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Erratum: Estimating the parameters of globular cluster M 30 (NGC 7099) from time-series photometry (Astronomy and Astrophysics (2013) 555 (A36))

N. Kains
European Southern Observatory

D. M. Bramich
European Southern Observatory

A. Arellano Ferro
Universidad Nacional Autónoma de México

R. Figuera Jaimes
European Southern Observatory

U. G. Jørgensen
Niels Bohr Institutet

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Authors

N. Kains, D. M. Bramich, A. Arellano Ferro, R. Figuera Jaimes, U. G. Jørgensen, S. Giridhar, M. T. Penny, K. A. Alsubai, J. M. Andersen, V. Bozza, P. Browne, M. Burgdorf, S. Calchi Novati, Y. Damerdji, C. Diehl, P. Dodds, M. Dominik, A. Elyiv, X. S. Fang, E. Giannini, S. H. Gu, S. Hardis, K. Harpsøe, T. C. Hinse, A. Hornstrup, M. Hundertmark, J. Jessen-Hansen, D. Juncher, E. Kerins, H. Kjeldsen, H. Korhonen, C. Liebig, and M. N. Lund

Estimating the parameters of globular cluster M 30 (NGC 7099) from time-series photometry (Corrigendum)

N. Kains¹, D. M. Bramich¹, A. Arellano Ferro², R. Figuera Jaimes^{1,3}, U. G. Jørgensen^{4,5}, S. Giridhar⁶, M. T. Penny⁷, K. A. Alsubai⁸, J. M. Andersen^{9,5}, V. Bozza^{10,11}, P. Browne³, M. Burgdorf¹², S. Calchi Novati^{10,13}, Y. Damerdjil¹⁴, C. Diehl^{15,16}, P. Dodds³, M. Dominik^{3,*}, A. Elyiv^{14,17}, X.-S. Fang^{18,19}, E. Giannini¹⁵, S.-H. Gu^{18,19}, S. Hardis⁴, K. Harpsøe^{4,5}, T. C. Hinse^{20,4}, A. Hornstrup²¹, M. Hundertmark³, J. Jessen-Hansen²², D. Juncher^{4,5}, E. Kerins²³, H. Kjeldsen²², H. Korhonen^{4,5}, C. Liebig³, M. N. Lund²², M. Lundkvist²², L. Mancini²⁴, R. Martin²⁵, M. Mathiasen⁴, M. Rabus²⁶, S. Rahvar^{27,28}, D. Ricci^{29,14}, K. Sahu³⁰, G. Scarpetta^{10,31}, J. Skottfelt^{4,5}, C. Snodgrass³², J. Southworth³³, J. Surdej¹⁴, J. Tregloan-Reed³³, C. Vilela³³, O. Wertz¹⁴, and A. Williams²⁵
(The MiNDSTEp consortium)

(Affiliations can be found after the references)

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The paper “Estimating the parameters of globular cluster M 30 (NGC 7099) from time-series photometry”, used an incorrect expression for the phase $\phi(t)$ at time t of a periodic variable undergoing a linear period change. Equation (3) of that paper should be:

$$\phi(t) = N_E(t) - [N_E(t)], \quad (1)$$

where $N_E(t)$ is the number of cycles elapsed at time t since a reference epoch E . For a constant rate of period change β , $N_E(t)$ is given by (Kains et al. 2015):

$$N_E(t) = \frac{1}{\beta} \ln \left[1 + \frac{\beta}{P_0} (t - E) \right], \quad (2)$$

where P_0 is the period at the epoch E . Using this correct expression, we are still unable to phase the light curve of RR Lyrae star V16 satisfactorily, and our conclusions therefore remain unaffected.

