List of publications

[1] **Hirakjyoti Sarma,** and Nilakshi Das, "Structure and dynamics of finite three-dimensional Yukawa clusters: Newtonian versus Langevin Dynamics," (*Manuscript in preparation*).

[2] **Hirakjyoti Sarma,** and Nilakshi Das, "Phonon spectra of finite dust clusters under a transverse external magnetic field," *Phys. Plasmas* 31, 063704 (2024). (DOI: 10.1063/5.0205947)

[3] **Hirakjyoti Sarma,** Ritupan Sarmah, and Nilakshi Das, "Phase transition of three-dimensional finite-sized charged dust clusters in a plasma environment," *PHYSICAL REVIEW E* 107, 035206 (2023).
(DOI : 10.1103/PhysRevE.107.035206)

[4] Biswajit Dutta, **Hirakjyoti Sarma,** Pratikshya Bezbaruah, and Nilakshi Das, "Tunable rheological behaviour of magnetized complex plasma," *Physics Letters A*, 438, 128110 (2022). (DOI :10.1016/j.physleta.2022.128110)

List of conferences

1. **Hirakjyoti Sarma,** Ritupan Sarmah, and Nilakshi Das, "Phase transition of three-dimensional finite-sized charged dust clusters in a Plasma environment", *39th National Symposium on Plasma Science and Technology, PLASMA-2024*, December 16-20, 2024, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India.

2. **Hirakjyoti Sarma,** and Nilakshi Das, "Magnetic field effects on collective and single particle dynamics of two-dimensional cluster of charged dust particles in complex plasma", *8th Asia-Pacific Conference on Plasma Physics (AAPPS-DPP)*, November 3-8, 2024, Malacca, Malaysia.

3. **Hirakjyoti Sarma,** Ritupan Sarmah, and Nilakshi Das, "Phase transition of three-dimensional finite-sized charged dust clusters in a Plasma environment", *International Conference on Plasma Science and Applications*, December 12-14, 2023, University of Lucknow and AAAPT.

4. **Hirakjyoti Sarma**, and Nilakshi Das, "Langevin Dynamics Simulation of Three-dimensional Yukawa Clusters Immersed In a Plasma Environment",*A One Day National Symposium on the occasion of National Science Day*, Tezpur University, March 9, 2023, Tezpur University, India.

5. **Hirakjyoti Sarma,** and Nilakshi Das, "Langevin Dynamics Simulation of Three-dimensional Yukawa Clusters Immersed In a Plasma Environment", *37th National Symposium on Plasma Science and Technology*, PLASMA-2022, December 12-14, 2022, IIT Jodhpur, Rajasthan, India.

6. **Hirakjyoti Sarma,** and Nilakshi Das, Phase Transition in Strongly Coupled Dusty Plasmas, *Conference on Plasma Simulation (CPS - 2020)*, January 23-

24, 2020, Institute of Plasma Research(IPR), Gandhinagar, India.

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