Erratum

Erratum to: Centrohermitian and Skew-Centrohermitian Solutions to the Minimum Residual and Matrix Nearness Problems of the Quaternion Matrix Equation $(AXB, DXE) = (C, F)$

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Erratum to: Adv. Appl. Clifford Algebras DOI 10.1007/s00006-016-0688-4

A remark stated in the end of the second section of the paper is not true since the matrices $X - \frac{1}{2}(X_0 + V\overline{X_0}V)$ and $\frac{1}{2}(X_0 - V\overline{X_0}V)$ (or the matrices $X - \frac{1}{2}(X_0 - V\overline{X_0}V)$ and $\frac{1}{2}(X_0 + V\overline{X_0}V)$) are not, in general, orthogonal. However, this remark was not used to derive results in the paper. Consequently, the remark, which is copied below, should be ignored.

“The minimization problem

$$\min \|X - X_0\|$$

is equivalent to the minimization problem

$$\min \left\| X - \frac{1}{2}(X_0 + V\overline{X_0}V) \right\| \quad (2.12)$$

over the set of $\mathcal{H}_{m,n}$ since

$$\|X - X_0\|^2 = \left\| X - \frac{1}{2}(X_0 + V\overline{X_0}V) \right\|^2 + \left\| \frac{1}{2}(X_0 - V\overline{X_0}V) \right\|^2$$

The online version of the original article can be found under doi:[10.1007/s00006-016-0688-4](https://doi.org/10.1007/s00006-016-0688-4).

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with $X \in \mathcal{H}_{m,n}$. For this reason, if the matrix X_0 is not centrohermitian, then instead of the matrix X_0 , the matrix $\frac{1}{2}(X_0 + V\overline{X_0}V)$ is taken to find centrohermitian solutions of Problem 2.

Similarly, if the matrix X_0 is not skew-centrohermitian, then instead of the matrix $\frac{1}{2}(X_0 + V\overline{X_0}V)$ in (2.12), the matrix $\frac{1}{2}(X_0 - V\overline{X_0}V)$ is taken to find the skew-centrohermitian solutions of the Problem 2.”

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