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String Theory in Greater Paris

Rencontres Théoriciennes

"Supergravité, théorie des cordes et théorie M"

Jeudi 10 Mars 2022, 10:00

Miguel Montero

Harvard

Comments on scale-separated AdS vacua

There have been several proposals of scale-separated AdS vacua in the literature. All known examples arise from the effective field theory of flux compactifications with low supersymmetry, and there are often doubts about their consistency as ten or eleven-dimensional backgrounds in string theory. These issues can often be tackled in the bulk theory, or by analysis of the dual CFT via holography. I will review the most common issues, and focus the analysis on the recently constructed family of 3d scale-separated AdS vacua, which is dual to a two-dimensional CFT, emphasizing the discrete symmetry structure of the model in comparison to DGKT. Finally, I will comment on the tantalizing observation of integer operator dimensions in DGKT-like vacua, and comment on possible places to look for consistency issues in these models.

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