Adrian Barquero-Sanchez, Lindsay Cadwallader, Olivia Cannon, Tyler Genao* (tgenao2013@fau.edu) and Riad Masri. Faltings heights of CM elliptic curves and special gamma values.

In a 1984 Séminaire Bourbaki article, Deligne evaluates the Faltings height of an elliptic curve with complex multiplication in terms of Euler’s Gamma function at rational numbers, under the assumption that the endomorphism ring of the curve is a maximal imaginary quadratic order. In this talk, we describe our results in generalizing this to when the endomorphism ring is not necessarily maximal. (Received August 23, 2016)