



A Linear Isoperimetric Inequality and Eigenvalue Estimates in Weighted Manifolds

M. Batista^{*}, M. P. Cavalcante, J. Pyo

^{*}UFAL

Abstract

In this talk we will present an upper bound to the weighted volume of a smooth compact manifold using the weighted mean curvature of its boundary. As consequence we give a linear isoperimetric inequality for such manifolds. We also give an extrinsic upper bound to the first non zero eigenvalue of the drift Laplacian on closed submanifolds of weighted manifolds.

This is a joint work with M. P. Cavalcante (UFAL - Brazil) and J. Pyo (Pusan University, South Korea).