

Singularities of differentiable mappings: stability and density.

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Abstract

The purpose of the lecture is to describe classical results on the characterization of stable applications, and discuss pairs of dimensions for which the stable application set is a dense set, these pairs of dimensions are called *nice dimensions of Mather*. We also present recent results of this theory, in particular we define the Lipschitz nice-dimensions as the pairs of dimensions for which the Lipschitz stable mappings form a dense set in the set of all smooth mappings with the Whitney topology. The aim is to show that the set of Lipschitz nice-dimensions contains the set of Mather's nice dimensions and its boundary.

This is a joint work with Nhan Nguyen and Saurabh Trivedi.