



Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie

Donnerstag, 18. Juli 2024 im Raum **S9 (C06H05)** und über Zoom

14:15 – 15:15 Uhr Vortrag

Stephen Lynch
(Imperial College London)

Singularities in mean curvature flow

Abstract:

We will discuss the flow of hypersurfaces in 4-dimensional space by their mean curvature. Compared with the case of surfaces in 3-space, many interesting new phenomena arise. In particular, many new kinds of singularities are expected to arise, but have not yet been constructed rigorously.

15:15 -15:45 Uhr Kaffee im Hankelzimmer

15:50 – 16:50 Uhr Vortrag

Albachiara Cogo
(Universität Tübingen)

Maximal surfaces and boosts in the Schwarzschild spacetime

Abstract:

In Minkowski spacetime there is a one-to-one correspondence between observers, boosts and complete spacelike maximal (vanishing mean curvature) surfaces by the renowned Cheng-Yau Bernstein type theorem. We address the question whether there is a correspondent generalization of this idea in non-flat spacetimes, starting from the Schwarzschild spacetime. As a first step in this direction, we will prove the existence of a maximal surface approaching a coordinate-dependent hypersurface related to a boost of Minkowski in the asymptotically flat end and discuss some of its properties.

Den Zoom-Link erhalten Sie per E-Mail von Frau 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)

