

M10c      **The estimation of CME speed and SEP flux associated with solar superflares**

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Recently, many superflares are discovered in sun-like stars from Kepler data. The problem, "whether or not super flares occur on our Sun" is now vigorously discussed throughout solar and stellar researchers. We expect extreme space weather disturbance once such a superflare occurs on our Sun. In order to understand the potential impact of such solar superflares on space weather, we tried to estimate how fast CME will come and how intense radiation flux will be associated with solar superflares. We made a scaling relation that relate flare released energy (flare magnitude) and various physical quantities important in space weather, like CME speed, proton flux etc., and compared the scaling relation with the observation of major solar proton events observed during 1997-2014. The scaling relation we made agreed quite well with the solar observations, although they are just first order approximation and it is necessary to further improve estimation method.