

# Séminaire de matrices, cordes et géométries aléatoires

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Mercredi 18/12/2019, 14:15-15:15

Orme des Merisiers Salle Claude Itzykson, Bât. 774

## Generalising G2 Geometry: The Geometry and Moduli of Supersymmetric String Backgrounds

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I will look at the structure of generic D=4, N=1 Minkowski flux backgrounds of string theory via generalised geometry. I will show how we can completely characterise the geometry via integrable G-structures and the objects defining them. We will be able to give expressions for the Kahler and superpotential of the lower dimensional effective theory in terms of these objects. Moreover I will give an analysis of the moduli of these structures, recovering the known results for G2 manifolds as well as extending results for GMPT and so-called 'type 0' solutions. In looking at the moduli we will find that there is a subtlety involving a quotient by a complexified group. Upon a closer look we will see that understanding the full picture will lead us to some interesting possible links with Geometric Invariant Theory and G2 stability.

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