



# *EINLADUNG*

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

zum Vortrag

von

**Max Riegler**

(Harvard University/ Univ. Vienna)

über

***„Geometric actions and flat space holography“***

**Abstract:**

In this talk I will talk about recent progress regarding flat space holography in three spacetime dimensions.

I will argue that a Hamiltonian reduction of the Einstein-Hilbert action with Bondi-van der Burg-Metzner-Sachs (BMS) boundary conditions to future (past) null infinity yields a boundary action that is equivalent to the geometric action on BMS<sub>3</sub> coadjoint orbits. This boundary action can then be used to calculate a variety of physically interesting quantities such as the one-loop torus partition function, BMS blocks or (quantum corrections of) entanglement entropy.

A particular focus will be put on the computation of entanglement entropy, quantum corrections thereof and possible consequences for a theory of quantum gravity in 3D asymptotically flat spacetimes.

**Zeit:** Dienstag, 07.01.2020, 13.45 h

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

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