Geophysical Research Abstracts Vol. 17, EGU2015-14495, 2015 EGU General Assembly 2015 © Author(s) 2015. CC Attribution 3.0 License.



Intermittency and multifractality of small-scale solar wind density fluctuations

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The intermittency of density fluctuations in the solar wind at kinetic scales has been examined using high time resolution Faraday cup measurements from the Spektr-R spacecraft. It was found that the probability density functions (PDFs) of the fluctuations are highly non-Gaussian over this range, but only show weak changes in shape with scale. Moreover, the multifractal spectrum evaluated at these scales show a moderate intermittency. These properties are compared to those of the magnetic fluctuations, and are important to understanding the dynamics of small scale turbulence in the solar wind.