



Speaker: Werner Ballmann
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Wednesday, September 28, 2016

4:00 PM

117 Hayes-Healy Hall

Title: Small eigenvalues and analytic systole of surfaces

Abstract:

Eigenvalues of a Riemannian surface S are called small if they lie below the bottom $\lambda_0(S)$ of the spectrum of the universal covering \tilde{S} of S . For example, eigenvalues of hyperbolic surfaces below $1/4$ are small. I will explain some of the results of Buser and others on small eigenvalues. In my recent joint work with Matthiesen and Mondal on small eigenvalues, a new invariant, the analytic systole $\Lambda = \Lambda(S)$, arises naturally. I will discuss Λ and its relation to small eigenvalues.