



Exact laws in compressible MHD turbulence

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The role of compressible fluctuations in the MHD turbulence is investigated using direct numerical simulations. A focus is put on verifying the exact third-order law derived for compressible isothermal turbulence by Banerjee and Galtier (2013). The numerical simulations use a 3D compressible MHD code in the isothermal limit for different low sonic Mach numbers (i.e. $M_s < 1$). The main goal is to evaluate the relative importance of the new flux and source terms involved in the derived law. A discussion regarding the recent in-situ observations from the Themis spacecraft in the fast and slow solar wind are made.