APPROXIMATION WITH AN ARBITRARY ORDER BY GENERALIZED SZÁSZ-STANCU AND BASKAKOV-STANCU TYPE OPERATORS

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Abstract. Given an arbitrary sequence $\lambda_n > 0, n \in \mathbb{N}$, with the property that $\lim_{n \to \infty} \lambda_n = 0$ as fast we want, in this note we introduce generalized Szász-Stancu and generalized Baskakov-Stancu operators in such a way that on each compact subinterval in $[0, +\infty)$ the order of uniform approximation is $\omega_1(f; \sqrt{\lambda_n})$. These modified operators can uniformly approximate a Lipschitz 1 function, on each compact subinterval of $[0, +\infty)$ with the arbitrary good order of approximation $\sqrt{\lambda_n}$.

References


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