References

Kains, N., Arellano Ferro, A., Figuera Jaimes, R., et al. 2015, *A&A*, **578**, A128

- ¹ European Southern Observatory, Karl-Schwarzschild Straße 2, 85748 Garching bei München, Germany
e-mail: nkains@eso.org
- ² Instituto de Astronomía, Universidad Nacional Autónoma de México 0410 Ciudad de México, México
- ³ SUPA School of Physics & Astronomy, University of St. Andrews, North Haugh, St. Andrews, KY16 9SS, UK
- ⁴ Niels Bohr Institute, University of Copenhagen, Juliane Maries vej 30, 2100 Copenhagen, Denmark
- ⁵ Centre for Star and Planet Formation, Geological Museum, Øster Voldgade 5, 1350 Copenhagen, Denmark
- ⁶ Indian Institute of Astrophysics, 560034 Koramangala, Bangalore, India
- ⁷ Department of Astronomy, Ohio State University, 140 West 18th Avenue, Columbus, OH 43210, USA
- ⁸ Qatar Foundation, PO Box 5825, Doha, Qatar

- ⁹ Department of Astronomy, Boston University, 725 Commonwealth Ave, Boston, MA 02215, USA
- ¹⁰ Dipartimento di Fisica “E.R. Caianiello”, Università di Salerno, via Ponte Don Melillo, 84084 Fisciano, Italy
- ¹¹ Istituto Nazionale di Fisica Nucleare, Sezione di Napoli, 80100 Napoli, Italy
- ¹² HE Space Operations GmbH, Flughafenallee 24, 28199 Bremen, Germany
- ¹³ Istituto Internazionale per gli Alti Studi Scientifici (IIASS), 84019 Vietri Sul Mare (SA), Italy
- ¹⁴ Institut d’Astrophysique et de Géophysique, Université de Liège, Allée du 6 Août 17, Sart Tilman, Bât. B5c, 4000 Liège, Belgium
- ¹⁵ Astronomisches Rechen-Institut, Zentrum für Astronomie der Universität Heidelberg (ZAH), Mönchhofstr. 12–14, 69120 Heidelberg, Germany
- ¹⁶ Hamburger Sternwarte, Universität Hamburg, Gojenbergsweg 112, 21029 Hamburg, Germany
- ¹⁷ Main Astronomical Observatory, Academy of Sciences of Ukraine, vul. Akademika Zabolotnoho 27, 03680 Kyiv, Ukraine
- ¹⁸ National Astronomical Observatories/Yunnan Observatory, Chinese Academy of Sciences, 650011 Kunming, PR China
- ¹⁹ Key Laboratory for the Structure and Evolution of Celestial Objects, Chinese Academy of Sciences, 650011 Kunming, PR China
- ²⁰ Korea Astronomy and Space Science Institute, 305-348 Daejeon, Korea
- ²¹ Institut for Rumpforskning og -teknologi, Danmarks Tekniske Universitet, 2800 København, Denmark
- ²² Stellar Astrophysics Centre, Department of Physics and Astronomy, Aarhus University, Ny Munkegade 120, 8000 Aarhus C, Denmark
- ²³ Jodrell Bank Centre for Astrophysics, University of Manchester, Oxford Road, Manchester, M13 9PL, UK
- ²⁴ Max Planck Institute for Astronomy, Königstuhl 17, 69117 Heidelberg, Germany
- ²⁵ Perth Observatory, Walnut Road, Bickley, 6076 Perth, Australia
- ²⁶ Departamento de Astronomía y Astrofísica, Pontificia Universidad Católica de Chile, Av. Vicuña Mackenna 4860, 7820436 Macul, Santiago, Chile
- ²⁷ Department of Physics, Sharif University of Technology, PO Box 4, 11155–9161 Tehran, Iran
- ²⁸ Perimeter Institute for Theoretical Physics, 31 Caroline St. N., Waterloo ON, N2L 2Y5, Canada
- ²⁹ Instituto de Astronomía – UNAM, Km 103 Carretera Tijuana Ensenada, 422860 Ensenada (Baja Cfa), México
- ³⁰ Space Telescope Science Institute, 3700 San Martin Drive, Baltimore, MD 21218, USA
- ³¹ INFN, Gruppo Collegato di Salerno, Sezione di Napoli, Italy
- ³² Max Planck Institute for Solar System Research, Max-Planck-Str. 2, 37191 Katlenburg-Lindau, Germany
- ³³ Astrophysics Group, Keele University, Staffordshire, ST5 5BG, UK

* Royal Society University Research Fellow.