



Erratum: “First Search for Gravitational Waves from Known Pulsars with Advanced LIGO” (2017, ApJ, 839, 12)

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Erratum: “First Search for Gravitational Waves from Known Pulsars with Advanced LIGO” (2017, *ApJ*, 839, 12)

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There is an error in Equation (4) of the original paper, which should instead be

$$Q_{22} = h_0 \left(\frac{c^4 d}{16\pi^2 G f_{\text{rot}}^2} \right) \sqrt{\frac{15}{8\pi}}. \quad (1)$$

This makes it consistent with Equation (3) of Aasi et al. (2014), which was actually used when calculating the value of the Q_{22} upper limits from the h_0 upper limits for the results of this paper.

References

Aasi, J., Abadie, J., Abbott, B. P., et al. 2014, [ApJ](#), **785**, 119

¹⁵³ Deceased, March 2016.