

DANIEL GALÁN DIÉGUEZ

CONTACT INFORMATION

Physical Properties and Evolution of Massive Stars group
Instituto de Astrofísica de Canarias (IAC)
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RESEARCH INTERESTS

Massive stars • O- and B-type stars • Classical Be stars • Stellar rotation • 3D modeling of stellar surfaces • Binary and multiple systems • Spectroscopy, photometry, and interferometry

RESEARCH CAREER HIGHLIGHTS

My research focuses on moving the analysis of rapidly rotating massive stars beyond spherical symmetry. My main contributions are:

- **3D spectral synthesis for massive stars:** As a developer of SPAMMS (Abdul-Masih et al. 2020; Galán-Diéguez et al. 2026b), a code that computes the spectrum of a distorted star by integrating the angle-dependent emission of every element of a 3D surface mesh, I computed new specific-intensity grids (LTE KURUCZ and non-LTE TLUSTY; $T_{\text{eff}} = 3\,500\text{--}55\,000\text{ K}$, $\log g = 0\text{--}5$, 101 emergent angles) and integrated them into the code. SPAMMS, originally limited to O stars, now covers O- to K-type stars.
- **3D surface modeling of rapid rotators:** I designed and developed PANORAMA (Galán-Diéguez et al., in prep.) from scratch. It computes the Roche-model stellar shape and self-consistently derives the surface gravity, temperature, gravity-darkening (von Zeipel 1924; Espinosa Lara & Rieutord 2011), and brightness distributions, and is being extended to radiation pressure and differential rotation. Its surface meshes are used directly as input by SPAMMS, providing physically consistent 3D stellar surfaces and synthetic images of rapid rotators.
- **Joint interferometric-spectroscopic analysis:** For rapid rotators, spectroscopy alone cannot disentangle the inclination from $v \sin i$. I combined both codes so that PANORAMA predicts the interferometric observables from the brightness distribution while SPAMMS predicts the line profiles from the same surface, enabling simultaneous fits of both datasets. This method has been applied to γ Cas with the MAGIC + CTAO LST-1 intensity interferometer and is directly transferable to other interferometers.

RESEARCH PROJECTS

4) Productos de la interacción de estrellas masivas revelados por grandes sondeos espectroscópicos

PI: Sergio Simón Díaz

2026 – Current
IAC, Spain

- Project Type: Spanish National Plan (PID)
- Project ID: PID2024-159329NB-C21
- Funding: € 166,500 (Agencia Estatal de Investigación)

3) Extreme time and angular resolution in the optical with Cherenkov telescopes

PI: Tarek Hassan

2026 – Current
CIEMAT, Spain

- Project Type: European Research Council (ERC Starting Grant)
- Project ID: 101076533
- Funding: € 2,473,531 (European Commission)

2) La Caixa Junior Fellowship of Michael Abdul Masih

PI: Michael Yousef Abdul Masih

2024 – 2026

IAC, Spain

- Project Type: Postdoctoral Fellowship
- Project ID: LCF/BQ/PI23/11970035
- Funding: € 310,650 (“La Caixa” Foundation)

1) Los Múltiples Canales de Evolución Temprana de las Estrellas Masivas

PI: Artemio Herrero Davó

2023 – 2026

IAC, Spain

- Project Type: Spanish National Plan (PID)
- Project ID: PID2021-122397NB-C21
- Funding: € 193,842 (Agencia Estatal de Investigación)

RESEARCH STAYS

3) School of Mathematics, Statistics and Physics, Newcastle University

Host: Dr. Dominic M. Bowman

12/04/2027 – 14/05/2027

Newcastle, UK

- Implementation of MCMC fitting into the SPAMMS framework.

3) Institut de Recherche en Astrophysique et Planétologie, Université de Toulouse (IRAP)

Host: Prof. Michel Rieutord

18/01/2027 – 19/03/2027

Toulouse, France

- Implementation of radiation pressure and differential rotation in the 3D-surface modeling of rotating massive stars.

