

CURRICULUM VITAE

Part A. PERSONAL INFORMATION		CV date	1/03/2026
First name	Ismael		
Family name	García Bernete		
Gender (*)	Male	Birth date (dd/mm/yyyy)	06/03/1988
ID number	30992315E		
e-mail	igbernete@gmail.com	URL Web:	https://cab.inta-csic.es/users/igbernete
Open Researcher and Contributor ID (ORCID)	0000-0002-9627-5281		

A.1. Current position

Position	<i>Atracción de Talento Investigador “César Nombela” Fellow (senior)</i>		
Initial date	July 2024		
Institution	Centro de Astrobiología (CAB) CSIC-INTA / ESAC		
Department/Center	Astrophysics		
Country	Spain	Telephone number	+34 918131335
Keywords	<i>Galaxy Evolution/ Active galactic nuclei (AGN)/ Supermassive black holes (SMBHs)/ Dust and Molecules / Star-formation/ Infrared (IR) galaxies/ Interstellar Medium (ISM)/ Polycyclic Aromatic Hydrocarbons (PAHs)</i>		

A.2. Previous positions (research activity interruptions, see call)

Period	Position/Institution/Country/Interruption cause
Sep. 2019 - July 2024	Post-doctoral Research Assistant/ University of Oxford/ United Kingdom
Sep. 2018 - Aug. 2019	Post-doctoral Researcher/ Instituto de Física de Cantabria (IFCA)/ Spain
Feb. 2018 - Aug. 2018	Post-doctoral Fellow/ Durham University/ United Kingdom
Sep. 2013 - Nov. 2017	La Caixa-Severo Ochoa PhD Fellowship/ IAC/ Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Astrophysics (<i>Cum Laude</i>)	IAC-Universidad de la Laguna (ULL)/ Spain	2017
MSc in Astrophysics	Universidad de la Laguna (ULL)/ Spain	2013
Degree in Physic	Universidad de Granada (UGR)/ Spain	2012

Part B. CV SUMMARY (*max. 5000 characters, including spaces*)

My research focuses on galaxy formation and evolution, with emphasis on the role of active galactic nuclei (AGN) in galaxy–black hole co-evolution, feeding and feedback processes, the star formation–AGN connection, and the physical conditions of the interstellar medium (ISM). I design and lead PI observing programs in state-of-the-art facilities such JWST, ALMA, GTC, NOEMA and Yebes-40-m, and develop software tools for the community (see *Memoria* for further details).

Research Career. In 2024 I joined the CAB under the prestigious *Atracción de Talento Investigador Senior ‘César Nombela’* five-year fellowship, where I am also part of the **ESA Faculty** and I am creating my own research group (see *Memoria*). From 2019 to 2024 I was a postdoctoral researcher at the **University of Oxford**, where I became a **Faculty Member** of the Physics Department. Previously, I held postdoctoral positions at IFCA (Spain, 2018–2019) and **Durham University** (UK, 2018). I completed my PhD at IAC/ULL (2013–2017, *Cum Laude*), funded by the **La Caixa–Severo Ochoa competitive fellowship**, with 2 research stays at Oxford and Durham (3 months).

Scientific Impact. At the time of writing, **I have published 93 (+5 submitted) refereed papers, 14 of them as first author including one in Nature Astronomy, 32 of them as 1st, 2nd or 3rd author** including 6 papers for PhD students and postdocs under my supervision ([full publication list](#)). These works have attracted **1836 citations (h-index of 28)**. I have delivered **>10 invited talks, >10 invited seminars, and >25 oral contributions** at international conferences.

Leadership and funding. I have been **PI of 7 research projects** (see C3) awarded (**total~736 k€= 411 k€ projects + 325 k€ my salary**) + **2 funded PhDs** (INTA & FPI) and I also secured additional



STScI funding (260 k\$: with an administrative CoI in USA) associated to my 2 JWST proposals I lead as PI. **In 2024, I obtained the R3 certification.**

Awarded observing time. I am PI of >10 successful telescope proposals (>260 h) at **JWST (IDs 3535, 5017 as PI and 7195 as co-PI; oversubscription rate ~13:1)**, ALMA, NOEMA, GTC, and Yebes 40 m, and Co-I >20 ground-based programmes, and 11 additional JWST (180 h) programs and 21 submitted for JWST cycle 5 (4 as PI).

