

Heitor Ernandes, Ph.D.

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🌐 <http://lattes.cnpq.br/1176217608010013>

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Education

- 2018 – 2022 📖 **Ph.D., Universidade de São Paulo** Astronomy.
Thesis title: *Abundances in field and globular cluster stars of the Galactic bulge.*
Advisor: Beatriz Barbuy
Fellowship from CAPES
- 2019 – 2020 📖 **Sandwich Ph.D., University of Edinburgh** Astronomy.
Thesis title: *Abundances in field and globular cluster stars of the Galactic bulge.*
Advisor: Chris Evans
Fellowship from CAPES
- 2013 – 2018 📖 **B.Sc. Universidade de São Paulo** in Physics.

Research Publications

68 citations /h-index = 4 [ADS link](#).


70 citations /h-index = 3 [Google Scholar link](#).

Journal Articles



- 1 Barbuy, B., **Ernandes, H.**, Souza, S. O., Razera, R., Moura, T., Meléndez, J., ... Bica, E. (2021). Gemini/Phoenix H-band analysis of the globular cluster AL 3. *A&A*, 648, A16.
🔗 doi:10.1051/0004-6361/202039761. arXiv: 2102.12674 [astro-ph.SR]
- 2 **Ernandes, H.**, Barbuy, B., Friaça, A. C. S., Hill, V., Zoccali, M., Minniti, D., ... Ortolani, S. (2020). Cobalt and copper abundances in 56 Galactic bulge red giants. *A&A*, 640, A89.
🔗 doi:10.1051/0004-6361/202037869. arXiv: 2007.00397 [astro-ph.SR]
- 3 **Ernandes, H.**, Dias, B., Barbuy, B., Kamann, S., Ortolani, S., Cantelli, E., ... Rossi, L. (2019). A MUSE study of the inner bulge globular cluster Terzan 9: a fossil record in the Galaxy. *A&A*, 632, A103.
🔗 doi:10.1051/0004-6361/201936431. arXiv: 1910.09893 [astro-ph.GA]
- 4 Barbuy, B., Muniz, L., Ortolani, S., **Ernandes, H.**, Dias, B., Saviane, I., ... Held, E. V. (2018). High-resolution abundance analysis of four red giants in the globular cluster NGC 6558. *A&A*, 619, A178.
🔗 doi:10.1051/0004-6361/201833953. arXiv: 1810.11703 [astro-ph.SR]
- 5 **Ernandes, H.**, Barbuy, B., Alves-Brito, A., Friaça, A., Siqueira-Mello, C., & Allen, D. M. (2018). Iron-peak elements Sc, V, Mn, Cu, and Zn in Galactic bulge globular clusters. *A&A*, 616, A18.
🔗 doi:10.1051/0004-6361/201731708. arXiv: 1801.06157 [astro-ph.SR]
- 6 Barbuy, B., Cantelli, E., Vemado, A., **Ernandes, H.**, Ortolani, S., Saviane, I., ... Siqueira-Mello, C. (2016). High-resolution abundance analysis of red giants in the metal-poor bulge globular cluster HP 1. *A&A*, 591, A53. 🔗 doi:10.1051/0004-6361/201628106. arXiv: 1604.02095 [astro-ph.SR]

Conference Proceedings

- 1 **Ernandes, H.**, Evans, C. J., Barbuy, B., Castilho, B., Cescutti, G., Christlieb, N., ... Smiljanic, R. (2020). Stellar astrophysics in the near-UV with VLT-CUBES. In *Society of photo-optical instrumentation engineers (SPIE) conference series* (Vol. 11447, p. 1144760). 🔗 doi:10.1117/12.2562497. arXiv: 2102.02205 [astro-ph.IM]

- 2 **Ernandes, H.**, Dias, B., Barbuy, B., Kamann, S., Ortolani, S., Rossi, L., ... Bica, E. (2018). A MUSE study of the inner bulge globular cluster Terzan 9 : a fossil record in the Galaxy. In *The galactic bulge at the crossroads* (p. 62).  doi:10.5281/zenodo.2651064






Visiting Scholar

- 2017  **ESO-Chile** - Supervisor: Bruno Dias.
Funding: ESO
- 2018  **University of Edinburgh/STFC**, Supervisor: Chris Evans.
Funding: UK-Brazil Global Challenges Research Fund



Fellowships

- 2018 – 2022  **Ph.D., Universidade de São Paulo** CAPES.
Thesis title: *Abundances in field and globular cluster stars of the Galactic bulge.*
Advisor: Beatriz Barbuy
- 2019 – 2020  **Sandwich Ph.D., University of Edinburgh** PRINT-CAPES.
Thesis title: *Abundances in field and globular cluster stars of the Galactic bulge.*
Advisor: Chris Evans
- 2014 – 2017  **Undergraduate research project** PIBIC.
Abundância de elementos do pico do ferro em aglomerados globulares.
Advisor: Beatriz Barbuy



Skills

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|----------------|---|
| Languages |  Portuguese(Native), English(Fluent), French(Intermediary), Spanish(Intermediary). |
| Coding |  Linux/Unix/MACOSX (Shell Scripting (sh, bash, tcsh, zsh)), Javascript, Python, R, \LaTeX |
| Data reduction |  IRAF and Pyraf |
| Database |  SQL |
| Misc. |  Academic research, teaching, training, consultation. |

Participation in the scientific teams

- 2019-  **Participation in the scientific team of the CUBES spectrograph**
-  **Participation in the scientific team of the MOSAIC spectrograph**

Congress, meeting, and workshops

- 2021  **Workshop on the Future of MOS Technologies** (Workshop)
- 2020  **JWST-UFRGS** (School)

Congress, meeting, and workshops (continued)

-  **Pristine Meeting.Pristine Meeting** (Meeting)
Presenting: CUBES and MOSAIC simulations
- 2018  **Dark Matter and Neutrinos** (School)
-  **IAU XXX** (Congress)
-  **The Galactic Bulge at the crossroads.** (Congress)
Presenting: Terzan 9 a MUSE analysis
- 2016  **Internation Coloquium ASSOS** (Workshop)
-  **Congress of Physics Paulo Leal** (Congress)
-  **School of Spectroscopy in Astrophysics and Laboratory Plasmas** (School)