2) Centro de Investigación en Tecnologías de la Información y las Comunicaciones (CITIC, UDC)

Host: Dr. Minia Manteiga Outeiro

10/02/2026 – 03/05/2026

A Coruña, Spain

- Explore the feasibility of machine learning techniques for efficiently determining the fundamental parameters of rapidly rotating O-type stars from their 3D-deformed geometry.

1) Centro de Astrobiología (CAB, CSIC-INTA)

Host: Dr. Jesús Maíz Apellániz

17/11/2025 – 19/12/2025

Madrid, Spain

- Research on the impact of stellar rotation on the spectral classification of O-type stars, focusing on how surface deformation and gravity darkening affect key spectroscopic diagnostic lines.

EDUCATION

3) PhD in Astrophysics

Instituto de Astrofísica de Canarias (IAC)

Nov 2023 – Current

Tenerife, Spain

- Title: *3D surface modeling of rapidly rotating massive stars.*
- Funded by a “FPI” fellowship (PRE2022-104239) from the Agencia Estatal de Investigación, Gobierno de España.
- Supervisors: M. Abdul-Masih, S. Rodríguez Berlanas & A. Herrero Davó.
- Description: Development of 3D stellar surface modeling frameworks to characterize the geometry and physical structure of rapidly rotating massive stars, including centrifugal distortion, gravity darkening, and radiation-pressure effects.
- Tools: Python, IDL, FASTWIND, TLUSTY, KURUCZ, IACOB-BROAD, SPAMMS, PANORAMA, PYPEIT & PHOEBE.

2) MSc in Astrophysics
Universidad de La Laguna

Sep 2021 – Jul 2023
Tenerife, Spain

- MSc thesis: *Physical parameters of the low-mass eclipsing binary system ASAS J052919-1617.3.*
- Supervisors: M.J. Arévalo Morales & R. Iglesias Marzoa.
- Description: Determination of the physical parameters of an eclipsing binary system through: (i) development of customized automated software for the photometric analysis, calibration, and modeling of light curves; (ii) the use of PHOEBE for modeling binaries.
- Tools: Python, PYRAF & PHOEBE.
- Obtained the best possible mark for a thesis in Spain.

1) BSc in Physics
Universidade de Santiago de Compostela (USC)

Sep 2016 – Jun 2021
Santiago de Compostela, Spain

- BSc thesis: *Photometric observations of eclipsing binary star systems.*
- Supervisors: J.P. Garzón Heydt & R. Iglesias Marzoa.
- Description: Observation, calculation, and analysis of eclipsing binaries. Development of astronomical software for computing light curves of binaries.
- Tools: Python, PYRAF.

HONORARIA AND PRIZES

- | | |
|--|------------------|
| 3. <i>Formación de Personal Investigador (FPI) fellowship,</i>
from the Agencia Estatal de Investigación, Gobierno de España. | 2023 |
| 2. <i>“Residente” PhD fellowship,</i>
from the Instituto de Astrofísica de Canarias, Spain*. | 2023 |
| 1. <i>Special distinction in two MSc subjects</i>
in the MSc in Astrophysics, Universidad de La Laguna, Spain. | 2021–2023 |

* PhD fellowship waived in order to accept the FPI fellowship

EVENT ORGANISATION

5) ImBaSE2027: The Impact of Binaries on Stellar Evolution
Instituto de Astrofísica de Canarias

12/07/2027 – 16/07/2027
Tenerife, Spain

- LOC chair.

4) XXXVII Canary Islands Winter School of Astrophysics
Instituto de Astrofísica de Canarias

16/11/2026 – 27/11/2026
Tenerife, Spain

- LOC member.

3) I Congreso Galego de Investigación en Astronomía e Astrofísica
Comunidade Galega de Investigación en Astronomía e Astrofísica

17/07/2025 – 18/07/2025
Vigo, Spain

- LOC chair.

