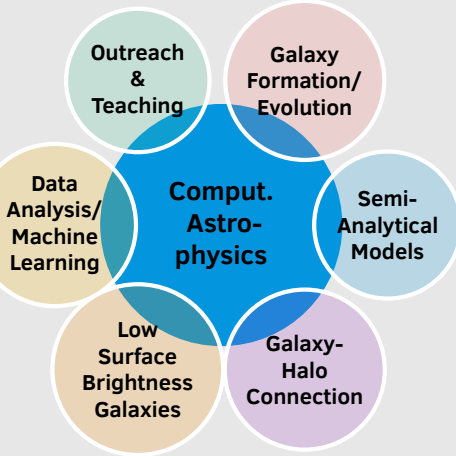




Citizenship: Austrian, EU

CV updated: June 2026

Contact Information

- dstoppacher@us.es
- www.dstoppacher.com
- dstoppacher
- Link to my profile
- 0000-0002-3281-9956

Career Path

- Universidad de Sevilla

Substitute Professor (full time)
Feb. 2026-pres.
- Postdoctoral Research Contract

Jan.-June 2025 (6 months)
- Postdoctoral Research Fellow

2024 (1 year)
- Pont. Uni. Catolica de Chile

Postdoctoral Research Fellow
2022-2024 (2 years)
- Uni. of California Santa Cruz

Postdoctoral Research Contract
2020-2021 (1 year)
- Uni. Autonoma de Madrid
Instituto de Fisica Teorica

PhD Candidate
2015-2020 (5 years)

Academic Education

- Jan. 2015-Dec. 2019*

UAM, Madrid, ESP

PhD in Theoretical Physics
Instituto de Fisica Teorica (IFT) & Universidad Autonoma de Madrid (UAM)
- Oct. 2005-Mar. 2013

KF-Uni Graz, AUT

Diploma studies (Master) of Astrophysics
University of Graz

Awards & Fellowships

- May 2025

Physicists of the Month

Austrian Physical Society
- 2023-2026

“The Formation Of Galaxies in the Large Scale Structure” (Co-PI)

PID20220-138855NB-C32
Ministerio de Ciencia e Innovacion

200.000 €
- US

“Modelizacion precisa de la radiacion en el Universo” (Co-PI)

CNS2022-135878
Ministerio de Ciencia e Innovacion

167.573 €
- 2023-2025

“LACEGAL-III” (travel funds)

HORIZON-MSCA-2021-SE-01

European Research Executive Agency and Innovation prog.

3.000 €
- 2023-2027

“LACEGAL-III” (travel funds)

HORIZON-MSCA-2021-SE-01

European Research Executive Agency and Innovation prog.

3.000 €
- US

“LACEGAL-III” (travel funds)

HORIZON-MSCA-2021-SE-01

European Research Executive Agency and Innovation prog.

3.000 €
- 2022-2024

Margarita Salas Fellowship 2021 (PI)

CA1/RSUE/2021-00720

Ministerio de Universidades

121.100 €
- 2017-2022

“LACEGAL-II” (travel funds)

H2020-MSCA-RISE-2016

European Research Executive Agency and Innovation prog.

3.000 €
- US

“LACEGAL-II” (travel funds)

H2020-MSCA-RISE-2016

European Research Executive Agency and Innovation prog.

3.000 €
- 2015-2019

Severo Ochoa Doctoral Fellowship 2014 (PI)

SVP-2014-068738

Ministerio de Economia y Competitividad

93.150 €
- IFT-CSIC/UAM

Severo Ochoa Doctoral Fellowship 2014 (PI)

SVP-2014-068738

Ministerio de Economia y Competitividad

93.150 €

Contracts & Professional Experiences

- Feb. 2026-pres.

