Seminário de Geometria Diferencial & Análise Geométrica

Título: Area of cycles with geodesic boundary - part II

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Resumo: In this talk, we will prove two results for the model $(M, \partial M) = (\Sigma, \partial \Sigma) \times \mathbb{S}^1$, where $(\Sigma, \partial \Sigma)$ is a hyperbolic manifold with totally geodesic boundary. The first result, using the Larry Guth's techniques and under an upper bound on the volumes of unit balls in the universal cover of $(M, \partial M)$, we show that the volume of a hyperbolic manifold with totally geodesic boundary has a relation to its simplicial volume. Moreover, under those hypothesis, we generalized a result of Hannah Alpert and Kei Funano, showing that the area of $\mathbb{Z}_2$-relative homology class $[(\Sigma, \partial \Sigma)]$ in $(M, \partial M)$ is proportional to the area of $(\Sigma, \partial \Sigma)$.

Local: Sala 02 (antiga A) - IM Novo
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