

Solar Flares and Space Weather

Takaaki Yokoyama[1]

[1] School of Science, Univ.Tokyo

<http://www-space.eps.s.u-tokyo.ac.jp/~yokoyama/>

We will report our present understandings of solar flares. It is well known that large flares are important elements of the space weather. The energy release mechanism of a flare is explained by the magnetic reconnection in the corona. On the other hand, there are remained unsolved problems on flares especially from the viewpoint of a forecast. When will be the reconnection triggered? How large amount of energy will be released? How many particles will be accelerated? Will it be associated with a CME? How serious damage will be given to the Earth eventually?