

Séminaire de matrices, cordes et géométries aléatoires

Mercredi 20/03/2019, 14h15-15h15

Orme des Merisiers Salle Claude Itzykson, Bât. 774

**Supersymmetric solutions of six-dimensional (2,0)
supergravity and black hole microstates**

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I will discuss recent results on the classification of supersymmetric solutions of six-dimensional (2,0) supergravity. All such solutions with a light-like isometry can be obtained from solutions of the less supersymmetric (1,0) theory, implying that no new solutions can be found in this framework. Supersymmetric solutions of six-dimensional supergravity are an important ingredient for the construction of black hole microstate geometries, I will comment on possible implications of our results on this program. In particular, we find that for generic values of the moduli the 3-form fluxes on all 3-cycles of the geometry must be proportional to each other and thus rational multiples of the total flux associated to the black hole.
