



A STUDY ON MATRIX SUMMABILITY OF FOURIER SERIES

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Abstract

In this paper, a main result dealing with absolute Riesz summability of Fourier series has been generalized to the $|A, p_n|_k$ summability method. Some new results concerning an application of absolute matrix summability to Fourier series have been obtained.

1. Introduction

The notion of weighted mean, so the notion of a matrix summability method has many applications to all branches of sciences especially to statistics, physics, computer science, information theory, economics and biological science. For any sequence (λ_n) we write that $\Delta^2\lambda_n = \Delta\lambda_n - \Delta\lambda_{n+1}$ and $\Delta\lambda_n = \lambda_n - \lambda_{n+1}$. A sequence (λ_n) is said to be of bounded variation, denoted by $(\lambda_n) \in \mathcal{BV}$, if

$$\sum_{n=1}^{\infty} |\Delta\lambda_n| < \infty.$$

Let $\sum a_n$ be a given infinite series with the partial sums (s_n) . We denote by (u_n) and (z_n) the n -th $(C, 1)$ means of the sequences (s_n) and (na_n)

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