EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

Mathematisch-
Naturwissenschaftliche
Fakultät

Fachbereich Mathematik
AB Geometrische Analysis,
Differentialgeometrie und
Relativitätstheorie

Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie

Am Donnerstag, den **30.04.2026** spricht um **14 Uhr** im Raum **C4H33 und über Zoom**

Prof. Greg Galloway
(University of Miami)

über das Thema

Mass aspect, MOTS and positive mass theorems for ALH manifolds

In work with P. Chruściel, L. Nguyen and T.-T. Paetz (CQG, 2018), a positive mass theorem was obtained for asymptotically locally hyperbolic (ALH) manifolds with boundary, having a toroidal end. The proof made use of properties of marginally outer trapped surfaces (MOTS), in addition to a key result concerning the mass aspect of ALH manifolds. Here we present some new PMT results for ALH manifolds with toroidal ends, but without boundary, which allow for other more general ends. The proofs, while still MOTS-based, involve a more elaborate technique (related to μ-bubbles) introduced in work of D. A. Lee, M. Lesourd, and R. Unger (Calc. Var., 2023) in the AF setting. This talk is based on joint work with Tin-Yau Tsang.

Den Zoom-Link erhalten Sie per E-Mail von Martina Neu.

For participating online, please sign up by sending an email to Martina Neu.

Hierzu wird herzlich eingeladen.

Carla Cederbaum, Gerhard Huisken, zusammen mit Jan Metzger (Potsdam)