

# Pratik Shastri

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## Education

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**The Institute of Mathematical Sciences, Chennai**

**2021 – Present**

*Graduate Student, Theoretical Computer Science*

Advisor: C Ramya

**IIIT Bangalore**

**2015 – 2020**

*Integrated MTech, Computer Science and Engineering*

Thesis: Autonomous traffic lights: A study in the behaviour and optimization of autonomous traffic light agents.

## Research

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I am interested in Computational Complexity Theory. More specifically, I have worked on problems related to lower bounds and identity testing in Algebraic Complexity Theory.

## Publications

1. [Lower Bounds for Planar Arithmetic Circuits](#) - **ITCS 2024**
2. [Efficient Polynomial Identity Testing Over Nonassociative Algebras](#) - **RANDOM 2025**

## Preprints

- [Lower Bounds for Noncommutative Circuits with Low Syntactic Degree](#)

## Experience

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### Teaching Assistantship

- Computational Complexity Theory, *The Institute of Mathematical Sciences, Chennai* (2024)
- Discrete Mathematics, *The Institute of Mathematical Sciences, Chennai* (2023)

## Talks and Presentations

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- Lower Bounds for Planar Arithmetic Circuits, **ITCS 2024**
  - Lower and upper bounds for sums of powers of linear forms, **TCS Summer School, IMSc Chennai** (2023)

I organize weekly Computational Complexity reading group meetings at IMSc Chennai.

## Interests

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Apart from reading for research, I like reading fiction. I also enjoy playing tennis and chess.