International collaborations: Active in major projects leading observing proposals as PI including **GATOS (Science Board member**, leads PAH, torus/dust/molecular modelling, JWST data reduction), **Oxford AstroPAH group** (illumination modelling, frequency corrections), **SpectralML** (coordinating multiwavelength data reduction, student mentorship), **COST NanoSpace (lecturer in workshops)**, and teams such as **Galaxy Harmoni simulations, CONquest, QUEST** and **QSOFEED**.

International instrumental collaborations. I am **leading the galaxies** science case for **LETO consortium, an M8 ESA mission candidate** that successfully passed Stage 1. I also contribute to extragalactic and AGN science cases in international projects including **PRIMA** (NASA Probe-class, co-author of 2 white papers), **ALMA2040** (next-gen ALMA, AGN case white paper), **WST** (€3M EU design study, extragalactic/AGN), **FIRSS** (ESA M5, extragalactic sensitivity lead), and the development/validation of a high-frequency **SIS mixer** (see *Memoria*).

Supervision and Mentoring. I supervise 3 postdoc (1 current, 2 starting 2026), 4 PhD (2 current/completed, 2 starting 2026), 2 MSc (TFM), and 13 undergraduate students:

- **PhD:** F.R. Donnan (Oxford, 2021-2025; 4 first-author papers); K. Perera (University of South Carolina, 2024–present; supported by JWST grants, see C.3); A. Encinas (CAB, starting Jan 2026 and an FPI-PhD (CAB, starting in 2026) who are supported by grants, see C.3.
- **Postdocs:** L. Zhang (Univ. of Texas; STScI supported JWST project, 2023-2024, see C.3); 2 postdocs starting in 2026 (AT and national plan project, see C.3).
- **MSc and undergraduate projects:** 2 MPhys projects (Oxford and UCM) and 13 undergraduates across Oxford, UAH and UCM, including competitive summer projects.

Committees and reviewing roles. I have served on the **JWST Time Allocation Committee** (Galaxies panel for Cycle 3) and as an **external reviewer** for the Spanish GTC TAC (2025). I am a **regular reviewer** for *A&A*, *ApJ*, and *MNRAS* and have been a member of **evaluation board** for Master project in Oxford and of **PhD thesis committees**.

Teaching and Assessment Roles. From 2020 to 2024, I served as **Senior teaching instructor and evaluator** at Oxford. I also became a **member of the evaluation board for Master projects** in the Department of Physics at Oxford. I have successfully combined my research activities with teaching and supervision, transferring part of my research expertise to students. Recently, I was a lecturer in at **JWST Training School** (June 2023) organized by STScI and JWST/MIRI commissioning team.

Conference Organization and Community Service. **I have organized and chaired several workshops** and sessions, including the special session (ID: SS24) at the EAS Meeting 2023, and workshops at Oxford (in 2022 and 2023; see *Memoria*). I am currently organizing an ESA workshop (Nov 2026, ESAC; supported by my grants, see C.3). I have also submitted an expression of interest to lead a JWST Symposium at SEA 2026. I have been part of local organizing committees, served as chairman, delivered review talks and concluding remarks at international conferences, and organized the Galaxy Evolution Seminars at Oxford.

Outreach, media impact and diversity initiatives. My work has received significant media coverage, including **press releases** at Oxford and the IAC (also phys.org), the Oxford Physics Newsletter, and the AstroPAH Newsletter (Picture of the Month). I have actively contributed to **over 10 outreach activities**, including public observations, science museums, astronomical associations, articles (e.g. *The Conversation*) and interviewed in the radio (Cadena SER). Since October 2023, I have been part of the “Comisión Mujer y Astronomía” (SEA), leading initiatives such as work-life balance programs and a children’s drawing contest.

Part C. RELEVANT MERITS

C.1. Publications

In what follows I highlight 10 papers, including 1 as the 2nd author, for which I supervised a PhD.

