Open strings in type IIB AdS3 flux vacua

Giuseppe Sudano*[1]

[1]University of Oviedo and Instituto Universitario de Ciencias y Tecnologías Espaciales de Asturias (UniOvi ICTEA) – Spain

Abstract

This talk investigates the role of open strings in the context of AdS3 flux vacua arising from type IIB orientifold reductions. This task is accomplished by adding, in the gauged supergravity description, extra vector multiplets and embedding tensor components. The scalar potential gets new terms that can be matched with contributions coming from the dimensional reduction of the non-Abelian DBI and WZ brane actions. We show that the perturbative stability of certain recently found non-supersymmetric AdS3 flux vacua is robust under fluctuations of the open-string moduli. Moreover, a wealth of new perturbatively stable AdS3 flux vacua appears as a consequence of the non-trivial dynamics of open strings. Finally, the issue of scale separation for all these vacua is commented.

Keywords: AdS3, flux vacua, open strings, gauged supergravity, DBI action, WZ action, scale separation

*Speaker