Sevilla, ESP

Substitute Professor in Applied Mathematics to Engineering
University of Sevilla
- Jan.-June 2025

Sevilla, ESP

Postdoctoral Position in Numerical Astrophysics
University of Sevilla
- 2020-2021

Santa Cruz, CA, USA

Postdoctoral Position in Computational Astrophysics
University of California, Santa Cruz (UCSC)
- April-Sept. 2013

Graz, AUT

Software Development
Freelance contractor at research institute
- Graz, AUT

Software Development

Joanneum Research Digital

Further Education & Training (selected)

- July-Aug. 2021

UCSC, Santa Cruz, USA

Equity-Minded Mentoring
Training on mentoring strategies and personal development

CITL
- Oct. 25-27 2017

Madrid, ESP

Software Carpentry Workshop
Software Tools and Programming

IFT-CSIC/UAM
- Sep. 29-Oct. 4 2016

La Plata, ARG

Special Course: SAM Galaxy Formation
Galaxy formation and evolution modelling incl. software tools

IALP
- April 25-26 2015

Dublin, IRL

Women in High-Performance Computing
Initiation in high-performance computing and code parallelisation

PARC
- July 2011

Graz, AUT

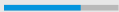
Software Development
Internship at research institute

Joanneum Research

Project Overview (selected)

FOGLESS+The Machine 2025-pres.
Applying neural networks to cluster galaxy data (in collaboration with Universidad de Complutense, Madrid).
Involvement:  
Status: 

Hidden Figures in the Sky 2022-pres.
Unveiling the formation and assembly channels as well as the galaxy-halo connection of the in the literature underrepresented *low surface brightness galaxies* using various numerical models of galaxy formation and evolution.
Involvement:   
Status: 

A SAM Perspective on... 2017-pres.
Paper series focusing on different aspects of galaxy formation and evolution with semi-analytical models.
Involvement:    
Status: 

The Three Hundred 2017-pres.
Studying 324 central bright cluster galaxies and their evolutionary tracks and galaxy-halo connection through cosmic history.
Involvement:   
Status: 

-  project leader
-  main researcher
-  support researcher
-  pipelining/coding
-  data release
-  data analysis
-  machine learning

Conferences & Workshop Activities (selected)



 Dec. 9–14 2024  Puerto Varas, CHL	Deciphering the Cosmic Code for Galaxy Formation	Poster
 July 15–19 2024  Granada, ESP	XVI Reunión Científica de la Sociedad Española de Astronomía	Talk
 Nov. 27–Dec. 1 2023  Montevideo, URU	XVII Latin American Regional IAU Meeting	Poster
 2019, 2023  OAC, Córdoba, ARG	Friends of Friends Workshop Series	Talk
 2019, 2022 & 2023	Galaxy-Halo Connection Collaboration Workshop Series  PUC, Santiago, CHL,  USM, Santiago, CHL,  UDA, Copiapó, CHL	Talk
 2019, 2020 & 2023	Mock Workshop Series  OAC, Córdoba, ARG,  UIBK, Innsbruck, AUT,  ULS, La Serena, CHL	LOC, Invited Speaker, Talk

Seminars & Talks (selected)



 28/04/2025  DIPC, Donostia, ESP	Hidden Figures in the Sky Evolution of low-surface brightness galaxies from a hydro-dynamical perspective	DIPC remote seminars
 04/12/2024  ESO, Santiago, CHL	Three years of hiding Insights from studying low-surface-brightness galaxies in the EAGLE simulation within the <i>Hidden-Figures in the Sky</i> -project	TMT Seminar
 08/11/2022	A SAM perspective on the challenges of modern galaxy formation modelling	
 20/10/2022	Seminario del Departamento de Astronomía	 ULS, La Serena, CHL
 27/09/2022	Departamento de Astronomía Seminarios	 Obs. Cerro Calán, CHL
 21/07/2021	Instituto de Astrofísica Colloquia	 PUC, Santiago, CHL
 05/10/2020	Remote Astro Seminar Series	 Uni. of Waterloo, CAN
 05/10/2020  UCSC, Santa Cruz, USA	A SAM perspective on the assembly history and evolution of massive galaxies	UCSC Seminars

Teaching Experience



 Feb. 2026–pres.  US, Sevilla, ESP	Professor Applied Mathematics to Engineering II, Theory Grado de Edificación (Graduate Studies Civil Engineering)	24 hours Obligatory
 Feb. 2026–pres.  US, Sevilla, ESP	Professor Applied Mathematics to Engineering II, Lab Grado de Edificación (Graduate Studies Civil Engineering)	72 hours Obligatory
 March–July 2023  PUC, Santiago, CHL	Professor Astronomy (AST0211) Introduction to Astronomy for all faculties	40 hours Selective
 Sept. – Nov. 2022  PUC, Santiago, CHL	Ass. Prof. Astrofísica Experimental (AST0421) Grado de Astrofísica (Graduate Studies Astrophysics)	8 hours Obligatory

