1147-11-434 **Francesc Castella*** (fcabello@math.princeton.edu) and **Ming-Lun Hsieh**. *On the nonvanishing of generalized Kato classes for elliptic curves of rank 2.*

In recent work, Darmon and Rotger introduced the so-called generalized Kato classes. They arise as p-adic limits of classes constructed from diagonal cycles on triple products of modular curves, and are conjectured to be nonzero precisely when the second derivative of an associated triple product L-function does not vanish at the center. In this talk, after recalling their construction and basic properties, we will explain the proof of the nonvanishing of generalized Kato classes in cases where the lie in the pro-p Selmer group of elliptic curves of rank 2. Based on joint work with Ming-Lun Hsieh. (Received January 23, 2019)