

Thiago Ferreira dos Santos

Contact: thiago.dossantos@yale.edu | Website: <https://thiagofst.github.io> | ORCID: 0000-0003-2059-470X

Address: Department of Astronomy, Yale University, 219 Prospect St., New Haven, CT 06511, US | Office: KT626

Last update: August 25, 2025

EDUCATION

Yale University

Ph.D. in Astronomy

08/2023 – Present

New Haven (CT), US

Universidade de São Paulo (IAG/USP)

M.Sc. in Astronomy

08/2021 – 06/2023

São Paulo (SP), Brazil

Dissertation: [Unveiling Planetary Systems in Solar Twins with High-Precision Radial Velocity](#)

Supervisor: Jorge Luis Meléndez Moreno, Ph.D.

Universidade Federal de Santa Catarina (UFSC)

B.Sc. in Physics

03/2016 – 08/2021

Florianópolis (SC), Brazil

Supervisor: Roberto Kalbusch Saito, Ph.D.

PUBLICATIONS

Full record at [ADS Library](#) | [Google Scholar](#)

Metrics: 94 citations, h-index = 5 (August 2025)

Peer-Reviewed Publications

11. Winnick, I., et al., (incl. **Ferreira, T.**), submitted to ApJ ([arXiv:2508.16513](#))
Extreme Lithium Depletion in Solar Twins: Challenging Non-Standard Mixing Models
10. Galarza J. Y., Lorenzo-Oliveira, D., **Ferreira T.**, et al., 2025, ApJ, 983, 70
[HIP 8522: A Puzzling Young Solar Twin with the Lowest Detected Lithium](#)
9. Fermiano, V., et al., (incl. **Ferreira, T.**), 2024, A&A, 690, L7.
[The Young Exoplanetary System TOI-4562: Confirming The Presence of a Third Body in the System](#)
8. **Ferreira, T.**, Rice, M., et al., 2024, AJ, 168, 145.
[SOLES XI. The Aligned Orbit of TOI-2533 b, a Transiting Brown Dwarf Orbiting an F8-type Star](#)
7. Galarza J. Y., **Ferreira T.**, Lorenzo-Oliveira, D., et al., 2024, AJ, 168, 91.
[TOI-1173 A b: The First Inflated Super-Neptune in a Wide Binary System](#)
6. Galarza J. Y., Reggiani H., **Ferreira T.**, et al., 2024, ApJ, 974, 122
[Detailed abundances of the planet-hosting TOI-1173 A/B system: Possible evidence of planet engulfment in a very wide binary](#)
5. Saito R. K., et al., (incl. **Ferreira, T.**), 2024, A&A, 689, A148
[The VISTA Variables in the Vía Láctea eXtended \(VVVX\) ESO public survey: Completion of the observations and legacy](#)
4. **Ferreira T.**, Saito R. K., Minniti D., et al., 2024, MNRAS, 527, 10737.
[A benchmark white dwarf-ultracool dwarf wide field binary](#)
3. Botan, E., et al., (incl. **Ferreira, T.**), 2021, MNRAS, 504, 654.
[Unveiling short-period binaries in the inner VVV bulge.](#)
2. Herpich, F.R., et al., (incl. **Ferreira, T.**), 2021, A&A, 647, A169.
[VVV survey near-infrared colour catalogue of known variable stars](#)

1. **Ferreira, T.**, Saito, R.K., Minniti, D., et al., 2019, MNRAS, 586, 1220.
The asymptotic evolution of the stellar merger V1309 Sco: a Blue Straggler in the making?

Non-Referred Publications & Conference Proceedings

8. **Ferreira, T.** & Meléndez, J., 2022. Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun.
HIP 102152b: A low-mass planet candidate around an old solar twin
7. **Ferreira T.S.**, Saito, R.K., & Minniti D., 2021, The Astronomer's Telegram #14626.
VVV near-IR observations of the X-ray transient Swift J174038.1-273712.
6. **Ferreira T.S.**, Saito, R.K., & Minniti D., 2021, The Astronomer's Telegram #14625.
VVV near-IR observations of V6585 Sgr progenitor.
5. **Ferreira dos Santos, T.** & Kalbusch Saito, R. 2020, Planets 2020, Ground and Space Observatories 11.
Exoplanetary transits in the Galactic bulge.
4. **Ferreira, T.**, Saito, R.K., Gran, F. et al. 2018, RNAAS, 2, 39.
VVV Survey Orbital Period Confirmation for the Cataclysmic Variable IGR J17014-4306.
3. Masetti, N., **Ferreira, T.S.**, Saito, R.K., et al. 2018, The Astronomer's Telegram #11992.
The possible VVV near-infrared counterpart of IGR J17503-2636.
2. Kammers, R., **Ferreira, T.S.**, Saito, R.K. & Minniti, D. 2018. The Astronomer's Telegram #11365.
The likely progenitor of Nova ASASSN-18ds.
1. **Ferreira, T.S.** & Saito, R.K. 2017, The Astronomer's Telegram #10780.
The likely progenitor of Nova ASASSN-16ra.

