APPROXIMATION BY MEANS OF HEXAGONAL FOURIER SERIES IN HÖLDER NORMS

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Abstract. In [7], it was proved that the Cesàro \((C,1)\) means and the Abel-Poisson means of Fourier series of an \(H\)-periodic continuous function \(f\) converge to it uniformly on the closure of the regular hexagon \(\Omega\). In [3], the order of convergence of these was estimated in the uniform norm, where the function belongs to the Hölder class \(H_\alpha(\Omega)\), \(0 < \alpha \leq 1\). In this work, the order of approximation of \((C,1)\) and Abel-Poisson means of functions in \(H_\alpha(\Omega)\), \(0 < \alpha \leq 1\) is investigated in the Hölder norm \(\|\cdot\|_\beta\), \(0 < \beta < \alpha\).


Keywords and phrases: Hexagonal Fourier series, Cesàro means, Abel-Poisson means, Hölder class.

REFERENCES