



# ***EINLADUNG***

im Rahmen Literaturseminars

zum Vortrag

von

**Jarrood Williams**

(ESI)

über

## ***„The Friedrich-Butscher method for the construction of initial data in General Relativity“***

### **Abstract:**

The construction of initial data for the Cauchy problem in General Relativity is an interesting problem from both the mathematical and physical points of view. As such, there have been numerous methods studied in the literature - the "Conformal Method" of Lichnerowicz-Choquet-Bruhat-York and the "gluing" method of Corvino-Schoen being perhaps the best-explored.

In this talk I will describe an alternative, perturbative, approach proposed by A. Butscher and H. Friedrich, and show how it can be used to construct non-linear perturbations of initial data for spatially-closed analogues of the " $k = -1$ " FLRW spacetime. Time permitting, I will discuss possible refinements/extensions of the method, along with its generalisation to the full *Conformal Constraint Equations* of H. Friedrich.

**Zeit:** Donnerstag, 15.11.2018, **14.00**

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

gez.: P. Chrusciel, D. Fajman