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**Hamdullah evli\*** (hsevli@yahoo.com), Department of Mathematics, Faculty of Arts, and Sciences, Yznc Y&#305;l University, 65080 Van, Merkez, Turkey. *Absolute summability methods.*

A lower triangular infinite matrix is called a triangle if there are no zeros on the principal diagonal. Denote by  $\mathcal{A}_k$  the sequence space defined by  $\mathcal{A}_k := \left\{ \{s_n\} : \sum_{n=1}^{\infty} n^{k-1} |a_n|^k < \infty, a_n = s_n - s_{n-1} \right\}$  for  $k \geq 1$ . A matrix  $T$  is said to be a bounded linear operator on  $\mathcal{A}_k$ , written  $T \in B(\mathcal{A}_k)$ , if  $T : \mathcal{A}_k \rightarrow \mathcal{A}_k$ . In [G. Das, A tauberian theorem for absolute summability, Proc. Cambridge Philos. Soc. 67 (1970), 321-326], Das defined such a matrix to be absolutely  $k$ -th power conservative for  $k \geq 1$ . A minimal set of sufficient conditions are obtained for a triangle  $T \in B(\mathcal{A}_k)$  in a previous paper of author jointly with E. Savaş and B. E. Rhoades [E. Savaş, H. Şevli and B.E. Rhoades, Triangles which are bounded operators on  $\mathcal{A}_k$ , to appear in Acta Math. Hungar.]. It is the purpose of of this work to extend this result to doubly infinite matrices. As special summability methods  $T$  we consider weighted mean and double Cesàro,  $(C, 1, 1)$ , methods. (Received August 02, 2007)