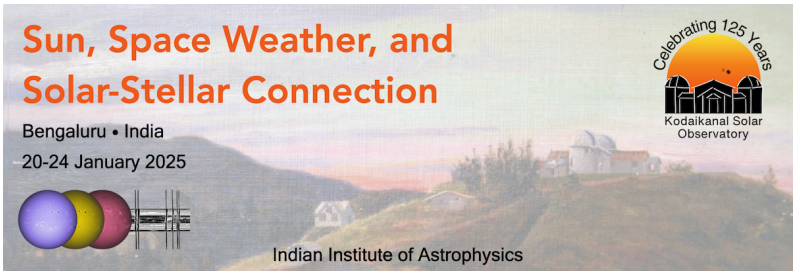

Contribution ID: **153** Type: **Poster**

Unveiling the Dynamics of Polar Coronal Hole Jets: A Multi-Wavelength Study

Solar jets are transient events, ubiquitous across the solar atmosphere. They are thought to play a crucial role in coronal heating and in the transfer of mass and energy through different atmospheric layers, including into the solar wind. Small-scale jets are generally classified into two types: (i) Standard jets, characterized by inverted Y-shaped structures, and (ii) Blow-out jets, which have broader spires and are often linked to mini-filament eruptions.

In this work, we analyzed a standard polar coronal hole jet using high-resolution data from the High Resolution Imager (HRI) onboard Solar Orbiter (SoLO). Our observations revealed a filament-like structure interacting with the jet, and we tracked the evolution of both the jet and the filament material. The jet was also visible in the cooler temperature channels of the Atmospheric Imaging Assembly (AIA) and the Interface Region Imaging Spectrograph (IRIS), indicating the presence of both cooler and hotter plasma. The jet's energy is in the nanoflare range, typically associated with jets reaching heights of up to 5 Mm, but in this case, the jet extended up to 30 Mm above the limb.

Contribution Type

Theme

Energetic Phenomena

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