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E I N L A D U N G

im Rahmen des Literaturseminars

zum Vortrag

von

Helmut Friedrich

(MPI Golm)

über

„Smooth conformal Einstein-lambda-dust flows across time-like infinity“

Abstract:
We consider the Einstein-dust equations with positive cosmological constant λ onmanifolds with time slices diffeomorphic to an orientable, compact 3-manifold S. It is shown that the set of standard Cauchy data for the Einstein-λ-dust equations on S contains an open (in terms of suitable Sobolev norms) subset of data which develop into solutions that admit at future time-like infinity a space-like conformal boundary ${\cal J}^+$ that is C^{∞} if the data are of class C^{∞} and of correspondingly lower smoothness otherwise. The class of solutions considered here comprises non-linear perturbations of FLRW solutions as very special cases. It can conveniently be characterized in terms of asymptotic end data induced on ${\cal J}^+$. These data must only satisfy a linear differential equation. If the energy density is everywhere positive they can be constructed without solving differential equations at all.

Zeit: Donnerstag, 23.6.2016, **14:00**
Ort: Arbeitsgruppe Gravitation, Seminarraum A (218),
Währinger Straße 17, **2. Stock**

gez.: P. Chrusciel