2) Munichfest2025: celebrating 40 years of research on hot luminous stars
Instituto de Astrofísica de Canarias

07/04/2025 – 11/04/2025
La Palma, Spain

- LOC member.

1) Positional astronomy and basics of astronomical observation
Universidad de La Laguna

14/10/2023 – 20/11/2023
Tenerife, Spain

- SOC co-chair and assistant teacher.

CONFERENCES ATTENDED

9) ImBaSE2027: The Impact of Binaries on Stellar Evolution <i>Instituto de Astrofísica de Canarias (IAC)</i>	12/07/2027 – 16/07/2027 <i>Tenerife, Spain</i>
8) Stellar Intensity Interferometry <i>CIEMAT and IPARCOS (UCM)</i>	05/10/2026 – 09/10/2026 <i>La Palma, Spain</i>
7) Bridging Gaps in High-Mass Star Research <i>Munich Institute for Astro-, Particle and BioPhysics</i>	17/08/2026 – 28/08/2026 <i>Munich, Germany</i>
6) XVII Reunión Científica de la SEA <i>Sociedad Española de Astronomía (SEA)</i>	13/07/2026 – 17/07/2026 <i>Tarragona, Spain</i>
5) Massive Stars Across Redshifts in the Era of JWST and Large-Scale Surveys <i>International Astronomical Union (IAU)</i>	15/09/2025 – 19/09/2025 <i>Ensenada, Mexico</i>
4) I Congreso Galego de Investigación en Astronomía e Astrofísica <i>Comunidade Galega de Investigación en Astronomía e Astrofísica</i>	17/07/2025 – 18/07/2025 <i>Vigo, Spain</i>
3) Munichfest2025: celebrating 40 years of research on hot luminous stars <i>Instituto de Astrofísica de Canarias (IAC)</i>	07/04/2025 – 11/04/2025 <i>La Palma, Spain</i>
2) XVI Reunión Científica de la SEA <i>Sociedad Española de Astronomía (SEA)</i>	15/07/2024 – 19/07/2024 <i>Granada, Spain</i>
1) Two in a Million - The interplay of binaries and star clusters <i>European Southern Observatory (ESO)</i>	11/09/2023 – 15/09/2023 <i>Garching, Germany</i>

OTHER MEETINGS ATTENDED

4) Día de Nuestra Ciencia 2026 <i>Instituto de Astrofísica de Canarias</i>	02/06/2026 <i>Tenerife, Spain</i>
3) Día de Nuestra Ciencia 2025 <i>Instituto de Astrofísica de Canarias</i>	06/06/2025 <i>Tenerife, Spain</i>
2) XV Reunión de Jóvenes Investigadores en el Extranjero 2024 <i>IYI Meeting</i>	27/12/2024 <i>A Coruña, Spain</i>
1) Día de Nuestra Ciencia 2024 <i>Instituto de Astrofísica de Canarias</i>	07/06/2024 <i>Tenerife, Spain</i>

TALKS

INVITED

- | | |
|---|------------------------------|
| 1) From Stellar Distortion to Planetary Shadows: Spectral Modeling with SPAMMS
<i>CAB PyCoffee, Centro de Astrobiología</i> | 2025
<i>Madrid, Spain</i> |
|---|------------------------------|
- Led a hands-on workshop designed to teach participants how to use SPAMMS, showcasing its full range of scientific capabilities. Demonstrated its versatile applications across different astrophysical scenarios, including the spectral synthesis of rapid rotators, interacting binaries, and the modeling of exoplanet transits (such as the Rossiter-McLaughlin effect).

