E I N L A D U N G

im Rahmen des <u>Seminars in Geometric Analysis and Physics</u>
(<u>GAP Seminar</u>)

zum Vortrag

von

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über

Initial data for rotating cosmological solutions of Einstein's equations.

Abstract: Using the conformal method, we describe the construction of axially symmetric initial data on compact manifolds in vacuum with positive cosmological constant. We discuss a recent Theorem of Premoselli which yields existence, non-existence, (non-)uniqueness and (linearisation-)stability of solutions of the corresponding Lichnerowicz equation, depending on its coefficients. We also discuss results on symmetry inheritance and symmetry breaking of solutions, compared to the coefficients of the equation. We apply these results to two examples, namely to Bowen-York data on the round hypertorus (a slice of Nariai) as seed manifolds, and to certain data on Kerr-de Sitter backgrounds.

Zeit: Donnerstag, 30.04.2015, 11**:**00

Ort: Arbeitsgruppe Gravitation, Seminarraum Kernphysik

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