

Roshan Mathew Philip

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SUMMARY

Physics Int MSc student, focused on rigour; eager to apply knowledge and skills gained through coursework and extracurricular activities to an internship or project. Committed to continuous learning.

RESEARCH INTERESTS

Mathematical Physics, Quantum Foundations

EXPERIENCE

Internships

- Linear Dynamical Systems
Guide: Anupam Pal Choudhury, SMS, NISER (anupampcmath@niser.ac.in), Summer 2023
An initial but rigorous foray into linear dynamical systems and bifurcations.
- Non-Linear Dynamics and Chaos
Guide: Sayantani Bhattacharya, SPS, NISER (sayanta@niser.ac.in), Summer 2023
Bifurcations, hysteresis and other phenomena in 2-D systems, rudimentary analysis of higher dimensional non-linear systems. Numerical analysis of the parameter space of the Lorenz Equations.

SKILLS

- **Programming Languages:**
 - Python
 - Rust
- **Softwares:**
 - Git
 - Linux
 - L^AT_EX
- **Extra Courses (mostly self-studied):**
 - Basics of Group Theory (currently studying)
 - Point-set Topology (currently studying)

PROJECTS

- Defining a Metric on the Set of Images
A homework project for my metric spaces course.

EDUCATION

National Institute of Science Education and Research, Bhubaneswar, Odisha, India

Integrated MSc

2022–Current

— Currently in fourth semester

— CGPA: 9.41

Chavara Public School

Kottayam, Kerala, India

CBSE Class XII

2022

— 96.4% with Physics, Mathematics, Computer Science, Chemistry

St. Jude's Global School

Kottayam, Kerala, India

CBSE Class X

2020

— 96.6%

EXTRACURRICULAR ACTIVITIES

- Core Committee Member of Physics Club, NISER
- Core Committee Member of Coding Club, NISER
- Part of tournament organising committee, Chess Club, NISER
FIDE rating of 1116.
- Piano
Merit in Grade 5 Exam, Trinity School of Music, London.
- GM of a Dungeons & Dragons Campaign.

SCHOLARSHIPS AND AWARDS

- Innovation in Science Pursuit for Inspired Research (**INSPIRE**)
Scholarship issued by Department of Science and Technology - Government of India 2022–Current
- Batch-22 Topper for first semester, NISER