CONTRIBUTED

4) 3D-surface modeling of rapidly rotating stars: spectral synthesis and interferometric

2026

synergy with PANORAMA and SPAMMS

Stellar Intensity Interferometry

La Palma, Spain

- Combined 3D-geometry and brightness-distribution models (PANORAMA) with spectral synthesis (SPAMMS) to jointly fit interferometric and spectroscopic data of rapidly rotating stars, breaking the inclination – $v \sin i$ degeneracy inherent to single-technique analyses.

3) Beyond spherical symmetry: 3D surface-based spectral synthesis with SPAMMS

2026

XVII Reunión Científica de la SEA

Tarragona, Spain

- Presentation of SPAMMS, a 3D surface-based spectral synthesis code for rapidly rotating massive stars, introducing its new stellar atmosphere models. Demonstrated how modeling stellar deformation, gravity darkening, and radiation-pressure effects beyond the classical spherical approximation improves stellar parameter determinations and enables the physical characterization of rapidly rotating stars and interacting binary systems.

2) Decoding the lack of fast rotators in Cygnus OB2

2025

I Congreso Galego de Investigación en Astronomía e Astrofísica

Vigo, Spain

- Addressed the significant deficit of fast rotators in Cygnus OB2 compared to other massive star-forming regions. Evaluated multiple physical scenarios, including environmental effects, the presence of runaway stars, and the statistical impact of spin-axis projection.

1) Very first approach to the lack of fast rotators in Cygnus OB2

2024

XVI Reunión Científica de la SEA

Granada, Spain

- Presented initial results confirming the lack of high-velocity rotators in Cygnus OB2. Analyzed the sensitivity of late-O and B0 spectral types to rotational effects and discussed its implication on the lack of fast rotators in Cygnus OB2.

POSTERS

2) Where are the fast rotators in Cygnus OB2? Investigating the missing high-velocity tail

2025

Massive Stars Across Redshifts in the Era of JWST and Large-Scale Surveys

Ensenada, Mexico

- Characterized the deficit of fast-rotating O-type stars in the Cygnus OB2 association. Evaluated its potential links with the age, runaway population, and the specific star-formation environment on the observed rotational velocity distribution.

1) Unraveling post-binary evolutionary channels in Cygnus OB2 using WEAVE

2024

XVI Reunión Científica de la SEA

Granada, Spain

- Presented the WEAVE project, aimed at studying evolutionary channels in Cygnus OB2, including mergers, runaway stars, and compact objects.

SCHOOLS ATTENDED

4) Writing in Astronomy

Instituto de Astrofísica de Canarias

19/01/2026 – 23/01/2026

Tenerife, Spain

3) Summer School in statistics for astronomers

Penn State's Center for Astrostatistics. The Pennsylvania State University

03/06/2024 – 07/06/2024

Online

2) Stellar spectroscopy workshop

University of Tartu

27/09/2023 – 28/09/2023

Online

1) ERASMUS+ School on Eclipsing Binaries and Asteroseismology

Instituto de Astrofísica de Canarias

26/09/2022 – 30/09/2022

La Palma, Spain

OBSERVING EXPERIENCE

OBSERVING PROPOSALS

5) Multi-Technique Optical Characterisation of Be/X-ray Binary Outbursts

2026B

Col

CATESP-2026B-50

- HiPERCAM (GTC), 9 h • ALFOSC (NOT), 10 h • FIES (NOT), 6 h

4) Analysis of Balmer discontinuity in normal B-type and Be stars in the context of the IACOB project

2026B

Col

CATESP-2026B-108

- ALFOSC (NOT), 18 h

3) Massive runaway stars ejected from Cygnus OB2

2025A

Col

124-GTC132/25A

- OSIRIS (GTC), 19 h

2) New observational approach to the missing population of fast rotators in Cygnus OB2

