

Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5)
Vol. III (2004), pp. 705-747

On the Differential Form Spectrum of Hyperbolic Manifolds

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Abstract. We give a lower bound for the bottom of the L^2 differential form spectrum on hyperbolic manifolds, generalizing thus a well-known result due to Sullivan and Corlette in the function case. Our method is based on the study of the resolvent associated with the Hodge-de Rham Laplacian and leads to applications for the (co)homology and topology of certain classes of hyperbolic manifolds.

Mathematics Subject Classification (2000): 53C35 (primary); 22E40, 34L15, 57T15, 58J50 (secondary).