



Low frequency wave activity at the magnetopause: observations by Cluster.

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A statistical study of the power of the ULF magnetic fluctuations observed at the Earth magnetopause by the CLUSTER-STAFF experiment is presented. The aim is to disentangle the two possible interpretations of this turbulence : are the waves likely to be generated locally or are they coming from the magnetosheath? This study evidences a significant correlation between the wave power and the rotation angle of the d-c magnetic field across the boundary which seems consistent with the model presented in Belmont and Rezeau [2001], in which the magnetosheath waves are trapped into the magnetopause boundary more efficiently if this rotation angle is large. In addition, the influence of the solar wind and the bow-shock on the power of the fluctuations are studied, showing that the wave power increases with solar wind pressure upstream and if the adjacent magnetosheath is near a quasi-parallel shock region.