

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 17 Novembre 2016, 10:00

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IPhT

M-theory on deformed Sasaki-Einstein manifolds

Compactifications of M-theory down to AdS4 are known to arise from Sasaki-Einstein internal spaces. The latter can be viewed as links around isolated Calabi-Yau conical singularities, whose deformations can be described algebraically in a well established way. In this talk, I will present work in progress on the construction of the possible deformations of the link away from the Sasaki-Einstein metric, using the deformations of the Calabi-Yau cone. This provides a realisation of a class of SU(3) structure manifolds satisfying the conditions postulated in the standard treatments of M-theory compactifications on such manifolds. The result is a concrete proposal for obtaining four dimensional N=2 supergravity models with gauged hypermultiplets from deformations of regular Sasaki-Einstein manifolds.

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