

# Journal of Inequalities in Pure and Applied Mathematics

**CORRIGENDUM ON THE PAPER: 'AN APPLICATION OF ALMOST INCREASING AND  $\delta$ -QUASI MONOTONE SEQUENCES' PUBLISHED IN JIPAM, VOL. 1, NO. 2. (2000), ARTICLE 18**

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Abstract

Contents



Home Page

Go Back

Close

Quit

## Abstract

This paper is a corrigendum on a paper published in an earlier volume of JI-PAM, 'An application of almost increasing and  $\delta$ -quasi-monotone sequences' published in JIPAM, Vol.1, No.2. (2000), Article 18.

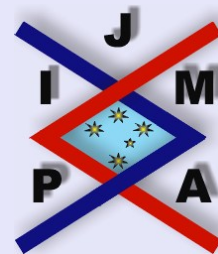
In my paper [1], we need an additional condition in Theorem 2.1 and Lemma 2.3. The new statements of Theorem 2.1 and Lemma 2.3 should be given as follows:

**Theorem 1.** *Let  $(X_n)$  be an almost increasing sequence such that  $|\Delta X_n| = O(X_n/n)$  and  $\lambda_n \rightarrow 0$  as  $n \rightarrow \infty$ . Suppose that there exists a sequence of numbers  $(A_n)$  such that it is  $\delta$ -quasi-monotone with  $\sum n\delta_n X_n < \infty$ ,  $\sum A_n X_n$  is convergent and  $|\Delta \lambda_n| \leq |\Delta A_n|$  for all  $n$ . If the other conditions of Theorem 2.1 are satisfied, then the series  $\sum a_n \lambda_n$  is summable  $|\bar{N}, p_n|_k, k \geq 1$ .*

**Lemma 2.** *Let  $(X_n)$  be an almost increasing sequence such that  $n|\Delta X_n| = O(X_n)$ . If  $(A_n)$  is  $\delta$ -quasi-monotone with  $\sum n\delta_n X_n < \infty$ ,  $\sum A_n X_n$  is convergent, then*

$$nA_n X_n = O(1),$$
$$\sum_{n=1}^{\infty} nX_n |\Delta A_n| < \infty.$$

The proof of Lemma 2 is similar to the proof of Theorem 1 and Theorem 2 of Leindler ([2]) and we omit it.



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H. Bor

---

Title Page

Contents



Go Back

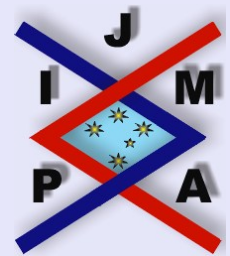
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Quit

Page 2 of 3

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- [2] L. LEINDLER, Three theorems connected with  $\delta$ -quasi-monotone sequences and their application to an integrability theorem, *Publ. Math. (Debrecen)*, **59** (2002) (to appear).



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H. Bor

---

Title Page

Contents



Go Back

Close

Quit

Page 3 of 3