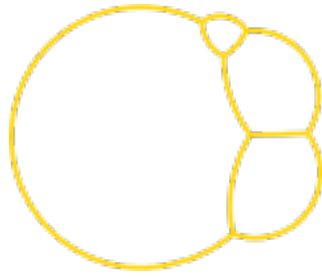


Isoperimetric Problems



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On compactness and generalized existence results for clusters in Riemannian manifolds with bounded geometry

Wednesday, 22 June 2022 11:40 (50 minutes)

In this talk, we will show a generalized compactness theorem for sequences of clusters with uniformly bounded perimeter and volume in a Riemannian manifold with bounded geometry. The arguments presented in the proof of this generalized compactness theorem when applied to minimizing sequences of clusters give a generalized existence theorem for isoperimetric clusters. To achieve this goal, we show that isoperimetric clusters are bounded and also we prove the local Holder continuity of the multi-isoperimetric profile. This work generalizes to the context of Riemannian isoperimetric clusters some previous results about the classical Riemannian isoperimetric problem as well as results from clusters theory in the Euclidean setting.

Presenter: RESENDE DE OLIVEIRA, Reinaldo (Universidade de São Paulo)