2024B

PI

76-MULTIPLE-2/24B

- OSIRIS (GTC), 15 h • ALFOSC (NOT), 13.5 h

1) The nature of the massive runaway population in Cygnus OB2

2024A

Col

119-GTC119/24A

- MEGARA (GTC), 19 h

OBSERVING NIGHTS

Telescope	Instrument	Observatory [†]	Semesters (nights)	Total
Mercator	HERMES	ORM	2026B (5), 2025B (10)	15
IAC80	CAMELOT2	OT	2025A (11), 2024B (10), 2022B (10), 2021A (4), 2020B (5)	40
Carlos Sánchez (TCS)	MuSCAT2	OT	2024B (3.5), 2024A (4), 2023B (4), 2023A (4), 2022B (4), 2022A (4)	23.5
Nordic Optical (NOT)	ALFOSC	ORM	2024B (3), 2022B (8)	11
Isaac Newton (INT)	IDS	ORM	2022B (3)	3
			Total	92.5

[†]ORM: Roque de los Muchachos Observatory (La Palma, Spain); OT: Teide Observatory (Tenerife, Spain).

DATA REDUCTION

- PYRAF: custom automated pipelines for reduction, calibration, differential photometry, and light-curve construction of eclipsing binaries (CAMELOT2, IAC80).
- PYRAF: custom automated pipelines for reduction and calibration of spectroscopic data (IDS, INT).
- PYPEIT: implementation of Grism #14 and reduction and calibration of spectroscopic data (ALFOSC, NOT).
- PYPEIT: reduction and calibration of spectroscopic data (OSIRIS, GTC).

TEACHING

UNIVERSIDAD DE LA LAGUNA

Courses that I did not coordinate:

Course	Academic Year	Course ECTS	Teaching ECTS	Level
External Internships	2026–2027	12	1	Undergraduate
External Internships	2025–2026	12		Undergraduate
External Internships	2024–2025	12		Undergraduate
Basic Observational Techniques	2023–2024	3	1	Master's

SUPERVISION

BSc THESIS

1) Photometric analysis of the low-mass eclipsing binary system ASASSN-VJ050229.84-052203.4

Universidad de La Laguna

- Author: Elena Ruiz Laguna
- Supervisors: M.J. Arévalo Morales & D. Galán Diéguez
- Course: 2024 – 2025
- Link to document [here](#).

PUBLICATIONS

REFEREED FIRST-AUTHOR PUBLICATIONS

- [Gal+26a] D. Galán-Diéguez et al. “SPAMMS: 3D spectroscopic modelling of stellar surfaces. II. Implementation of Kurucz and TLUSTY model atmospheres”. In: *arXiv e-prints*, arXiv:2609.15331 (Sept. 2026), arXiv:2609.15331. arXiv: [2609.15331](#) [[astro-ph.SR](#)].
- [Gal+26b] D. Galán-Diéguez et al. “The lack of fast rotators in Cyg OB2. I. Insights from spectral reclassification of its B0 population”. In: *A&A* 706, A59 (Jan. 2026), A59. doi: [10.1051/0004-6361/202557446](#). arXiv: [2510.15540](#) [[astro-ph.SR](#)].

REFEREED COAUTHOR PUBLICATIONS

- [Hor+24] Yasunori Hori et al. “The Discovery and Follow-up of Four Transiting Short-period Sub-Neptunes Orbiting M Dwarfs”. In: *AJ* 167.6, 289 (June 2024), p. 289. doi: [10.3847/1538-3881/ad4115](#). arXiv: [2405.12637](#) [[astro-ph.EP](#)].
- [Kan+24] H. Kang et al. “Simultaneous multicolour transit photometry of hot Jupiters HAT-P-19b, HAT-P-51b, HAT-P-55b, and HAT-P-65b”. In: *MNRAS* 528.2 (Feb. 2024), pp. 1930–1944. doi: [10.1093/mnras/stae072](#). arXiv: [2401.03715](#) [[astro-ph.EP](#)].
- [Kuz+24] Masayuki Kuzuhara et al. “Gliese 12 b: A Temperate Earth-sized Planet at 12 pc Ideal for Atmospheric Transmission Spectroscopy”. In: *ApJ* 967.2, L21 (June 2024), p. L21. doi: [10.3847/2041-8213/ad3642](#). arXiv: [2405.14708](#) [[astro-ph.EP](#)].
- [Pel+24] A. Peláez-Torres et al. “Validation of up to seven TESS planet candidates through multi-colour transit photometry using MuSCAT2 data”. In: *A&A* 690, A62 (Oct. 2024), A62. doi: [10.1051/0004-6361/202347251](#). arXiv: [2409.07400](#) [[astro-ph.EP](#)].
- [Mor+23] G. Morello et al. “TOI-1442 b and TOI-2445 b: Two potentially rocky ultra-short period planets around M dwarfs”. In: *A&A* 673, A32 (May 2023), A32. doi: [10.1051/0004-6361/202243592](#). arXiv: [2201.13274](#) [[astro-ph.EP](#)].

