"God does arithmetic." — Gauss

The Trivial Notions Seminar
Proudly Announces

There are no abelian varieties over $\mathbb{Z}$

A talk by

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Abstract

In 1985, Fontaine presented a beautiful argument that there are no abelian varieties over $\mathbb{Q}$ having good reduction at all primes. The basic idea is that if there exists such an abelian variety then investigating a related filtration of p^n torsion group schemes, we will get too many rational points on the variety, contradicting the Riemann hypothesis for finite fields. We'll start with a review of some facts about group schemes and algebraic number theory.

Thursday, February 15$^{\text{th}}$, 2007
Science Center 507 at 4:15-5:15 pm