1. Scientific paper. **García-Bernete, I.**, Pereira-Santaella, M., Gonzalez-Alfonso E., Agundez, M., Rigopoulou D., Donnan F.R., Speranza, G. and Thatte N. et al. **2025b**, *Nature Astronomy*, in press. *JWST detection of abundant hydrocarbons in a buried nucleus with signs of grain and PAH processing*, in press. Total number/ position of researcher: 1/8 **Acceptance confirmation:** <https://cab.inta-csic.es/users/igbernete/docs/NATASTRON-24121329.pdf>
2. Scientific paper. Donnan, F.R., **García-Bernete, I.**, Rigopoulou, R., et al. **2024**, MNRAS, 529, 1386. *Peeling back the layers of extinction of dusty galaxies in the era of JWST: modelling joint NIRSpec + MIRI spectra at rest-frame 1.5-28 μ m*. Citations: 28. Pub date: April 2024. Total number/ position of researcher: 2/6.
3. Scientific paper. **García-Bernete, I.**, Alonso-Herrero, A., Rigopoulou, R., et al. **2024a**, A&A, 681, L7. *GATOS. Revealing the inner icy structure in local active galactic nuclei*. Citations: 42. Pub date: January 2024. Total number/ position of researcher: 1/27.
4. Scientific paper. **García-Bernete, I.**, Donnan F.R., Rigopoulou D., et al. **2024c**, A&A, 691, A162. *Unveiling PAH survival and resilience in the circumnuclear regions of AGNs with JWST*. Citations: 28. Pub date: November 2024. Total number/ position of researcher: 1/33.
5. Scientific paper. **García-Bernete, I.**, Rigopoulou, R. Alonso-Herrero A., et al. **2022d**, A&A, 666, L5. *A high angular resolution view of the PAH emission in Seyfert galaxies using JWST/MRS data*. Citations: 66. Pub date: October 2022. Total number/ position of researcher: 1/19.
6. Scientific paper. **García-Bernete, I.**, Gonzalez-Martin, O., et al. **2022c**, A&A, 667, A140. *Torus and polar dust dependence on active galactic nucleus properties*. Citations: 35. Pub date: November 2022. Total number/ position of researcher: 1/11.
7. Scientific paper. **García-Bernete, I.**, Rigopoulou, D., Aalto, S., Spoon, H.W.W., Hernán-Caballero, A., Efstathiou, A, Roche, P.F. and Koenig, S., **2022b**, A&A, 663, A46. *A technique to select the most obscured galaxy nuclei*. Citations: 31. Pub date: July 2022. Total number/ position of researcher: 1/8.
8. Scientific paper. **García-Bernete, I.**, Rigopoulou, D., Alonso-Herrero, A., Pereira-Santaella, M., Roche, P.F. and Kerkeni, B. **2022a**, MNRAS, 509, pp. 4256-4275. *Polycyclic aromatic hydrocarbon in Seyfert and star-forming galaxies*. Citations: 47. Pub date: January 2022. Total number/ position of researcher: 1/6.
9. Scientific paper. **García-Bernete, I.**, Alonso-Herrero, A., Garcia-Burillo, S., et al, **2021**, A&A, 645, A21. *Multiphase feedback processes in the Sy2 galaxy NGC 5643*. Citations: 58. Pub date: January 2021. Total number/ position of researcher: 1/14.
10. Scientific paper. **García-Bernete, I.**, Ramos Almeida, C., Alonso-Herrero, A., et al. **2019**, MNRAS, 486, pp. 4917-4935. *Torus model properties of an ultra-hard X-ray selected sample of Seyfert galaxies*. Citations: 47. Pub date: July 2019. Total number/ position of researcher: 1/18.

C.2. Congress

1. *ZIHUAGN Redemption: central kpc region of AGN*. **Review Opening Invited talk and concluding remarks**. Mexico, Oct. 2025. **García-Bernete, I.**, et al. Title: *Torus and star-formation connection*.
2. *The Ecosystem of Gas and Dust in Galaxies Near and Far*. **Invited talk**. Thailand, Dec. 2024. **García-Bernete, I.**, et al. Title: *Polycyclic Aromatic Hydrocarbons near and far: the JWST view*.
3. *Luminous Infrared galaxies in the JWST era*. **Invited talk**. Nicosia, Cyprus, November 2024. **García-Bernete, I.**, et al. Title: *Structures Of Dust and gAs (SODA): Exploring the Complexity of Molecules, Ices and Dust grains in the most obscured AGN*
4. *European Laboratory Astrophysics in the JWST era*. **Symposium EAS 2024. Invited Talk**. Padova, Italy, July 2024. **García-Bernete, I.**, et al. Title: *Unveiling PAH molecule survival and resilience in AGN with JWST*.



