

## **abstract**

JOINT IAS/PU NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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We will give a geometric definition of the notion of overconvergent modular form of any  $p$ -adic weight. As a consequence, we re-obtain Coleman's theory of  $p$ -adic families of eigenforms and the eigencurve of Coleman and Mazur without using the Eisenstein family. Similar results have just been obtained independantly by Andreatta, Iovita and Stevens.

We will then explain how a similar construction can be applied to construct  $p$ -adic families of Hilbert and Siegel eigenforms (over the total weight space). This last part is a work in progress with Andreatta and Iovita.