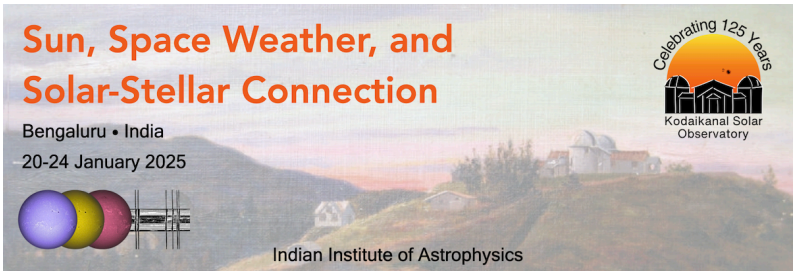

Contribution ID: **37** Type: **Contributed talk**

Type II Radio Burst Without Coronal Mass Ejection

Friday, January 24, 2025 3:15 PM (15 minutes)

Type II solar radio bursts are commonly associated with shocks generated by coronal mass ejections (CMEs), where plasma waves are excited by magnetohydrodynamic (MHD) processes and converted into radio waves at the local plasma frequency or its harmonics. However, there are instances where type II bursts occur in the absence of white-light CMEs.

We analyse one such metric type II radio burst observed on November 2, 2023, characterised by split band features. Notably, no CME was detected with space-based coronagraphs during this event. However, a M1.6 class flare was observed just before the type II burst and an EUV disturbance was observed expanding into surrounding regions. Further analysis will be performed to determine the cause of the EUV disturbance as due to a failed eruption. This talk will discuss preliminary findings on the generation of the shock and shed light on the occurrence of type II bursts in the absence of white-light CMEs.

Contribution Type

Theme

Connecting Solar Corona to Heliosphere

Primary author: GOPALSWAMY, Natchimuthukonar (NASA Goddard Space Flight Center)

Co-author: KUMARI, Anshu (Physical Research Laboratory (PRL))

Presenter: KUMARI, Anshu (Physical Research Laboratory (PRL))

Session Classification: Radio Input to Heliospheric Studies and Space Weather