

Distances between Riemannian Manifolds and Metric Spaces

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007 Kemeny Hall, 4:00 pm
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Abstract

We will begin by reviewing the notions of Hausdorff and Federer-Fleming flat distances between surfaces in Euclidean three dimensional space. We then review Gromov's intrinsic Hausdorff distance defined between any pair of Riemannian manifolds or metric spaces via isometric embeddings into a common metric space. We introduce the new notion of intrinsic flat distance between Riemannian manifolds. This new notion is joint work with Stefan Wenger (UIC). The presentation will be geometric in style with lots of pictures and less emphasis on the rigorous definitions of these distances.