# Séminaire de théorie des nombres

## Le 28 novembre à 14h

## Abelian varieties over $\mathbf{Q}$ with bad reduction in one prime only

## Exposé de René Schoof

**Résumé** : A classical theorem of Abrashkin/Fontaine states that there is no abelian variety over $\mathbf{Q}$ with good reduction everywhere. We will explain the proof of the following extension : For $p$ at most 19, the only semi-stable abelian varieties over $\mathbf{Q}$ with good reduction everywhere except at $p$, are isogenous to a power of $J_0(p)$