A-1090 WIEN, BOLTZMANNGASSE 5, AUSTRIA



EINLADUNG

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