

BIKRAM PAL

 [Webpage](#)  [Email](#)  [Google Scholar](#)

EDUCATION

- 2023–'28 **Integrated Master's in Physics**
Indian Institute of Science Education and Research Kolkata, India
- 2021–'23 **Higher Secondary Education**, West Bengal Council of Higher Secondary Education
Birbhum Zilla School, West Bengal, India

RESEARCH INTEREST

Equilibrium and non-equilibrium statistical physics to understand physics of complex systems
eg. fluid turbulence, critical phenomena, phase transition and active matter.

PUBLICATIONS

- [1] **B. Pal**, Conductance fluctuations in random resistor networks with hyperuniform disorder.
J. Stat. Mech.: Theory Exp. (2026) [[arXiv:2604.24789](#)]
- [2] A. Kankaria, **B. Pal** and S. S. Ray, Dynamical slowdown, bottlenecks, and multiscaling in
Voigt-regularised turbulence. (*Preprint available upon request*)

(*In preparation*)

- [3] A.A. Saberi and **B. Pal**, Ranked percolation on 2D fractional Brownian surfaces.
- [4] **B. Pal** and D. Dhar, Universality of first passage percolation in hyperuniform disorder
- [5] **B. Pal**, On multifractality of activity field and dynamic multi-scaling in BTW sandpile model.

RESEARCH EXPERIENCE (RELEVANT)

- 2026– **Max Planck Institut für Dynamik und Selbstorganisation**, Göttingen, Germany
Mentor : Prof. Ramin Golestanian
Title of Project : Active matter and field theory.
- 2025– **Max Planck Institut für Physik komplexer Systeme**, Dresden, Germany
Mentor : Prof. Abbas Ali Saberi (*Now at Constructor University, Bremen, Germany*)
Title of Project : Universal gap scaling in percolation on 2D fBm surfaces.
- 2025– **International Centre for Theoretical Sciences**, Bengaluru, India
Mentor : Prof. Deepak Dhar
Title of Project : Effect of hyperuniformity in complex systems.
- 2024–'26 **International Centre for Theoretical Sciences**, Bengaluru, India
Mentor : Prof. Samriddhi Sankar Ray
Title of Project : On scaling and multiscaling in Voigt-regularised turbulence.

HONORS & FELLOWSHIPS

(ACADEMIC)

- 2026 Selected for the Max Planck School Matter to Life (MPS-MtL) Undergraduate Research
Opportunity(URO) as one of the top 10 applicants globally.
- 2026 Awarded fully funded summer research fellowship at Max Planck Institut für Physik
komplexer Systeme (MPIPKS), Biophysics programme. (*Did not avail*)
- 2024–'26 Awarded NIUS scholarship (INR 130k+) by HBCSE-TIFR, Mumbai to support my
research at International Centre for Theoretical Sciences Bengaluru.
- 2024 Awarded summer research fellowship to work at IIT Kharagpur.
- 2023–'28 Awarded DST-INSPIRE fellowship (INR 80k per year) by Government of India.

(NON-ACADEMIC)

- 2026 Ranked #1 in *Decoberence*, a pan-India physics competition organized by IISc Bangalore
- 2025 Ranked #1 in *Abhiprajna*, a pan-India science Contest organized by IISER Tirupati.
- 2022–2023 Ranked #1 in multiple state-level debate competitions organized by Govt. of West Bengal.