

Lais Borbolato

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

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Education

PhD	University of São Paulo , Ph.D. in Astronomy, Universidade de São Paulo	2023 - 2027
	<ul style="list-style-type: none"> • Advisor: Silvia Rossi • Thesis title: <i>Milky Way's disk structures as a memory of its turbulent past</i> 	
BS	University of São Paulo , BS in Astronomy, Universidade de São Paulo	2019 - 2022
	<ul style="list-style-type: none"> • Advisor: Silvia Rossi • Thesis title: <i>Kinematics and Detailed Chemistry for Monoceros Overdensity.</i> 	

Funding

Ph.D.		2024 - 2027
	<ul style="list-style-type: none"> • Funding by São Paulo Research Foundation (FAPESP [em pt.]) • Project: Milky Way's disk structures as a memory of its turbulent past 	
Ph.D.		2023 - 2024
	<ul style="list-style-type: none"> • Funding by Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES [em pt.]) • Project: Milky Way's disk structures as a memory of its turbulent past 	
Undergraduate Research		2021 - 2022
	<ul style="list-style-type: none"> • Funding by São Paulo Research Foundation (FAPESP [em pt.]) • Project: Kinematics and Detailed Chemistry for Monoceros Overdensity 	
Undergraduate Research		2020 - 2021
	<ul style="list-style-type: none"> • Funding by Institutional Scientific Initiation Scholarship Program of the National Council for Scientific and Technological Development (PIBIC/CNPq [em pt.]) • Project: Chemodynamical properties of the Monoceros Stellar Overdensity 	
Unified scholarship program (PUB [em pt.])		2019 - 2020
	<ul style="list-style-type: none"> • Customer service at the Abrahão de Moraes Observatory in Valinhos, São Paulo 	

Honors and Awards

Work awarded at the 75th Annual Meeting of the Brazilian Society for the Advancement of Science (SBPC [em pt.])	2023
<ul style="list-style-type: none"> • Title: Chemodynamical properties of the Monoceros Stellar Overdensity 	
Honorable mention at the 30th International Symposium on Scientific and Technological Initiation at USP (SIICUSP [em pt.])	2022
<ul style="list-style-type: none"> • Title: Chemodynamical properties of the Monoceros Stellar Overdensity 	
Gold medal at the Brazilian Astronomy and Astronautics Olympiad (OBA [em pt.])	2018
Gold medal at the Brazilian Astronomy and Astronautics Olympiad (OBA [em pt.])	2017
Honorable mention at the Brazilian Public School Mathematics Olympiad (OBMEP [em pt.])	2015

Teaching and Outreach

Hands-on session: Astronomical data visualization with Matplotlib for Brazilian students	2025
<ul style="list-style-type: none">This course was offered at IAG/USP for undergraduate Astronomy students, aiming to help them create clearer and more visually engaging figures for their academic productions.	
Teaching assistant: Astronomy for Teachers (IAG-USP)	2024
<ul style="list-style-type: none">This advanced training course is designed to offer Brazilian high school physics teachers an introductory overview of various fields of astronomy, presented from a modern and up-to-date perspective.	
Astronomical Service at IAG-USP	2022 - 2024
<ul style="list-style-type: none">Supervisor of guided visits at IAG-USP and teaching assistant in virtual sessions with public school students.	
Night with the Stars - Abrahão de Moraes Observatory	2019 - 2023
<ul style="list-style-type: none">Monitor assisting with customer service at the Abrahão de Moraes Observatory (OAM [em pt.]) in Valinhos, São Paulo, including assembling telescopes and leading hands-on workshops with children.	
ASTROMINAS (website) ↗	2020 - 2021
<ul style="list-style-type: none">This project is dedicated to promoting Science and Technology among female high school students, helping to facilitate their access to university.	
Cecília project (website) ↗	2020 - 2021
<ul style="list-style-type: none">This project is dedicated to disseminating and popularizing Earth and Universe sciences in schools.	

Learning and Service

Organizer: "Astronomy at Noon" Seminar Series	2024 - 2025
<ul style="list-style-type: none">Cycle of Seminars of the Astronomy Department of IAG/USP every Thursday at noon. It is dedicated to undergraduate students in exact sciences	
Organizer: Milky Way Brazilian Group (MWBR)	2024 - 2025
Member: Brazilian Astronomical Society (SAB [em pt.])	2019 - 2025
Students representative: Astronomy Program Coordinating Committee (IAG-USP)	2024
Students representative: Defense of Diversity, Human Rights and Democracy Committee, CDDDHD (IAG-USP)	2021 - 2022
Students representative: Congregation (IAG-USP)	2020 - 2021
Organizer: Brazilian Astronomy Olympiad (OBA [em pt.])	2019 - 2020

