

[XSE-27] Hot plasmas in coronal mass ejection observed by Hinode/XRTJin-Yi Lee¹, John C. Raymond², and Katharine K. Reeves²¹*Kyung Hee University, Korea*²*Harvard-Smithsonian Center for Astrophysics, USA*

Hinode/XRT has observed coronal mass ejections (CMEs) since it launched on Sep. 2006. Observing programs of Hinode/XRT, called 'CME watch', perform several binned observations to obtain large FOV observations with long exposure time that allows the detection of faint CME plasmas in high temperatures. Using those observations, we determine the upper limit to the mass of hot CME plasma using emission measure by assuming the observed plasma structure. In some events, an associated prominence eruption and CME plasma were observed in EUV observations as absorption or emission features. The absorption feature provides the lower limit to the cold mass while the emission feature provides the upper limit to the mass of observed CME plasma in X-ray and EUV passbands. In addition, some events were observed by coronagraph observations (SOHO/LASCO, STEREO/COR1) that allow the determination of total CME mass. However, some events were not observed by the coronagraphs possibly because of low density of the CME plasma. We present the mass constraints of CME plasma and associated prominence as determined by emission and absorption in EUV and X-ray passbands, then compare this mass to the total CME mass as derived from coronagraphs.