RESEARCH EXPERIENCE

Pre-Thesis Doctoral Research	08/2023 – Present
Evolution of low-mass Population III stars and the formation of brown dwarfs	
<i>Advisors: Earl P. Bellinger, Ph.D.; Malena Rice, Ph.D.</i>	
M.Sc. Graduate Research Assistant	08/2021 – 08/2023
Characterising Solar Twins with HARPS Radial Velocity Observations	
<i>Advisor: Jorge Luis Meléndez Moreno, Ph.D.</i>	
Undergraduate Research Assistant	08/2017 – 08/2021
Time-series Analysis of Near-IR Variability with ESO/VVV & VVV-X Surveys	
<i>Advisor: Roberto Kalbusch Saito, Ph.D.</i>	

OBSERVING EXPERIENCE

*** Observations personally conducted

GHOST / Gemini South, Cerro Pachón (Chile) – Co-I; DDT, 5.6 hrs	2025A
MIKE & PFS / Clay–Magellan II, Las Campanas Observatory (Chile) – 2 nights	
<i>Co-I – Confirming thick disc membership for known exoplanets and TESS objects of interest</i>	
***WINERED/ Clay–Magellan II, Las Campanas Observatory (Chile) – 1 night	2025A
<i>Co-I – Investigating atmospheric outflows in a Neptunian-desert planet using He I $\lambda 10\,833\text{ Å}$</i>	
MIKE / Clay–Magellan II, Las Campanas Observatory (Chile) – 2 nights	2024B
<i>Co-I – Correlated abundances of exoplanets and their host stars: constraints from polluted white dwarfs in stellar binaries</i>	

MIKE / Clay–Magellan II, Las Campanas Observatory (Chile) – 4 nights <i>Co-I – Exploring the star–planet connection with solar-type hosts</i>	2024B
***HARPS/ ESO 3.6-m, La Silla Observatory (Chile) – 6 nights <i>PI – How rare are analogues of the Solar System?</i>	2023A

TEACHING APPOINTMENTS

ASTR 556 - Astrostatistics and Data Mining, Yale University <i>Instructor:</i> Earl Bellinger	Aug 2025 - Present
ASTR 220 - Galaxies and Cosmology, Yale University <i>Instructor:</i> Robert Zinn	Jan 2025 - May 2025
ASTR 110 - Planets and Stars, Yale University <i>Instructor:</i> Michael Faison	Aug 2024 - Dec 2024
AGA 0502 - Planets and Planetary Systems, IAG/USP <i>Instructor:</i> Jorge Meléndez	Aug 2022 - Dec 2022

SERVICES

- Journal Referee – *The Astrophysical Journal* (ApJ)

FELLOWSHIPS, AWARDS & GRANTS

• Yale Conference Travel Fund	Jul 2025
• GSAS Yale Graduate Fellowship	Aug 2023 – Present
• Boris Garfinkel Prize Fellowship in Astronomy	Aug 2023
• CAPES M.Sc. Research Fellowship, IAG/USP, Brazil	Aug 2021 – Jul 2023
• exoLaTam 2022 Travel Award	Dec 2022
• Teaching Improvement Program, IAG/USP	Aug 2022 – Dec 2022
• ESO/ALMA Planets2020 Workshop Travel Award	Mar 2020
• CNPq Undergraduate Research Fellowship, Department of Physics, UFSC, Brazil	2017 – 2021

INVITED TALKS

Research Talk, Theory and Observation of Stars (TOS) group, HITS/Heidelberg-DE Asteroseismology of Low-Mass Population III Stars	Jul 2025
--	----------

CONTRIBUTED CONFERENCE PRESENTATIONS

Talks

6. exoLaTam 22 – Santiago, Chile HIP 102152b: A Low-Mass Planet Candidate Around an Old Solar Twin.	Dec 2022
5. XLV Annual Meeting of the Brazilian Astronomical Society – Virtual HIP 102152b: A Low-Mass Planet Candidate Around an Old Solar Twin.	Oct 2022
4. 31° Seminário de Iniciação Científica, UFSC – Virtual Studies of Stellar Astrophysics and Exoplanets in the Central Region of the Milky Way.	Jul 2021
3. 30° Seminário de Iniciação Científica, UFSC – Virtual Transiting Extrasolar Planets Orbiting Red Dwarf Stars Towards the Galactic Bulge.	Oct 2020

