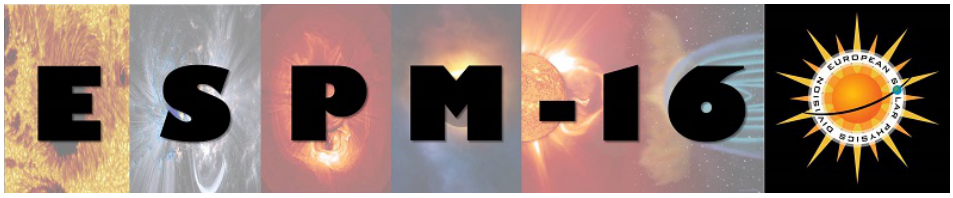


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# Blowout expansion of a coronal mass ejection and subsequent filament eruption

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We present a comprehensive multi-wavelength analysis of a coronal mass ejection (CME) associated with a M3.2 flare and filaments eruption on 8 January 2014 from the active region NOAA 11947. Observations from the AIA 171 A images reveal the origin of pre-CME arcade $\approx$ 1 hr prior to the eruptive events. After formation, the pre-CME arcade undergo through slow rise evolution with a speed $\approx$ 3 km $s^{-1}$. Subsequently, a typical "arcade-to-bubble" transformation is observed, providing the evidence of CME in the form of bubble at lower coronal heights. Differential emission measure analysis suggests the presence of multi-thermal plasma in the bubble structure and strong plasma heating at the core of the active region. Further, the bubble undergo through a blowout expansion with a speed of $\approx$ 420 km $s^{-1}$. The blowout expansion of CME is accompanied with gradually varying EUV and X-ray emissions from the hot core and multiple type III radio bursts, indicating the magnetic reconnection as a possible triggering mechanism for CME. During the impulsive phase, we observed compact hard X-ray sources at energies up to $\approx$ 50 keV from its source region. A temporal correlation between the blowout expansion of the CME and enhanced X-ray fluxes suggests a feedback association between kinematical evolution of CME and impulsive phase of the flare. With the impulsive phase, the activation and subsequent eruption of two successive filaments take place. From these observations, we propose that CME in association with filaments eruption is a result of successive magnetic reconnections.

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