

# **DYNAMICS OF RELATIVISTIC ELECTRON FLUX IN THE OUTER EARTH'S RADIATION BELT DURING MINIMUM OF SOLAR ACTIVITY - THE FIRST EXPERIMENTAL DATA OF CORONAS- FOTON SATELLITE**

Myagkova I.N., Panasyuk M.I., Denisov Yu.I., Bogomolov A.V., Kalegaev V.V., Starostin L.I.

Skobeltsyn Institute of Nuclear Physics, Moscow State University, 119191, Moscow, Russia,  
e-mail: [irnim@rambler.ru](mailto:irnim@rambler.ru)

First results of CORONAS-FOTON measurements of relativistic electron flux in the Earth's radiation belts during the first half of 2009 (since March, 2009) are presented. CORONAS-FOTON was launched 2009, January, 30 on the polar orbit with altitude 545-590 km and inclination  $\sim 82.5^\circ$ . The semiconductor telescope «Electron-M-Peska» measures the flux of electrons with the energies 0.2-4 MeV. The dynamics of relativistic electron flux in the Earth's radiation belts during the solar extreme events and the strong geomagnetic storms (2001-2005 years) was carefully investigated due to experiments on board CORONAS-F satellite – the previous satellite of CORONAS series. The “Electron-M-Peska” on board CORONAS-FOTON permits to study the variations of electron flux in the Earth's radiation belts during the solar activity – during moderate and weak geomagnetic disturbances. For example, during the weak magnetic storm March, 13, 2009 and geomagnetic disturbances during 21-25 March, 2009 the significant decrease of relativistic electron fluxes was observed during the main phase of geomagnetic storm (March, 13) and the electron flux intensity increasing during the next days.

Relativistic electron flux, CORONAS-FOTON

Myagkova I.N., Skobeltsyn Institute of Nuclear Physics, Moscow State University, 119191, Moscow, Russia,  
e-mail: [irnim@rambler.ru](mailto:irnim@rambler.ru)