"It has been said that figures rule the world. Doubtful. But I am sure that figures show us whether it is being ruled well or badly." —Goethe.

The Trivial Notions Seminar
Proudly Announces

Uniformity of Rational Points

A talk by
David Smyth

Abstract

Faltings' celebrated proof of the Mordell Conjecture shows that a smooth curve of genus g defined over a number field K has only finitely many K-rational points. But how does the number of K- rational points vary in families? Do there exist genus g curves over K with an arbitrarily large number of K-rational points? A beautiful observation of Caporaso, Harris, and Mazur shows that, in fact, Lang's conjecture (concerning rational points on higher-dimensional varieties) implies a uniform bound on the number of K-rational points as you vary the curve. We will start from scratch and hopefully wind up proving this implication.

Friday, February 2$^{\text{nd}}$, 2007 at 2:00 pm
Science Center 507