Mathematical Physics
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I N V I T A T I O N

as part of the Mathematical Physics Theory Seminar

to the talk by

Christian NORTHE

(Czech Academy of Sciences)

on

"Entanglement Resolution and boundary CFT"

Abstract:

In this talk I will explain how computations in entanglement studies can be refined by the use of BCFT. The focus will lie on the entanglement spectrum, which is known to encode fundamental aspects of entanglement, such as topological signatures. Given a symmetry on an entangling subregion, the reduced density matrix decomposes into sectors corresponding to charge eigenvalues of the symmetry. I will discuss how the information or uncertainty in these sectors is quantified, first for U(1) symmetry and thereafter for the infinite-dimensional conformal symmetry in two spacetime dimensions. Finally, the information count of each sector will be compared leading to a simple yet striking lesson for gravity. If time permits, I will discuss how the celebrated Affleck-Ludwig boundary entropy decomposes into symmetry sectors.

Time: Tuesday, 12 November 2024, 2:00 p.m.

Location: Erwin-Schrödinger Lecture Hall, 1090 Vienna, Boltzmanngasse 5, 5th floor

sgd. S. Fredenhagen, M. Sperling