



## Mathematics Colloquium of the University of Luxembourg

---

in cooperation with the  
Luxembourg Mathematical Society

Tuesday 19th of December 2017, at 2 pm      Belval, Maison du Nombre 1.050

### Professor René Schoof (Università di Roma “Tor Vergata”)

René Schoof is Professor of Mathematics at Università di Roma “Tor Vergata”. He works in Algebraic Number Theory, Arithmetic Algebraic Geometry, Computational Number Theory, Coding Theory, Arakelov theory, Iwasawa theory, and on problems related to existence and classification of Abelian varieties over the rationals with bad reduction in one prime only.

He did develop the first deterministic polynomial time algorithm for counting points on elliptic curves, which has since been important for the use of elliptic curves in cryptography.



### *Lagrange’s theorem for finite algebraic groups*

Lagrange’s Theorem says that every finite group of cardinality  $n$  has the property that the  $n$ -th power of any of its elements is trivial. It is conjectured that a similar statement holds for “finite algebraic groups”. In this lecture we explain what finite algebraic groups are and describe the conjecture. We illustrate everything with several examples.

---

Coffee, tea and cookies : 13:40 (6th floor MNO, in the kitchen corner furthest from the elevator).  
RMATH contact: Gabor Wiese.  
Coordinator: Alexander D. Rahm.