



# *EINLADUNG*

im Rahmen des Seminars für Mathematische Physik  
(Joint TU/UV Theory Seminar)

zum Vortrag

von

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*„The  $\Lambda$ -BMS<sub>4</sub> group of dS<sub>4</sub>  
and new boundary conditions for AdS<sub>4</sub>“*

**Abstract:**

In this talk, I will discuss the solution space of general relativity in Bondi gauge, with non-vanishing cosmological constant. Using the dictionary between Bondi and Fefferman-Graham gauges, the analogues of the Bondi news, Bondi mass and Bondi angular momentum aspects at the boundary of generic asymptotically locally dS<sub>4</sub> spacetimes will be identified. Then, I will introduce the  $\Lambda$ -BMS<sub>4</sub> group as the residual symmetry group of Bondi gauge after boundary gauge fixing. This group consists in infinite dimensional non-abelian supertranslations and superrotations and it reduces in the asymptotically flat limit to the extended BMS<sub>4</sub> group.

Furthermore, I will present new boundary conditions for asymptotically locally AdS<sub>4</sub> spacetimes which admit  $R$  times the group of area-preserving diffeomorphisms as the asymptotic symmetry group.

**Zeit:** Dienstag, 12.11.2019, 13.45 h

**Ort:** Fakultät für Physik, Erwin-Schrödinger-Hörsaal,  
Boltzmanngasse 5, 5. Stock

gez.: S. Fredenhagen, D. Grumiller, C. Zwickel, T. Schimannek