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Beyond Arnold's geodesic framework of an ideal hydrodynamics II.

In the talk we continue the description of two ramifications of Arnold's group-theoretic approach to ideal hydrodynamics. Here we present an Arnold-like geodesic and Hamiltonian description for fluid flows with vortex sheets. It turns out that the corresponding dynamics is related to a certain groupoid of pairs of volume-preserving diffeomorphisms with common interface and equipped with a one-sided invariant metric (this is a joint work with Boris Khesin). (Received February 04, 2018)