Warth, Wolfgang

**On approximation of continuous functions in the metric** \( \int_0^1 |x(t)| dt \). (English) \[ Zbl 0533.41031 \]


From the Introduction: "In 1924 D. Jackson published a paper on the linear approximation of continuous functions in the mean [A general class of problems in approximation; Am. J. Math. 46, 215-234 (1924)]. One central result is that the best approximation from the space of ordinary polynomials is unique.

A generalization to the approximation from a Haar space has been published in 1958 by V. Ptak [Czech. Math. J. 8(83), 267-273 (1958; Zbl 0082.278)]. In this paper we present an extension of these theorems for the case of nonlinear approximation with constraints."

Reviewer: C.G.Lascarides

**MSC:**

- 41A65 Abstract approximation theory (approximation in normed linear spaces and other abstract spaces)
- 41A50 Best approximation, Chebyshev systems
- 41A10 Approximation by polynomials
- 41A29 Approximation with constraints
- 41A46 Approximation by arbitrary nonlinear expressions; widths and entropy

**Keywords:**

- nonlinear approximation with constraints