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Pinkus, A.; Wajnryb, B.

Necessary conditions for uniqueness in L^1-approximation.

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Let K be a compact subset of $\mathbb{R}^m$ and assume that $K = \overline{intK}$. Let C(K) denote the set of continuous functions f: $K \to \mathbb{R}$ and U_n an n-dimensional subspace of C(K). The $L^1(w)$-norm of $f \in C(K)$ is defined by $\|f\|_w = \int_K |f(x)|w(x)dx$, where w is a bounded, integrable function on K for which inf{ w(x): $x \in K\} > 0$. The authors give necessary conditions on U_n so that for each $f \in C(K)$ there exists a best $L^1(w)$-approximation from U_n, for every fixed positive weight function w. *S.Aljančić*

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