## SEMPARIS – Séminaires en région parisienne

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## Séminaire commun LPTENS/LPTHE

Mardi 12 Décembre 2017, 11:30

LPTENS, library (Attention au changement de lieu!)

Domaines: hep-th

Titre: Twisted BRST quantization and localization in supergravity

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Résumé: Supersymmetric localization is a powerful technique to evaluate a class of functional integrals in supersymmetric field theories. It reduces the functional integral over field space to ordinary integrals over the space of solutions of the off-shell BPS equations. The application of this technique to supergravity suffers from some problems, both conceptual and practical. I will discuss one of the main conceptual problems, namely how to construct the fermionic symmetry with which to localize. I will show how a deformation of the BRST technique allows us to do this. This leads us to a formulation of twisted supergravity. I will then sketch a computation of the one-loop determinant of the graviton supermultiplet that enters the localization formula for BPS black hole entropy.