

Ana Carolina Santiago Menezes

ASTROPHYSICIST

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Professional Summary

Ph.D. candidate in Astrophysics at the Federal University of Rio Grande do Sul (UFRGS), specializing in extragalactic astrophysics and galaxy evolution. Experienced in research projects involving morphological analysis, stellar population studies, and observational data from large surveys. Strong background in scientific communication and academic collaboration, with international experience in the UK.

Education

Ph.D. in Astrophysics (in progress)

Federal University of Rio Grande do Sul (UFRGS), Brazil

Thesis: A Trip Through the Green Valley: Morphological Transformations and the Journey to Quiescence

Supervisor: Dr. Allan Schnorr Müller

Funding: CAPES Scholarship

2023 – Present

B.Sc. in Physics with emphasis in Astrophysics

Federal University of Rio Grande do Sul (UFRGS), Brazil

Thesis: Unraveling the Quenching of Star Formation: A Comparison of Bulge-Disk Decomposition Results Between Green Valley and Star-Forming Galaxies

Supervisors: Dr. Allan Schnorr Müller, Dra. Marina Trevisan

Funding: CNPq Scholarship

2018 – 2023

International Experience

Advanced Communication Skills & English Language Program

Bayswater Liverpool, United Kingdom (UK).

2025

Research Experience

Doctoral Research

Federal University of Rio Grande do Sul – UFRGS, Brazil ————— 2023-Present

- Investigating morphological transformations in galaxies within the Green Valley using Hyper Suprime-Cam Subaru images.
- Performing multi-component photometric decomposition to study bulge types and structural properties.

Undergraduate Research

Federal University of Rio Grande do Sul – UFRGS, Brazil ————— 2021 – 2023

- Studied morphological structures in Green Valley and star-forming galaxies to constrain quenching scenarios.

Supervisors: Dr. Allan Schnorr Müller, Dra. Marina Trevisan

Federal University of Rio Grande do Sul – UFRGS, Brazil ————— 2021 – 2022

- Properties of the Milky Way's Globular Cluster Population.

Supervisors: Dr. Alejandra Romero, Dr. Kepler de Souza Oliveira Filho

Federal University of Rio de Janeiro – UFRJ, Brazil ————— 2018

- Investigated dynamical states of galaxy clusters using optical and X-ray data.

Supervisor: Dr. Paulo Afranio Augusto Lopes

Publications in Conference Proceedings

- **Santiago-Menezes, A. C.**; Schnorr-Muller, A. ; Trevisan, M. ; Palacios, F. ; Oliveira, C. A. *Unraveling the quenching of star formation: a comparison of the results of a bulge-disk decomposition between Green Valley and Star Forming galaxies*. In: XLVI Reunião Anual da Sociedade Astronômica Brasileira, 2023, Rio de Janeiro. Boletim da Sociedade Astronômica Brasileira. São Paulo: Sociedade Astronômica Brasileira, 2023. v. 35. p. 12-13.
- Palacios, F. ; Schnorr-Muller, A. ; Trevisan, M. ; Oliveira, C. A. ; **Santiago-Menezes, A. C.** *Kinematics and star formation in the green valley with integral field spectroscopy*. In: XLVI Reunião Anual da Sociedade Astronômica Brasileira, 2023, Rio de Janeiro. Boletim da Sociedade Astronômica Brasileira. São Paulo: Sociedade Astronômica Brasileira, 2023. v. 35. p. 84-85.
- Oliveira, C. A. ; Trevisan, M. ; Schnorr-Muller, A. ; Palacios, F. ; **Santiago-Menezes, A. C.** *Through the green valley: investigating the mechanisms behind the decrease in the star formation rate of galaxies*. In: XLVI Reunião Anual da Sociedade Astronômica Brasileira, 2023, Rio de Janeiro. Boletim da Sociedade Astronômica Brasileira. São Paulo: Sociedade Astronômica Brasileira, 2023. v. 35. p. 39-40.

Conferences & Presentations

- 2025: **Galaxy Memoirs: Inferring Their Past from Their Present**, Rio de Janeiro – Br, organized by University of Nottingham, UK. **Poster presentation.**
- 2023: **XLVI Reunião Anual da Sociedade Astronômica Brasileira**, RJ-Br. **Poster presentation.**

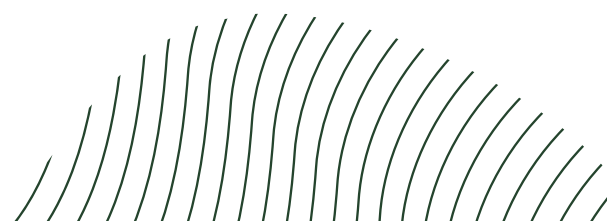
Teaching & Academic Activities

- Federal University of Rio Grande do Sul – UFRGS, Brazil ————— 2021 – 2023

Science Outreach – Divulga (Astro)Física.

- Federal University of Rio de Janeiro – UFRJ, Brazil ————— 2018

Teaching Assistant – Introductory Physics Laboratory.



Leadership & Service

- Federal University of Rio Grande do Sul – UFRGS, Brazil ————— 2025 - *Present*

Graduate Student Representative – Postgraduate Program, Department of Astronomy.

Skills

- Galaxy morphology analysis, photometric decomposition, data processing.
- Python programming (including Astropy, Numpy, Scipy, Pandas, Matplotlib...).
- Proficiency with astronomical softwares and tools: ImFit, SourceExtractor, SQL (CasJobs queries), TOPCAT, DS9, QFitsView, LaTeX; basic knowledge of R.
- Public speaking and scientific communication.

