

MSRI–Evans Talk

Monday, 4:10–5:00pm, 60 Evans

Dec. 8 **Tanya Christiansen**

Resonances, analysis, and geometry

On a compact Riemannian manifold the spectrum of the Laplacian is a discrete set which carries information about the global geometry of the manifold. In contrast, on infinite volume manifolds, the Laplacian has continuous spectrum and it says little about the underlying geometry. In such settings, *resonances* may provide a replacement for discrete spectral data. Resonances are complex numbers which can correspond to decaying waves—the real part gives the frequency and the imaginary part the rate of decay.

In this talk I will define resonances and give a sampling of results about their distribution.