



**Oberseminar**  
**Geometrische Analysis und Allgemeine Relativitätstheorie**

Am Donnerstag, den 03.07.2014 spricht um **14 Uhr c.t.** im Raum **N14**

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über das Thema

**On the mass-aspect tensor**  
**of asymptotically hyperbolic manifolds**

We consider non-compact Riemannian manifolds whose geometry at infinity approaches that of the hyperbolic space. They arise naturally in General Relativity and in the AdS/CFT correspondence.

A fundamental result by X. Wang and by P.T. Chrusciel and M. Herzlich is that, under appropriate decay assumptions, one can define an asymptotic invariant, reminiscent of the ADM mass for asymptotically Euclidean manifolds.

After a review of the definition, the invariance property as well as "positive mass theorems", we will focus on X. Wang's definition, which relies on the trace of the mass-aspect tensor. After giving examples, we will explain a method to look for other mass-like asymptotic invariants that arise under various decay assumptions.

This is joint work with Mattias Dahl and Romain Gicquaud.

Hierzu wird herzlich eingeladen.

C. Cederbaum, G. Huisken