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***Existence of Lipschitz Continuous Maps onto Flap Spaces***

A metric space is a collection of objects together with a notion of distance between these objects. Functions between metric spaces which only distort the distance between any two given points by at most a multiplicative factor can be shown to preserve many other geometric properties of the spaces, including notions of dimension, topology, and 'flatness'. Recently, metric spaces have been discovered which exhibit these invariants of euclidean space, yet any function between the spaces must necessarily distort distances beyond a multiplicative constant. The purpose of this project is to investigate the existence of a weaker relationship between euclidean space and metric spaces satisfying these invariants. We begin by introducing a method by which new metric spaces may be generated from euclidean space by attaching discs to the plane. The metric spaces resulting from this process are called flap spaces. We then continue to explain the existence of Lipschitz surjections onto flap spaces in special cases.