

Abstract Submitted  
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**Numerical Measurements of the Spectrum in Strong Magnetohydrodynamic Turbulence**<sup>1</sup> JOANNE MASON, FAUSTO CATTANEO, University of Chicago, STANISLAV BOLDYREV, University of Wisconsin — We discuss the results of an extensive set of direct numerical simulations of forced, incompressible, strong MHD turbulence with a strong guide field. Our aim is to resolve the controversy regarding the power law exponent of the field perpendicular energy spectrum. The two main theoretical predictions,  $-3/2$  and  $-5/3$ , have both received some support from numerical simulations carried out by different groups, however, the design of those calculations also differ. Our simulations have a resolution of  $512^3$  mesh points, a strong guide field, an anisotropic simulation domain, and implement a broad range of large-scale forcing routines. Our findings indicate that the spectrum of well developed, strong incompressible MHD turbulence with a strong guide field has the exponent  $-3/2$ .

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