- [Rai+23] C. M. Raiteri et al. “The optical behaviour of BL Lacertae at its maximum brightness levels: a blend of geometry and energetics”. In: MNRAS 522.1 (June 2023), pp. 102–116. doi: [10.1093/mnras/stad942](https://doi.org/10.1093/mnras/stad942). arXiv: [2302.10555](https://arxiv.org/abs/2302.10555) [[astro-ph.HE](#)].
- [Esp+22] E. Esparza-Borges et al. “A hot sub-Neptune in the desert and a temperate super-Earth around faint M dwarfs. Color validation of TOI-4479b and TOI-2081b”. In: A&A 666, A10 (Oct. 2022), A10. doi: [10.1051/0004-6361/202243731](https://doi.org/10.1051/0004-6361/202243731). arXiv: [2206.10643](https://arxiv.org/abs/2206.10643) [[astro-ph.EP](#)].
- [Mur+22] F. Murgas et al. “HD 20329b: An ultra-short-period planet around a solar-type star found by TESS”. In: A&A 668, A158 (Dec. 2022), A158. doi: [10.1051/0004-6361/202244459](https://doi.org/10.1051/0004-6361/202244459). arXiv: [2211.02547](https://arxiv.org/abs/2211.02547) [[astro-ph.EP](#)].

SUBMITTED / IN PREPARATION

- [27] “”. In: *preparation* (2027).
- [Cif+27] A. Cifuentes-Santos et al. “Photospheric parameters of the fast rotating star γ Cassiopeiae. Direct measurements with the MAGIC + CTAO LST-1 Stellar Intensity Interferometer”. In: *internal revision* (2027).

Short description of the contributions to coauthor publications

- [Ber+27]: Processed and analyzed Gaia kinematic data to derive Milky Way stellar rotation curves, using high-performance computing resources (HTCONDOR and the IAC supercomputing cluster).
- [Cif+27]: Applying PANORAMA to model the 3D stellar surface and determine the fundamental stellar parameters of the rapid rotator γ Cassiopeiae. Analysis of its stellar spectra using SPAMMS.
- [Hor+24, Kan+24, Kuz+24, Pel+24, Mor+23, Esp+22, Mur+22]: Planning and execution of photometric observations at the Telescopio Carlos Sánchez, Observatorio del Teide, Tenerife, Spain.
- [Rai+23]: Analysis and optimization of observations at the IAC80 telescope, Observatorio del Teide, Tenerife, Spain.

SKILLS

Programming Skills

Massive stars related Programs

Data & Observation

Other Programs

Python • Linux shell scripting • IDL • HTML/CSS • HTCondor

PHOEBE • SPAMMS • PANORAMA • PRISMAS • FASTWIND • TLUSTY • IACOB-BROAD • MGB

PYRAF • PYPEIT • Aladin • Topcat

L^AT_EX

OUTREACH

TELEVISION & NEWSPAPERS

4) Bos Días

Televisión de Galicia

19/08/2026

A Coruña, Spain

- Interview about the lunar eclipse that followed the total solar eclipse 2026, explaining its physics and what could be observed during the event.

