

AN APPROXIMATION PROBLEM WITH A NEW CHARACTERISTIC AND A PROBLEM ON MEAN APPROXIMATION ON ARCS IN A COMPLEX PLANE

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Abstract. In the paper classical approximation theorems are investigated on the curves in a complex domain. In particular, direct and inverse theorems are cited on the curves Γ in a complex domain in the metric $L_p(\Gamma)$. The obtained results remain new on the segment $[-1, 1]$ as well. Furthermore, a new characteristic by which the author obtained the analogies of Markov-Bernstein type and also S. M. Nikolskiy type classical estimates is also considered.

In future, it is presupposed to get the analogies of classic theorems of Jackson, Jackson-Bernstein, Bernstein and Nikolskiy-Timan-Dzyadyk by these characteristics.

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