

Ana Escorza



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Research Positions

- 2023 - 2026** **La Caixa Junior Leader Fellow, Inst. de Astrofísica de Canarias (IAC)**
Project title: *Stellar interactions and nucleosynthesis in the era of large surveys*
- 2020 - 2023** **European Southern Observatory (ESO) Fellow, ESO Chile**
50% dedicated to independent research and 50% to duties at ESO's Paranal Observatory as UT1 & UT2 astronomer and as UVES & ESPRESSO Instrument Fellow.
- 2016 - 2020** **Research Foundation - Flanders (FWO) PhD Fellow, KU Leuven (BE)**
Thesis title: *Barium stars as tracers of binary evolution in the Gaia era* [[thesis pdf](#)]
Supervisors: Prof. Hans Van Winckel (KU Leuven) and Dr. Lionel Siess (ULB)

Education

- 2015 - 2020** **Dual PhD student at KU Leuven and ULB (Belgium)**
- 2013 - 2015** **Master in Astronomy & Astrophysics, KU Leuven (Belgium)**
Magna cum laude: 15.7/20
- 2007 - 2013** **Licenciatura of Physics, University of Zaragoza (Spain)**
Including a one-year Exchange at the University of Southampton (UK), 7.66/10

Ten Highlighted Publications [[link to full publication list in ADS](#)]

- March 2023** Escorza & De Rosa, [A&A, 671, A97](#): *Barium and related stars, and their white-dwarf companions III. The masses of the white dwarfs*
- Feb. 2023** Escorza, Karinkuzhi, Jorissen, et al. [A&AL 670, L14](#): *A neutron star candidate in the long-period binary 56 UMa*
- Dec. 2021** Serenalli, Weiss, Aerts, ..., Escorza, et al. 2021, [A&A Rev., 29, 4](#): *Weighing stars from birth to death: mass determination methods across the HRD*
- January 2021** Karinkuzhi, Van Eck, ..., Escorza et al. 2018, [A&A, 645, A61](#): *Low-mass low-metallicity AGB stars as an efficient i-process site explaining CEMP-rs stars*
- July. 2020** Pedersen, Escorza, Papics & Aerts 2020, [MNRAS, 495, 2738](#): *Recipes for bolometric corrections and Gaia luminosities of B-type stars*
- July 2020** Escorza, Siess, Van Winckel & Jorissen 2020, [A&A, 639, A24](#): *Binary evolution along the red giant branch with BINSTAR: The barium star perspective*
- June 2019** Jorissen, Boffin, ..., Escorza et al. 2019, [A&A, 626, A127](#): *Barium and related stars,*

and their white-dwarf companions. II. Giant stars

- June 2019** Escorza, Karinkuzhi, Jorissen, et al. 2019, [A&A, 626, A128](#): Barium and related stars, and their white-dwarf companions. II. Main-sequence and subgiant stars
- Dec. 2017** Escorza, Boffin, Jorissen, Van Eck, Siess, et al. 2017, [A&A, 608, A100](#): Hertzsprung-Russell diagram and mass distribution of barium stars
- April 2016** Escorza, Zwintz, Tkachenko, et al. 2016, [A&A, 588, A71](#): HD 41641: A classical δ Sct-type pulsator with chemical signatures of an Ap star

Awards, travel grants and other recognitions

My whole career has been funded by **independent fellowships that I personally won**. The awarded amounts were ~190k€ for my FWO PhD Fellowship, ~250k€ for my ESO Fellowship, and ~305k€ for my La Caixa Junior Leader Fellowship

Spanish Astronomy Society (SEA) **PhD Thesis Prize** 2021 [[announcement](#)]: €1000, an invited plenary talk at the XV SEA scientific meeting and an invited review in the proceedings book [Highlights on Spanish Astrophysics XI](#).

€4750 EUR grant from ESO's Science Support Discretionary Fund.

€500 IAU Travel Grant to attend the IAU XXX General Assembly

SciComm Contest Your research in 1000 words: **Jury and Public 1st prize** [[text](#)]

Featured as a role model together with 12 other women from my region in Spain in the book *La semilla de Atenea* [[book](#)]

Other Research Experience

Additional Training

- Training course on gender equality in science (included sessions on Challenges for equality in science, Education with a gender perspective, Subliminal biases in science, Harassment, and Equality plans...), 2023.
- Summer School for Science Communication and Communicative Competences, 2018
- ICCUB School: Machine Learning and Data Mining in Physics, 2016

Most relevant presentations in the past 3 years

- **Invited seminar** at the Pontificia Universidad Católica de Chile.
- **Invited seminar** at Universidad de Concepción.
- **Invited seminar** at Universidad Diego Portales.
- **Invited participant and discussion session leader** at the Miapbp workshop *The fundamental role of stellar multiplicity in stellar dynamics and evolution*.
- Contributed talk at the conference *The Impact of Binaries on Stellar Evolution*.
- **Invited Plenary** at the XV Meeting of the Spanish Astronomy Society
- **Invited seminar** at Universidad Andres Bello
- **Review Talk** at *Special Session 19: Eccentric binaries with long, but too short, orbital periods* in the European Astronomy Society meeting in 2022
- Contributed talk at *13th Torino Workshop on AGB stars*
- **Invited seminar** at Geneva Observatory
- **Invited seminar** at the O-MESS seminar series [[video](#)]
- Seminar at the ESO/ALMA Colloquium Series

