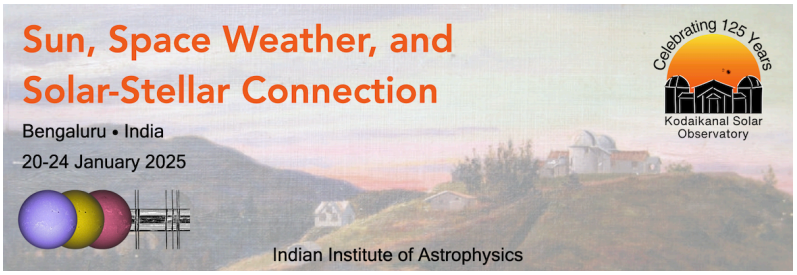

Contribution ID: **85** Type: **Poster**

Radio Occultation Observations to Probe the Solar Corona and Solar Wind

When distant radio point sources are observed through the foreground solar corona or solar wind, they experience angular or scatter broadening, and lead to change in peak flux density, anisotropy, and orientation of the major axis of the source. Such modulations are useful for probing solar wind parameters such as the amplitude of turbulence, density modulation index, proton heating rates, and dissipation scales. By utilizing the Crab Nebula occultation observations carried out with the Gauribidanur Radio Heliograph, along with data available in the literature, we probed the solar wind density turbulence and how these parameters vary with heliocentric distance and the solar cycle. Such studies are essential for addressing long-standing issues such as solar wind heating and solar wind acceleration. Furthermore, based on these results, I will emphasize the importance of short baseline solar-dedicated radio telescopes at low frequencies.

Contribution Type

Theme

Connecting Solar Corona to Heliosphere

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Session Classification: Poster Session-II / Coffee Break