Abstract Submitted
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Turbulence in more than two and less than three dimensions ANTONIO CELANI, Institut Pasteur Paris, DARIO VINCENZI, STEFANO MUSACCHIO — We investigate the behavior of turbulent systems in geometries with one compactified dimension. A novel phenomenological scenario dominated by the splitting of the turbulent cascade emerges both from the theoretical analysis of passive scalar turbulence and from direct numerical simulations of Navier-Stokes turbulence. (Phys. Rev. Lett. 104, 184506 (2010), J. Stat. Phys. 138, 579-597 (2010))

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