

## **The Global Current Circuit variations influence on atmospheric transparency**

I.V. Artamonova, M.I. Pudovkin

Institute of Physics, St.Petersburg State University, St.Petersburg, Russia.

Events of geomagnetic disturbances (1972, 1973, 1976-78 rr) not associated with Solar Proton Events and Forbush decreases in Galactic Cosmic Rays were considered. It was shown that such geomagnetic disturbances cause atmospheric transparency decreases by approximately 8% and 11% in comparison with undisturbed level at high ( $\varphi \approx 60^\circ$ ) and low ( $\varphi \approx 43^\circ$ ) latitudes correspondingly. At middle latitudes ( $\varphi \approx 55^\circ$ ) this effect is almost unobservable, about 3%. Atmospheric transparency recovery after geomagnetic disturbance occurs at high latitudes much faster than at low latitudes.