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Plasma turbulence in the terrestrial magnetosheath behind quasi-parallel bowshock. Cluster observations

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Magnetosheath at a quasi-parallel bowshock configuration is a very complex region associated with intensive and highly variable fluctuations in all plasma parameters. In order to characterize the magnetosheath turbulent behavior we perform a statistical analysis over a set of high resolution Cluster magnetic and electric field data. We investigate whether the scaling laws have mono- or multi-fractal nature at different scale ranges. In addition, we study the power spectra relation to plasma beta, temperature anisotropy and magnetic compressibility.

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