ICMASE 2025

MODIFIED SAMPLING KANTOROVICH OPERATORS IN ORLICZ SPACES

Metin Turgay[1*]

[1]*Department of Mathematics, Selçuk University, Konya, Türkiye*

ABSTRACT

This paper deal with the modified sampling Kantorovich operators. We start by presenting primary notations of Orlicz spaces and fundamental auxiliary results. To show modular convergence of the corresponding operators in Orlicz spaces, we obtain well definiteness in Orlicz spaces and norm convergence in the space of continuous functions with compact support. In the last section, we present some examples of ρ-kernels which satisfies the corresponding assumptions and present some numerical and graphical representations.

Keywords Modified sampling operators · Orlicz spaces · approximation properties

References

[1] C. Bardaro, P. L. Butzer, R. L. Stens, G. Vinti, Kantorovich-type generalized sampling series in the setting of Orlicz spaces, Sampl. Theory Signal Image Process., 6 (1), (2007), 29–52.

[2] P. L. Butzer, R. J. Nessel, Fourier Analysis and Approximation I. Academic Press, New York-London (1971).

[3] M. Turgay, T. Acar, Approximation by Modified Generalized Sampling Series, Mediterr. J. Math., 21 (2024), Article ID: 107.

---
[*]*Corresponding Author's E-mail: metinturgay@yahoo.com*