

Institut Henri Poincaré
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String Theory in Greater Paris

Rencontres Théoriciennes
“Supergravité, théorie des cordes et théorie M”

Jeudi 9 Mars 2017, 11:45

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Tensionless Strings at One-Loop

It is expected that the AdS/CFT correspondence may be used to define a theory of tensionless strings in AdS space by setting the 't-Hooft coupling of the dual CFT to zero. Higher-spin/CFT dualities are heuristically a truncated version of this window of stringy AdS/CFT. We review one-loop tests of the Higher-spin/CFT dualities and describe extensions of such computations to various more 'stringy' theories such as the bulk dual of free $SU(N)$ Yang-Mills, and finally type IIB strings in $AdS(5) \times S(5)$. We also describe new techniques which make such computations possible. These computations are independent of supersymmetry, though we observe interesting simplifications which occur only for maximal supersymmetry. This is somewhat in contrast to the usual situation in higher-spin theories where supersymmetry does not lead to any obvious simplifications. The talk will be based on work in collaboration with Jinbeom Bae and Euilun Joung (chiefly arXiv :1603.05387 arXiv :1607.07651, and arXiv :1701.01507).

Institut Henri Poincaré, salle 314, 3^{ème} étage

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