

**A THEOREM ON SUMMABILITY FACTORS FOR THE WEIGHTED
MEAN METHOD FOR DOUBLE SERIES IN ULTRAMETRIC FIELDS**

P N NATARAJAN

OLD No. 2/3, NEW No. 3/3, SECOND MAIN ROAD, R.A. PURAM,
CHENNAI 600 028, INDIA

E-MAIL: PINNANGUDINATARAJAN@GMAIL.COM

ABSTRACT. Throughout this paper, K denotes a complete, non-trivially valued, ultrametric (or non-archimedean) field. 4-dimensional infinite matrices, double sequences and double series have entries in K . In the present paper, we prove a theorem on summability factors for the Weighted mean method for double series in K .

Key words and phrases. Ultrametric (or non-archimedean) field, summability factor, double sequence, double series, 4-dimensional infinite matrix, regular method, Weighted mean method.