RELATION BETWEEN THE DYNAMICS OF CORONAL MASS EJECTIONS AND SOLAR FLARE ENERGETICS DERIVED FROM STEREO AND RHESSI OBSERVATIONS

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We aim to explore the relation of the energy release in solar flares to the dynamical evolution of their associated coronal mass ejections for a statistically representative sample of events. For our study, we use EUV (171Å, 195Å) and white light coronographic observations from the STEREO (Solar Terrestrial Relations Observatory) SECCHI instrument suite. Due to the high time cadence of the STEREO EUVI and COR images, the detailed CME kinematics from the initiation through the impulsive acceleration to the propagation phase can be derived. Information on the energy release in the flares under study comes from hard X-ray observations of the RHESSI instrument (Ramaty High Energy Solar Spectroscopic Imager). RHESSI non-thermal lightcurves as well as the derivative of the GOES soft X-ray flux are compared with the acceleration curve of the associated CME.