

# GALOIS REPRESENTATIONS AND AUTOMORPHIC FORMS SEMINAR

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A Semistable Model for the Tower of Modular Curves

Speaker Jared Weinstein

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**Date:** Wed, 10/27/2010 - 14:15 - 15:15

**Location:** S-101

The usual Katz-Mazur model for the modular curve  $X(p^n)$  has horribly singular reduction. For large  $n$  there isn't any model of  $X(p^n)$  which has good reduction, but after extending the base one can at least find a semistable model, which means that the special fiber only has normal crossings as singularities. We will reveal a new picture of the special fiber of a semistable model of the entire tower of modular curves. We will also indicate why this problem is important from the point of view of the local Langlands correspondence for  $GL(2)$ .

**event\_id:** 40226

**Calendar:** 369

**Video:** <http://video.ias.edu/galois/weinstein>

terms:

- [Galois Representations and Automorphic Forms](#)