
BERN-FRIBOURG GRADUATE SEMINAR

a seminar for Master and PhD students

Thursday 10th October, 2024: 17:15 - 18:00

Room B5, Exakte Wissenschaften, Bern

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Lipschitz-volume rigidity

Abstract

In this talk we consider the following question. Given a surjective 1-Lipschitz map between two metric spaces, under what additional assumptions can we conclude that f is an isometry? A classical result from Riemannian geometry states that this is the case if the target and domain are closed, oriented Riemannian manifolds of the same dimension and volume. However, simple examples show that this is false without any topological assumptions. For this reason, there has been recent interest in considering manifolds with less differentiable structure.

We first introduce the question and some techniques in the smooth setting. We then give a brief overview of further developments and recent work.