

# Roshan Mathew Philip

Website:  
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## SUMMARY

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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

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Mathematical Physics, Quantum Foundations

## EXPERIENCE

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### 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

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- **Programming Languages:**
  - Python
  - Rust
- **Softwares:**
  - Git
  - Linux
  - L<sup>A</sup>T<sub>E</sub>X
- **Extra Courses (mostly self-studied):**
  - Basics of Group Theory (currently studying)
  - Point-set Topology (currently studying)

## PROJECTS

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

## EDUCATION

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**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

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- 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 1470.
- Piano  
Merit in Grade 5 Exam, Trinity School of Music, London.
- GM of a Dungeons & Dragons Campaign.

## SCHOLARSHIPS AND AWARDS

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- 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