

Bounds for eigenfunctions of the Laplacian on noncompact Riemannian manifolds

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We deal with eigenvalue problems for the Laplacian on noncompact Riemannian manifolds M of finite volume. Sharp conditions ensuring $L^q(M)$ and $L^0(M)$ bounds for eigenfunctions are exhibited in terms of either the isoperimetric function or the isocapacitary function of M . This is a joint paper with Andrea Cianchi (Florence).