

Constraints on Boundary-localized Interactions

Monday, October 21, 2019 3:40 PM (35 minutes)

We consider interacting conformal boundary conditions for bulk theories of free fields. For a free vector field in 4 bulk dimensions there is a rich class of such boundary conditions, coming in families which are connected by a bulk marginal deformation, and with an interesting action of bulk electric-magnetic duality. For the bulk theory of a free scalar in generic dimensions it is not known if any conformal boundary condition exists besides the free ones (Neumann and Dirichlet). We explain how this question can be addressed using conformal bootstrap methods.

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Session Classification: Monday afternoon 1

Track Classification: Various