Journal of Classical Analysis
Volume 1, Number 1 (2012), 43–52
doi:10.7153/jca-01-06

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 Ω. In [3], the order of convergence of these was estimated in the uniform norm, where the function belongs to the Hölder class $H_\alpha\left(\overline{\Omega}\right)$, $0<\alpha\leqslant 1$. In this work, the order of approximation of $(C,1)$ and Abel-Poisson means of functions in $H_\alpha\left(\overline{\Omega}\right)$, $0<\alpha\leqslant 1$ is investigated in the Hölder norm $\|\cdot\|_\beta$, $0\leqslant\beta<\alpha$.

Mathematics subject classification (2010): 41A25, 42A10, 42B08.
Keywords and phrases: Hexagonal Fourier series, Cesàro means, Abel-Poisson means, Hölder class.

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Paper JCA-01-06