Institut Henri Poincaré

11 rue Pierre et Marie Curie, 75231 Paris cedex 05

String Theory in Greater Paris

Rencontres Théoriciennes

“Supergravité, théorie des cordes et théorie M”

Jeudi 7 Novembre 2024, 10:00

Giulia Fardelli

Boston University

The conformal generators on the fuzzy sphere

In this talk, I will present results on constructing conformal generators on the fuzzy sphere for the 3d Ising CFT. The focus will be on the generators of translations and special conformal transformations, which are emergent symmetries in the infinite IR but are broken along the RG flow.Starting from the energy density, these generators can be constructed, with the main sources of corrections, due to scale-invariance breaking at finite energy, analyzed and removed. Finally, I will demonstrate how these generators can be applied to accurately distinguish primary operators from descendant operators, even in regions of the spectrum where the density is too high to rely solely on the approximate integer spacing of conformal multiplets.

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