

Prominence Eruption Occurred on 2010 June 20 – A Multiwavelength Observation

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An interesting prominence eruption occurred on 2010 June 20, on the north-east limb. This prominence eruption was successfully observed in H α s with SMART (Solar Magnetic Activity Research Telescope) at Hida Observatory, Kyoto University, in microwaves with NoRH (Nobeyama Radioheliograph) at Nobeyama Solar Radio Observatory, in extreme ultraviolet with AIA (Atmospheric Imaging Assembly) for SDO (Solar Dynamic Observatory), and so on. The top-view images are also available from SECCHI-EUVI (Sun Earth Connection Coronal and Heliospheric Investigation-Extreme UltraViolet Imager) on board STEREO (Solar TERrestrial RELations Observatory).

From the data set, we found helical motion in the erupting prominence, successive brightenings at the footpoints of the prominence. The filament eruption seems to be associated with a small flare (A6 with the GOES scale) and a coronal mass ejection. The top-view images with STEREO also showed a giant arcade formation and an EIT wave emitted from the prominence eruption.

This is the first time that the prominence eruption is simultaneously observed with so many instruments such as, SMART, NoRH, SDO, STEREO, and so on. In this talk, we will present a detailed examination on a multiple observation of the prominence eruption.