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Khoa Dang Nguyen* (dangkhoa.nguyen@ucalgary.ca), 2500 University Drive NW, University of Calgary, Math Sciences Building, MS542, Calgary, Alberta T2N 4T4, Canada. *Bounded height in families of dynamical systems.*

Let $a, b \in \bar{\mathbb{Q}}$ be such that exactly one of a and b is an algebraic integer, and let $f_t(z) = z^2 + t$ be a family of quadratic polynomials parametrized by $t \in \bar{\mathbb{Q}}$. We prove that the set of all $t \in \bar{\mathbb{Q}}$ for which there exist $m, n \geq 0$ such that $f_t^m(a) = f_t^n(b)$ has bounded height. This is a special case of a more general result supporting a new bounded height conjecture in arithmetic dynamics. This is joint work with DeMarco, Ghioca, Krieger, Tucker, and Ye. (Received September 20, 2017)