- | | |
|---|----------|
| 2. 29° Seminário de Iniciação Científica, UFSC – Virtual
Stellar Variability Towards the Central Region of the Milky Way with the VVV/VVV-X Surveys. | Oct 2019 |
| 1. 28° Seminário de Iniciação Científica, UFSC – Virtual
Stellar Variability Towards the Central Region of the Milky Way with the VVV/VVV-X Surveys. | Oct 2018 |

Posters

- | | |
|--|----------|
| 10. 9th TESS/16th Kepler Asteroseismic Science Consortium Workshop – Vienna, Austria
On the Structure and Oscillations of the First Stars. | Jul 2025 |
| 9. XLV Annual Meeting of the Brazilian Astronomical Society – Virtual
HIP 102152b: A Low-Mass Planet Candidate Around an Old Solar Twin. | Oct 2022 |
| 8. Cool Stars 21 – Virtual
HIP 102152b: A Low-Mass Planet Candidate Around an Old Solar Twin. | Jul 2022 |
| 7. Exoplanets III – Virtual
A Box-Fitting Implementation for the Transit Method Detection of Exoplanets. | Jul 2021 |
| 6. Sagan Exoplanet Summer Workshop – Virtual
Time-Series Analysis of Near-IR Variabilities on VVV M Dwarf Stars. | Jul 2021 |
| 5. ALMA Planets2020 Workshop – Santiago, Chile
Exoplanetary Transits in the Galactic Bulge. | Mar 2020 |
| 4. VIII PPGFSC/UFSC Meeting – Florianópolis, Brazil
The Asymptotic Evolution of the Blue Straggler V1309 Sco. | Feb 2020 |
| 3. EWASS 2019 – European Astronomical Society
Infrared Counterparts of Gaia Alerts (Ivanov+ incl. Ferreira, T.). | Jun 2019 |
| 2. VVV & VVV-X Science Workshop – Florianópolis, Brazil
On the Photometric Study of the Cataclysmic Variable IGR J17014-4306. | Apr 2018 |
| 1. VI PPGFSC/UFSC Meeting – Florianópolis, Brazil
Stellar Variability Towards the Central Region of the Milky Way with the VVV/VVV-X Surveys. | Feb 2018 |

WORKSHOPS AND ADVANCED SCHOOLS ATTENDED

- | | |
|---|----------|
| • Yale AstroCodEx Hack Day, New Haven, US | Aug 2025 |
| • MESA Summer School, Leuven, Belgium | Jul 2025 |
| • Yale Tinsley Workshop, New Haven, US | Oct 2024 |
| • New York Area Exoplanets Meeting, New York, US | May 2024 |
| • exoLaTam 22, Santiago, Chile | Dec 2022 |
| • ESO Star–Planet Connection Workshop (Virtual) | Oct 2021 |
| • XIII CBPF School (Virtual) | Aug 2021 |
| • ZTF Summer School on Variable Stars (Virtual) | Aug 2021 |
| • Sagan Exoplanet Summer Workshop – Circumstellar Disks and Young Planets (Virtual) | Jul 2021 |

ACADEMIC REFERENCES

Jorge Luis Meléndez Moreno, Ph.D. (MSc Advisor)

jorge.melendez@iag.usp.br

Departamento de Astronomia/IAG, Universidade de São Paulo – Brazil

Roberto Kalbusch Saito, Ph.D. (Undergraduate Advisor)

robsaito@gmail.com

Departamento de Física, Universidade Federal de Santa Catarina – Brazil

Dante Minniti, Ph.D.

vvvdante@gmail.com

Instituto de Astrofísica, Facultad de Ciencias Exactas, Universidad Andres Bello – Chile

Vatican Observatory, I-00120 Vatican City State, Italy

COMPLEMENTARY INFORMATION

Languages

Portuguese (native), **English** (fluent), **Spanish** (basic).

Other

- Programming: \LaTeX , PYTHON (9+ years); Little experience with C, R, JAVA, BASH.
- Databases & Softwares: [VISTA/ESO](#) Science Archive, TOPCAT, VIZIER, IRAF/DS9, VOSA, MESA+GYRE, etc.