

APPROXIMATION FOR A NEW OPERATOR OF DURMEYER TYPE

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Abstract. In the present research, we provide a new type of operator R_n , different from the actual exponential-type operator $\hat{R}_n$ connected with $x^{4/3}$. Such operators are similar to exponential type operators, but do not satisfy the partial differential equation. We establish pointwise convergence using the characteristic function, error estimation in terms of modulus of continuity of second and first orders and a quantitative Voronovskaja type result for exponential type functions. Finally we estimate the difference estimate between the two operators.

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