

Thayse Adineia Pacheco

Curriculum Vitae - [ADS link](#)

*Stellar populations, stellar atmospheres, stellar evolution,
SSP models, HB morphology, galactic and extragalactic GCs
Galaxy formation and assembly*

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Appointments

May 2025 — **Postdoctoral researcher**, *Astrophysics*, OBSERVATOIRE ASTRONOMIQUE DE STRASBOURG.
March 2024 – **Postdoctoral researcher**, *Astrophysics*, UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL.
2013 — 2013 **Teacher**, *Physics and Chemistry*, Public high school in Brazil.

Education

2019 — 2024 **Ph.D. in Science**, *Astrophysics*, UNIVERSIDADE DE SÃO PAULO, BRAZIL.
Hot Subdwarf stars in the integrated light of old stellar populations.
2017 — 2019 **M.Sc. in Science**, *Astrophysics*, 60% research, UNIVERSIDADE DE SÃO PAULO, BRAZIL.
Analysis of solar analog stars in binary systems.
2013 — 2017 **B.Sc. in Physics**, *Astrophysics*, UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL, BRAZIL.
Influence of mass-loss in stellar evolution modelling.
2009 — 2012 **B.Sc. in Natural Sciences**, *Teacher Training*, INSTITUTO FEDERAL DE SANTA CATARINA, BRAZIL.
Critical Meaningful Learning to introduce physical concepts in the early years of elementary school.

Visiting Research Fellowships

2025 **Postdoc - 9 months**, OBSERVATOIRE ASTRONOMIQUE DE STRASBOURG, UNIVERSITÉ DE STRASBOURG, FRANCE, Funded by Brazilian government, €27k.
2023 **PhD - 6 months**, ASTROPHYSICS RESEARCH INSTITUTE, LIVERPOOL JOHN MOORES UNIVERSITY, UNITED KINGDOM, Funded by Brazilian government, £11k.
2022 **PhD - 2.5 months**, ASTROPHYSICS RESEARCH INSTITUTE, LIVERPOOL JOHN MOORES UNIVERSITY, UNITED KINGDOM, Funded by Santander bank, R\$20k.

Research Scholarships

2024 — 2026 **Postdoc**, UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL, FAPERGS/CNPq, R\$175k.
2019 — 2024 **Ph.D.**, UNIVERSIDADE DE SÃO PAULO, Funded by Brazilian government, CAPES, R\$130k.
2017 — 2019 **M.Sc.**, UNIVERSIDADE DE SÃO PAULO, Funded by Brazilian government, CAPES, R\$36k.
2013 — 2017 **Undergraduate**, UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL, CNPq, R\$20k.
2009 — 2012 **Undergraduate**, INSTITUTO FEDERAL DE SANTA CATARINA, CNPq, R\$10k.

Prize & grant awards

2023 **Most creative poster**, GALACTIC ARCHEOLOGY SECTION, National Astronomy Meeting, UK.
2022 **Travel grant**, FUNDED BY IAU, IAU General Assembly Meeting, South Korea, €3k.
2012 **Celestial science for vulnerable children**, FUNDED BY BRAZILIAN GOVERNMENT, R\$1k.

Collaborations

2024-Present **Vera Rubin Observatory**, LARGE SYNOPTIC SURVEY TELESCOPE.
Stars, Milky Way, and Local Volume Science Collaboration, Galaxies Science Collaboration
2024-Present **J-PLUS**, JAVALAMBRE PHOTOMETRIC LOCAL UNIVERSE SURVEY.
2024-Present **J-PAS**, JAVALAMBRE PHYSICS OF THE ACCELERATING UNIVERSE ASTROPHYSICAL SURVEY.

Committee examiner

- 2025 **M.SC. (Student: Lais Nery Marinho)**, *UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL*. Investigating Stellar Population Characteristics in Seyfert 2 Galaxies: The Role of AGN Activity in SFH.
- 2025 **Undergrad (Student: Nicolas de Moraes)**, *UNIV. FEDERAL DO RIO GRANDE DO SUL*. Difuzoo: Identifying ultra-diffuse galaxies via citizen science.
- 2024 **Undergrad (Student: Nicole Klock Miranda)**, *UNIV. FEDERAL DO RIO GRANDE DO SUL*. Investigating Multiple Populations in the Globular Cluster NGC 7089 with S-PLUS and SOAR.
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Selected invited seminars (+1, Total: 7)

- 2025 **Hidden figures of GCs: the impact of hot subdwarfs on integrated stellar population**, *OBSERVATOIRE ASTRONOMIQUE DE STRASBOURG*, France.
- 2025 **The Extreme HB through non-LTE modeling of Hot Subdwarfs**, *STRASBOURG*, France.
- 2025 **How do star clusters reveal the evolution of galaxies?**, *ASTRONOMY SYMPOSIUM*, Brazil.
- 2024 **Hot Subdwarf stars in the integrated light of old stellar populations**, *ASTRONOMY DEPARTMENT, UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL*, Brazil, [Click here to watch](#).
- 2022 **Modelling integrated spectrum to study hot stellar components in old stellar populations**, *ASTRONOMY DEPARTMENT, UNIVERSIDADE DE SÃO PAULO*, Brazil, [Click here to watch](#).
- 2022 **Modelling integrated spectrum to study hot stellar components in old stellar populations**, *ASTRONOMY DEPARTMENT, UNIVERSITY OF EXETER*, United Kingdom.
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Selected conference talks (+26, Total: 32)

