

1103-11-142

Joel Bellaïche* (jbellaic@brandeis.edu). *The eigencurve at classical points of weight 1.*

This is a joint work with Mladen Dimitrov. We determine the geometry of the eigencurve at points corresponding to classical modular forms of weight one. At such a point (under a mild assumption of regularity at p) we prove that the eigencurve is always smooth, and that it is furthermore étale over the weight space if and only if the form has real multiplication by a quadratic real field in which p splits. As a consequence of this result, we can construct p -adic L -function for forms of weight one which fit in a two-variable family over the eigencurve. (Received August 18, 2014)