3) Bos Días

Televisión de Galicia

13/08/2026

A Coruña, Spain

- Interview about the experience of observing the total solar eclipse 2026, what could be seen during the event, and when the next eclipses will occur – with particular focus on the “Trío de Eclipses” event from the Iberian Peninsula.

2) Especial Eclipse

Televisión de Galicia

12/08/2026

A Coruña, Spain

- Special live broadcast of the total solar eclipse 2026 from Faro Grande de Mera (Galicia, Spain), alongside renowned Galician physicists and astrophysicists (Minia Manteiga, Ana Ulla, and Jorge Mira). [[Link](#)]

1) Eclipse+

Televisión de Galicia

11/08/2026

A Coruña, Spain

- Interview about my path from Galicia to Tenerife to become an astrophysics researcher, and my work on the rotation of massive stars. [[Link](#)]

RADIO & PODCAST

2) Miradas Soltas

Radio Oleiros

10/08/2026

Oleiros, Spain

- Radio interview about the 2026 total solar eclipse visible from Galicia (Spain), highlighting the region as an excellent location to observe the event. Explained the physics of the eclipse, the different stages from partial to totality, and how to observe it safely. [\[Link\]](#)

1) Antes todo esto era plasma

Astrolab

Sep 2025 – Current

Online

- *La ciencia de Proyecto Salvación*. Examined the scientific accuracy, physical principles, and astrobiological concepts in the sci-fi novel and film “Project Hail Mary”. [\[Link\]](#)
- *Las estrellas más raras del Universo*. Explored the most unusual and exotic types of stars in the universe, highlighting their properties and significance. [\[Link\]](#)
- *La batalla contra la falsa ciencia*. Analyzed the societal impact of pseudoscience, with particular attention to its effects on public understanding of science, and the erosion of trust in scientific institutions. [\[Link\]](#)
- *Fuga de talentos: el éxodo de la ciencia*. Examined the drivers of scientific talent migration and its implications for research capacity, and knowledge transfer. [\[Link\]](#)

TALKS

2) Luz, sombra y ciencia: midiendo el Universo con binarias eclipsantes

AstroGalicia24: a festa galega das estrelas

21/12/2024

Arzúa, Spain

- Presented the role of eclipsing binaries as fundamental benchmarks for deriving high-precision stellar and orbital parameters. Discussed the implementation of differential photometry for light curve construction and the subsequent physical modeling of these systems.

1) Eclipsing binary systems: A fancy way to study stars

Congreso de Estudiantes de Física, Universidad de La Laguna

14/04/2023

Tenerife, Spain

- Provided a comprehensive overview of how eclipsing systems allow for the direct determination of stellar masses and radii. Highlighted the synergy between photometric observations and modern modeling techniques to constrain stellar evolution theories. [\[Link\]](#)

EVENTS

1) Open days of the Teide Observatory

Instituto de Astrofísica de Canarias

2024 – Current

Tenerife, Spain

- Member of the divulgation team, which is dedicated to actively engaging the public through astronomy communication, including explanations of observational methods and key research.
- Dates: June, 22-23 (2024) ; June, 20-21 (2025) ; June, 20-21 (2026)

SOCIETIES

1) European Astronomical Society (EAS)

2024 – Current

2) Sociedad Española de Astronomía (SEA, Spanish Astronomical Society)

2024 – Current

BOARD MEMBERSHIP

3) Member of the Comisión de Enseñanza, Instituto de Astrofísica de Canarias

2026 – Current

2) Member of the Comisión Permanente, Departamento de Astrofísica (Universidad de La Laguna)

2026 – Current

1) PhD student representative, Departamento de Astrofísica (Universidad de La Laguna)

2023 – Current

LANGUAGES

Mother tongues: Spanish and Galician

Fluent: English.

MISCELLANEOUS

Full clean driving license