

SEMPARIS – Séminaires en région parisienne

<http://string.lpthe.jussieu.fr/semparis/>

Séminaire de matrices, cordes et géométries aléatoires

Mercredi 14 Novembre 2018, 14 :15

IPHT, Salle Claude Itzykson, Bât. 774

Domaines : hep-th

Titre : *The massive IIA origin of 2d CFTs*

Orateur : **Nicolò Petri (Bogazici University, Istanbul)**

Résumé : *Even if AdS3/CFT2 holography has been intensively studied in literature, the construction of 2d CFTs in string theory is still rather obscure. In this talk I will discuss some insights in this direction coming from a new class of exact AdS3 solutions in massive IIA supergravity. Within this class, some of these 10d backgrounds are derived by uplifting particular warped AdS3 solutions in 7d and 6d gauged supergravities featuring respectively AdS7 and AdS6 asymptotics. In these cases the corresponding dual 2d SCFTs are realized as conformal defects within the higher-dimensional SCFTs dual to the asymptotics. I will discuss about the brane intersections underlying these solutions and, in particular, on how the emergence of AdS3 in massive IIA is deeply related to D2 branes. To support this statement I will present a very simple brane solution involving only D2 branes and O8 planes with near-horizon given by a warped product of AdS3 with a squashed 7-sphere as internal space. In spite of the simplicity of this supergravity solution, the construction of the dual SCFT 2d is quite problematic, therefore I will conclude discussing these issues and the possible strategies to get rid of them.*

Based on : 1707.06152 1707.06154 1807.06602 1807.07768