Advised Theses



 Nov. 2025–May 2026	Master thesis Astrophysics A. Martínez Morata	 VIU, Valencia, ESP
 Sept.–Dec. 2022	Graduate thesis Lic. Astrofísica S. Tancara	 PUC, Santiago, CHL

Committees • Mentoring • Leadership



 May 2026	Secretary of four Master's thesis evaluation committees	 VIU
 Oct. 2025–pres.	Mentor in SEA programme: <i>Mentoría para Astrónomas</i>	online
 2024–pres.	Collaborator <i>Programa Autorreferentes: Mujer y Ciencia</i>	 US
 July 2023	Committee thesis Lic. Astrofísica V. Miranda	 PUC CV 2/4

Experience & Skills

Science & Research

- Independent Research • (Co)-PI
- Data-driven Analysis • Statistics
- Development • Innovation
- Data Management • Coordination

Programming

- Python • Linux based systems
- C & C++ • IDL • bash
- SQL • JavaScript • $\text{\LaTeX}$
- Machine Learning • HPC

Language

- German (native)
- English (C2)
- Spanish (B2)

Communication

- Cross-cultural • Outreach
- Open-science • Knowledge-Transfer
- Public Speaking • Event Organisation
- Improvisation Theatre • Devising

Teaching & Mentoring

- University Courses • Practice Work
- Tutoring • Mentoring
- Guided Theses • Supervision

Personal

- Equity • Mindfulness • Resilience
- Activity • Organisation • Adaptability
- Creativity • Innovation • Engagement

Conference & Event Organisation

 Oct. 30-31 2024	CONEX24	LOC
 Sevilla, ESP	Ibero-American outreach conferences on Space Science	
 Oct. 15-19 2024	X Meeting on Fundamental Cosmology	LOC
 Sevilla, ESP	Yearly collaboration meeting on theoretical topics of Cosmology	
 April 10-13 2020	Mock Innsbruck	LOC
 UIBK, Innsbruck, AUT	Yearly workshop series on Computational Astrophysics	
 April 27-29 2016	MSI Collaboration Meeting	LOC
 UAM, Madrid, ESP		

Further Scientific Activities

 June-Dec. 2026	Night observations with CAHA iKON 1.23m telescope	4 nights
 CAHA, Almería, ESP	Project TARSIS	

Outreach Activities

 2024-pres.	Programa Autorreferentes: <i>Mujer y Ciencia</i>	 Sevilla, ESP
 Sept. 2024 & 2025	<i>La Noche Europea de l@s Investigad@res</i> (Coordinator)	 US
 July 2022	<i>Novata por un Día: Visita guiada</i>	 PUC, Santiago, CHL
 March 2020	Initiative: <i>Astronomía desde el sofá</i> → #AstroEnCasa	online
 2019-2021, 2025	Charla con una Astrónoma	online
 11/05/2019	IV Jornada de Astronomía en la UAM	 Madrid, ESP
 Nov. 5-15 2018	XVII Semana de la Ciencia y la Innovación (UAM)	 Madrid, ESP
 2017-2019	4 videos for the Youtube-channel @IFTMadrid accumulating 124,000 views in total	 Madrid, ESP

I am a **computational astrophysicist specialising in galaxy formation and evolution** through numerical modelling, large cosmological simulations, advanced data analysis, and, more recently, machine-learning techniques. My research focuses on understanding the connection between galaxies and their dark matter haloes across cosmic time by combining theoretical modelling, observational constraints, and modern data-driven approaches.

A central contribution of my career has been the **development of scientific infrastructure and openly accessible research resources**. During my PhD at the *Universidad Autónoma de Madrid*, funded through a competitive *Severo Ochoa Fellowship*, I led the development, validation, and public release of the *MultiDark-Galaxies* catalogues, which remain among the largest and most comprehensive semi-analytical galaxy catalogues available to the community. To facilitate their scientific exploitation, I developed an advanced analysis framework that is publicly available and continue to provide **long-term scientific and technical support** for datasets and software that are openly accessible through community platforms.

