Correction

Correction: Bustamante et al. Determining When an Algebra Is an Evolution Algebra. *Mathematics* 2020, *8*, 1349

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The authors wish to make the following corrections to this paper [1] (see corrected version in postprint [2]):

1. On page 2, paragraph 4, complete the first sentence 'In Theorem 2 we show that if A is a real algebra and B is a basis of A then B also is a basis of $A_{\mathbb{C}}$, the complexification of A (with the same multiplication structure matrices) and that A is an evolution algebra if, and only if, $A_{\mathbb{C}}$ is an evolution algebra' with the phrase '**and has a natural basis consisting of elements of A**'.

2. Replace Theorem 2 (statement and proof) with

Theorem 2. *Let A be a real algebra. Then A is an evolution algebra if, and only if, $A_{\mathbb{C}}$ is an evolution algebra **and has a natural basis consisting of elements of A**. Moreover, if A is a real evolution algebra, then every natural basis of A is a natural basis of $A_{\mathbb{C}}$.*

Proof. If A is an evolution algebra and if B is a natural basis of A, then obviously B is a natural basis of $A_{\mathbb{C}}$. **The converse direction is clear**.

3. Replace Corollary 1 with

Corollary 1. *Let A be a real commutative algebra, let $B = \{e_1, \ldots, e_n\}$ be a basis, and let $M_1, \ldots, M_n$ be the m-structure matrices of A with respect to B. Then, A is an evolution algebra if, and only if, the matrices $M_1, \ldots, M_n$ (regarded as complex matrices) are simultaneously diagonalisable via congruence **by means of a real matrix**.*

4. Add the following sentence after Corollary 1:

In [25], example 16, we give two real matrices which are diagonalisable via congruence by means of a complex matrix but not by means of any real matrix.

Finally, to aid the reader we note that reference [25] in the corrected paper [1] corresponds to reference [3] below.

The authors apologize for any inconvenience caused and state that the scientific conclusions are unaffected. The original article has been updated.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Bustamante, M.D.; Mellon, P.; Velasco, M.V. Determining When an Algebra Is an Evolution Algebra. *Mathematics* **2020**, *8*, 1349. [CrossRef]
2. Bustamante, M.D.; Mellon, P.; Velasco, M.V. Determining When an Algebra Is an Evolution Algebra. *arXiv* **2021**, Postprint. arXiv:2102.04493 [math.RA].
3. Bustamante, M.D.; Mellon, P.; Velasco, M.V. Solving the problem of simultaneous diagonalization of complex symmetric matrices via congruence. *SIAM J. Matrix Anal. Appl.* **2020**, *41*, 1616. [CrossRef]