

Bijayan Ray

UNDERGRADUATE · MATHEMATICS AND COMPUTER SCIENCE

Chennai Mathematical Institute, H1, SIPCOT IT Park, Siruseri, Kelambakkam 603103, India

✉ bijayan@cmi.ac.in | www.cmi.ac.in/~bijayan/

Education

Chennai Mathematical Institute

Chennai, Tamil Nadu, India

BSC HONOURS IN MATHEMATICS AND COMPUTER SCIENCE

2021 - present

Graduate Courses:

- Computational Complexity theory
- Algorithmic Coding theory
- Foundations of Machine learning
- Quantum Algorithmic Thinking
- Algebra and computation
- Approximation algorithms
- Expander graphs and applications
- Linear programming (half semester course)
- Reinforcement learning

St. Stephen's School

Dum Dum, Kolkata, West

Bengal, India

ISC BOARDS

2021

Summer project

Chennai Mathematical Institute - Department of Mathematics

Chennai, India

PROFESSOR: PROF. AMIT KUMAR SINHABABU

June, 2023- present

- Summer project: Computational complexity theory: polynomial identity testing.

Reading projects

Chennai Mathematical Institute - Department of Mathematics

Chennai, India

PROFESSOR: PROF. KRISHNA HANUMANTHU

June, 2023- present

- Reading project: Algebraic geometry, primarily reading from Robin Hartshorne's textbook. Here is a link to my presentation on fibred products http://cmi.ac.in/~bijayan/PDFs/algebraic_geometry_presentation_summer.pdf.

Indian Institute of Science - Department of Mathematics

Bangalore, India

PROFESSOR: PROF. MANJUNATH KRISHNAPUR

June, 2022- July, 2022

- Reading project: [Topics in Analysis](#).

Workshop/Seminars attended

FSTTCS, IIIT Hyderabad

Hyderabad, India

18th Dec., 2023 - 20th Dec., 2023

- Attending this conference gave me a big exposure to modern research in theoretical computer science. The details of the program is available in its [webpage](#).

Theoretical Computer Science Winter School, IIT Delhi

Delhi, India

11th Dec., 2023 - 14th Dec., 2023

- This winter school taught me lot of new algorithms and results in theoretical computer science. The details of the program is available in its [webpage](#).

Sage Days 114, Institute of Mathematical Sciences IMSc.

Chennai, India

25th Jul., 2022 - 27th Jul., 2022

- This workshop let me explore and get acquainted with the SageMath open-source computational tool. The details of the program is available in its [webpage](#).

Talks and Write-ups

- A [Presentation](#) and [report](#) on [noisy interpolating sets](#) as part of the Algorithmic coding theory course at CMI in August-November semester in 2023.
- Talk at [CMI Student Seminar](#) on [Circuit complexity](#) in November 2023.
- Presentation on [Fibred products](#) for reading project on Algebraic geometry in the summer 2023.

Achievements

2021 **Qualified JEE Advanced**, conducted by IITs under guidance of Joint Admission Board (JAB), India.

Awards, Fellowships, & Grants

2021 **SHRIRAM Scholarship**, Fee waiver and monthly stipend while studying at Chennai Mathematical Institute.

Skills

Languages **Python, Qiskit, Haskell, Java, HTML.**

Tools **\LaTeX , Geogebra, Sage Mathematics, Julia (Basics).**