

Shivam Gupta

S/o Sh. Mohinder Kumar

Ph. D. student

Department of Physics, IIT Kanpur.

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EDUCATIONAL QUALIFICATION

2022 - Present	Ph. D.	Indian Institute of Technology, Kanpur	10/10
2020 - 2022	M. Sc. (Physics)	Indian Institute of Technology, Kanpur	8.9/10
2017 - 2020	B. Sc.	D.A.V. College, Abohar, (Panjab University, Chandigarh)	92.1%

NATIONAL LEVEL EXAMINATIONS QUALIFIED

• GATE 2022 • CSIR-NET June, 2021 (JRF) • IIT-JAM- 2020 • JEST- 2020

PUBLICATIONS

- **Shivam Gupta** and Taraknath Mandal. "Controlling Spatial Organization of HIV Co-Receptors CCR5." *JCIM* 2026, 66 (6), 3249.
- **Shivam Gupta** and Taraknath Mandal. "How are Plastoglobules Formed in Green Algae?" *JPC Lett.* 2025 16 (20), 4927.
- Haleh Alimohamadi, Elizabeth Wei-Chia Luo, Xiaoying Liu, Wasi Iqbal, Rena Yang, **Shivam Gupta**, Kelsey A Nolden, Taraknath Mandal, R. Blake Hill, Liting Duan, and Gerard C. L. Wong. "Dynamain-like Proteins Combine Mechano-constriction and Membrane Remodeling to Enable Two-Step Mitochondrial Fission via a "Snap-through" Instability" *JACS* 2025 147 (28), 24258.
- Jatin Soni, **Shivam Gupta** and Taraknath Mandal. "Recalibration of MARTINI-3 Parameters for Improved Interactions between Peripheral Proteins and Lipid Bilayers." *JCTC* 2024, 20, 21, 9673.
- Haleh Alimohamadi, Elizabeth Wei-Chia Luo, **Shivam Gupta**, Jaime de Anda, Rena Yang, Taraknath Mandal and Gerard C. L. Wong. "Comparing Multifunctional Viral and Eukaryotic Proteins for Generating Scission Necks in Membranes." *ACS Nano* 2024, 18(24), 15545.
- **Shivam Gupta**, Jatin Soni, Awneesh Kumar, and Taraknath Mandal. "Origin of the Nonlinear Structural and Mechanical Properties in Oppositely Curved Lipid Mixtures." *J. Chem. Phys.* 2023, 159(16), 165102.
- Taraknath Mandal, **Shivam Gupta** and Jatin Soni. "Simulation Study of Membrane Bending by Protein Crowding: a Case Study With the EPSIN N-terminal Homology Domain." *Soft Matter* 2023, 19(27), 5092.
- **Shivam Gupta** and Taraknath Mandal. "Simulation Study of Domain Formation in a Model Bacterial Membrane." *Phys. Chem. Chem. Phys.* 2022, 24(30), 18133.

TEACHING ACTIVITY

- Teaching Assistant for the course **PHY 224A: Optics** and **PHY111A: Experimental Physics**, IIT Kanpur
- Tutorial and Demonstration sessions for the course **Engineering Physics** and **Physics Lab**, AITH, UP, Kanpur
- Workshop on **Basics of Python Programming Language**, D.A.V. College, Abohar
- Workshop on **Basics of MATLAB**, UIET, CSJM University, Kanpur
- Tutorial sessions for the course **Numerical Methods And Simulation Techniques**, NPTEL
- Videos and presentation with animations and experiments on high school physics topic **Image formation by lenses** to be demonstrated in digital event, Science for Rural India (SFRI)

AWARDS AND HONOURS

- **Prime Minister Research Fellowship (PMRF)** from Ministry of Education, Government of India in 2022.
- **Proficiency Medal** from IIT Kanpur for the best undergraduate project work done by graduating students in the 2-year M. Sc. programmes in each of the departments in 2022.
- **Summer Research Fellowship** jointly from Indian Academy of Sciences, Bengaluru - Indian National Science Academy, Delhi - The National Academy of Sciences, Paraygraj in 2021.

CONFERENCES/ WORKSHOPS/ INTERNSHIPS

- Attended conference on Recent Advances in Modeling Rare Events held at Khajuraho, India (March 9-12, 2025)
- Presented Poster on *How are plastoglobules formed in green algae?* at HPC Symposium, IIT Kanpur. (April 25, 2025)
- Delivered talk on *How are plastoglobules formed in green algae?* at Research Scholar Days 2025, Department of Physics, IIT Kanpur. (Feb. 8-9, 2025)
- Presented poster on *Origin of the Nonlinear Structural and Mechanical Properties in Oppositely Curved Lipid Mixtures* at MD@60, JNCASR, Bangalore, India. (Feb. 26-29, 2024)
- Participated in the NSM workshop on *Multiscale modelling using exascale computing* organized in Indian Institute of Science, Bengaluru. (July 6-15, 2023)
- Attended National Student's Research Convention on Healthcare and MedTech held at IIT Kanpur. (March 3-5, 2023)
- Presented poster on *"Non-linear behavior of structural and mechanical properties of mixed lipid bilayer."* at Research Scholar Meet 2023, Department of Physics, IIT Kanpur. (Jan. 28, 2023)

DECLARATION

I hereby declare that the information given above is complete and correct to the best of my knowledge.

Place:- Kanpur

Shivam Gupta