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Corrigendum: Effective renormalized multi-body interactions of harmonically confined ultracold neutral bosons (2012 *New J. Phys.* [14 053037](#))

To cite this article: P R Johnson *et al* 2018 *New J. Phys.* **20** 079501

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RECEIVED
15 June 2018

ACCEPTED FOR PUBLICATION
27 June 2018

PUBLISHED
6 July 2018

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The equations related to the effective range corrections reported in [1] contain three typos. These typos were first noted in [2] and independently pointed out to us by Perlin and Rey [3]. To fix the misprints, three changes need to be made in [1]:

1. On page 14, the integral on the right-hand side of equation (28) needs to be multiplied by $1/2$.
2. On page 14, in the text following equation (28), the value of $K'_{00;00}$ needs to be changed from $(3/4)\sqrt{2/\pi}$ to $(3/2)\sqrt{2/\pi}$.
3. On page 19, in the entry 'leading-order effective range terms' of table 2, the equation $\alpha_2^{(1,2)} = K'_{0000} = \frac{3}{4}\left(\frac{2}{\pi}\right)^{1/2} = +0.598\ 413 \dots$ needs to be changed to $\alpha_2^{(1,2)} = \frac{1}{2}K'_{0000} = \frac{3}{4}\left(\frac{2}{\pi}\right)^{1/2} = +0.598\ 413 \dots$

These corrections only affect the intermediate steps of our derivation and do not impact the results and conclusions of [1, 4]. In particular, the figures in [1, 4] used the correct expressions for the effective range correction and the energy shifts reported in tables 1 and 3 of [1] are correct.

Acknowledgments

We thank Michael A Perlin and Ana Maria Rey for pointing out the errors to us.

References

- [1] Johnson P R, Blume D, Yin X Y, Flynn W F and Tiesinga E 2012 Effective renormalized multi-body interactions of harmonically confined ultracold neutral bosons *New J. Phys.* **14** 053037
- [2] Yin X Y 2009 Universal and non-universal properties of ultracold few-atom systems *PhD Thesis* Washington State University
- [3] Perlin M A and Rey A M 2018 private communication
- [4] Yin X Y, Blume D, Johnson P R and Tiesinga E 2014 Universal and nonuniversal effective N-body interactions for ultracold harmonically trapped few-atom systems *Phys. Rev. A* **90** 043631