

# Global existence and non-uniqueness-in-law for 3D Euler equations with transport noise

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## Abstract

Consider the three-dimensional Euler equations perturbed by a multiplicative noise of transport type. With the help of a flow transformation of the resulting SPDE and a convex integration scheme inspired by De Lellis-Székelyhidi-2014, we show existence of Hölder continuous, global-in-time solutions. Our analysis allows to prescribe the kinetic energy up to a stopping time which gives non-uniqueness in law. The results presented in this talk are based on joint work with Umberto Pappalettera (Scuola Normale Superiore Pisa) and Martina Hofmanova (Bielefeld University).