

Invariant or quasi-invariant probability measures for infinite dimensional groups^{*}

Part I: Non-ergodicity of Euler hydrodynamic

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*To the Japanese Mathematical Community,
with my admiration and my warmest friendship.*

Abstract. Deterministic Euler flow on a torus cannot leave invariant any probability measure.

Keywords and phrases: group of diffeomorphisms, Malliavin calculus, random unitary operator, existence of Euler flow

Mathematics Subject Classification (2000): 37K65, 60H07, 60H25, 76B03

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