## 16th European Solar Physics Meeting



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## Failed eruption stopped at the distance of 3 RO from the photosphere.

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It is well known that not all solar flares are connected with eruptions followed by coronal mass ejection (CME). Even strongest X-class flares may not be accompanied by eruptions or are accompanied by failed eruptions. One of important factor that prevent eruption from developing into CME is strength of the magnetic field overlying flare site. However, few other factors should be considered like solar gravity, filament's internal magnetic tension etc. We present multi-instrument observations of exceptional eruption which was stopped in the LASCO C2 field of view, at the distance of 3 RO from the photosphere. The eruption was observed by SDO\AIA, STEREO A and B, and RHESSI. We performed detailed analysis of eruption's DEM maps, kinematics from three points of view, and HXR emission. Moreover, magnetic fields from PFSS and NLFF models were investigated. This allowed us to analyse in details the energy balance of flare-eruption and episodes of acceleration and deceleration which occurs during the eruption at different heights, leading to stop the eruption eventually.

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