Doris Stoppacher

Astrophysics & Big Data

Affiliation:

Pontificia Universidad Católica de Chile
♦ PUC, Santiago, CHL
Universidad Autónoma de Madrid
♦ UAM, Madrid, ESP
Universidad de Sevilla
♦ US, Sevilla, ESP

Position: **Postdoctoral researcher**
Born: **08/18/1986, ♦ Weiz, AUT**
Citizenship: **Austrian, EU**
CV updated: **November 2022**

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Experience & Skills

Programming Skills ⚙

Python

C & C++ • IDL • bash

SQL • JavaScript • LaTeX

machine learning • HPC

Language Skills 🗚

German (native)

English (C2)

Spanish (C1)

Soft Skills ☕

Creativeness • Innovation

Communication • Outreach

Project Management

Leadership • Mentoring • Teaching

Curriculum Vitae

Academic Education 🎓

📅 01/2015–12/2019 ♦ Madrid, ESP	**PhD in Theoretical Physics** Instituto de Física Teórica (IFT) & Universidad Autónoma de Madrid (UAM)
📅 10/2005–03/2013 ♦ Graz, AUT	**Diploma studies (Master) of Astrophysics** University of Graz

Further Education, Schools, & Training (selected) 📔

📅 Jul. 26–Aug.2 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 Curse: 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
📅 2011 & 2013 ♦ Graz, AUT	**Software Development** Training and subsequently freelance contractor	Joanneum Research

Awards & Fellowships 🏆

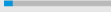|		
📅 2022–present ♦ Santiago, CHL	**Margarita Salas Fellowship**	PUC, UAM, US
📅 2020–2021 ♦ Santa Cruz, CA, USA	**Postdoctoral Fellowship in Computational Astrophysics**	UCSC
📅 2015–2019 ♦ Madrid, ESP	**Severo Ochoa International Doctoral Fellowship 2014**	IFT-CSIC

Conferences & Workshop Activities (selected) 💼

📅 March 9–13 2020 ♦ Innsbruck, AUT	**Mock Innsbruck** University of Innsbruck	LOC
📅 April 8–11 2019 ♦ Córdoba, ARG	**Mock Cordoba** OAC	Invited Talk
📅 April 23–25 2018 ♦ Madrid, ESP	**Simulated skies for new-generation spectroscopic surveys** ESAC	Talk
📅 Sep. 26–30 2016 ♦ La Plata, ARG	**MultiDark-Galaxies Workshop** IALP	Invited Talk
📅 April 27–29 2016 ♦ Madrid, ESP	**MSE Collaboration Meeting** Escuela Politécnica Superior UAM	LOC

Research Interests
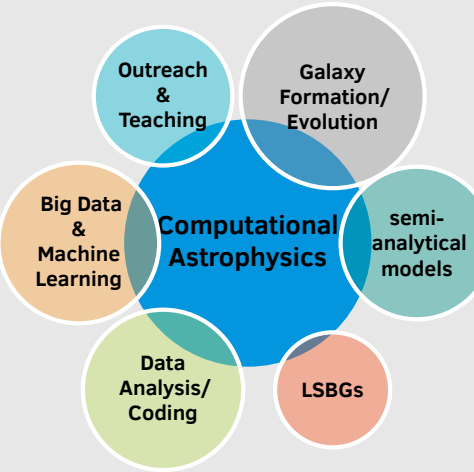
Project Overview (selected)

Hidden Figures in the Sky 2022–pres

Unveiling the formation and assembly channels of the currently in the literature underrepresented population of galaxies called: *low surface brightness galaxies* by studying them with various numerical models of modelling galaxies

Involvement:
Status:

Improving galaxy modelling tools 2021–pres

Developing an intermediate layer in the framework of galaxy formation models to account for best resolution and modelling complexity simultaneously

Involvement:
Status:

The exciting lives of massive galaxies 2019–pres

Tracing the star formation and mass growth histories of massive galaxies in different large-scale environments in order to study what influences their galaxy-halo relation and shapes their properties

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 MultiDark-Galaxies 2015–2019

Release of semi-analytically modelled (SAM) galaxy catalogues from the $1 h^{-1}$ Gpc N-body MultiDark simulation

Involvement:
Status:

📢 project leader   ⌨ pipelining/coding
⛑ project co-leader   🗄 data release
🔭 main researcher   📊 data analysis
⊕ support researcher   🔧 model development

Seminars & Talks (selected)

