APPROXIMATION BY CHLODOWSKY-TYPE OF SZÁSZ OPERATORS INCLUDING THE APPELL POLYNOMIALS OF CLASS $\mathbb{A}^{(2)}$

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ABSTRACT

A Chlodowsky variation of generalized Szász type operators and a novel sequence of operators, containing the Appell polynomials of class $\mathbb{A}^{(2)}$, are the subjects of this study. Approximation properties and convergence results are given by using different types of modulus of continuity with the help of Steklov function. A weighted space of functions constructed on $[0, \infty)$ is used to study the convergence features of these operators. Theoretical conclusions are demonstrated by using the Gould-Hopper and Hermite polynomials.

Keywords Appell polynomials · weighted space · rate of convergence · voronovskaya-type theorem

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