

Erratum: The linear polarization of Southern bright stars measured at the parts-per-million level

by Daniel V. Cotton,^{1,2★} Jeremy Bailey,^{1,2} Lucyna Kedziora-Chudczer,^{1,2} Kimberly Bott,^{1,2} P. W. Lucas,³ J. H. Hough³ and Jonathan P. Marshall^{1,2}

¹*School of Physics, UNSW Australia, NSW 2052, Australia*

²*Australian Centre for Astrobiology, UNSW Australia, NSW 2052, Australia*

³*Centre for Astrophysics Research, Science and Technology Research Institute, University of Hertfordshire, Hatfield AL10 9AB, UK*

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Our recent article, The linear polarization of Southern bright stars measured at the parts-per-million level (Cotton et al. 2016a), contains two errors that we correct here.

The first error is a formulaic error in the propagation of errors. Although the errors in q , u and p given throughout the paper are properly the 1σ error, the stated error in the polarization angle is the 2σ error. To correct this, the reader has simply to divide the given polarization angle error by 2. The correction of this error does not alter any of the conclusions drawn in the paper.

We note here that this error also affects the polarization angle errors for the telescope polarization given in one of our earlier works (Bailey et al. 2015). The errors there are very small, and so this has little consequence.

The second error is a transcription error resulting in an erroneous value for the measured polarization of α Phe (HIP 2081, BS 99) being reported in Table 5. The correct measurement for this object is as follows: $q = -10.7 \pm 7.2$, $u = 15.6 \pm 6.1$, or $p = 18.9 \pm 6.7$, $\theta = 62.3 \pm 10.5$.

α Phe is identified as an outlier in Figs 5 and 6 of the paper, and marked accordingly; its corrected (debiased) p/d value of 0.73 ppm/pc is unremarkable. Consequently, its identification in Section 4.10¹ as a late giant probably intrinsically polarized is

recanted. This makes κ Lyr (BS 6872, K2III) the earliest late giant we can identify as probably intrinsically polarized. The incorrect polarization magnitude for α Phe was also used in Fig. 2, however the scale used there would render a correction largely invisible.

The above errors were identified before the publication of three recent papers (Bott et al. 2016; Cotton et al. 2016b; Marshall et al. 2016) that reference the results, and none of them are affected.

REFERENCES

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 Marshall J. P. et al., 2016, ApJ, preprint ([arXiv:1604.08286](https://arxiv.org/abs/1604.08286))

* E-mail: d.cotton@unsw.edu.au

¹ Where α Phe is incorrectly given the designation BS 2081 rather than HIP 2081.

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