Wintersemester 2019/20

Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie

Am Donnerstag, den **23.01.2020** spricht um **14 Uhr c. t.** im Raum C9A03

Dr. Oliver Lindblad Petersen
(University of Hamburg)

über das Thema

Compact Cauchy horizons in vacuum spacetimes

Moncrief and Isenberg conjectured in 1983 that any compact Cauchy horizon in a smooth vacuum spacetime is a smooth Killing horizon. They have proven the conjecture (in dimension 3+1), under the assumptions that the spacetime metric is analytic and the generators are „ non-ergodic". In this talk, we prove that any compact Cauchy horizon with constant non-zero surface gravity in a smooth (as opposed to analytic) vacuum spacetime is a smooth Killing horizon. The method relies on new energy estimates and Carleman estimates for wave equations close to compact Cauchy horizons.

Hierzu wird herzlich eingeladen.

C. Cederbaum, G. Huisken