

Artha **IISER Pune**
Writer *2021-22*
Worked as a writer-cum-editor for Artha, the finance club of IISER Pune, and formed the core team of the same.

Relevant Coursework

Earth Sciences
ECS
Geophysical Fluid Dynamics, The Solid Earth, Principles of Planetary Climate, Physics of the Atmosphere

Physics
PHY
Electrodynamics, Statistical Mechanics, Astronomy and Astrophysics, Gravitation, Advanced Quantum Mechanics

Mathematics
MTH
Graph Theory, Advanced Linear Algebra, Real Analysis, Multivariable Calculus

Languages

English, Tamil: Bilingual proficiency

Hindi: Basic

Interests

- Quizzing - Cinema