6. *Bridging the models & observations of galaxies' dust in the JWST era.* **Invited Talk.** IFPU, Trieste, Italy, April 2024. **García-Bernete, I.,** et al. Title: *Dust in AGNs in the JWST Era.*
7. *Enhance Networking and Gathering on Agn in Galaxy Evolution.* **Invited Talk.** ESAC, Spain, September 2023. **García-Bernete, I.,** et al. Title: *Polycyclic Aromatic Hydrocarbons as star-formation tracers*
8. *Meeting of AGN Research in Spain in the Era of the New Observatories.* **Invited Opening Talk.** Granada, Spain, January 2023. **García-Bernete, I.,** et al. Title: *JWST view of Polycyclic Aromatic Hydrocarbons and Dust in Seyfert galaxies.*
9. *JWST commissioning and first science from a UK perspective.* **Talk.** Royal Astronomical Society, London, UK, November 2022. **García-Bernete, I.,** et al. Title: *Infrared view of Polycyclic Aromatic Hydrocarbons and Dust in Seyfert galaxies using the JWST.*
9. *The multi-wavelength picture of AGN.* **Invited Talk.** National Astronomy Meeting of the Royal Astronomical Society, Warwick, UK, July 2022. **García-Bernete, I.,** et al. Title: *Torus and dusty polar outflow dependence on AGN properties.*
10. *Local hard X-ray selected AGN across the multi-wavelength spectrum.* **Invited Talk.** ESO, Santiago, Chile, March 2018. **García-Bernete, I.,** et al. Title: *The infrared emission of AGN: study of the torus properties.*

C.3. Research projects

As Principal Investigator:

- **PID2024-159902NA-I00.** *Unveiling AGN Feeding and Feedback Across Cosmic Time with James Webb Space Telescope.* PI: Ismael Garcia-Bernete & Michele Perna (CAB). Funding body: Ministerio de Ciencia e Innovación. Amount granted: **160 k€ + a FPI PhD student (4-year funded contract).** Role: **PI.**
- **2023-T1/TEC-29030.** *Atracción de Talento Investigador 'César Nombela' fellowship.* (Madrid. PI: Ismael Garcia-Bernete). Amount granted: **400 k€ (185 k€+225 k€ my salary).** Role: **PI.**
- **Predoctorales INTA.** *ATALENT project,* PI Garcia-Bernete. Amount granted: **(4-year funded contract).** Role: **PI.**
- **ESA 2025 Faculty Research Proposal:** *Probing AGN outflow geometry and kinematics with JWST.* PI: Ismael Garcia-Bernete. Funding body: ESA. Amount granted: **20 k€.** Role: **PI**
- **ESA Science Faculty Visitor Funding Application:** *How efficiently do AGN ionise their surroundings? Insights from JSWT/MRS. Visitor. H. Haidar, Newcastle.* PI: Ismael Garcia-Bernete. Funding body: ESA. Amount granted: **3.5 k€.** Role: **PI**
- **“La Caixa-Severo Ochoa” PhD programme.** PI: Ismael García-Bernete (IAC). 2013/2017. Amount granted: **114 k€.** Role: **PI.**

STScI funding (administrative CoI in USA) associated to my 2 JWST proposal I lead as PI:

- **JWST ID 5017.** *AGN and their outflows: probing fragmentation and survival of polycyclic aromatic hydrocarbons.* **PI of the proposal:** Ismael Garcia-Bernete. Administrative CoI: Dr. E. Lopez-Rodriguez. Funding body: Space Telescope Science Institute (STScI). Amount: **94 k\$**
- **JWST ID 3535.** *Unveiling the AGN-host connection with PAH molecules.* **PI of the proposal:** Ismael Garcia-Bernete. Administrative CoI: Dr. E. Hicks and Dr. C. Packham. Funding body: Space Telescope Science Institute (STScI). Amount granted: **165 k\$.**

As Work Team Researcher or co-investigator:

ESA/Cyprus. P.I. K. Panayidou, 69.3 k€. Subcontractor at CAB. Role: co-investigator.
PID2022-141105NB-I00. PI: C. Ramos Almeida (IAC), 157 k€. Role: Work Team Researcher.
AYA2016-76682-C3-2-P. PI: C. Ramos Almeida (IAC), 143 k€. Role: Work Team Researcher.
AYA2015-64346-C2-1-P. PI: F.J. Carrera Troyano (IFCA), 99 k€. Role: Work Team Researcher.
AYA2013-47742-C4-2-P. PI: C. Muñoz Tuñón (IAC), 159 k€. Role: Work Team Researcher.
ST/S000488/1. PI: Steven Balbus (University of Oxford), 3 M£. Role: Post-doctoral Researcher.