

## भारतीय खगोलभौतिकी संस्थान INDIAN INSTITUTE OF ASTROPHYSICS कोरमंगला Koramangala, बेंगलूरु Bengaluru – 560034.

## रनातक अध्ययन मंडल Board of Graduate Studies.

## Visiting Student's Programme Seminar

**Title:** Introduction to Radio Interferometry and study of radio emission from supernova SN2004dk

**Speaker:** Mr. Krishna Aasrith (BS+MS, IISERB)

## सार Abstract

In this talk, I will provide an introduction to the principles of radio interferometry, a process where data from multiple radio telescopes are combined to synthesize an image with significantly higher resolution than that achievable with a single dish. These concepts will then be applied to the case of SN2004dk, a Type Ibc supernova located in the galaxy NGC 6118. What makes SN2004dk particularly interesting is its unusual late-time radio rebrightening, observed roughly 10 years after its explosion. I will discuss the modelling of the radio light curves for this object that points towards an interpretation of it as a strongly CSM-interacting radio supernova expanding through a complex environment and also talk about how we employed MCMC for fitting the data that we obtained.

सोमवार Monday 28, जुलाई July 2025

Time: 11:00 AM

प्रेक्षागृह Auditorium

सभी का स्वागत है All are welcome.