



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

Visiting Student's Programme Seminar

Title: Analyzing the evolution of the magnetic features using quiet Sun observations from PHI onboard Solar Orbiter.

Speaker: Mr. Samarth V
(BS-MS IISER)

सार Abstract

The magnetic flux emergence and cancellation of bipolar features on the solar photosphere in the quiet Sun region play a crucial role in understanding the solar magnetic activity. It is believed that these events drive processes such as energy release, magnetic reconnection, and the initiation of dynamic phenomena that influence space weather and the heliosphere. In this study, we use the previously developed and recently optimized feature tracking code to analyze the quiet Sun observations obtained using Polarimetric and Helioseismic Imager (PHI) onboard Solar Orbiter (SO). The data is a time-series of about 6 hours covering a FoV of $100 \text{ Mm} \times 100 \text{ Mm}$, with a pixel scale of 106 km/px . In this presentation, I will be discussing the emergence and cancellation flux distribution obtained in the 3 case studies that we carried out in this work

गुरुवार Thursday 24, जुलाई July 2025

Time: 10:30 AM

प्रेक्षागृह Auditorium

सभी का स्वागत है All are welcome.