

Abstract Submitted  
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**Rapid Spin-Up of MHD Turbulence** WOUTER BOS, LMFA - CNRS, Ecole Centrale de Lyon - Universite de Lyon, France, SALAH NEFFAA, KAI SCHNEIDER, M2P2-CNRS & CMI, Universite de Provence, Marseille, France — Direct numerical simulations of two-dimensional decaying MHD turbulence in bounded domains show the rapid generation of angular momentum in non-axisymmetric geometries. It is found that magnetic fluctuations enhance this mechanism. The subsequent generation of a magnetic angular momentum or angular field is due to the relaxation of the flow towards an aligned state. For axisymmetric geometries the generation of angular momentum is absent, nevertheless a weak angular field can be observed. The derived evolution equations for both angular momentum and angular field yield possible explanations for the observed behaviour.

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