

## **MHD - FLUCTUATIONS NEAR BOW SHOCK AND Pc 3-4 GEOMAGNETIC PULSATIONS**

V.C. Danilova, A.V. Sobolev (Institute of Cosmophysical Research and Aeronomy, Yakutsk)

From analysis of the IMF orientation dependence of PC 3-4 pulsation amplitudes at the constant solar wind speed it has been concluded that a source of these pulsations are MHD-waves following the "diffusive" population of the ions accelerated by Fermi mechanism in quasi-parallel regions of the bow shock. This mechanism explains the well-known experimental facts:

- a) maximum amplitudes of PC 3-4 pulsations are observed near noon at IMF nearly radial orientation ( $Q < 20^\circ$ ) ( $Q$  is a cone angle between IMF direction and the Earth-Sun line),
- b) morning maxima of the pulsation amplitudes at  $Q > 60^\circ$ ,
- c) an absence of these pulsations at the azimuthal IMF ( $Q = 90^\circ$ ).