

New Frontiers in Extreme Nuclear Matter

Understanding the Intersection of Nuclear and Particle Physics

(One Day Seminar)

About

The seminar emphasises the interconnections and significant overlaps between nuclear physics and various other disciplines, including astrophysics, particle physics, many-body systems physics, and experimental status. A key tradition is striking a balance between the scientific agenda and social engagement. Notable social activities are considered the hallmark of the meetings, focusing on both the traditional progress in research and the present landscape of these fields.



Topics:

- Fundamental processes at the intersection of nuclear and particle physics.
- Weak interactions and nucleosynthesis in astrophysical systems.
- Nuclear structure, Nuclear Heavy-Ion Physics, Isospin, and Angular momentum.
- Nuclear astrophysics, understanding the evolution of nuclear matter in the early universe
- Neutron Stars, Quarkonic Matter, Dark Matter, and Binary astrophysical systems.
- Future Experiments at LHC especially in ALICE
- Quark, Top Quark, lepton flavour, EW and Higgs physics

Patron:

Prof. K. K. Nanda, Director IOP

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**Registration and
Participation:
By Invitation**

Date and Venue: 14th Feb, 2025, T Pradhan Lecture Hall, IOP