



भारतीय खगोलभौतिकी संस्थान
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स्नातक अध्ययन मंडल **Board of Graduate Studies.**

Integrated M.Tech.- Dissertation (Preliminary) Student Seminar

Speaker: Ms. Savitha M S

Title: Exploring Suitable Coating Materials for an EUV Spectropolarimeter

सार Abstract

The coronal heating problem is a major challenge in solar physics. Magnetic fields are thought to be crucial in transporting and converting energy in the solar atmosphere, driving phenomena such as heating, flares, and coronal mass ejections. However, the lack of direct measurements of coronal magnetic fields limits our understanding of these processes. Recent studies (Khan et al., 2022, 2024) highlight the Hanle effect in EUV spectral lines as a promising method for probing the vector magnetic field in the corona. This requires precise polarization measurements of Hanle-sensitive lines, yet no spectropolarimeter currently exists for such observations in the EUV range. To address this, we plan to develop an extreme ultraviolet (EUV) spectropolarimeter for the wavelength range 500-1000 Å. In the initial phase, we are exploring suitable coating materials to optimize the instrument's performance. In this talk the comparison between different coating material in terms of their polarization power and throughput in the EUV wavelength will be presented.

शुक्रवार Friday, 17 जनवरी January 2025

प्रेक्षागृह Auditorium

Time: 11:30 Hours

सभी का स्वागत है All are welcome.