My research has contributed to improving our understanding of galaxy evolution across different environments and populations. Through studies of luminous red galaxies, galaxy clusters, and low-surface-brightness galaxies, I have developed methodologies that **connect theoretical predictions with observations**. As principal investigator of the *Hidden Figures in the Sky* project, funded through a highly competitive *Margarita Salas Fellowship*, I developed a novel method for estimating surface brightness in cosmological simulations, enabling an unbiased characterisation of low-surface-brightness galaxies and revealing **previously unexplored evolutionary pathways**. This work reflects my broader interest in combining theoretical insight, numerical methods, and innovative analysis techniques to address long-standing questions in galaxy evolution.

I have also assumed leadership roles within major international collaborations. Apart from the *MultiDark-Galaxies* project, I coordinated the development of machine-learning methodologies within the *FOGLESS* collaboration and led the extraction, validation, and dissemination of semi-analytical galaxy catalogues within *The Three Hundred* project. These activities have strengthened my expertise at the interface of astrophysics, statistics, and computation while contributing valuable resources to the wider research community.

My scientific contributions have been disseminated through the participation in four research projects as PI or Co-PI, various publications as leading or co-leading author, release and long-term support of publicly available software and data products, six invited seminars, >20 conference presentations, and various international collaborations with research institutes and universities across Europe and North and South America.

International mobility has been a defining feature of my career. I have undertaken research stays and appointments in Austria, Spain, Chile, the United States, Brazil, and Argentina, accumulating more than three and a half years of international research experience outside the European Union. These activities have enabled me to build **long-term research networks and foster international collaborations** with colleagues across Europe, North and South America, and Asia. I am also a member of the *Sociedad Española de Astronomía (SEA)* and received the *Physicist of the Month Award* (May 2025) from the *Austrian Physical Society*.

Beyond research, **I contribute actively to the scientific community** through conference organisation, mentoring, teaching, and outreach. I have helped build international scientific networks through the organisation of conferences and workshops. I actively **contribute to training the next generation of researchers** by supervising undergraduate and master's research projects, some of which have led to ongoing scientific publications. I have designed and delivered university-level courses, taught as a full-time lecturer, served on thesis evaluation committees, and mentored students and early-career researchers.

I have demonstrated leadership through the development and maintenance of community research resources, supervision and mentoring, collaborative project leadership, and contributions to **inclusive and supportive research environments**. My profile combines methodological versatility, expertise in galaxy formation models, large scientific datasets, and software development, with a strong commitment to **open science and community building**. I value creativity, open-minded thinking, and ethical scientific practice. My training in improvisational theatre has strengthened my communication skills and collaborative approach, helping me foster inclusive research environments where curiosity, interdisciplinarity, and innovation can thrive.



Publications



In refereed journals:

- [1] L. E. Pérez-Montaño, B. Cervantes Sodi, V. Rodríguez-Gomez, [Stoppacher, D.](#), and T.-W. Cao. “The emergence of the faint nature of Low Surface Brightness Galaxies in the IllustrisTNG simulation”. *MNRAS* (June 2026). DOI: 10.48550/arXiv.2606.10117.
- [2] M. C. Vicentin, M. A. Strauss, L. Sodré Jr., R. M. Yates, P. Araya-Araya, and [Stoppacher, D.](#) “The Journey to Dominance: How Brightest Cluster Galaxies Evolve Differently from Other Massive Galaxies”. *ApJ* 1000.1 (Mar. 2026), p. 103. DOI: 10.3847/1538-4357/ae45fc.
- [3] [Stoppacher, D.](#), P. Tissera, Y. Rosas-Guevara, G. Galaz, and J. Oñorbe. “Hidden figures in the sky: Evolution of low-surface-brightness galaxies from a hydrodynamical perspective”. *A&A* 701 (Sept. 2025), A272. DOI: 10.1051/0004-6361/202555232.
- [4] [Stoppacher, D.](#), A. D. Montero-Dorta, M. C. Artale, A. Knebe, N. Padilla, A. J. Benson, and C. Behrens. “A semi-analytical perspective on massive red galaxies: I. Assembly history, environment, and redshift evolution”. *A&A* 693 (Jan. 2025), A219. DOI: 10.1051/0004-6361/202449232.
- [5] G. Favole, V. Gonzalez-Perez, Y. Ascasibar, P. Corcho-Caballero, A. D. Montero-Dorta, A. J. Benson, J. Comparat, S. A. Cora, D. Croton, H. Guo, D. Izquierdo-Villalba, A. Knebe, Á. Orsi, [Stoppacher, D.](#), and C. A. Vega-Martínez. “Characterizing the ELG luminosity functions in the nearby Universe”. *A&A* 683 (Mar. 2024), A46. DOI: 10.1051/0004-6361/202346443.
- [6] G. Favole, V. Gonzalez-Perez, [Stoppacher, D.](#), Á. Orsi, J. Comparat, S. A. Cora, C. A. Vega-Martínez, A. R. H. Stevens, C. Maraston, D. Croton, A. Knebe, A. J. Benson, A. D. Montero-Dorta, N. Padilla, F. Prada, and D. Thomas. “[OII] emitters in MultiDark-Galaxies and DEEP2”. *MNRAS* 497.4 (Oct. 2020), pp. 5432–5453. DOI: 10.1093/mnras/staa2292.
- [7] [Stoppacher, D.](#), F. Prada, A. D. Montero-Dorta, S. Rodríguez-Torres, A. Knebe, G. Favole, W. Cui, A. J. Benson, C. Behrens, and A. A. Klypin. “A semi-analytical perspective on massive galaxies at $z \sim 0.55$ ”. *MNRAS* 486 (June 2019), pp. 1316–1331. DOI: 10.1093/mnras/stz797.
- [8] W. Cui, A. Knebe, G. Yepes, F. Pearce, C. Power, R. Dave, A. Arth, S. Borgani, K. Dolag, P. Elahi, R. Mostoghiu, G. Murante, E. Rasia, [Stoppacher, D.](#), J. Vega-Ferrero, Y. Wang, X. Yang, A. Benson, S. A. Cora, D. J. Croton, M. Sinha, A. R. H. Stevens, C. A. Vega-Martínez, J. Arthur, A. S. Baldi, R. Cañas, G. Cialone, D. Cunname, M. De Petris, G. Durando, S. Ettori, S. Gottlöber, S. E. Nuza, L. J. Old, S. Pilipenko, J. G. Sorce, and C. Welker. “The Three Hundred project: a large catalogue of theoretically modelled galaxy clusters for cosmological and astrophysical applications”. *MNRAS* 480.3 (Nov. 2018), pp. 2898–2915. DOI: 10.1093/mnras/sty2111.
- [9] A. Knebe, [Stoppacher, D.](#), F. Prada, C. Behrens, A. Benson, S. A. Cora, D. J. Croton, N. D. Padilla, A. N. Ruiz, M. Sinha, A. R. H. Stevens, C. A. Vega-Martínez, P. Behroozi, V. Gonzalez-Perez, S. Gottlöber, A. A. Klypin, G. Yepes, H. Enke, N. I. Libeskind, K. Riebe, and M. Steinmetz. “MULTIDARK-GALAXIES: data release and first results”. *MNRAS* 474.4 (Mar. 2018), pp. 5206–5231. DOI: 10.1093/mnras/stx2662.

Further publications:

- [1] A. Castrillo, S. Zamora, M. Rodríguez-Baras, M. Cortés-Contreras, I. Rebolledo, P. Corcho, I. Millán, [Stoppacher, D.](#), R. M. Mérida, A. I. Díaz, and Y. Ascasibar. “El observatorio astronómico de la UAM”. *Contributions to the XIV.0 Scientific Meeting (virtual) of the Spanish Astronomical Society*. July 2020, p. 248.
- [2] M. Cortés-Contreras, A. Castrillo, I. Rebolledo, M. Rodríguez-Baras, [Stoppacher, D.](#), and S. Zamora-Arenal. “Astro en casa”. *Contributions to the XIV.0 Scientific Meeting (virtual) of the Spanish Astronomical Society*. July 2020, p. 253.