

Curriculum Vitae

Personal Information

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Research Interests

High-redshift galaxies, galaxy evolution, infrared galaxies, AGN co-evolution, cosmic-dawn, interstellar medium, evolution of gas and dust

Education

Feb 2023 — **Master of Philosophy (MPhil) — Astrophysics**
Present
Queensland University of Technology
Thesis: The Evolution of the Bolometric AGN Luminosity Function via ZFOURGE

Feb 2020 — **Bachelor of Science (B.Sc) — Physics**
Nov 2022
Queensland University of Technology
Grade Point Average (GPA): 6.3 / 7

Research Experience

Nov 2023 — **Summer Research Student**
Feb 2024
The Centre for Astrophysics and Supercomputing — Swinburne University
Project: Understanding Ultra Diffuse Galaxy Formation with the Keck Telescopes

Nov 2022 — **Summer Research Student**
Feb 2023
The International Centre for Radio Astronomy Research — Curtin University
Project: Monster Black Holes at the Dawn of Time

Nov 2021 — **Summer Research Student**
Feb 2022
Queensland University of Technology
Project: Investigating Obscured Active Galactic Nuclei Detection Techniques with Infrared Light

Teaching Experience

July 2023 — **Sessional Academic**
Present
Queensland University of Technology
Undergraduate Classes: Stellar Astrophysics, Cosmology, Grand Challenges in Science

Apr 2022 — **STEM Ambassador**
Mar 2024
Queensland University of Technology
Volunteer Undergrad Tutor: Various maths, science, physics, & programming classes.
Advanced High School Tutorials: Code a Solar System, Python Cars of the Future, Rockets 101, Understanding Space Time & relativity

Honours & Awards

2023	Experiential Development Fund \$2,000 travel grant (2x nominal amount)
2023	School of Chemistry & Physics \$1,500 travel grant
Mar 2023 — Present	Full MPhil Scholarship at Queensland University of Technology
2020 — 2022	Dean's Commendation for Excellent Academic Performance $\times 3$

Publications

4. Hedge, A., Seymour, N., Broderick, J. W., **Lyon, D. J.**, et al. **In Prep.** *Evidence of a NIR-dark $z \sim 3.9$ protocluster pinpointed by powerful radio galaxy: A radio-loud analogue of JWST Little Red Dots?* The Astrophysical Journal.
3. **Lyon, D. J.**, Cowley, M. J., Hopkins, A. M. **In Prep.** *The ZFOURGE Galaxy and AGN Luminosity Functions. Extending the faint end of infrared galaxies to $z \approx 6$ with CIGALE.* PASA.
2. Seymour, N., **Lyon, D. J.**, Broderick, J. W. **In Prep.** *zFinder: a new tool for ALMA redshift determination.* Astronomy and Computing.
1. Forbes, D. A., **Lyon, D. J.**, Gannon, J., Romanowsky, A. J., & Brodie, J. P. **2024**, *Keck/KCWI Spectroscopy of Globular Clusters in Local Volume Dwarf Galaxies*, PASA, <http://arxiv.org/abs/2405.11749>.

Invited Talks/Conferences

2024	Submitted , ESO-SKA — Perth, Australia
2024	Submitted , Evolution of Dust and Gas throughout Cosmic Time — Hiroshima, Japan
2024	Submitted , Mount Stromlo Student Seminars — Canberra, Australia
2024	Poster & Sparkler , ASA Annual Science Meeting — Online, Australia
2024	Organising Member , Harley Wood School of Astronomy — Sydney, Australia
2023	Attending , ATNF Radio Telescope School — ATCA, Narrabri, Australia
2023	Attending , ASA ECR Python Workshop — Online, Australia

Leadership & Service

2024	Organising Committee Member for the QUT Science Fair (Undergraduate & Postgraduate Conference)
2024	Scientific Organising Committee Member for the Harley Wood School of Astronomy (Astronomical Society of Australia)
Nov 2023 — Present	Secretary of the Science HDR Society : organising social & personal development events for research students (Queensland University of Technology)
Nov 2022 — Nov 2023	College of Excellence Fellow : organising social & personal development events for high achieving undergraduates (Queensland University of Technology)

Observing Experience

Nov 2023	Keck Telescopes — 1x Full night of science observations (remote; Swinburne)
Sep 2023	Australian Telescope Compact Array — Tutorial (onsite)

Memberships

2023 — Present	Astronomical Society of Australia
2022 — Present	Australian Institute of Physics

References

Michael Cowley — Senior Lecturer
michael.cowley@qut.edu.au (US: Assoc. Prof.)
Astrophysics Research Group
Queensland University of Technology
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Jonnah Gannon — Research Fellow
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