Francesc Castella* (fcabello@math.princeton.edu) and Carl Wang-Erickson. Class groups and local indecomposability for non-CM forms.

In the late 1990s, R. Greenberg (and independently, R. Coleman) asked for a global characterization of those $p$-ordinary cuspidal eigenforms of weight $k > 1$ whose associated $p$-adic Galois representation becomes decomposable upon restriction to a decomposition group at $p$. It is expected that such $p$-ordinary eigenforms are precisely those with complex multiplication by an imaginary quadratic field in which $p$ splits. In this talk, we will explain a proof that this is indeed the case for forms which are congruent to one with CM, provided that a certain class number is $p$-indivisible. Based on joint work with Carl Wang-Erickson. (Received January 25, 2019)