

# 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.

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## 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, [Chick here to watch](#).
- 2022 **Modelling integrated spectrum to study hot stellar components in old stellar populations**, *ASTRONOMY DEPARTMENT, UNIVERSIDADE DE SÃO PAULO*, Brazil, [Chick here to watch](#).
- 2022 **Modelling integrated spectrum to study hot stellar components in old stellar populations**, *ASTRONOMY DEPARTMENT, UNIVERSITY OF EXETER*, United Kingdom.

## 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 **LATEX**, **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.

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## Teaching assistance

- 2022 — 2022 **Fundaments 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.
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## 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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