EBERHARD KARLS UNIVERSITÄT TÜBINGEN

Mathematisch-Naturwissenschaftliche Fakultät

**Fachbereich Mathematik
AB Geometrische Analysis,
Differentialgeometrie und
Relativitätstheorie**

Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie

Am Donnerstag, den **31.10.2024** spricht um **14 Uhr s.t.** im Raum **S9 (C6H05)** und **über Zoom**

Prof. Dr. Allan Freitas
(Federal University of Paraíba)

über das Thema

Geometric Inequalities and rigidity of static-type metrics

The search for solutions to Einstein's equations remains a core challenge in General Relativity, particularly in the study of static solutions. In the vacuum case, Boucher, Gibbons, and Horowitz established a three-dimensional inequality that sets an upper bound on the boundary area of a static manifold, with equality achieved when the manifold is a hemisphere. Employing specific integral identities, we extend this analysis to higher-dimensional static vacuum manifolds and explore similar results in sub-static spaces. In this latter context, we also derive some splitting-type results.

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.

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