E I N L A D U N G

Lunchseminar

zum Vortrag

von

Jerzy Knopik

(Univ. Wien)

über

„Gowdy spacetimes with a positive cosmological constant"

Abstract:

Assuming U(1) symmetry of solutions we construct a fully constrained scheme for Einstein equations on compact spatial domains with $S_2 \times S_1$ and S_3 topology.
Performing Geroch reduction and choosing appropriate gauge we rewrite Einstein equations into a system of elliptic and hyperbolic equations which are suitable for numerical computations. Following the approach of Beyer, Escobar and Frauendiener we use spin-weighted spherical harmonics to deal with the singularities of spherical polar coordinates. We apply the scheme to *rotating cosmologies* initial data with U(1)xU(1) symmetry found by Bizoń, Simon and Pletka.

Zeit: Freitag, 15.11.2019, **12.00 h**

Ort: Arbeitsgruppe Gravitation, Währinger Straße 17,
　　　 Common room, first floor

gez.: P. T. Chrusciel, D. Fajman