



Scaling properties of solar wind density fluctuations as seen by ACE.

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Statistical studies of solar wind turbulence often neglect fluctuations in density and incompressible MHD theory is used to explain observed behaviour. Most observational data, however, is collected at, or close to, the ecliptic where production of large density fluctuations is likely to be enhanced. We use extended self similarity to show that fluctuations in the magnetic field magnitude and density are statistically different in both slow and fast solar wind streams. We find that scaling of the density fluctuations departs from that seen in other passive scalars and we will discuss this in the context of models for solar wind turbulence.