

Abstract Submitted
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Eulerian and Lagrangian statistics in fully developed rotating turbulent flows.¹ LUCA BIFERALE, FABIO BONACCORSO, IRENE MAZZITELLI, University of Rome 'Tor Vergata', ALESSANDRA LANOTTE, CNR ISAC and INFN, Lecce, Italy, PRASAD PERLEKAR, Tata Institute of Fundamental Research, India, STEFANO MUSACCHIO, Universite de Nice Sophia Antipolis, CNRS, LJAD, Nice, France, MICHEL HINSBERG, FEDERICO TOSCHI, Fluid Dynamics Laboratory, Department of Physics and Eindhoven University of Technology, The Netherlands — We present results concerning both Eulerian and Lagrangian statistics for turbulent under rotation at small and large Rossby numbers. Concerning the Eulerian statistics we discuss the effects of the presence of strong coherent large-scale vortical structures on the small-scale statistics. Concerning Lagrangian properties, we discuss the effects of preferential sampling at changing the inertial properties of the particles also due to the centrifugal and Coriolis forces.

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