

Probing Energy Release & Transport in Flares – New insights from IRIS and EIS

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While there is broad agreement that the primary energy release site in flares in solar flares is situated in the corona, there remain many open questions relating to the coupling between different atmospheric regimes and the mechanisms by which the flare energy is transported, including the relative roles of non-thermal particles and kinetic and MHD perturbations. On 29 March 2014 an unprecedented number of different solar instruments, including IRIS and EIS, simultaneously observed an X-class flare, presenting us with a unique opportunity to probe the mechanisms of energy transport from the corona to the lower atmosphere in this event. We focus in particular on the new spectroscopic information from IRIS and EIS and its interpretation in the context of existing models for flare energy transport.