- 2025 **Optimizing extragalactic Globular Cluster selection with PCA**, *LSST@EUROPE7*, Poland.
- 2023 **The impact of hot low-mass stars on old stellar populations**, *LIVERPOOL GALACTIC ARCHAEOLOGY WORKSHOP*, United Kingdom.
- 2022 **A grid of subdwarf's synthetic spectra to study hot stellar components in old stellar populations**, *IAU GENERAL ASSEMBLY*, South Korea.
- 2019 **Solar analogs with white dwarf companions**, *PRECISION SPECTROSCOPY WORKSHOP*, Brazil.
- 2018 **Chemical anomalies in solar twins by pollution from an asymptotic giant branch companion**, *BRAZILIAN ASTRONOMICAL SOCIETY ANNUAL MEETING*, Brazil.
- 2016 **Abundances, nucleosynthesis and chemical evolution: mass loss in stellar evolution codes LPCODE and MESA**, *PRECISION SPECTROSCOPY WORKSHOP*, Brazil.
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Skills & Abilities

- Numerical simulations **TLUSTY**, *Radiative transfer in stellar atmospheres*.
SYNSPEC, *Spectrum synthesis*.
MESA and LPCODE, *Stellar Evolution Codes*.
Starlight, *Spectral fitting*.
- Languages **LAT_EX**, **BASH**, **PYTHON**, **FORTRAN** AND **C**.
- Software **VERSION CONTROL (Git)**, **IRAF**.
[Click here for GitHub](#)
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Observational proposals awarded as Principal Investigator

- 2025A **TSpec4 (50h)**, *SOUTHERN ASTROPHYSICAL RESEARCH TELESCOPE*, SOAR, Spectroscopy.
- 2025C **TSpec4 (20h)**, *SOUTHERN ASTROPHYSICAL RESEARCH TELESCOPE*, SOAR, Spectroscopy.
- 2018A **Sphere (2.3h)**, *VERY LARGE TELESCOPE*, European Southern Observatory, Spectrophotometry.
- 2018A **GPI (4h)**, *GEMINI TELESCOPE*, Gemini Southern Observatory, Spectrophotometry.

Teaching assistance

- 2022 — 2022 **Fundamentals of astronomy undergrad course**, *UNIVERSIDADE DE SÃO PAULO*, Brazil.
2020 — 2020 **III Virtual VO School**, *BRAZILIAN ASTRONOMICAL SOCIETY ANNUAL MEETING*, Brazil.
2009 — 2010 **Principles of Science undergrad course (with scholarship)**, *ARARANGUÁ*, Brazil.

Outreach

- 2021 — 2023 **Online astronomy support**, *YOUTUBE SESSIONS*, Talk and answer questions from the audience.
2020 — 2020 **ASTROMINAS: Empowering girls in basic education to engage with the scientific universe**, *VIRTUAL*, Mentoring sessions, hands-on experiments, and discussions about scientific careers.
2018 — 2019 **Astronomy Department**, *UNIVERSIDADE DE SÃO PAULO*, Talk and observation with telescopes.
2018 — 2019 **Abrahão de Moraes Observatory**, *UNIV. DE SÃO PAULO*, Talk and observation with telescopes.
2018 — 2020 **AstroTubers**, *YOUTUBE CHANNEL AND SOCIAL MEDIA*, in Portuguese, [Click here to watch](#).
2013 — 2013 **Astronomical Observatory**, *UNIV. FEDERAL DO RIO GRANDE DO SUL*, Talk and observation.
2012 — 2012 **Celestial science for vulnerable children**, *ARARANGUÁ*, Teaching science and astronomy.
2011 — 2013 **Araranguá's Astronomy Club**, *MEMBER*, Talk and observation with telescopes.

Other responsibilities

- Nov 2026 **Conference LOC**, *IAUS411: Star Clusters as Guides to Galaxies*, Bariloche, ARGENTINA.
2024-Present **Weekly seminar LOC**, *Astronomy department*, *UNIV. FEDERAL DO RIO GRANDE DO SUL*.
2020 — 2021 **Weekly COVID-19 working group**, *planning and executing the safe return to campus program*.
2020 — 2020 **ASTROMINAS LOC**, *planning 1-week event program: talks and hands-on experiments*, *VIRTUAL*.
2019 — 2021 **Graduate elected student representative**, *Institute council*, *UNIVERSIDADE DE SÃO PAULO*.
2018 — 2019 **Graduate elected student representative**, *Astronomy department council*, *UNIV. DE SÃO PAULO*.
Aug 2019 **Conference LOC**, *Precision Spectroscopy: Rotation, Magnetic Activity and Li*, São Paulo, BRAZIL.
Aug 2018 **Conference LOC**, *Precision Spectroscopy: from the first stars to exoplanets*, São Paulo, BRAZIL.
Sep 2018 **Conference LOC**, *Science and Technology week of the IAG-USP*, São Paulo, BRAZIL.
2016 — 2017 **Undergraduate elected student representative**, *Astronomy department council*, UFRGS.
2011 — 2012 **Founding member & Student representative**, *Academic Center*, *ARARANGUÁ*.
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