
On bifurcations of area-preserving maps with quadratic homoclinic tangencies on non-orientable surfaces

Marina Gonchenko^{*1}, Amadeu Delshams², and Sergey Gonchenko³

¹Uppsala University – Sweden

²Universitat Politècnica de Catalunya – Spain

³University of Nizhny Novgorod – Russia

Abstract

We study bifurcations of non-orientable area-preserving maps with quadratic homoclinic tangencies. We study the case when the maps are given on non-orientable two-dimensional surfaces. We consider one and two parameter general unfoldings and establish the results related to the emergence of elliptic periodic orbits.

*Speaker