Institut Henri Poincaré

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String Theory in Greater Paris

Rencontres Théoriciennes

"Supergravité, théorie des cordes et théorie M"

Jeudi 17 Novembre 2016, 10:00

Stefanos Katmadas

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.

Institut Henri Poincaré, salle 314, 3ème étage

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