

# Jiten Kumbhakar

## Curriculum Vitae

Purulia, West Bengal, India, 723148

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✉ jk17ip021@iiserkol.ac.in

### Education

- July 2017- **Integrated Ph.D.**, PMRF Fellow, Indian Institute of Science Education and Research (IISER), Kolkata, West Bengal, India
- **Research Area:** Control of PDEs.
  - **Supervisor:** Dr. Shirshendu Chowdhury
- July 2014- **B.Sc. in Mathematics**, Percentage: 88.5%, Jagannath Kishore College, Purulia, West Bengal, India
- May 2017
- 2012-2014 **Higher Secondary in Science**, Percentage: 81%, Purulia M.M. High School, Purulia, West Bengal, India
- 2012 **Class 10th**, Percentage: 80.7%, Ladhurka High School (H.S), Purulia, West Bengal, India

### Honors & Awards

**PMRF**, Prime Minister Research Fellow at IISER Kolkata

**Gold Medalist**, Shakti Sadhan Basu Memorial Medal and prize

Awarded for highest marks in B.Sc in Mathematics among all students in Purulia District

**Gold Medalist**, Manindralal Banerjee Memorial Prize

Awarded for highest marks in B.Sc in Arts, Science and Commerce among all students in Purulia District

**CSIR JRF (Dec 2018)**, Got 98th rank in the NET exam conducted by CSIR

**JAM (2017)**, Got 38th rank in the JAM exam in mathematics and got 72th rank in statistics

### Course Projects

#### ○ Master's Thesis

*Project Title: Controllability of ODE, Heat Equation and Navier-Stokes Equations.*

The project is mainly based on proving null controllability for ODE and Heat equation and lack of null controllability but positive approximate controllability for linearized compressible Navier-Stokes equations in one dimension using method of moments.

### Teaching Assistant

- Current **Mathematics II**, 1st year undergraduate, IISER Kolkata
- **Instructor:** Dr. Anirban Banerjee
- April 2022 **Research Methodology**, NPTEL
- **Instructor:** Dr. Soumitro Banerjee
- Autumn 2021 **Mathematics I**, 1st year undergraduate, IISER Kolkata
- **Instructor:** Dr. Saugata Bandyopadhyay
- Spring 2021 **Mathematics II**, 1st year undergraduate, IISER Kolkata
- **Instructor:** Dr. Shirshendu Chowdhury

- Spring 2021 **Analysis II**, 2nd year undergraduate, IISER Kolkata  
 ○ **Instructor:** Dr. Sushil Gorai
- Spring 2020 **Mathematics II**, 1st year undergraduate, IISER Kolkata  
 ○ **Instructor:** Dr. Shirshendu Chowdhury
- Autumn 2019 **Analysis III**, 3rd year undergraduate, IISER Kolkata  
 ○ **Instructor:** Dr. Shirshendu Chowdhury

## Teaching

July-December 2021 **Class 11**, *Jawahar Navodaya Vidyalaya, Kalyani, Nadia, West Bengal, India*

## Workshops

- Speaker: Dr. Ujjwal Koley, TIFR CAM  
 Title: Convex integration solutions for the transport equation  
 Date: November 08, 2021- November 18, 2021
- Speaker: Professor Bernard Dacorogna, EPFL, Switzerland  
 Title: Short Course in Calculus of Variations  
 Date: January 28- February 01, 2019

## Seminars

- Null and Approximate controllability of Heat equation in one dimension using the method of Flatness  
 Weekly Research Seminar, Organized by Mythily Ramaswamy, TIFR-ICTS Bangalore  
 Date: August 05, 2021

## PrePrints

- Kuntal Bhandari, Shirshendu Chowdhury, Rajib Dutta, Jiten Kumbhakar, *Boundary Null-Controllability of 1d Linearized Compressible Navier-Stokes System by One Control Force*, <https://arxiv.org/abs/2204.02375>.  
 Current Status: Submitted.

## References

- **Supervisor: Dr. Shirshendu Chowdhury**  
 Assistant Professor  
 Department of Mathematics and Statistics  
 IISER Kolkata  
 West Bengal, India  
 Email. [shirshendu@iiserkol.ac.in](mailto:shirshendu@iiserkol.ac.in)  
 Webpage: <https://math.iiserkol.ac.in/faculties/shirshendu.html>

**Declaration:** I hereby declare that all the statements made herein are true to my best of knowledge and belief.

Place: Kolkata

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