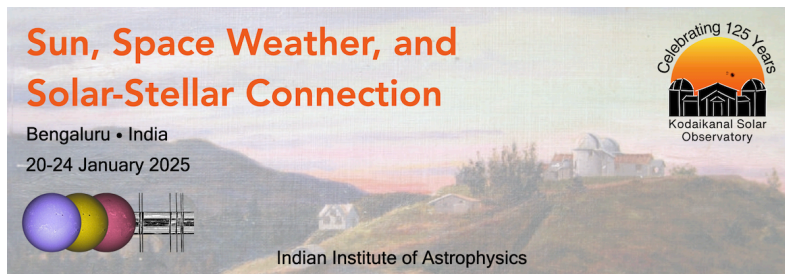


Sun, Space Weather, and Solar-Stellar Connection



Contribution ID: 142

Type: **Invited review talk**

Parker Solar Probe: From Exploration to Paradigm Shifting Discoveries

Tuesday, January 21, 2025 4:00 PM (20 minutes)

Parker Solar Probe has been trailblazing around the Sun for nearly half a solar cycle, delivering groundbreaking insights into its immediate atmosphere. To date, Parker has completed 21 of its scheduled 24 orbits during the prime science phase of the mission. The diverse and unparalleled quality data it gathers has captivated both the international space science community and the public. With its closest approach to the Sun scheduled for 24 December 2024, excitement and anticipation are at an all-time high. The mission has already resulted in paradigm-shifting discoveries and shows no signs of slowing down, making it arguably the most successful heliophysics mission to date. The future looks bright as the spacecraft and its payload continue to perform exceptionally well, which is very promising for the continuation of the mission beyond its prime science phase. I will provide an overview of the outstanding achievements of the mission and the outlook as we enter the declining phase of solar cycle 25 and beyond.

Contribution Type

Theme

Connecting Solar Corona to Heliosphere

Primary author: RAWAFI, Nour E. (Johns Hopkins Applied Physics Laboratory)

Presenter: RAWAFI, Nour E. (Johns Hopkins Applied Physics Laboratory)

Session Classification: Instruments/Facilities and Science: New and Upcoming