MHD-MODELLING OF THE MAGNETOSHEATH

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A short discussion of some problems of magnetosheath physics is presented. In particular, anisotropic MHD models of the magnetosheath are discussed. A method to estimate the value of the characteristic relaxation time (τ) of the proton temperature anisotropy from experimental data is proposed. Another problem considered in the review concerns the conditions of formation of a magnetic barrier within the magnetosheath. The existing controversy in this question is explained in the authors' opinion by different definitions of the term ``magnetic barrier'' used in papers by Pudovkin et al. (1982, J. Geophys. Res., 87, 8131; 1995, Ann. Geophys., 13, 828) and Phan et al. (1994, J. Geophys. Res., 99, 121). Experimental data on the magnetic barrier dependence on the IMF orientation are discussed.
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