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Quantum Information and Quantum Mechanics in AdS Gravity

vendredi 29 avril 2022 12:15 (25 minutes)

I will discuss recent new examples providing new links between quantum information, holography and quantum gravity: I will first introduce a refinement of the usual entanglement entropy for theories with global conserved charges, the so-called symmetry resolved entanglement entropy, and discuss its recent implementation in AdS3/CFT2 (2012.11274, 2108.09210). I will then elaborate on the use of geometric Berry phases to distinguish states with the same entanglement structure, such as the worm hole geometries dual to TFD states. Finally, I will report a recently-found reformulation of the large N limit of Nielsen complexity on the SU(N) manifold in terms of two-dimensional hydrodynamics.

Type of contribution

Contributed Talk or Poster

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Classification de Session: Contributed talks

Classification de thématique: Contributed talks