



E I N L A D U N G

im Rahmen des Literaturseminars

zum Vortrag

von

Andrzej Rostworowski

(Cracow)

über

„Higher order perturbations of Anti-de Sitter space and time-periodic solutions of vacuum Einstein equations“

ABSTRACT:

Motivated by the problem of stability of Anti-de Sitter (AdS) spacetime, I will discuss nonlinear gravitational perturbations of maximally symmetric solutions of vacuum Einstein equations in general and the case of AdS in particular. I will present the evidence that, similarly to the self-gravitating scalar field at spherical symmetry, the negative cosmological constant allows for the existence of globally regular, asymptotically AdS, time-periodic solutions of vacuum Einstein equations that bifurcate from linear eigenfrequencies of AdS. Interestingly, preliminary results indicate that the number of time-periodic solutions bifurcating from a given eigenfrequency equals the multiplicity of this eigenfrequency.

The talk will be based on the recent preprint <https://arxiv.org/abs/1701.07804>

Zeit: Donnerstag, 23.03.2017, **14:00**

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

gez.: P. Chrusciel