Rigidity of mass-preserving 1-Lipschitz maps from integral current spaces into Euclidean space.

Raquel Perales[1]

[1] IMUNAM

We will prove that given an n-dimensional integral current space and a 1-Lipschitz map, from this space onto the n-dimensional Euclidean ball, that preserves the mass of the current and is injective on the boundary, then the map has to be an isometry. We deduce as a consequence the stability of the positive mass theorem for graphical manifolds as originally formulated by Huang–Lee–Sormani. (Joint work with Giacomo Del Nin).