M24a How Can Solar-B/EIS Detect the Reconnection Ejecta?

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Following the success of the Yohkoh satellite, Solar-B is expected to be launched in 2005, with the Solar Optical Telescope (SOT), X-ray Telescope (XRT), and Extreme-Ultraviolet Imaging Spectrometer (EIS) on board. In this talk we will discuss the Solar-B/EIS response to active phenomena on the Sun.

Since one of the scientific objectives of Solar-B/EIS is the study of the flare and CME trigger and dynamics, which are strongly related to magnetic reconnection processes, the expected evidence of reconnection ejecta, which will be observed by EIS, is investigated. The ejection process is obtained self-consistently from MHD simulations, from which the line profiles and velocity differential emission measure (VDEM) are calculated for several candidate coronal emission lines. The motivation for this research is to select the most suitable lines and provide a valuable guide for the future observations.

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