

AN APPROACH FOR HIGHER ORDER APPROXIMATION BY MODIFIED GOODMAN-SHARMA VARIANTS OF CERTAIN CLASSICAL OPERATORS

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We present new modifications of Goodman-Sharma type variants of the classical Bernstein/Baskakov/Meyer-König and Zeller operators for approximation of continuous functions on $[0, 1]$, $[0, \infty)$, $[0, 1)$, respectively.

Our approach gives new operators which are linear but not positive. In each case we prove a direct inequality and a strong converse inequality with estimates in the sense of a related K-functional. Moreover, the suggested operators have the advantage of second order rate of approximation, compared with the first order for the classical operators, see [1, 2, 3].

References

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