 SOME TWO–SIDED BOUNDING INEQUALITIES FOR THE BUTZER–FLOCKE–HAUSS OMEGA FUNCTION

TIBOR K. POGÁNY AND H. M. SRIVASTAVA

Abstract. A new integral representation is obtained for the Butzer-Flocke-Hauss complete real-argument Omega function $\Omega(x)$, which is closely associated with the complex-index Bernoulli function $B_{\alpha}(z)$ and with the complex-index Euler function $E_{\alpha}(z)$. Three two-sided bounding inequalities are given for this Omega function and their efficiency is also discussed.


Key words and phrases: Butzer-Flocke-Hauss complete omega function, Chaplygin type differential inequality, Chaplygin type comparison theorem, Dirichlet series, integral representation of the Omega function, Laplace integral representation of Dirichlet series.

REFERENCES