



# Kshitij Sinha

Mathematics

Indian Institute of Technology Bombay

23D0781

Ph.D

Male

Examination	University	Institute	Year	CPI/%
Ph.D	IIT Bombay	IIT Bombay	2023-Present	9.48
M.Sc.	IIT Kanpur	IIT Kanpur	2020-22	7.50
B.Sc.	BHU	BHU, Varanasi	2017-20	8.26
Intermediate/+2	CBSE	Udai Pratap Public School	2015-17	91.80
Matriculation	ICSE	St.John's School	2015	82.80

## EXAMS QUALIFIED

- **BHU-UET** (2017)
- **IIT JAM** (All India rank of 77) (2020)
- **GATE** (All India rank of 30) (2023)
- **NBHM** (2023)
- **CSIR-NET**(All India rank of 89) (2023)

## PUBLICATIONS

- **Kshitij Sinha**. Quantitative periodic homogenization of parabolic equations with large drift and potential, *accepted in DCDS-B* (arXiv:2509.22003v3).
- **Saumyajit Das, Kshitij Sinha**. Homogenization of Three Species Reaction Diffusion Equation in Perforated Domains (arXiv:2603.26927v1).

## SEMINARS, CONFERENCES ATTENDED

- **NCMW - A Contemporary Course on Elliptic Partial Differential Equations** (20 May '24 - 01 Jun'24)
  - Organized by Professor Ali Hyder(TIFR-CAM) and Professor Debabrata Karmakar(TIFR-CAM) at TIFR - Center for Applicable Mathematics(CAM), Bengaluru
- **Quantitative theory of Homogenization** (17 Feb '25 - 22 Feb'25)
  - Organized by Professor Harsha Hutridurga(IIT-B) and Professor S. Sivaji Ganesh(IIT-B) at IIT Bombay
- **Stochastic Processes and Related Topics 2025** (13 Sep '25 - 15 Sep'25)
  - Organized by Professor Chetan D. Pahlajani(IIT-Gandhinagar) at IIT Gandhinagar

## TALKS GIVEN

- **Quantitative theory of Homogenization** (17 Feb '25 - 22 Feb'25)
  - Doctoral Course(5:30 hours) on the Quantitative aspects of Homogenization of Elliptic Partial Differential equations in periodic settings
- **Stochastic Processes and Related Topics 2025** (13 Sep '25 - 15 Sep'25)
  - Talk on Quantitative periodic homogenization of parabolic equations with large drift and potential

## TEACHING EXPERIENCE

- **Teaching Assistant** for the course **MA515 : Partial Differential Equations**, Tutorials and Grading (Aug'24-Dec'24 & Aug'25 - Dec'25)
- **Admin Teaching Assistant** for the course **SI416 : Optimization**, Tutorials and Grading (Jan'25-Apr'25 & Jan'26-Apr'26)

## TECHNICAL SKILLS

- **Programming & Scripting Languages:** C, C++
- **Tools & Libraries:** MATLAB,  $\LaTeX$

## EXTRA-CURRICULARS

- **Cultural Secretary** at Hostel 14, IIT Bombay (Aug'25-Aug'26)
- **Ram-Leela** played the roles of Kumbhakaran and Banasur in the Ram-Leela
- **Anime** suggestions: Assassination Classroom, Demon Slayer

## LANGUAGES

- **Hindi** Mother tongue
- **English** Good