- **Invited seminar** at Radboud University Nijmegen
- Contributed talk at *IAUS366: The origin of outflows in evolved stars* [[proceedings](#)]
- Contributed talk at *The death-throes of evolved stars* [[video](#)]
- Seminar at the Instituto de Astrofísica de Canarias (IAC) [[video](#)]
- Seminar at ESO Garching

Observing experience and accepted proposals as PI

- 17.2 granted hours as PI with UVES@VLT (run ID 111.24UZ.001)
- 240 nights as UT1 and UT2 support astronomer at ESO's Paranal Observatory
- 35 nights as Night Shift Coordinator at ESO's Paranal Observatory
- 130 granted hours (3 successful proposals) with HERMES, the high resolution spectrograph at the Mercator telescope (ORM, La Palma, Spain)
- 50 nights as Mercator telescope astronomer (ORM, La Palma, Spain)

Other contributions to the scientific community

- Member of the Spanish Astronomy Society, the European Astronomy Society and the International Astronomical Union.
- Organiser and SOC and LOC Chair of the [workshop](#) "Three is not a crowd: Multiple companions as the cause or cure for binary star problems"
- Founding member and first vice-president of the Association of Spanish Scientists in Chile
- Part of the PhD Student Selection Committee at ESO Chile in 2021 & 2022
- SOC of Special Session 19 "Eccentric binaries with long, but too short, periods" at EAS2022
- Referee for ApJ, AJ, A&A and MNRAS
- Part of the selection committee of the Hypatia Colloquium series in 2021
- Scientific Assistant at ESO's Time Allocation panels in 2021.
- Co-chair of the Lecture Series Committee at ESO Chile.

Summer Grant "Initiation to Astrophysical Research"

Instituto de Astrofísica de Canarias (IAC, Spain), 2013

Teaching and Outreach Experience

Teaching and Mentoring

- Subject Matter Expert in Stellar Evolution and content reviewer for [NASA's Universe of Learning](#).
- Editorial member of the Spanish Edition of [astroEDU](#), an open-access award-winning platform hosted by the IAU Office of astro for education.
- Co-supervisor of L. Planquart during their ESO PhD studentship.
- Supervisor of M. Oyarce during their ESO Chile Internships.
- Supervisor of A. Goodsall during their ESO Chile Internships.
- Supervisor of J. Lopez through the Central American - Caribbean Bridge in Astrophysics programme
- Supervisor of S. Vitali during their Paranal Instrument Project with UVES
- Supervisor of M. Uzundağ during their Paranal Instrument Project with ESPRESSO.
- Official mentor of E. Bordier and J. French, former ESO PhD students
- Lecture as part of ESO's Lecture Series: *Weighing Stars from Birth to Death: Stellar Masses across the HRD*
- Lecture on *Stellar Evolution* at the Astronomy Summer School organized by Vereniging Voor Sterrenkunde, Flemish amateur astronomer association
- Supervisor of seven Bachelor Theses at KU Leuven
- Supervisor of three Master Research Projects at KU Leuven

- Teacher assistant for the Master courses *Interstellar Matter* and *Stellar Atmospheres and Winds* at KU Leuven

Outreach experience as an organiser or speaker

- Contributor to “Aló Paranal”, a podcast for a Chilean radio station.
- Co-host of ESO’s 60th Anniversary virtual celebration event [[video](#)]
- Organizer of the ESO outreach event *Astronomía al Parque* [[announcement](#)]
- Scriptwriter and protagonist of the ESO live event *Astronomía en vivo desde Observatorio Paranal* [[video](#)]
- Invited by the Spanish Embassy in Chile to give an outreach talk about “Cosmic dances” at the Spanish Cultural Center in Santiago
- Invited speaker at the Casa de las Ciencias in Logroño to commemorate the [World Space Week](#).
- Co-founder, -organiser and -host of Couch of Science [[YouTube Channel](#)]
- Event Organizer and City Coordinator of Pint of Science Leuven
- Organizer of the Fuckup Nights - KU Leuven
- Selected to contribute to the Science Figured Out project [[video](#)]
- Contributor to the CEBE SciComm blog [[link1](#)][[link2](#)]
- Speaker at many outreach events such as Pint of Science, Talk Cosmic To Me [[video](#)], De Dag van de Wetenschap, Ladies@science or Scientists@School
- Active in Skype a Scientist: 15 talks given for schools all over the world

Languages

Spanish ★★★★★

English ★★★★★

Dutch ★★☆☆☆

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