

Author Correction: Fast-moving stars around an intermediate-mass black hole in ω Centauri


<https://doi.org/10.1038/s41586-024-08017-4>

Published online: 17 September 2024

Correction to: *Nature* <https://doi.org/10.1038/s41586-024-07511-z>

Published online 10 July 2024

Open access

 Check for updates

Maximilian Häberle, Nadine Neumayer, Anil Seth, Andrea Bellini, Mattia Libralato, Holger Baumgardt, Matthew Whitaker, Antoine Dumont, Mayte Alfaro-Cuello, Jay Anderson, Callie Clontz, Nikolay Kacharov, Sebastian Kamann, Anja Feldmeier-Krause, Antonino Milone, Maria Selina Nitschai, Renuka Pechetti & Glenn van de Ven

In the version of the article initially published, the third equation in the “The escape velocity provides a minimum black hole mass” section was presented incorrectly; the original and revised equations are shown below. The error was in description, only, and does not

impact the results. Also, an error in conversion of coordinates from relative to absolute coordinates led to a small offset in the reported right ascension coordinate for the minimum mass black hole location and the MCMC center. In the Methods sentence now reading “If we assume that all five robustly detected stars are bound to the black hole, the lower limit is about $8,200M_{\odot}$ and the minimum mass location is only $0.3''$ away from the AvdM10 (ref. 6) centre at the location $RA = 201.6966908^{\circ}$ and $Dec = -47.4795066^{\circ}$,” the coordinate “201.6966908” replaces “201.6967370,” while in the Methods text now reading “The coordinates of the MCMC based centre estimate are $RA = 201.6970988^{\circ}$ and $Dec = -47.4794533^{\circ}$,” the coordinate “201.6970988” replaces “201.6970128.” The equation and text are updated in the HTML and PDF versions of the article.

Original equation

$$M_{\text{BH}} > \sqrt{\left(\frac{v_{3\text{D}}^2 r_{3\text{D}}}{2G}\right)^2 - v_{\text{esc., cluster}}^2} \geq \sqrt{\left(\frac{v_{2\text{D}}^2 r_{2\text{D}}}{2G}\right)^2 - v_{\text{esc., cluster}}^2}$$

Revised equation

$$M_{\text{BH}} > \frac{(v_{3\text{D}}^2 - v_{\text{esc., cluster}}^2) r_{3\text{D}}}{2G} \geq \frac{(v_{2\text{D}}^2 - v_{\text{esc., cluster}}^2) r_{2\text{D}}}{2G}$$



Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

© The Author(s) 2024