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Chris Hall* (cha1169@uwo.ca) and **Alexandra Shlapentokh.** *Defining Subgroups of Mordell-Weil Groups.*

Let K be a finitely generated extension of \mathbb{Q} and E be an elliptic curve over K whose j -invariant is not an algebraic number. Given a point P in the Mordell-Weil group $E(K)$, we consider the problem of giving a Diophantine definition for the cyclic subgroup $\langle P \rangle$. We explain the problem and a solution using results of Barroero and Capuana from unlikely intersection theory. (Received September 25, 2018)