# Thiago Ferreira dos Santos

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Last update: August 16, 2025

#### **EDUCATION**

Yale University
Ph.D. in Astronomy

New Haven (CT), US

Universidade de São Paulo (IAG/USP) - Instituto de Astronomia, Geofísica e Ciências Atmosféricas

08/2021 – 06/2023 São Paulo (SP), Brazil

M.Sc. in Astronomy

Dissertation: Unveiling Planetary Systems in Solar Twins with High-Precision Radial Velocity

Advisor: Jorge Luis Meléndez Moreno, Ph.D.

# Universidade Federal de Santa Catarina (UFSC)

03/2016 - 08/2021

Florianópolis (SC), Brazil

Advisor: Roberto Kalbusch Saito, Ph.D.

#### **Publications**

B.Sc. in Physics

Full record at ADS Library | Google Scholar **Metrics**: 94 citations, h-index = 5 (August 2025)

#### **Referred Publications**

- 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
- 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

<b>Pre-Thesis Doctoral Research</b> <i>Advisors</i> : Earl P. Bellinger, Ph.D., and Malena Rice, Ph.D.	08/2023 – Present
M.Sc. Graduate Research Assistant Seeking Solar System Analogues Advisor: Jorge Luis Meléndez Moreno, Ph.D.	08/2021 – 08/2023
Undergraduate Research Assistant Time-series analysis of near-IR variabilities with the ESO/VVV & VVV-X surveys	08/2017 - 08/2021

Time-series analysis of near-IR variabilities with the ESO/VVV & VVV-X surveys

Advisor: Roberto Kalbusch Saito, Ph.D.

OBSERVING EXPERIENCE & ACCEPTED PROPOSALS	
*** Observations personally conducted	
GHOST / Gemini South, Cerro Pachón (Chile) – DDT - 5.6 hrs	2025A
MIKE/PFS / Clay–Magellan II, Las Campanas Observatory (Chile) – 2 nights Confirming Thick Disc Membership for Known Exoplanets and TESS Objects of Interest	2025A
***WINERED / Clay–Magellan II, Las Campanas Observatory (Chile) – 1 night Investigating Atmospheric Outflows in a Neptunian-Desert Planet Using He III \(\lambda 10 \) 833 \(^{\dagge} A\)	2025A
MIKE / Clay-Magellan II, Las Campanas Observatory (Chile) – 2 nights  Correlated Abundances of Exoplanets and Their Host Stars? Constraints from Polluted White Dwarfs in Stellar Binaries	2024B
MIKE / Clay-Magellan II, Las Campanas Observatory (Chile) – 4 nights  Exploring the Star-Planet Connection with Host Solar-Type Stars	2024B
***HARPS / ESO 3.6-m, La Silla Observatory (Chile) – 6 nights  How rare are analogues of the Solar System?	2023A

