



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

स्नातक अध्ययन मंडल Board of Graduate Studies.

Integrated M.Tech.- Dissertation Student Seminar

Speaker: Ms. Savitha M S

Title: Exploring Coating Materials for an EUV Spectropolarimeter

सार Abstract

Spectropolarimetry of spectral lines in extreme ultraviolet wavelengths is a promising technique to probe coronal magnetic field through Hanle effect, yet no spectropolarimeter currently exists for such observations. To address this gap, we aim to develop an EUV spectropolarimeter operating in the range of 500–1000 Å. In the initial phase, we explored suitable coating materials to optimize the instrument's performance. In this talk, I will present a comparative analysis of different mirror coatings based on their polarization power and throughput in the EUV range. I will also discuss our novel approach of using metallic coatings on the polarimeter mirrors by optimizing the telescope optics with a dielectric coating to ensure that only EUV light is efficiently directed into the polarimeter. Finally, I will share an overview of our future plans, including material deposition, testing using synchrotron radiation, and the development of a prototype EUV spectropolarimeter.

गुरुवार Thursday, 17 जुलाई July 2025

प्रेक्षागृह Auditorium

Time: 11:30 Hours

सभी का स्वागत है All are welcome.