Pointwise (H, Φ) strong approximation by Fourier series of integrable functions

Włodzimierz Łenski

University of Zielona Góra
Faculty of Mathematics, Computer Science and Econometrics
65-516 Zielona Góra, ul. Szafrana 4a
P O L A N D
W.Lenski@wmie.uz.zgora.pl

Abstract. We will present estimation of the generalized strong mean (H, Φ) as an approximation version of the Totik type generalization of the results of J. Marcinkiewicz and A. Zygmund on strong summability of Fourier series of integrable functions. As a measure of such approximation we will use the function constructed by function Ψ complementary to Φ on the base of definition of the Gabisonia points. Some corollaries and remarks will also be given.