1145-11-2330 **Abbey Bourdon*** (`bourdoam@wfu.edu`) and **Pete L. Clark**. *Torsion Points and Isogenies on CM Elliptic Curves.*

We say an elliptic curve E defined over a number field F has complex multiplication (CM) if $\mathrm{End}_{\overline{F}}(E) \cong \mathcal{O}$, an order in an imaginary quadratic field K. For any positive integer N, we determine the least d in which there exists a number field F of degree d and an $\mathcal{O}$-CM elliptic curve E/F with an F-rational point of order N. This relies on several new results concerning rational cyclic isogenies on CM elliptic curves, extending work of Kwon (1999). (Received September 25, 2018)