XINWEI YU, University of Alberta On The Exact Laws of MHD Turbulence

Exact laws are important properties of turbulent fluids. For MHD turbulence, such laws have been derived by various authors from the statistical point of view. In this talk, we show that these laws hold for weak solutions of the MHD equations, in a distributional sense. As a corollary, we give a simplified proof of the sufficient condition of energy conservation for MHD weak solutions.