Yashab Yadav

PhD Scholar at Department of Physics, Lehigh University

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Education

Indian Institute of Technology, Jodhpur, Masters of Science   Aug '21 – May '23
- Major: Physics
- CGPA: 7.5/10

University of Delhi, Bacherlor's of Science   Aug '18 – May '21
- Major: Physics
- CGPA: 8.662/10

Research Experience

Simulation of actin comet tails: the role of linear filament nucleation   June '24 - Aug '24
- Actin comet tail motility mechanism is replicated in vitro with polystyrene beads. Results from in vitro experiments are used to develop computational models.
- Studied the effect of de novo nucleation on bead motility and observed that there is an optimal de novo nucleation rate.

Study of Branched Flow of light and its control   Nov '22 - May '23
- Studied branched flow of light as observed in thin soap films via simulations.
- Applied beam propagation method to quantify the simulation parameters necessary for the sustenance of branches produced by a Gaussian light source, as it passes through a disordered lattice.

Teaching Experience

Teaching assistant for Introductory Physics Course, Lehigh University   Aug '24 – Present
- Helping undergraduate students to review fundamental physics concepts.
- Demonstrating how to approach/solve fundamental physics problems.

Teaching assistant for Introductory Physics Lab, Lehigh University   Aug '23 – May '24
- Instructed undergraduate students in procedures to carry out basic experiments in physics.

Scholarships & Achievements

INSPIRE: Scholarship for Higher Education
- Scholarship by Department of Science & Education, India.
- Offered to 12000 meritorious students in the age group 17-22 years, annually.

Joint Entrance Exam (JAM)
- Got all India rank of 876 on JAM, a competitive entrance exam for admission to masters program in top research institutes in India.

Computer Skills

Languages: Python, C++, Java

Technologies: OVITO, Docker

Coursework

Classical Dynamics, Statistical Mechanics, Electromagnetism, Quantum Mechanics, Vector Calculus, Linear Algebra, Machine Learning for Physicists