📅 11/08/2022 📍 ULS, La Serena, CHL	**A SAM perspective on the Challenges of Modern Galaxy Formation Modelling** Seminario del Departamento de Astronomía	
📅 10/20/2022 📍 Obs. Cerro Calán, CHL	**A SAM perspective on the Challenges of Modern Galaxy Formation Modelling** Departamento de Astronomía Seminarios	
📅 09/27/2022 📍 PUC, Santiago, CHL	**A SAM perspective on the Challenges of Modern Galaxy Formation Modelling** Instituto de Astrofísica Colloquia 2022	
📅 07/21/2021 📍 Uni. of Waterloo, CAN	**A SAM perspective on the Challenges of Modern Galaxy Formation Modelling** Remote Astro Seminar Series	
📅 10/05/2020 📍 UCSC, Santa Cruz, USA	**A SAM perspective on the Assembly History & Evolution of Massive Galaxies** UCSC Seminar	

Teaching & Thesis Guidance

📅 Sept 2022 – pres. **Co-Supervision of S. Tancara (Thesis Licenciatura Astrofísica)**
📍 PUC, Santiago, CHL

📅 Sept.–Nov. 2022 **Assistant Professor course: "Astrofsica Experimental" (AST0421)**
📍 PUC, Santiago, CHL

Outreach Activities

📅 Julio 2022	***Novata por un Día***: Visita guidada	📍 PUC, Santiago, CHL
📅 March 2020	**Initiative: *Astronomía desde el sofá* ➜ #AstroEnCasa**	online
📅 2019–2021	**Charla con una Astrónoma**	📍 Madrid, ESP
📅 May 11, 2019	**IV Jornadas de Astronomía en la UAM**	📍 Madrid, ESP
📅 Nov. 5-15 2018	**XVII Semana de la Ciencia y la Innovación (UAM)**	📍 Madrid, ESP
📅 2017–2019	**Participation in outreach ▶ channel: *IFTMadrid***	📍 Madrid, ESP

D. (Doris) Stoppacher

full publication list on ADS

Publications ✎

In refereed journals:

Favole, G., Gonzalez-Perez, V., **Stoppacher, D.**, & et al. (2020). [O II] emitters in MultiDark-Galaxies and DEEP2. *497*(4), 5432–5453.

Stoppacher, D., Prada, F., Montero-Dorta, A. D., Rodríguez-Torres, S., Knebe, A., Favole, G., Cui, W., Benson, A. J., Behrens, C., & Klypin, A. A. (2019). *A semi-analytical perspective on massive galaxies at $z \sim 0.55$*. *MNRAS*, *486*, 1316–1331.

Cui, W., Knebe, A., Yepes, G., Pearce, F., Power, C., Dave, R., Arth, A., Borgani, S., Dolag, K., Elahi, P., Mostoghiu, R., Murante, G., Rasia, E., **Stoppacher, D.**, & et al. (2018). *The Three Hundred project: a large catalogue of theoretically modelled galaxy clusters for cosmological and astrophysical applications*. *MNRAS*, *480*(3), 2898–2915.

Knebe, A., **Stoppacher, D.**, Prada, F., Behrens, C., Benson, A., Cora, S. A., Croton, D. J., Padilla, N. D., Ruiz, A. N., Sinha, M., Stevens, A. R. H., Vega-Martínez, C. A., Behroozi, P., Gonzalez-Perez, V., Gottlöber, S., Klypin, A. A., Yepes, G., Enke, H., Libeskind, N. I., Riebe, K., & Steinmetz, M. (2018). *MULTIDARK-GALAXIES: data release and first results*. *MNRAS*, *474*(4), 5206–5231.

In preparation:

Stoppacher et al., D. (to be submitted). *A semi-analytical perspective on the assembly of luminous red galaxies throughout cosmic history*. *in preparation*.

Stoppacher et al., D. (in prep). *A semi-analytical perspective on the clustering and the assembly history of central galaxies at z~0.1*. *in preparation*.

Further publications:

Cortés-Contreras, M., Castrillo, A., Rebollido, I., Rodríguez-Baras, M., **Stoppacher, D.**, & Zamora-Arenal, S. (2020). Astro en casa. In *Contributions to the xiv.0 scientific meeting (virtual) of the spanish astronomical society* (p. 253).

Castrillo, A., Zamora, S., Rodríguez-Baras, M., Cortés-Contreras, M., Rebollido, I., Corcho, P., Millán, I., **Stoppacher, D.**, Mérida, R. M., Díaz, A. I., & Ascasibar, Y. (2020). El observatorio astronómico de la UAM. In *Contributions to the xiv.0 scientific meeting (virtual) of the spanish astronomical society* (p. 248).