Ana Escorza

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Research Positions

2024 - 2027 **La Caixa Junior Leader Fellow, Inst. de Astrofísica de Canarias (IAC)**
Project title: ***Stellar interactions and nucleosynthesis in the era of large surveys***

2020 - 2024 **European Southern Observatory (ESO) Fellow, ESO Chile**
50% dedicated to independent research and 50% to duties at ESO's Paranal Observator 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]

Dec. 2026 Vitali, **Escorza**, et al. 2026, submitted: *Detectability limits of Ce abundances in Gaia RVS*

August 2026 **Escorza**, Vitali, Godoy-Rivera, et al. 2026, A&A, 712, A111: *Stellar nucleosynthesis in the era of large surveys: S-process-polluted binaries in GALAH DR4*

Nov. 2024 Vitali, **Escorza**, Slumstrup & Jofré, 2024, ApJ, 975, 47: *Full Abundance Study of Two Newly Discovered Barium Giants*

May 2023 **Escorza** 2023, Highlights of Spanish Astrophysics XI: *Barium stars and their white-dwarf companions, a key to understanding evolved binaries*

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*

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 **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

- Course on *Engagement with Politicians and other Decision-makers*, 2025
- Course on *Leadership Development and Effective Team Management*, 2025
- Course on *Negotiating Playfully to a Win-Win Result*, 2024
- Course on *Science Communication with the Media*, 2024
- Course on *Body Language and Public Speaking from Theatrical Perspectives*, 2024
- 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.
- School for *Science Communication and Communicative Competences*, 2018
- ICCUB School: *Machine Learning and Data Mining in Physics*, 2016

Most relevant conference contributions in the past three years

- Contributed talk at *Why Galaxies Care About AGB Stars V*, Santiago de Chile, November 2025.
- **Invited talk** at the *StarDance Meeting: Hunting for binaries and exotic stellar populations in star clusters*, Florence, October 2025.
- Contributed talk at the *16th Gaia Science Alerts and Time-Domain Workshop*, Tenerife, September 2025.
- Contributed talk at *Binary Stars in the Space Era*, Keele, July 2025
- Contributed talk at *10 Years of Science and the Future with SONG*, Tenerife, September 2024

- Contributed talk at the *14th Torino Workshop on AGB stars*, Rome Astronomical Observatory, June 2024
- Contributed talk at *Symbiotic stars, weird novae, and related embarrassing binaries*, Prague, June 2024

Accepted proposals as PI and observing experience

- 39 hours as PI with UVES@VLT (runs 117.29N0 and 111.24UZ)
- 2h hours as PI with SPHERE@VLT (run ID 116.2958)
- 265 hours as co-I with various ESO instruments
- 5 nights as PI with HARPS-N@TNG (run ID)
- 170 hours as PI with HERMES@Mercator (run ID)
- 240 nights as UT1 and UT2 support astronomer at ESO's Paranal Observatory
- 35 nights as Night Shift Coordinator at ESO's Paranal Observatory
- 60 nights as Mercator telescope astronomer (ORM, La Palma, Spain)

Other contributions to the scientific community

- SOC and LOC co-chair for the conference "*ImBaSE 2027: The Impact of Binaries on Stellar Evolution*", in Tenerife, 2027
- SOC and LOC Chair of the workshop "*Three is not a crowd: Multiple companions as the cause or cure for binary star problems*" in Santiago de Chile, 2023
- SOC member for the conference "*Chemical Sisters: the chemistry of interacting binaries*", in Florence, 2027
- SOC member of Special Session 19 "*Eccentric binaries with long, but too short, periods*" at EAS2022
- LOC member for the "*16th Gaia Science Alerts and Time-Domain Workshop*", Tenerife, September 2025.
- LOC member for "*10 Years of Science and the Future with SONG*", Tenerife, September 2024
- OPC Expert Panel member for the ESO TAC for P116 and P117
- Member for the Spanish Observatory TAC in 2024 and 2025
- Member of the Spanish Astronomical Society, the European Astronomical Society and the International Astronomical Union.
- Referee for ApJ, AJ, A&A and MNRAS
- Founding member and first vice-president of the Association of *Spanish Scientists in Chile*

Summer Grant "Initiation to Astrophysical Research"

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

Teaching and Outreach Experience

Teaching and Mentoring

- Teacher for the Master courses *Atmosferas Estelares* at Universidad de La Laguna from 2024 to 2026
- Co-supervisor of the Master Thesis of B. Houwing at KULeuven, 2026
- Supervisor of the Bachelor Thesis of A. Castro at the ULL, 2026
- Supervisor of the Master Thesis of G. Bustos at the VIU, 2025
- 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

- Co-creator of the project *Misión Eclipse* in Calahorra, with more than 50 outreach and education activities between 2025 and 2026
- Participant in *Habla con ellas: Mujeres en Astronomía* since 2024
- Participant in *Chatea con una astrónoma* since 2024
- Invited speaker for Pint of Science Spain 2024
- 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 *Astronomia 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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