



Wintersemester 2018/19

Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie

Am Donnerstag, den 07.02.2019 spricht um 14 Uhr c. t. im Raum 7 E 02 (Hörsaalzentrum)

Dr. Istvan Racz
(Wigner RCP)

über das Thema

Construction of initial data with monotonous Geroch mass

Consider a smooth three-dimensional manifold Σ that is smoothly foliated by topological two-spheres. Choose a smooth flow such that the integral curves of it intersect the leaves of the foliation precisely once. Assume that a smooth distribution of induced two-metrics on the leaves of the foliation is also chosen such that the area of the leaves is non-decreasing. It is shown then that large variety of initial data configurations can be constructed on Σ such that the prescribed foliation gets to be an inverse mean curvature foliation, the prescribed flow turns out to be a generalized inverse mean curvature flow and the Geroch mass—defined with respect to the foliation—is guaranteed to be non-decreasing.

Hierzu wird herzlich eingeladen.

C. Cederbaum, G. Huisken