

# Stanford Algebraic Geometry — Seminar —

## A MODULAR COMPACTIFICATION OF $A_g$ OVER THE INTEGERS

MARTIN OLSSON  
University of Texas at Austin

### Abstract

In this talk I will explain a construction of a canonical modular compactification  $A_g \hookrightarrow \overline{A}_g$  of  $A_g$  generalizing the construction of the standard compactification  $M_{1,1} \hookrightarrow \overline{M}_{1,1}$  provided by the Tate curve. The stack  $\overline{A}_g$  is a proper irreducible stack over  $\mathbb{Z}$  with at worst toroidal singularities containing  $A_g$  as a dense open substack. Moreover,  $\overline{A}_g$  is obtained as a solution to a relatively simple moduli problem which I will try to describe.

Friday, January 6  
3:15 p.m.  
Room 383-N

<http://math.stanford.edu/~vakil/s0506/>