

**VINAY KUMAR**

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## Academic Record

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- 2021-Present:**      **Research Scholar (Integrated Ph.D.)**  
*International Centre for Theoretical Sciences<sup>1</sup>-*  
*Tata Institute of Fundamental Research,*  
*Bengaluru, India*
- 2018-2021:**      Bachelors of Science (Honors) Physics - First Division  
*Jamia Millia Islamia<sup>2</sup>,*  
*Jamia Nagar, Delhi*
- 2016-2018:**      Senior Secondary School - Aggregate Percentage = 88%  
*Apeejay School Noida, Uttar Pradesh,*  
*CBSE Board*
- 2016:**              Matriculation - CGPA = 10.0  
*Apeejay School Noida, Uttar Pradesh,*  
*CBSE Board*

## Research

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- CORE AREA:**              Astrophysical Fluid Dynamics and Plasma Astrophysics
- OTHER INTERESTS:**      Hydrodynamics,  
PDEs and Spectral Methods,  
Turbulence.
- CODES USED:**              Dedalus (Python), Pencil-Code (Fortran)
- OTHER TOOLS:**            Python, Mathematica, MATLAB,  $\LaTeX$

## Conferences Attended

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7. Workshop on computational MHD with the PLUTO code  
July 2023  
IISc Bangalore
6. MeetStatphysIndia - School on Nonlinear Physics and Statistical Physics  
June 2023  
IIT Kharagpur
5. Turbulence: Problems at the Interface of Mathematics and Physics  
January 2023  
ICTS
4. Bangalore School on Statistical Physics - XIII  
July 2022  
ICTS

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<sup>1</sup>Had concurrent offers from DAA-TIFR, IIT-K, IISER-K, IISER-P and IACS.

<sup>2</sup>Had concurrent offers from NISER, DTU, DU, JNU and BITS.

3. ICTS Summer School on Gravitational-Wave Astronomy  
May-June 2022  
ICTS
2. LIGO-Virgo Open Data Workshop  
May 2022  
ICTS
1. Waves, Instabilities and Mixing in Rotating and Stratified Flows  
April 2022  
ICTS

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## Outreach

CLIMATE CHAOS: Organised by: ICTS and Science Gallery Bengaluru  
Venue: Jawaharlal Nehru Planetarium  
March, 2023

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## Scholarships/Fellowships

ICTS-TIFR: Graduate School Fellowship  
Department of Atomic Energy  
Government of India  
2021-Present

INSPIRE: Scholarship for Higher Education  
Department of Science and Technology  
Government of India  
2018-2023  
(Given up in 2021 for ICTS GS Fellowship)

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## Performance in National Level Competitive Exams

IIT JAM (2021): Organised by IISc Bangalore  
All India Rank: 26  
Scored 68/100 (Physics)

JEE ADVANCED (2018): Organised by IIT Kanpur  
Percentile: 99.9283  
Scored 123/360 (Physics, Chemistry, Mathematics)  
Scored 85/120 in Physics

JEE MAIN (2018): Organised by CBSE  
Percentile: 99.9948  
Scored 203/360 (Physics, Chemistry, Mathematics)  
Scored 102/120 in Physics

NEST (2018): Organised by NISER Bhubaneswar  
Percentile: 99.0653  
Scored 99/180 (Physics, Chemistry, Mathematics)

BITSAT (2018): Organised by BITS Pilani  
Scored 326/450 (Physics, Chemistry, Mathematics, English, Reasoning)