Year: 2013 Vol.: 83 Fasc.: 1-2

Title: On expanding real polynomials with a given factor

Author(s): Horst Brunotte

Let f be a monic polynomial with real coefficients all of whose roots lie outside the closed unit disk and are non-positive. It is proved that f is a factor of a polynomial all of whose coefficients are non-negative and satisfy a rather strong boundedness condition. This result is applied to polynomials f with integer coefficients. It is shown that f is a factor of a so-called CNS polynomial provided f has at most one pair of complex-conjugate roots.

Address:

Horst Brunotte Haus-Endt-Straße 88 D-40593 Düsseldorf Germany