

Mass formulae for asymptotically hyperbolic manifolds

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Abstract

The goal of the talk is to explain the recent construction of an asymptotic invariant called mass for asymptotically hyperbolic manifolds, analogous to the classical “mass” of asymptotically euclidean metrics. This hyperbolic mass is not a number, but a linear form on a natural vector space, a surprising fact that can be explained in the setting of General Relativity. We shall also show that the hyperbolic mass satisfies a “positive mass property”.

(Joint work with Piotr T. Chruściel and Gabriel Nagy) masse des variétés asymptotiquement hyperboliques)