Geophysical Research Abstracts
Vol. 14, EGU2012-6990, 2012
EGU General Assembly 2012

Observations of the sharp and large boundaries in the solar wind pressure with high time resolution by the BMSW instrument onboard the Spektr – R project.

N.L. Borodkova and G.N. Zastenker
Space Research Institute RAS, Moscow, Russian Federation (nlbor@mail.ru)

BMSW experiment was developed for the measurements of the main solar wind and magnetosheath plasma parameters – velocity, temperature and ion density with high time resolution onboard the "Spectr-R" project. Since the beginning of measurements on August 2011 a lot of experimental data were received allowing to study, in particular, fine structure of the sharp and large solar wind pressure pulse boundaries, short-term and periodic fluctuations of the solar wind ion flux. The paper presents case study results of several fast variable and short-term events, connected with the bow shock crossing and crossing of sharp boundaries of the solar wind pressure pulses. It was shown the presence of periodic oscillations in the solar wind related to the bow shock. Comparison with simultaneous observations on other satellites was carried out.