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T. Alden Gassert* (thomas.gassert@colorado.edu), Department of Mathematics, Campus Box 395, Boulder, CO 80309. *Discriminants of iterated quadratic extensions.*

Let $f(x) = x^2 + c \in \mathbb{Z}[x]$, and let K be a number field generated by a root of $f^n(x)$ (assuming $f^n(x)$ is irreducible). The purpose of this talk is to determine the multiplicities of primes dividing the discriminant of K . As a consequence of our result, we identify a sufficient condition for K to be monogenic. Namely, K is monogenic if $f(0), f^2(0), f^3(0), \dots, f^n(0)$ are all square-free. (Received September 21, 2015)