Fakultät für Physik
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E I N L A D U N G

Joint Analysis, Relativity and Geometry seminar

zum Vortrag

von

Andras Vasy

(Standford)

über

„Global analysis for linear and nonlinear waves and the stability of Kerr-de Sitter space“

Abstract:

I will discuss the problem of proving the stability of the family of Kerr-de Sitter (KdS) black holes as solutions of Einstein's vacuum equation: spacetimes evolving from initial data close to those of (M,g) stay globally close to (M,g), and are indeed asymptotic to (M,g) or another nearby member of the KdS family.
I will focus on analytic aspects of this problem together with the choice of a gauge to break the diffeomorphism invariance of Einstein's equation and the role of constraint damping. The analytic framework is that of global non-elliptic Fredholm problems. The main ingredients are, first, the microlocal control of the regularity of waves by means of elliptic, real principal type, and radial point estimates on a suitable compactification of the spacetime; and second, the asymptotic analysis in which model operators and resonance expansions play a role.

Zeit: Freitag, 29.6.2018, **15.00**
Ort: ERWIN SCHRÖDINGER INSTITUT, Boltzmanngasse 9,
Schrödinger Lecture Hall, 2. Stock

gez.: A. Cap, P. T. Chrusciel, R. Donninger, M. Eichmair, M. Kunzinger