



## **Radiation Dose Evaluation at Low Earth Orbit Based on FY-3 Observations**

Chunqin Wang

National Space Science Center (NSSC), Beijing, China (wcq@nssc.ac.cn)

FY-3 series satellites operated in low earth orbit at 700 km with 90 degree inclination from 2008 in order to evaluate space radiation environment. Radiation dose during the mission from different directions under the same shielding conditions can provide good assessment of space radiation levels in FY-3 satellite orbits. We get detailed information on radiation effectiveness by combining FY-3 energy particles data. And the results show that high energy electrons play a significant effect on radiation dose, and that increased electrons during disturbances periods can induce highly rise of radiation dose. FY-3 radiation dose observation data can reflect more real space radiation environment on the orbit compared with results calculated by SPENVIS.