

ERRATUM TO “ \hat{A} -GENUS ON NON-SPIN MANIFOLDS WITH S^1 ACTIONS AND THE CLASSIFICATION OF POSITIVE QUATERNION-KÄHLER 12-MANIFOLDS”

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The article “ \hat{A} -genus on non-spin manifolds with S^1 actions and the classification of positive quaternion-Kähler 12-manifolds” [3] contains an error in Lemma 2 of Part I, since an assumption on the finiteness of the second homotopy group is not sufficient to reach the desired conclusion. This error stems from an incorrect application of Theorem V in [2], and we thank M. Amann and A. Dessai for pointing it out (see [1]).

An additional hypothesis of finiteness of the fourth homotopy group proves to be enough to correct Lemma 2 and, therefore, Theorems 1 and 3 that depend on it. We also thank M. Amann and A. Dessai [1] for this observation.

On the other hand, Theorem 2 depends on the original version of Theorem 1 and, therefore, its proof is not complete. We note that the fourth homotopy group of the real Grassmannian of oriented 4-planes in \mathbb{R}^7 , a positive quaternion-Kähler 12-manifold, is not finite.

References

- [1] M. Amann & A. Dessai, *A note on the \hat{A} -genus for π_2 -finite manifolds with S^1 -symmetry*, arXiv:0811.0840.
- [2] G.E. Bredon, *Representations at fixed points of smooth actions of compact groups*. Ann. of Math. **89**, no. 2, 515–532, 1969.
- [3] H. Herrera & R. Herrera, *\hat{A} -genus on non-spin manifolds with S^1 actions and the classification of positive quaternion-Kähler 12-manifolds*. J. Differential Geom. **61**, no. 3, 341–364, 2002.

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