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CORRIGENDUM TO

CHARACTERIZATION OF THE ABSOLUTE SUMMING OPERATORS IN A BANACH SPACE USING μ-APPROXIMATE l_1 SEQUENCES

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1. Corrigendum of Lemma 3.

Lemma 3. *Let $(x_i)_{i=1}^n$ be a sequence of unit vectors in Banach space X. Then for any finite number of scalars $\{a_1, a_2, \cdots, a_n\}$, the following is true*

$$||a_1 \cdot x_1 + \cdots + a_n \cdot x_n|| \leq \max_{1\leq i\leq n} \{a_i\}||x_1 + x_2 + \cdots + x_n||.$$

Proof. From fact that $a_1 \cdot x_1 + \cdots + a_n \cdot x_n \in X$, by Hahn-Banach Theorem it follows that there exists a functional $x^* \in X^*$, such that $||x^*|| = 1$, and

$$x^*\Big(\sum_{i=1}^n a_i x_i\Big) = \Big\|\sum_{i=1}^n a_i x_i\Big\|.$$

On the other hand

$$x^*\Big(\sum_{i=1}^n a_i x_i\Big) = \sum_{i=1}^n a_i x^*(x_i) \leq \max_{1\leq i\leq n}\{a_i\} \cdot \sum_{i=1}^n x^*(x_i) =$$

$$\max_{1\leq i\leq n}\{a_i\} \cdot x^*\Big(\sum_{i=1}^n x_i\Big) \leq \max_{1\leq i\leq n}\{a_i\} \cdot ||x^*||\Big\|\sum_{i=1}^n x_i\Big\| = \max_{1\leq i\leq n}\{a_i\} \cdot \Big\|\sum_{i=1}^n x_i\Big\|$$

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1. Corrigendum of Lemma 6.

In the end of the proof of lemma 6, in the paper is

$$||x+y|| \leq \sum_{i\in A} |a_i| + \sum_{i\in B} |a_i|$$

it shoud be

$$||x-y|| \leq \sum_{i\in A} |a_i| + \sum_{i\in B} |a_i|.$$

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