**BURSTS OF BROADBAND PULSATIONS DURING THE PASSAGE OF DIAMAGNETIC STRUCTURES IN THE SOLAR WIND**

**Marchuk R.A.1, Mishin V.V.1, Parkhomov V.A.2, PenskikhYu.V.1**

1 - Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia

2 - Baikal State University of Economics and Law, Irkutsk, Russia

The paper presents an analysis of the development of geomagnetic activity on August 18, 2012, caused by the passage of two diamagnetic structures (DS) of a coronal mass ejection (CME) in the solar wind, as recorded by the WIND spacecraft. The passage of the DS triggered disturbances in the magnetic field in the magnetotail, observed by the Van Allen Probes satellites: A, D, and E, leading to the development of a substorm and bursts of geomagnetic pulsations.

The study examines the dynamics of geomagnetic pulsations based on data from the Mondy (mid-latitude: 51.62° E, 100.92° N) and Norilsk (high-latitude: 88.36° E, 69.36° N) stations, as well as on maps of field-aligned currents distribution in the polar ionosphere obtained using the magnetogram inversion technique at the Institute of Solar-Terrestrial Physics SB RAS.

It is shown that the generation of PiB-type pulsations associated with DS can occur during both the substorm’s growth and explosive phases, as well as before and after its development.