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Jennifer Park* (jmypark@math.mit.edu), McGill University, 845 Rue Sherbrooke Ouest,
Montreal, QC H3A 0G4, Canada. *Effective Chabauty for symmetric powers of curves.*

Faltings' theorem states that curves of genus $g > 1$ have finitely many rational points. Using the ideas of Faltings, Mumford, Parshin and Raynaud, one obtains an upper bound on the number of rational points, but this bound is too large to be used in any reasonable sense. In 1985, Coleman showed that Chabauty's method, which works when the Mordell-Weil rank of the Jacobian of the curve is smaller than g , can be used to give a good effective bound on the number of rational points of curves of genus $g > 1$. We draw ideas from nonarchimedean geometry to show that we can also give an effective bound on the number of rational points outside of the special set of the d -th symmetric power of X , where X is a curve of genus $g > d$, when the Mordell-Weil rank of the Jacobian of the curve is at most $g-d$. (Received August 18, 2014)