10th Bologna Workshop on Conformal Field Theory and Integrable Models

Bologna Workshop on:

LINUTE Nacionale di Fisica Nucleare Autoritations from gauge/gravity dualities to statistical mechanics and quantum information

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Type: 10 min Talk + Poster

Holographic Conformal Interfaces and Their Bulk Dual

Monday, 4 September 2023 16:50 (10 minutes)

In this talk, we will study two dimensional conformal interfaces through the holographic duality. Many works in the literature identify some of their bulk duals as two AdS_3 glued together through a thin brane that meets the boundary of the (AdS) bulk at the interface.

After introducing the setup, we focus our attention mainly on two-point correlation functions of heavy operators, which can be studied in the geodesic approximation. Their structure is quite rich, due to the presence of the brane. We find analytical results using elegant and elementary geometric properties of AdS_3 . These results can be used to find the relation between the spectrum of (CFT) bulk and boundary operators, which gives us cues to understand the properties of the holographic interfaces dual to these braneworld models.

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