



Sommersemester 2016

**Oberseminar  
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie**

Am Donnerstag, den 23.06.2016 spricht um 14 Uhr c. t. im Raum N14

**Dr. Ellery Ames**  
(Chalmers University of Technology)

über das Thema

**Existence of AVTD Solutions to the Einstein Equations in Wave  
Gauges by Non-Analytic Fuchsian Methods**

An asymptotically velocity term dominated (AVTD) solution of the Einstein equations is a non-oscillatory singular solution which at each spatial point asymptotically approaches a Kasner solution near the singularity. The identification of AVTD behavior in symmetry-defined classes of spacetimes has been useful in probing the question of strong cosmic censorship in general relativity. Existence of families of AVTD solutions can be naturally proved as an application of Fuchsian methods for PDE. In this talk I present a class of AVTD solutions with Gowdy symmetry in wave gauges, and also discuss the Fuchsian theorem in the smooth category on which the existence of such solutions based.

Hierzu wird herzlich eingeladen.

C. Cederbaum, G. Huisken