

1112-05-457

Kevin Dilks* (kevin.dilks@ndsu.edu). *q Gamma Nonnegativity.*

A polynomial $\sum_{i=0}^n a_i t^i$ with symmetric coefficients ($a_{n-i} = a_i$) has a unique expansion $\sum_{k=0}^{\lfloor n/2 \rfloor} \gamma_k t^k (1+t)^{n-2k}$, and is said to be *gamma nonnegative* if $\gamma_k \geq 0$ for all k . We either prove or conjecture a stronger q -analogue of this property for several polynomials in two variables t, q , whose $q = 1$ specializations are known to be gamma nonnegative. (Received August 10, 2015)