

A NOTE ON δ -QUASI-MONOTONE AND ALMOST INCREASING SEQUENCES

H. BOR AND L. LEINDLER

Abstract. In this paper by using an almost increasing sequence a general theorem on $\varphi - |C, \alpha|_k$ summability factors, which among others generalizes a result of Mazhar[9] on $|C, 1|_k$ summability factors, has been proved under weaker conditions.

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REFERENCES

- [1] S. ALJANCIC AND D. ARANDELOVIC, *O-regularly varying functions*, Publ. Inst. Math., **22** (1977), 5–22.
- [2] M. BALCI, *Absolute φ -summability factors*, Comm. Fac. Sci. Univ. Ankara, Ser. A₁ **29** (1980), 63–80.
- [3] R. P. BOAS, *Quasi-positive sequences and trigonometric series*, Proc. London Math. Soc. Ser. A **14** (1965), 38–46.
- [4] L. S. BOSANQUET, *A mean value theorem*, J. London Math. Soc., **16** (1941), 146–148.
- [5] T. M. FLETT, *On an extension of absolute summability and some theorems of Littlewood and Paley*, Proc. London Math. Soc., **7** (1957), 113–141.
- [6] T. M. FLETT, *Some more theorems concerning the absolute summability of Fourier series*, Proc. London Math. Soc., **8** (1958), 357–387.
- [7] L. LEINDLER, *On extensions of some theorems of Flett. I*, Acta Math. Hungar., **64** (3) (1994), 269–283.
- [8] L. LEINDLER, *Three theorems connected with δ -quasi monotone sequences and their applications to an integrability theorem*, Publ. Math. (Debrecen), **60** (2002), 373–384.
- [9] S. M. MAZHAR, *On a generalized quasi-convex sequence and its applications*, Indian J. Pure Appl. Math., **8** (1977), 784–790.
- [10] T. PATI, *The summability factors of infinite series*, Duke Math. J. **21** (1954), 271–284.