

APPROXIMATION OF INTEGRABLE FUNCTIONS
BY GENERALIZED ABEL-POISSON MEANS

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Abstract. Special representation (Zamansky-type representation) is obtained for generalized Abel-Poisson means of Fourier series for integrable functions. More exactly, the deviation of such the function and its generalized Abel-Poisson means is represented as an improper integral of second order symmetric difference for the function and a remainder. This remainder is estimated from both above and below in terms of second order modulus of smoothness for the function.

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