Physics Letters B 771 (2017) 635–636

Contents lists available at ScienceDirect

Physics Letters B

www.elsevier.com/locate/physletb

Corrigendum

# Erratum to "Neutron–$^{19}$C scattering: Emergence of universal properties in a finite range potential" [Phys. Lett. B 764 (2017) 196]

M.A. Shalchi [a,*], M.T. Yamashita [a], M.R. Hadizadeh [b,c], T. Frederico [d], Lauro Tomio [a,d]

[a] Instituto de Física Teórica, UNESP – Univ. Estadual Paulista, 01140-070, São Paulo, Brazil
[b] Institute for Nuclear and Particle Physics and Department of Physics and Astronomy, Ohio University, Athens, OH 45701, USA
[c] College of Science and Engineering, Central State University, Wilberforce, OH 45384, USA
[d] Instituto Tecnológico de Aeronáutica, DCTA, 12228-900, São José dos Campos, Brazil

ARTICLE INFO

*Article history:*
Received 17 May 2017
Accepted 22 May 2017
Available online 8 June 2017
Editor: J.-P. Blaizot

*Keywords:*
Halo nuclei
Scattering theory
Efimov physics
Faddeev equation

ABSTRACT

Numerical results for the function $(1-E_K/E_0)k\cot\delta_0^R$, as given in Phys. Lett. B 764 (2017) 196, are revised. Fig. 2 and Tables 2 and 3 should be replaced by the following corresponding figure and tables. The conclusions of the original paper remain unchanged.

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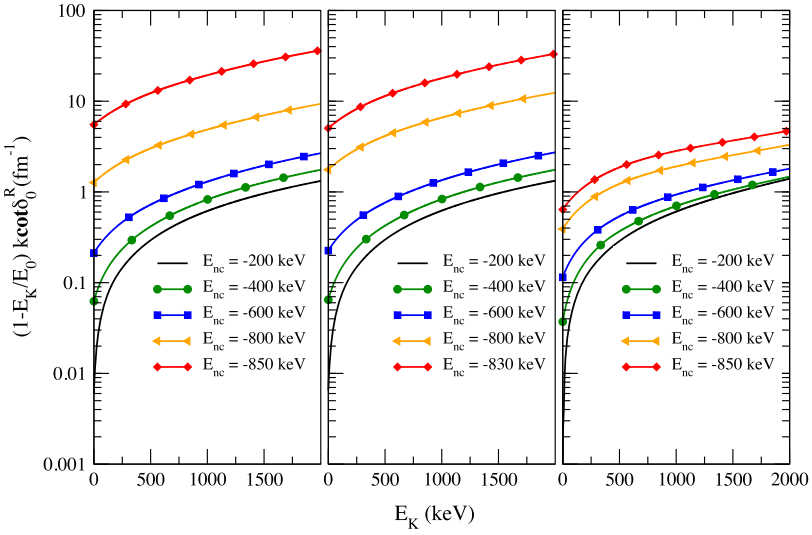


**Fig. 2.** The function $(1-E_K/E_0)k\cot\delta_0^R$, where $E_0$ is the pole position, is given in terms of $E_K \equiv k^2/(2\mu_{n,nc})$, by considering renormalized zero-range (left frame), low-range (middle frame) and high-range (right frame) potentials. For each case, the results are shown for different values of the two-body binding energy $E_{nc}$, as indicated inside the frames.

We have revised Fig. 2 and Tables 2 and 3. We are correcting a mistake we did in handling our final data table. We provide the new fitting with correct data sets to replace the corresponding ones in Tables 2 and 3 of the original article [1]. We also should

DOI of original article: http://dx.doi.org/10.1016/j.physletb.2016.11.030.
* Corresponding author.
*E-mail address:* shalchi@ift.unesp.br (M.A. Shalchi).

http://dx.doi.org/10.1016/j.physletb.2017.05.070
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**Table 2**
Effective-range parameters, obtained by fitting Eq. (12) to Fig. 2, when considering different values of $|E_{^{19}C}|$ (first column) with short-range potentials.

| $\lvert E_{^{19}C}\rvert$ (keV) | $-1/a$ (fm$^{-1}$) | $b$ (fm.keV)$^{-1}$ | $c$ (fm.keV$^2$)$^{-1}$ | $E_0$ (keV) | $d$ (fm$^{-1}$) | $r_{nc}$ (fm) |
|---|---|---|---|---|---|---|
| 200 | 0.006 | $5.579 \cdot 10^{-4}$ | $5.717 \cdot 10^{-8}$ | 1304 | 0.831 | 0.157 |
| 400 | 0.066 | $6.742 \cdot 10^{-4}$ | $9.144 \cdot 10^{-8}$ | 749.0 | 0.622 | 0.174 |
| 600 | 0.234 | $9.840 \cdot 10^{-4}$ | $1.316 \cdot 10^{-7}$ | 402.9 | 0.652 | 0.190 |
| 800 | 1.798 | $4.467 \cdot 10^{-3}$ | $3.519 \cdot 10^{-7}$ | 78.86 | 2.153 | 0.205 |
| 830 | 5.149 | $1.198 \cdot 10^{-2}$ | $8.578 \cdot 10^{-7}$ | 28.98 | 5.497 | 0.208 |

**Table 3**
Effective-range parameters, obtained by fitting Eq. (12) to Fig. 2, when considering different values of $|E_{^{19}C}|$ (first column) with high-range potentials.

| $\lvert E_{^{19}C}\rvert$ (keV) | $-1/a$ (fm$^{-1}$) | $b$ (fm.keV)$^{-1}$ | $c$ (fm.keV$^2$)$^{-1}$ | $E_0$ (keV) | $d$ (fm$^{-1}$) | $r_{nc}$ (fm) |
|---|---|---|---|---|---|---|
| 200 | 0.005 | $5.267 \cdot 10^{-4}$ | $7.580 \cdot 10^{-8}$ | 881.9 | 0.528 | 2.736 |
| 400 | 0.042 | $6.319 \cdot 10^{-4}$ | $2.806 \cdot 10^{-8}$ | 537.7 | 0.390 | 3.233 |
| 600 | 0.122 | $8.395 \cdot 10^{-4}$ | $-2.372 \cdot 10^{-8}$ | 324.8 | 0.392 | 3.720 |
| 800 | 0.405 | $1.746 \cdot 10^{-3}$ | $-2.332 \cdot 10^{-7}$ | 132.9 | 0.633 | 4.255 |
| 850 | 0.661 | $2.603 \cdot 10^{-3}$ | $-4.228 \cdot 10^{-7}$ | 85.60 | 0.880 | 4.403 |

point out a mistype in the value of $\beta_{nc}$ given in Table 1. Instead of $\beta_{nc} = 0.477$, it should be $\beta_{nc} = 0.474$. We emphasize that all conclusions presented in [1] are not affected by the revised data fitting.

## Acknowledgements

We thank Arnoldas Deltuva for pointing out an inconsistency between the fitted parameters and Fig. 2, which lead us to revise our data handling.

## References

[1] M.A. Shalchi, et al., Phys. Lett. B 764 (2017) 196.