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ON THE THEOREM ON CONTINUATION OF FUNCTIONS BEYOND THE DOMAIN OF DEFINITION

Abstract

In the paper, we construct a space of functions $f = f(x)$ with a finite set of difference-differential characteristics in the domain

$$G \subset E_n = E_{n_1} \times \dots \times E_{n_s} \quad (n = n_1 + \dots + n_s) \quad (1 \leq s \leq n),$$

satisfying the "σ - semi-horn" condition.

We find the conditions by fulfilling of which the theorems on continuation of functions (from the constructed spaces) beyond the domain of definition $G \subset E_n$, on the E_n , with preservation of appropriate smoothness properties are proved.