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GENERALIZED GROWTH OF ENTIRE FUNCTION BY MEANS BEST POLYNOMIAL APPROXIMATION In L^p - NORM

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Abstract

The purpose of this paper is to study the best approximation of entire function of several complex variables in L^p - norm in term of generalized order and generalized type by means the best polynomial approximation with respect to the set

$$\Omega_r = \{z \in \mathbb{C}^n;\ \exp V_E(z) \leq r\},$$

where

$$V_E = \sup\left\{\frac{1}{d}\ln|P_d|,\ P_d \text{ polynomial of degree} \leq d,\ \|P_d\|_E \leq 1\right\}$$

is the Siciak extremal function on an L-regular compact E. So we have generalized the result of Harfaoui (see, [2]).

Keywords and phrases: extremal function, L-regular, growth, best approximation in L^p - norm.

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