



Du
10
OCT.
2012

12h00
-
13h30

RÉGA

Ariyan Javanpeykar "Arakelov theory and covers of curves"

IHP
Salle 314

Ariyan Javanpeykar (Universiteit Leiden - Université Paris XI)
Arakelov theory and covers of curves

Let X be a curve over a number field. We study invariants of X such as the Belyi degree and the Faltings height. Our main result is an explicit inequality relating these invariants. As a first application, we deduce a conjecture of Edixhoven-de Jong-Schepers. Secondly, we give an algorithmic application. Finally, we give a Diophantine application: Szpiro's small points conjecture is true for hyperelliptic curves. We finish the talk with a short discussion of Edixhoven's strategy to compute étale cohomology in polynomial time and how the above results fit into this program.



INSTITUT HENRI POINCARÉ

11 rue Pierre et Marie Curie
75231 Paris Cedex 05

HORAIRES

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