



भारतीय अंतरिक्ष विज्ञान एवं प्रौद्योगिकी संस्थान

INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY

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तिरुवनंतपुरम / Thiruvananthapuram - 695 547

Technical Talk on **Neutrinos from Supernovae**

 24-09-2026  03:00 PM  C-105, D1 Building

Abstract: Neutrinos from supernovae were detected for the first and last time nearly 40 years ago, from the Supernova SN1987A, confirming that exploding stars cool through neutrino emission. The physics includes the various fusion processes inside the star, the emission of neutrinos in different stages, and their subsequent detection. The flux of neutrinos is expected to be modified due to the high-density matter at the core of stars, and many experiments are looking forward to detecting such effects.

About the Speaker: Prof. Indumathi is one of the prominent scientists in India working in Particle Phenomenology. After her PhD in Particle Physics at IMSc-Chennai and Post-Doctoral stints at PRL-Ahmedabad and University of Dortmund, Germany, she joined HRI-Allahabad, subsequently moving to her alma mater, IMSc Chennai. One of the strong proponents of the Indian Neutrino Observatory, her research has focused mainly on atmospheric and solar neutrinos, nucleon and nuclear structure functions, etc. Currently, Prof. Indumathi is a Raja Ramanna Chair Professor at IIA-Bengaluru.



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