

1106-12-1713

DoYong Kwon* (doyong@jnu.ac.kr), Department of Mathematics, Chonnam National University, Gwangju, 500-757, South Korea. *Mahler measures and irreducible polynomials.*

Let $g(x) = a_n x^n + \cdots + a_1 x + a_0 = a_n \prod_{i=1}^n (x - \alpha_i) \in \mathbb{Z}[x]$ with $a_n \neq 0$. The Mahler measure of g is a real number ≥ 1 defined by $M(g) := |a_n| \prod_{i=1}^n \max\{1, |\alpha_i|\}$. In this talk, we demonstrate that the Mahler measure is employed to prove irreducibility of a certain class of polynomials over \mathbb{Q} . (Received September 15, 2014)