

OPERATORS AND FRAMES - CORRIGENDUM

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Communicated by Stefaan Vaes

A. Alijani (Department of Mathematics, Faculty of Science, Vali-e-Asr University of Rafsanjan, P.O. Box 7719758457, Iran) has pointed out that there are three mis-statements in the paper [1] which cause serious confusion for the reader.

1. In Theorem 4.3, the assumption $\det(S) \geq 1$ should be $\det(S) = 1$. With this correction the conclusion still holds and can be done in one line:

$$\det(S) = \prod_{j=1}^N \lambda_j = 1 = \frac{\sum_{i=1}^M \|f_i\|^2}{N} = \frac{\sum_{j=1}^N \lambda_j}{N}.$$

It follows that $\lambda_j = 1$ for all j , and the frame is Parseval.

2. The conclusion of Theorem 4.7 should read:

$$\frac{\sum_{k=1}^N x_k}{N} - f(\varepsilon) \leq x_j \leq \frac{\sum_{k=1}^N x_k}{N} + f(\varepsilon).$$

This theorem is used to prove all later theorems. But the correct conclusion for Theorem 4.7 was used in each of them so there is no change.

3. The set out equation in the proof of Theorem 4.7 is lacking an important term which makes it look false. It should be:

$$\begin{aligned} x_j &= \frac{\sum_{k=1}^N x_k}{N} + \frac{\sum_{k=1}^N (x_j - x_k)}{N} \\ &\leq \frac{\sum_{k=1}^N x_k}{N} + \frac{\sum_{k=1}^N |x_j - x_k|}{N} \leq \frac{\sum_{k=1}^N x_k}{N} + 2N^{3/2} \varepsilon^{1/2}. \end{aligned}$$

REFERENCES

- [1] J. CAHILL, P.G. CASAZZA, G. KUTYNIOK, Operators and frames, *J. Operator Theory* **70**(2013), 145–164.

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