ERROR BOUNDS FOR A NEAR-MINIMAX APPROXIMATION

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Abstract.

It is known that a near minimax polynomial approximation to $f \in C[-1,1]$ is provided by a finite carrier projection M_n from $C[-1,1]$ onto the subspace of all polynomials of degree $\leq n$, such that $M_n f$ is a weighted least squares approximation to f on the set consisting of the extreme points of the Chebyshev polynomial T_{2n+1}. In this paper, upper bounds for the error $||f - M_n f||_\infty$ are given in terms of divided differences.

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