

Jasmine Anderson-Baldwin

PHD CANDIDATE · CENTRE FOR ASTROPHYSICS AND SUPERCOMPUTING

Swinburne University of Technology, Melbourne, VIC, Australia

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Education

Swinburne University of Technology

Melbourne, Australia

PHD, ASTROPHYSICS

2024–present

- Supervisor: Prof. Jarrod Hurley
- Co-supervisors: Dr Jade Powell, Dr Yuzhe Song
- Thesis: *A New Census of the Transient Populations of Star Clusters*

University of Auckland

Auckland, New Zealand

MSc, PHYSICS

2022–2023

- Supervisors: A/Prof. Nicholas Rattenbury, Dr Michele Bannister
- Thesis: *LEO Satellite Constellations in the MOA Database*

University of Auckland

Auckland, New Zealand

BSc(HONS), PHYSICS

2020–2022

- Supervisors: A/Prof. Nicholas Rattenbury, Dr Michele Bannister
- Dissertation: *Investigation of (2069) Hubble in the MOA-II Database*

University of Auckland

Auckland, New Zealand

BSc, PHYSICS & MATHEMATICS

2016–2019

- Science Scholar

University of Auckland

Auckland, New Zealand

BA, LINGUISTICS & LOGIC AND COMPUTATION

2016–2019

Research Experience

University of Auckland – Department of Physics

Auckland, New Zealand

SUPERVISOR: A/PROF. NICHOLAS RATTENBURY

2023–2024

- Research Assistant: Free Space Optical Communications
- Testing of an experimental extremely low-resource optical beacon for potential use on microsatellites.

Teaching Experience

2018–2023 **ASTRO 100, PHYSICS 102, PHYSICS 160**, Graduate Teaching Assistant

University of Auckland

2018–2023 **Tuākana Mentoring Programme**, Graduate Teaching Assistant

University of Auckland

2021 **Third Year Advanced Lab**, Graduate Teaching Assistant

University of Auckland

2018–2019 **MATHS 208, COMPSCI 225**, Teaching Assistant

University of Auckland

Awards

2024 **ARC Research Training Program Scholarship**, Swinburne University of Technology

2022 **Sustainability Network Research Award**, University of Auckland

2022 **Rangiriri & Mātene Te Whiwhi Winiata Scholarship**, Māori Education Trust

2019 **First in Course (Linguistics 203: Applied English Grammar)**, University of Auckland

2017 **Summer Research Scholarship**, University of Auckland

2017 **Department of Physics Scholarship**, University of Auckland

Publications

PUBLISHED

Nandakumar, S., Eggl, S., Tregloan-Reed, J., et al. including **Anderson-Baldwin, J.** (2023). *The high optical brightness of the BlueWalker 3 satellite*. Nature 623, 938–941

IN PRESS

Anderson-Baldwin, J., Hurley, J. R., Dage, K. C. (2025). *M67 in NBODY6++GPU and Gaia DR3*. Proceedings of the International Astronomical Union, xx(S398), xxx-xxx.

IN REVIEW

Anderson-Baldwin, J., Bannister, M. T., Cowan, P., Rattenbury, N. J., et al. *A Précis of the MOA-II Observations*.

Dage, K. C., Hunt, E. L., **Anderson-Baldwin, J.**, et al. *The Secret Lives of Open Clusters: a Multiwavelength Examination of Three Open Clusters*.

IN PREP

Anderson-Baldwin, J., Hurley, J. R. *The old open cluster M67 in N-body models and Gaia*.

Presentations

2025 November. *N-body Simulations of Galactic Open Clusters*. Oral presentation: Stars in Newcastle, Newcastle, Australia

2025 July. *N-body simulations of the old open cluster M67*. Poster presentation: Astronomical Society of Australia ASM, Adelaide, Australia. **Best Student Poster (Presentation): 2nd place**

2025 June. *M67 in NBODY6++GPU and Gaia DR3*. Poster presentation: IAU Symposium 398 & MODEST-25: Compact Objects and Binaries in Dense Stellar Systems, Seoul, South Korea

2023 July. *LEO Satellite Constellations in the MOA Database*. Oral presentation: New Zealand Institute of Physics & Physikos Conference, Auckland, New Zealand

2022 June. *The impact of satellite constellations on the MOA telescope*. Poster presentation: Royal Astronomical Society of New Zealand Conference, Whangārei, New Zealand

Outreach & Professional Development

SERVICE AND OUTREACH

- 2025–2026 **ANITA Steering Committee**, Student Representative
- 2022 **Mount John Observatory Open Day**, Volunteer
- 2019 **Department of Physics Open Day**, Volunteer
- 2018 **Physics Association of the University of Auckland**, Committee Member
- 2018 **Museum of Transport and Technology Super STEM Fair**, Volunteer
- 2016–2017 **Maths Craft Festival**, Volunteer

PROFESSIONAL MEMBERSHIPS

- 2025 Astronomical Society of Australia (ASA)
- 2025 Australian National Institute for Theoretical Astrophysics (ANITA)
- 2025 Group on Stellar and Planetary Astronomy (SPA)
- 2025 ASA Early Career Researcher Chapter
- 2024–2025 LSST Stars, Milky Way & Local Volume Science Collaboration (SMWLV)
- 2024–2025 SMWLV Star Clusters Working Group
- 2024–2025 ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav)

DEVELOPMENT

2025 August. OzGrav Winter School, Gold Coast, Australia

2025 July. Flatiron CCA Summer School: Astronomical transients, New York, USA

2024 December. OzGrav ECR Workshop, Brisbane, Australia

2024 June. Harley Wood School of Astronomy, Sydney, Australia