Title: Self-points on elliptic curves

Abstract: Let $E$ be an elliptic curve of conductor $N$. Given a cyclic subgroup $C$ of order $N$ in $E$, we construct a modular point $P_C$ on $E$, called self-point, as the image of $(E, C)$ on $X_0(N)$ under the modular parametrisation $X_0(N) \to E$. If $N = p$ is prime, we prove that the point is of infinite order in the Mordell-Weil group of $E$ over the field of definition of $C$. The study of these points in the $PGL_2(\mathbb{Z}_p)$-tower inside $\mathbb{Q}(E[p^{\infty}])$ continues earlier work of Harris.