

p -Spectra and geometry of compact flat manifolds

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Thursday, September 20, 2012

007 Kemeny Hall, 4:00 pm
(Tea 3:30 pm 300 Kemeny Hall)

Abstract

We will compare spectral data (eigenvalues of Hodge Laplacians acting on p -forms) of compact flat manifolds M with geometric and topological properties of M . We will discuss some recent results concerning the p -form spectra and the length spectra (collection of lengths of closed geodesics) on M . We will also show there are compact flat manifolds that are strongly isospectral but have non-isomorphic cohomology rings.