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ON BEHAVIOUR OF THE BEST APPROXIMATION AS A FUNCTION OF AN APPROXIMATION SET

Abstract

In this paper the best approximation $E\left(f,Q\right)$ of a continuous function $f\left(x,y\right)$ by sums $\varphi\left(x\right)+\psi\left(y\right)$ of continuous $\varphi\left(x\right)$ and $\psi\left(y\right)$ is considered as a function depending on an approximation set Q. The order relations between $E\left(f,Q\right)$ and $E\left(f,Q_{1}\right)+E\left(f,Q_{2}\right)$ are established for some sets $Q\subset R^{2},\ Q_{1}\subset Q$, $Q_{2}\subset Q$, $Q_{1}\cup \cup Q_{2}=Q$ and some classes of functions from $C\left(Q\right)$.