

NECESSARY AND SUFFICIENT TAUBERIAN CONDITIONS UNDER WHICH STATISTICALLY LOGARITHMIC CONVERGENCE FOLLOWS FROM STATISTICALLY LOGARITHMIC SUMMABILITY

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Abstract. Let (s_n) be a sequence of complex numbers. The sequence (τ_n) of n -th logarithmic means of (s_n) is defined by $\tau_n = \frac{1}{\ell_n} \sum_{k=1}^n \frac{s_k}{k}$ where $\ell_n = \sum_{k=1}^n \frac{1}{k} \sim \log n$. It is well known that if a bounded sequence (s_n) is statistically logarithmic convergent to s , then it is statistically logarithmic summable to the same number. However, the converse of this implication is not true in general. In this paper, we obtain conditions, so called Tauberian conditions, under which the converse implication holds.

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