

BOSTON UNIVERSITY GEOMETRY SEMINAR

A nonholonomic Moser theorem and diffeomorphism groups.

Boris Khesin
(University of Toronto)

Thursday, April 22, 3-4 pm in MCS 135
Tea 2:45-3 in MCS 153

Abstract : We discuss the following nonholonomic version of the classical Moser theorem: given a bracket-generating distribution on a connected compact manifold (possibly with boundary), two volume forms of equal total volume can be isotoped by the flow of a vector field tangent to this distribution. We also present the Hamiltonian and dynamical frameworks for the corresponding mass transport problem as an infinite-dimensional Hamiltonian reduction on diffeomorphism groups.