

Carmen Martinez Harris - Curriculum Vitae

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Brisbane, Queensland

Research Interests

My interests lie in galaxy evolution at high redshift, the formation of supermassive black holes, and the structure of the early universe. I'm also passionate about space sustainability, ethical frameworks in space exploration, and using data visualisation tools to communicate scientific research.

Education

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| 2023-25 | B.Sc. Physics/Astrophysics, Queensland University of Technology (QUT) <ul style="list-style-type: none">• GPA: 5.5 / 7.0 (QUT 7-point scale)• Approximate equivalents:<ul style="list-style-type: none">– US GPA: 3.6 / 4.0– UK Honours: Upper Second Class (2:1) |
| 2024 | Introduction to Aerospace Engineering: Astronautics and Human Spaceflight
Massachusetts Institute of Technology (MIT Online Learning) |
| 2024 | Space Mission Design and Operations Swiss Federal Technology Institute of Lausanne (EPFL) |

Research Experience

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| 2024–2025 | Queensland University of Technology – <i>Vacation Research Experience Scheme (VRES)</i> (Supervisors: Dr. Michael Horn, Ms. Janhavi Malagalu Prakash Babu). Project: <i>“Lithium Ion Battery Sustainability and Effectiveness”</i> |
| 2024–2025 | Co-Author, ASTRA Program, Australian Youth Aerospace Association , IAC-25 Abstract: <i>“An analysis on the current environment and potential methods to improve regional space collaboration in Oceania”</i> (Session: E11.1, Connecting Emerging Space Ecosystems). |

Awards & Honors

2024	QUT Researcher (\$2,500)
2025	QUT Best Presentation Award (\$150)
2024–	QUT College of Excellence
2024	QUT Quarter 3 Innovation Award

Publications

1. **C. Martinez Harris**, M. Horn, J. Malagalu Prakash Babu. *Identifying Trends in Lithium-Ion Battery Performance through Relational Databases and Power BI*. QUT VRES Showcase 2025, Queensland University of Technology. Poster presentation.
2. R. Chong, D. Kapur, E. Keane, L. Roychoudhry, M. Soejoeti, N. Wiskich, N. Ravindranath, R. Ganesh, S. Tung, T. Phan, **C. Martinez Harris**. *An Analysis on the Current Environment and Potential Methods to Improve Regional Space Collaboration in Oceania*. IAC-25, IAF Symposium on Emerging Space Ecosystems (E11.1), 2025. Abstract accepted.

Invited Talks and Conferences

- **Attended:** ANITA Summer School 2025 – Mount Stromlo Observatory, ACT. Focused on advanced astrophysical simulation and theory in Australia’s leading theoretical astrophysics community.
- **Invited:** TEDx-style talk for Space Generation Advisory Council and the National Oceanic and Atmospheric Administration Student Lightning Talks – Washington D.C., 2025. International space collaboration as part of the Space Generation Congress.
- **Presented:** IAC-25 Symposium – *IAF Symposium on Emerging Space Ecosystems (E11.1)*. Co-authored and co-presented abstract on improving regional space collaboration in Oceania.
- **Presented:** QUT Showcase 2025 – Findings from research project *“Identifying Trends in Lithium-Ion Battery Performance through Relational Databases and Power BI”*

Teaching & Outreach Experience

- **Academic Tutor** (2021–present).
- **Astrophysics Mentor**, ASPIRE Program (2024).
- **Physics Student Ambassador** (2023-2025), Queensland University of Technology.
- **Astrophysics Student Volunteer**, Brisbane World Science Festival (2025).

Student Involvement

- **Student Club President** (2023-2024)
- **Student Event Committee President** (2023-2024)
- **QUT College of Excellence** (2024-2025)
- **QUT Astrophysics Research Group** (2024-2025)

Memberships

- **Space Generation Advisory Council** (Space Exploration Group)
- **Space Generation Advisory Council** (Space Policy Group)
- **QUT Astrophysics Research Group** (Undergraduate Student Member)

References

Available upon request. Selected referees listed below:

- **Dr. Michael Cowley**
Senior Lecturer in Astrophysics, Queensland University of Technology
Director, Centre for Astrophysics
michael.cowley@qut.edu.au
- **Dr. Michael Horn**
Lecturer, School of Mathematical Sciences, Queensland University of Technology
michael.horn@qut.edu.au

Last updated: April 2, 2025