



## **Comparative study of magnetosheath intermittent turbulence at Venus and Earth**

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The transfer of energy between scales in planetary magnetosheaths can be turbulent and intermittent. While magnetic intermittency in the terrestrial magnetosheath has been systematically detected by the Cluster spacecraft for a large range of distances from the terrestrial bow shock, it is only recently that Voros et al (2008) reported observations by Venus Express of intermittent turbulence in the magnetosheath of Venus, in a region limited to the close neighborhood of the planetary shock. In this study we use simultaneous magnetic field data from Venus Express and Cluster to compare the turbulent spectrum of magnetic fluctuations in the magnetosheath of the two planets, Venus and Earth. We discuss similarities and differences of turbulence properties induced by the main planetary characteristics: a less extended, more comet-like, magnetosheath in the close neighborhood of a planet lacking its own magnetic field (Venus) and the vast terrestrial magnetosheath formed at the outer boundary of the geomagnetic magnetic field and plasma. We compare a series of parameters that quantify the intermittency: the threshold for Gaussianity at the two planets, the Probability Distribution Functions (PDFs) of the magnetic fluctuations as well as their moments (the skeweness and the flatness), the Local Intermittency Measure (LIM). Our analysis shows that the intermittency is in general stronger in the Earth's magnetosheath and has a multifractal topology.