

Imaging, spectroscopic and stereoscopic observations of the bi-directional inflow in the solar flare

The standard model of solar flares based on magnetic reconnection includes bi-directional inflow towards the reconnection point. We analysed a C-class flare that occurred beyond the solar limb and found bi-directional inflows above the hot cusp loops with the images of coronal temperature filter of SDO/AIA. Spectroscopic observations with Hinode/EIS also observed the apparent and line of sight velocity of this northern inflowing loop. STEREO-A/SECCHI which observed from a different angle observed this bi-directional inflow with coronal temperature filter. Inflowing angle is consistent with the angle speculated by apparent and line of sight velocity of Hinode/EIS. These results are the first observation of 3-dimensional bi-directional reconnection inflow of a solar flare as long as we know. We would discuss 3-dimensional structure of reconnection.