Sommersemester 2020

**Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie**

Am Donnerstag, den **14.05.2020** spricht um **15 Uhr c. t.** per Videoübertragung

Prof. Dr. David Maxwell
(University of Fairbanks)

über das Thema

The Conformal Method and Non-Vacuum Initial Data Sets

The conformal method is a well-studied technique for generating initial data sets in general relativity. Nevertheless, it has intimate connections with the evolution problem, especially the Lagrangian and Hamiltonian perspectives, that are not fully appreciated. In this talk we highlight these connections and show how they give insight on how to "correctly" use the conformal method when matter fields are present. In particular, we show how the Hamiltonian perspective gives a guiding principle to select among ad-hoc constructions used in the past. In addition to giving insight as to why certain approaches have worked well, our technique leads to some novel constructions. For example, for perfect fluids, our approach leads to genuinely new equations. This is joint work with Jim Isenberg.

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

C. Cederbaum, G. Huisken