



# *EINLADUNG*

im Rahmen des Literaturseminars

zum Vortrag

von

**Siyuan Ma**

(MPI Potsdam-Golm)

über

***„On Teukolsky equation in Kerr spacetimes“***

**Abstract:**

The Teukolsky master equation (TME) governs the dynamics of massless spin- $s$  fields in Kerr spacetime,  $s=0,1,2$  corresponding to scalar field, electromagnetic field and linearized gravity respectively. In this talk, I will review the main progress on obtaining energy estimates and integrated local energy decay (Morawetz) estimates for these fields in Schwarzschild and Kerr spacetimes in the last decade, and then present the main ideas in my recent results on obtaining energy, Morawetz and pointwise decay estimates for TME in the cases of both Maxwell field and linearized gravity on Kerr backgrounds. Part of the work is joint work with Lars Andersson, Thomas Backdahl, Pieter Blue and Jinhua Wang.

**Zeit:** Donnerstag, 03.05.2018, 14.00

**Ort:** Arbeitsgruppe Gravitation, Währinger Straße 17,  
Raum, 218, 2. Stock

gez.: P. Chrusciel, D. Fajman