## 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 27 Fevrier 2020, 11:40***

# Jay Armas

***University of Amsterdam***

## Geometries and Instabilities of Black Holes in Higher-Dimensions

*I will discuss worldvolume effective theories describing black holes and branes in higher-dimensional gravity and supergravity. I will review how these can be used to perturbatively construct non-trivial black holes solutions with various topologies, geometries and with arbitrary asymptotics. Examples include asymptotically flat black helicoidal branes, rings and tori as well as asymptotically plane wave black Scherk-surfaces. I will also briefly discuss extremal horizons and applications to antibrane metastable states in supergravity. Finally, I will show how this effective theory can be used to study instabilities of asymptotically flat black rings as well as (Anti)-de Sitter black rings.*

**Institut Henri Poincaré, salle 314, 3ème étage**

Retrouvez les activités de la communauté parisienne de théorie des cordes sur
`http ://string.lpthe.jussieu.fr`
La liste de tous les séminaires en région parisienne est disponible sur
`http ://string.lpthe.jussieu.fr/semparis`