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Thermal plasma flow and properties of energetic particles in the heliospheric shock layer

S. V. Chalov
Institute for Problems in Mech, Physical Gasdynamics, Moscow, Russian Federation (chalov@ipmnet.ru, 007 095 938-20-48)

The measurements of solar wind thermal protons and energetic charged particles at the Voyager 1 and 2 spacecraft after the crossing of the heliospheric termination shock revealed several interesting features. For instance, the flow of thermal protons at the Voyager 2 position just behind the shock still remained supersonic. The recent Voyager 1 data indicate that the value of the radial solar wind plasma velocity is close to zero. Is the spacecraft near the heliopause? We present theoretical models of the solar wind flow in the heliospheric shock layer, which can make more clear the spacecraft measurements.