

MODIFIED JAIN–PETHE–BASKAKOV–DURRMEYER OPERATORS AND THEIR QUANTITATIVE ESTIMATES

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Abstract. In this paper, we present a modification of Jain-Pethé-Baskakov-Durrmeyer operators and estimate their moments. Then, we establish the uniform convergence of the proposed family of operators. Further, we use modulus of continuity and K -functional to establish local approximation behavior of these operators. Also, we compute the rate of convergence of the operators through Lipschitz class functions. In the last section, we present some quantitative results for difference of the proposed operators with Jain-Pethé operators and Durrmeyer type variant of Jain-Pethé-Baskakov operators.

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