



# *EINLADUNG*

## Lunchseminar

zum Vortrag

von

**Annegret Burtscher**

(Vienna)

über

*„On the formation of trapped surfaces*

*in Einstein-Euler spacetimes“*

**Abstract:**

The concept of a closed trapped surface (a spacelike surface with decreasing area in the direction of the future-directed null normals) was introduced by Penrose for the formulation of his first singularity theorem. It is not a priori clear whether such trapped surfaces are evolutionary, and hence an important question is to understand whether/how trapped surfaces can form starting from initial data that do not contain such surfaces. Christodoulou pioneered this work in the vacuum and scalar field case, results for Einstein-Vlasov spacetimes are also known. In my talk I will present first results for Einstein-Euler spacetimes in spherical symmetry, carried out in joint work with Philippe LeFloch (see also arXiv:1411.3008).

**Zeit:** Freitag, 13.3.2015, **12.30**

**Ort:** Arbeitsgruppe: Gravitation, Währinger Straße 17,  
common room 1. Stock

gez.: P. T. Chrusciel