Du
05
DÉC.
2018

13h00
-
14h30

RÉGA

Emanuele Macri (Northeastern University) 14h - 15h30 : Bridgeland stability and applications

IHP
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One of the key ideas in the theory of derived categories, due to Bondal and Orlov in the 90’s, is that the derived category of coherent sheaves on a smooth projective variety should contain very important information on the geometry of the variety itself, for example on its birational properties. A conjectural way to obtain such information is via the theory of moduli spaces of objects in the derived category, generalizing the existing theory of moduli spaces of vector bundles developed by Mumford, Narasimhan, Seshadri, Gieseker, Maruyama, and Simpson, among others. In 2003, motivated by previous work in High Energy Physics by Douglas, Bridgeland introduced the notion of stability condition for derived categories ; this allows to define and study such moduli spaces of objects. In this talk, I will give an introduction to Bridgeland’s theory, focusing in particular to applications of the theory to problems in Algebraic Geometry. For instance, I will present Bayer’s new proof of the Brill-Noether Theorem and a new proof for a theorem of Gruson-Peskine and Harris on the genus of space curves (which is joint work with Benjamin Schmidt).

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HORAIRES

Lundi au vendredi : 8h30 à 18h
Fermé les jours fériés