
To each simple set of real polynomials \( \{q_k\}_{k=0}^{\infty} \) and each sequence of real numbers \( \{\gamma_k\}_{k=0}^{\infty} \), we can define a linear operator on \( \mathbf{R}[x] \) by declaring \( T[q_n] = \gamma_n q_n \). We seek to determine conditions under which such an operator preserves reality of zeros. (Received September 22, 2009)