

## 静止軌道 MeV 電子フラックス変動の太陽風速度・磁場依存性

# 小原 隆博 [1]

[1] 宇宙機構

## Solar wind control of the MeV electron flux at geostationary orbit

# Takahiro Obara[1]

[1] JAXA

Recent detailed observations of MeV electron flux at geostationary orbit altitude revealed that the MeV electron flux increases very much when the solar wind velocity is high. It was also found that the MeV electron flux increase has a strong seasonal dependence. In order to confirm this signature we have examined JAXA DRTS (Data Relay Testing Satellite) observations of MeV electrons from its launch 2002 up to now. We confirmed a seasonal variation of MeV electron flux and further found a dependence on the IMF polarity. By closer inspection, we identified that a large increase of MeV electron flux took place during the toward sector in the spring season, while the increase took place during away sector in the autumn. This is explained by so-called Russel-McPherson effect. We are speculating that substorm activity together with low frequency plasma wave activity make a significant contribution to the large increase of MeV electron flux in the outer radiation belt.