# TEACHING APPOINTMENTS

TEACHING APPOINTMENTS	
ASTR 556 - Astrostatistics and Data Mining, Yale University  Instructor: Earl Bellinger	Aug 2025 - Present
ASTR 220 - Galaxies and Cosmology, Yale University  *Instructor*: Robert Zinn	Jan 2025 - May 2025
ASTR 110 - Planets and Stars, Yale University  Instructor: Michael Faison	Aug 2024 - Dec 2024
AGA 0502 - Planets and Planetary Systems, IAG/USP  Instructor: Jorge Meléndez	Aug 2022 - Dec 2022
Services	
• Journal Referee – <i>The Astrophysical Journal</i> (ApJ)	
Fellowships, Awards & Grants	
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
<ul> <li>ESO/ALMA Planets2020 Workshop Travel Award</li> </ul>	Mar 2020
CONFERENCE PRESENTATIONS  15. 9th TESS/16th Kepler Asteroseismic Science Consortium Workshop – Vienna, Austria On the Structure and Oscillations of the First Stars [Poster]	Jul 2025
<ul> <li>14. exoLaTam 22 — Santiago, Chile</li> <li>HIP 102152b: A Low-Mass Planet Candidate Around an Old Solar Twin [Talk].</li> </ul>	Dec 2022
13. XLV Annual Meeting of the Brazilian Astronomical Society - Virtual HIP 102152b: A Low-Mass Planet Candidate Around an Old Solar Twin [Poster & Talk].	Oct 2022
<ol> <li>Cool Stars 21 - Virtual HIP 102152b: A Low-Mass Planet Candidate Around an Old Solar Twin [Poster].</li> </ol>	Jul 2022
<ol> <li>31° Seminário de Iniciação Científica, UFSC - Virtual Studies of Stellar Astrophysics and Exoplanets in the Central Region of the Milky Way [Talk].</li> </ol>	Jul 2021
<ol> <li>Exoplanets III - Virtual         A Box-Fitting Implementation for the Transit Method Detection of Exoplanets [Poster].     </li> </ol>	Jul 2021
9. Sagan Exoplanet Summer Workshop - Virtual Time-Series Analysis of Near-IR Variabilities on VVV M Dwarf Stars [Poster].	Jul 2021
8. 30° Seminário de Iniciação Científica, UFSC - Virtual Transiting Extrasolar Planets Orbiting Red Dwarf Stars Towards the Galactic Bulge [Talk].	Oct 2020
7. ALMA Planets2020 Workshop — Santiago, Chile Exoplanetary Transits in the Galactic Bulge [Poster].	Mar 2020

6. VIII PPGFSC/UFSC Meeting — Florianópolis, Brazil The Asymptotic Evolution of the Blue Straggler V1309 Sco [Poster].	Feb 2020
<ol> <li>29° Seminário de Iniciação Científica, UFSC - Virtual Stellar Variability Towards the Central Region of the Milky Way with the VVV/VVV-X Sur</li> </ol>	Oct 2019 veys [Talk].
4. EWASS 2019 - European Astronomical Society Infrared Counterparts of Gaia Alerts (Ivanov+ incl. Ferreira, T.) [Poster].	Jun 2019
3. 28° Seminário de Iniciação Científica, UFSC - Virtual Stellar Variability Towards the Central Region of the Milky Way with the VVV/VVV-X Sur	Oct 2018 veys [Talk].
<ol> <li>VVV &amp; VVV-X Science Workshop — Florianópolis, Brazil         On the Photometric Study of the Cataclysmic Variable IGR J17014-4306 [Poster].     </li> </ol>	Apr 2018
<ol> <li>VI PPGFSC/UFSC Meeting — Florianópolis, Brazil Stellar Variability Towards the Central Region of the Milky Way with the VVV/VVV-X Sur</li> </ol>	Feb 2018 veys [Poster].
Workshops and Advanced Schools Attended	
• MESA (Modules for Experiments in Stellar Astrophysics) Summer School — Leuve	n, Belgium Jul 2025
• Yale Tinsley Workshop — New Haven, USA	Oct 2024
<ul> <li>New York Area Exoplanets Meeting — New York, USA</li> </ul>	May 2024
• exoLaTam 22 — Santiago, Chile	Dec 2022
• ESO The Star-Planet Connection Workshop - Virtual	Oct 2021
XIII CBPF School - Virtual	Aug 2021
• ZTF Summer School on Variable Stars - Virtual	Aug 2021
	rtual Jul 2021
Academic References	
Jorge Luis Meléndez Moreno, PhD (MSc Advisor)  Departamento de Astronomia/IAG, Universidade de São Paulo – Brazil	rge.melendez@iag.usp.br
Roberto Kalbusch Saito, PhD (Undergraduate Advisor) Departamento de Física, Universidade Federal de Santa Catarina – Brazil	robsaito@gmail.com
Dante Minniti, PhD Instituto de Astrofísica, Facultad de Ciencias Exactas, Universidad Andres Bello – Chile	vvvdante@gmail.com

# **COMPLEMENTARY INFORMATION**

# Languages

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

Vatican Observatory, I-00120 Vatican City State, Italy

# 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.