Séminaire d'analyse

UNIVERSITÉ LAVAL

Vendredi 8 avril 2016
14h
Local VCH 3830

Conférencier

Donato Cianci (Dartmouth)

Titre

On the Poisson relation for Lens spaces

Résumé

Motivated by quantum mechanics and geometric optics, it is a long-standing problem whether the length spectrum of a compact Riemannian manifold can be recovered from its Laplace spectrum. One route to proving that the length spectrum depends on the Laplace spectrum is by computing the singular support of the trace of the corresponding wave group, i.e. showing that the so-called Poisson relation is an equality. In this talk, we will focus on the Poisson relation for a class of manifolds of constant positive curvature known as lens spaces. We will show that on homogeneous lens spaces and certain classes of 3-dimension lens spaces the Poisson relation is an equality.