

SUBHAJIT GHOSH

Postdoctoral Fellow in Mathematics

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EMPLOYMENT

Post Doctoral Fellow

The Department of Mathematics, Bar-Ilan University

⌚ October 1, 2025–Present

📍 Ramat-Gan, Tel Aviv District, Israel, 52900

Post Doctoral Fellow

Indian Statistical Institute

⌚ November 14, 2024–September 30, 2025

📍 Gnana Bharathi, Bengaluru, Karnataka 560059

Project: Poissonian Shot-noise Fields and Diffusions

EDUCATION

Ph.D. in Mathematics

TIFR - Centre for Applicable Mathematics

⌚ 2021–2024 (Thesis defended on December 11, 2024.)

📍 Yelahanka New Town, Bengaluru, Karnataka 560064

Thesis: On the number of connected components of polynomial lemniscates: Deterministic and Random

M.Phil./ Masters Thesis

TIFR - Centre for Applicable Mathematics

⌚ 2020–2021

📍 Yelahanka New Town, Bengaluru, Karnataka 560064

Thesis: Some Topics in Potential Theory and Random Polynomials

M.Sc. in Mathematics

TIFR - Centre for Applicable Mathematics

⌚ 2018–2020

📍 Yelahanka New Town, Bengaluru, Karnataka 560064

Graduated with 82%

B.Sc. in Mathematics

Ramakrishna Mission Vidyamandira

⌚ 2015–2018

📍 Belur Math, Howrah, West Bengal 711 202

CGPA: 8.7

Higher Secondary Certificate

Bidhannagar Government High School

⌚ 2013–2015

📍 Salt Lake, Kolkata, West Bengal 700064

Graduated with 83%

Secondary School Certificate

Bidhannagar Government High School

⌚ 2003–2013

📍 Salt Lake, Kolkata, West Bengal 700064

Graduated with 89%

PUBLICATIONS

Journal Articles

- Subhajit Ghosh. (2024). On the number of components of random polynomial lemniscates. *Electronic Journal of Probability*, 29, 1-24. doi:10.1214/24-EJP1147
- Subhajit Ghosh and Koushik Ramachandran. (2024). Number of components of polynomial lemniscates: A problem of erdős, herzog, and piranian. *Journal of Mathematical Analysis and Applications*, 540(1). doi:<https://doi.org/10.1016/j.jmaa.2024.128571>

Arxiv Preprints

- Subhajit Ghosh. (2025). Metric properties of random polynomial lemniscates.

EXPERIENCE

► Teaching Assistant

Indian Statistical Institute

 Jan 2025-Present  Bangalore, India

- Analysis of Several Variables (July-October 2025)
- Topics in Discrete Probability (M. Math II year) (January-April 2025)

► Teaching Assistant (Graduate Courses)

Tata Institute of Fundamental Research (TIFR-CAM)

 2020-2024  Bangalore, India

- Functional Analysis, 2024
- Complex Analysis, 2023
- Probability Theory, 2022
- Real Analysis, 2021
- Linear Algebra, 2020

► Teaching Assistant (IWM Summer School 2025)

Christ University

 July 2025  Bangalore, India

Course: Probability and Combinatorics

► Teaching Assistant (Summer Workout in Mathematics)

TIFR-CAM

 June 2022  Bangalore, India

Courses: Real analysis, Logic, Linear Algebra

AWARDS & HONOURS

Scholarships

- JBNSTS Scholarship 2015. (Reference No.: [Sch/ Per/A/ 15/ 25A](#))
- DST Inspire Scholarship 2015-2018. (Registration Number: [201500076691](#))
- TIFR-CAM Int. Ph.D. Scholarship (2018-2024)
- UGC, CSIR NET Ph.D. Fellowship
- ANRF Core Research Grant Post Doctoral Fellowship (reference No. [CRG/2023/002667](#)).

Academic Achievements

- NET Mathematics Dec'19 (AIR-25)
- GATE Mathematics 2020 (AIR-173)
- JAM Mathematics 2018 (AIR-133)

TALKS

- Post-Doc Research Scholar Symposium
Expected length of random lemniscates
📅 January 30, 2025 📍 ISI Bangalore, India
- ISI Math Club
Introduction to polynomial lemniscates
📅 14th January 2025 📍 ISI Bangalore, India
- 39th Annual Conference of the RMS 2024
Number of components of random polynomial lemniscates
📅 28 Dec 2024 📍 Christ University, Bangalore
- TIFR-CAM Alumni Meeting 2024
Introduction to polynomial lemniscates
📅 October 29, 2024 📍 Bangalore, India
- CRM-PIMS Probability Summer School
Number of components of random polynomial lemniscates
📅 July 12, 2024 📍 Montreal, Canada
- IMAG Conference on Orthogonal Polynomials (OPSFA17)
Number of connected components of polynomial lemniscates: A problem of Erdős, Herzog, and Piranian
📅 June 27, 2024 📍 Granada, Spain
- Bangalore Probability Seminar
Number of connected components of random polynomial lemniscates
📅 April 8, 2024 📍 TIFR-CAM, Bangalore
- Interactions in SCV Conference
Number of connected components of polynomial lemniscates: A problem of Erdős, Herzog, and Piranian
📅 December 15, 2023 📍 IISER, Pune

SKILLS

 Software & Programming <ul style="list-style-type: none">• LaTeX, Mathematica• Python, C, C+, MATLAB• Microsoft Excel, Word, PowerPoint	 Languages <ul style="list-style-type: none">• English (Fluent)• Bengali (Native)• Hindi (Fluent)
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REFERENCES

Prof. Koushik Ramachandran
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