Skills

Languages: Portuguese (native), English (intermediate)

Coding: Python

Conferences, Workshops & Contributed talks

Talk Deciphering the Cosmic Code for Galaxy Formation	Dec 2024
<ul style="list-style-type: none">Title: <i>Deciphering the old Milky Way thin disk formation</i>Puerto Varas - Chile	

Poster	IAU Symposium 395: Stellar populations in the Milky Way and beyond	Nov 2024
	<ul style="list-style-type: none"> Title: <i>The Early and Fast Settlement of Milky Way Disk</i> Paraty, RJ - Brasil 	
Talk	XLVII Annual Meeting of the Brazilian Astronomical Society	Sep 2024
	<ul style="list-style-type: none"> Title: <i>Deciphering the earliest stages of the Milky Way disk formation</i> Águas de Lindóia, SP - Brasil 	
Talk	XXXII IAU General Assembly	Aug 2024
	<ul style="list-style-type: none"> Title: <i>The Early and Fast Settlement of Milky Way Disk</i> Cape Town - South Africa 	
Talk	XVII Latin American Regional IAU Meeting	Nov 2023
	<ul style="list-style-type: none"> Title: <i>All-sky Kinematics and Chemistry of Monoceros Stellar Overdensity</i> Montevideu - Uruguau 	
Talk	XLVI Annual Meeting of the Brazilian Astronomical Society	Oct 2023
	<ul style="list-style-type: none"> Title: <i>Kinematics and Detailed Chemistry for Monoceros Overdensity</i> Rio de Janeiro, RJ - Brasil 	
Poster	75th Annual Meeting of Brazilian Society for the Advancement of Science	Jun 2023
	<ul style="list-style-type: none"> Title: <i>Kinematics and Detailed Chemistry for Monoceros Overdensity</i> Curitiba, PR - Brasil 	
Poster	30th International Symposium on Scientific and Technological Initiation at USP	Oct 2022
	<ul style="list-style-type: none"> Title: <i>Kinematics and Detailed Chemistry for Monoceros Overdensity</i> São Paulo, SP - Brasil 	
Poster	XLV Annual Meeting of the Brazilian Astronomical Society	Sep 2022
	<ul style="list-style-type: none"> Title: <i>Kinematics and Detailed Chemistry for Monoceros Overdensity</i> Online 	
Poster	29th International Symposium on Scientific and Technological Initiation at USP	Oct 2021
	<ul style="list-style-type: none"> Title: <i>Chemodynamical properties of the Monoceros Stellar Overdensity</i> Online 	
Poster	XLIV Annual Meeting of the Brazilian Astronomical Society	Sep 2021
	<ul style="list-style-type: none"> Title: <i>Chemodynamical properties of the Monoceros Stellar Overdensity</i> Online 	

Publications

1st Author Publications - Journal Articles

Early Co-formation of the Milky Way's Thin and Thick Disks at Redshift $z > 2$	2025
Borbolato, L.; Rossi, S.; Perottoni, H. D.; Limberg, G.; Amarante, J. A. S.; Queiroz, A. B. A.; Chiappini, C.; Anders, F.; Santucci, R. M.; Barbosa, F. O.; Nogueira-Santos, J. V.; Submitted to ApJ. arXiv ↗	
All-sky Kinematics and Chemistry of Monoceros Stellar Overdensity	2024
Borbolato, L.; Perottoni, H. D.; Rossi, S.; Limberg, G.; Pérez-Villegas, A.; Anders, F.; Antoja, T.; Laporte, C. F. P.; Rocha-Pinto, H. J.; Santucci, R. M.; 2024, ApJ, 960, 52. 10.3847/1538-4357/ad02fb ↗	

Co-authored Publications - Journal Articles

Extending the Chemical Reach of the H3 Survey: Detailed Abundances of the Dwarf-galaxy Stellar Stream Wukong/LMS-1

2024

Limberg, G.; Ji, A. P.; Naidu, R. P.; Chiti, A.; Rossi, S.; Usman, S. A.; Ting, Y.; Zaritsky, D.; Bonaca, A.; **Borbolato, L.**; Speagle, J. S.; Chandra, V.; Conroy, C.; 2024, MNRAS, 530, 3.
10.1093/mnras/stae969 [↗](#)

Searching for Extragalactic Exoplanetary Systems: The Curious Case of BD+20 2457

2021

Perottoni, H. D.; Amarante, J. A. S.; Limberg, G.; Rocha-Pinto, H. J.; Rossi, S.; Anders, F.; **Borbolato, L.**; 2021, ApJL, 913, L3..
10.3847/2041-8213/abfb06 [↗](#)