Fast CME associated with giant prominence eruption

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Abstract

We have carried out the analysis of dynamic prominence eruption observed on 2014 September 26 on the south-east limb of the Sun from ARIES, Nainital in H-alpha. It was very energetic giant prominence eruption and the twisted bundle of flux ropes erupts beyond the LASCO C3 field-of-view. It is associated with a fast Coronal Mass Ejection (CME) with the speed of 1469 kms-1. Most of the prominence material erupted but partially falls over the surface of Sun. The height obtained by the CME in LASCO is ~ 30 Rsun. and the average speed in H-alpha ~ 550 kms-1. The event was well observed in H-alpha from ARIES and space-based missions like SDO, STEREO, LASCO, Nobeyama etc. We discuss this prominence eruption in the light of existing theories and it fulfills the criteria of kink instability and tether-cutting model.