



EINLADUNG

Literaturseminar

zum Vortrag

von

Patryk Mach

(Vienna)

über

**„Self-gravitating perfect-fluid tori around black holes:
Bifurcations, ergoregions, and geometrical properties“**

Abstract:

I will discuss recent results in modeling stationary self-gravitating tori (disks) around black holes. Special emphasis will be put on general-relativistic Keplerian rotation in self-gravitating perfect-fluid tori and the interaction between the angular momentum of the torus and the spin of the black hole. Next, I will focus on general-relativistic effects characteristic for sufficiently massive tori: bifurcations in the parameter space of solutions, the existence of toroidal ergoregions connected with the tori, the appearance of local maxima of the circumferential radius, and the properties of circular, equatorial geodesics in the obtained spacetimes.

Zeit: Donnerstag, 05.12.2019, **14.00**

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

gez.: P. T. Chruściel, D. Fajman