Sommersemester 2020

**Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie**

Am Donnerstag, den **07.05.2020** spricht um **14 Uhr c. t.** per Videoübertragung

Dr. Stefano Borghini
(University of Uppsala)

über das Thema

Static Vacuum Spacetimes With Positive Cosmological Constant

Static vacuum spacetimes are solutions to the Einstein Field Equations with vanishing stress-energy tensor and featuring a very special metric structure (warped product). Such a structure induces a natural foliation of the spacetime into space-like slices which are all isometric to each other, so that the corresponding physical universe is static. We discuss the problem of the classification of such spacetimes, with particular focus on the case of a positive cosmological constant. To this end, we develop some new or improved tools to study extremal points of real analytic functions. Building on this, we deduce a new characterization of the Schwarzschild–de Sitter solution based on the geometry of the maximum set of the lapse. This is a joint work with P. T. Chruściel and L. Mazzieri.

Hierzu wird herzlich eingeladen. Bei Interesse bitte per E-Mail an neu@math.uni-tuebingen.de anmelden, um den Link zur Videoübertragung zu erhalten.

C. Cederbaum, G. Huisken