



**S N BOSE NATIONAL CENTRE
FOR BASIC SCIENCES**

Block JD, Sector III, Salt Lake, Kolkata 700 106

DEPARTMENTAL SEMINAR

Astrophysics and Cosmology

29th June, 2022

11.30 am

FERMION / ONLINE

SPEAKER

Dr. Subhash Bose,
**Postdoctoral Fellow, OSU Center for Cosmology and
Astro-Particle Physics (CCAPP), Ohio State University**

TITLE OF THE TALK

**FINDING EXTREMES AND UNUSUALS FROM ALL-SKY
SUPERNOVAE SURVEYS**

ABSTRACT

Massive stars end their life as energetic core-collapse supernova (ccSN) explosions. They are produced from a wide range of progenitors and environments, and so their observed and physical properties are also diverse. Despite several decades of studies of these objects, various aspects are still poorly understood and highly debated. With the emergence of all-sky and untargeted surveys, we are now able to find several extreme and unusual types of SNe that were previously unknown, and challenge our present understanding which is mostly based on normal types of SNe. So it is important to explore these rare and unusual objects to have a comprehensive picture of the SNe diversity. We took a systematic approach to find these rare kinds of objects during their early evolution and performed detailed follow-up studies. In this talk, I will discuss some objects we found with unexplained high luminosity and also some supernovae with unique characteristics which vastly expanded our view of ccSN diversity.

HOST FACULTY

Dr. Ramkrishna Das

Associate Professor & Seminar Coordinator, Astrophysics & Cosmology
