
HICKHO SONG, KAIST, 373-1 Guseong Dong, Daejeon, Korea

On the number of partitions with the length fixed

In this talk, we will show that the number $M(n, k)$ of partitions of nonnegative integer n with k parts can be described by a set of \tilde{k} polynomials of order $k - 1$ in $Q_{\tilde{k}}$, where \tilde{k} denotes the least common multiple of $1, 2, \dots, k$ and $Q_{\tilde{k}}$ is the quotient of n when divided by \tilde{k} . In addition, the sets of the \tilde{k} polynomials are obtained explicitly for $k = 3, 4, 5$, and 6 .