



## Space Radiation Monitoring Center at SINP MSU

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Data on energetic particle fluxes from Russian satellites have been collected in Space monitoring data center at Moscow State University in the near real-time mode. Web-portal <http://smdc.sinp.msu.ru/> provides operational information on radiation state of the near-Earth space. Operational data are coming from space missions ELECTRO-L1, Meteor-M2. High-resolution data on energetic electron fluxes from MSU's satellite VERNOV with RELEC instrumentation on board are also available. Specific tools allow the visual representation of the satellite orbit in 3D space simultaneously with particle fluxes variations.

Concurrent operational data coming from other spacecraft (ACE, GOES, SDO) and from the Earth's surface (geomagnetic indices) are used to represent geomagnetic and radiation state of near-Earth environment. Internet portal <http://swx.sinp.msu.ru> provides access to the actual data characterizing the level of solar activity, geomagnetic and radiation conditions in heliosphere and the Earth's magnetosphere in the real-time mode. Operational forecasting services automatically generate alerts on particle fluxes enhancements above the threshold values, both for SEP and relativistic electrons, using data from LEO and GEO orbits. The models of space environment working in autonomous mode are used to generalize the information obtained from different missions for the whole magnetosphere. On-line applications created on the base of these models provide short-term forecasting for SEP particles and relativistic electron fluxes at GEO and LEO, Dst and Kp indices online forecasting up to 1.5 hours ahead. Velocities of high-speed streams in solar wind on the Earth orbit are estimated with advance time of 3-4 days. Visualization system provides representation of experimental and modeling data in 2D and 3D.