



EINLADUNG

im Rahmen des Joint Theory Seminars

zum Vortrag

von

Glenn Barnich

(Université Libre de Bruxelles)

über

„Electromagnetic edge modes and black hole entropy“

Abstract:

In linearised gravity, the Schwarzschild solution and its mass are related to unphysical degrees of freedom rather than physical gravitons. This motivates the study of the analog problem in electromagnetism, where the role of the black hole is played by the Coulomb solution, while mass corresponds to electric charge. It is shown that (i) when all polarisations of the photon are quantised in an indefinite metric Hilbert space, the quantum state corresponding to the classical Coulomb solution is a coherent state of longitudinal and temporal photons, and (ii) the edge modes of a charged vacuum capacitor give a contribution to the partition function that is proportional to the area and allow for a microscopic derivation of the contribution to the partition function obtained by applying the Gibbons-Hawking approach to the charged capacitor.

Zeit: Dienstag, 16.10.2018, 13:45

Ort: Technische Universität Wien, **Getreidemarkt 9**,
Maschinenbaugebäude, 1st floor, Hörsaal Kleiner Schiffbau

gez.: S. Fredenhagen, D. Grumiller,
D. Erking, R. Wutte