

Email: madeline_marshall (at) outlook (dot) com
 Website: <https://madelinemarshall.github.io>

Employment & Education

2020–present	Research Associate (Plaskett Fellowship)	National Research Council of Canada Herzberg Astronomy and Astrophysics, Dominion Astrophysical Observatory
2017–2020	Doctor of Philosophy	University of Melbourne <i>Thesis:</i> “The Host Galaxies of High-Redshift Quasars” <i>Supervisors:</i> Professor Stuart Wyithe, Dr Simon Mutch
2016	Bachelor of Science with First Class Honours	University of Tasmania <i>Thesis:</i> “Triggering Active Galactic Nuclei in Galaxy Clusters” <i>Supervisors:</i> Dr Stanislav Shabala, Dr habil. Martin Krause
2015–2017	Diploma of Philosophy	University of Tasmania
2013–2015	Bachelor of Science	University of Tasmania <i>GPA:</i> 7.0 (on a 7-point scale)

Involvement in Observing Programs

- **PI**, JWST GO-1813: *Unveiling Stellar Light from Host Galaxies of $z \sim 6$ Quasars*, (15.9 hours)
- **PI**, Gemini North NIRI AO, *Finding Suitable Stars to Help Uncover the Hosts of the First Quasars with JWST*, (1.33 hours)
- **Co-I**, JWST GTO-1176: *Galaxy Assembly, Supermassive Blackhole Growth, First Light and Reionization Studies with the James Webb Space Telescope: Interdisciplinary Scientist for JWST*, PI Windhorst
- **Associate**, Galaxy Assembly IFS program, NIRSPEC GTO team
- **Co-I**, JWST GO-1764: *A Comprehensive JWST View of the Most Distant Quasars Deep Into the Epoch of Reionization*, PIs Fan, Yang & Banados
- **Co-I**, JWST GO-1554: *Nebular line diagnostics in a merger at cosmic dawn*, PI Decarli
- **Co-I**, HST GO 16252 and 16793: *TREASUREHUNT: Hubble’s UV-Visible treasury imaging of the JWST NEP Time-Domain Field*, PI Jansen

Awards

- **Faculty of Science Postgraduate Writing-Up Award, The Albert Shimmins Fund**, University of Melbourne, 2020
- **Alan Kenneth Head Travel Scholarship**, University of Melbourne, 2018
- **Women in Physics Award**, University of Melbourne, 2017
- **Australian Government Research Training Program (RTP) Scholarship**, University of Melbourne, 2017–2020
- **Bok Prize**, for outstanding research in astronomy by an Honours student or eligible Masters student at an Australian university, Astronomical Society of Australia, 2017
- **University Medal**, the highest undergraduate award, University of Tasmania (UTAS), 2017
- **Tasmania Honours Scholarship**, UTAS, 2016
- **Adrian La Palombara Annual Appeal Honours Scholarship in Physics**, UTAS, 2016
- **Dean’s Honour Roll for the Faculty of Science, Engineering and Technology**, UTAS, 2013–2016
- **Australian Institute of Physics Prize**, for greatest proficiency in final year undergraduate Physics, UTAS, 2015
- **Premier of Tasmania National Undergraduate Scholarship**, UTAS, 2013–2016

Press Release & Media Highlights

- **Simulations Show Webb Telescope Can Reveal Distant Galaxies Hidden in Quasars' Glare**, STSci/NASA Press Release, Oct. 2020
- **Einstein-A-Go-Go Radio Interview**, RRR Melbourne, Nov. 2020
- **NASA's James Webb Telescope to Supersede Hubble Telescope Next Year**, Radio Interview at SYN Melbourne, Nov. 2020

Selected Talks

Oct. 2021	Astrophysics Colloquium University of British Columbia, Vancouver, Canada (Remote)
June 2021	European Astronomical Society Annual Meeting Remote Conference
June 2021	SAZERAC 2 Remote Conference
Dec. 2020	SAZERAC: Quasars During Reionisation Remote Conference
Oct. 2020	DAO Astronomy Colloquium NRC Herzberg, Victoria, Canada (Remote)
July 2020	Astrophysics Seminar University of Sussex, Brighton, UK (Remote)
Mar. 2020	Black Holes and Galaxies at the Edge of the Universe Ringberg Castle, Germany
Oct. 2019	Cosmic Evolution of Quasars: From the First Light to Local Relics Kavli Institute for Astronomy and Astrophysics, Peking University, Beijing, China
Aug. 2019	Astrophysics Seminar Carnegie Mellon University, Pittsburgh, USA
July 2019	Barefoot Reionization: Exploring the First Billion Years of the Universe Fitzroy Island, Queensland, Australia
July 2018	Are AGN Special? Durham University, Durham, United Kingdom
July 2018	The Early Growth of Supermassive Black Holes Sexten Center for Astrophysics, Sexten, Italy
June 2018	Astronomical Society of Australia Annual Scientific Meeting Swinburne University of Technology, Melbourne, Australia
July 2017	Astronomical Society of Australia Annual Scientific Meeting Australian National University, Canberra, Australia <i>Triggering AGN in Galaxy Clusters</i> Bok Prize Talk

Selected Workshops & Training

- **Galaxy Formation and Evolution in the Era of the Nancy Grace Roman Space Telescope**, Virtual Conference, July 2020
- **SAZERAC Summer All Zoom Epoch Of Reionization Astronomy Conference**, Virtual Conference, July 2020
- **São Paulo School of Advanced Science on First Light: Stars, Galaxies and Black Holes in the Epoch of Reionization**, Instituto de Astronomia, Geofísica e Ciências Atmosféricas da Universidade de São Paulo, Brazil, July–August 2019
- **ITSO/AO Observational Techniques Workshop**, Australian Astronomical Observatory Headquarters, April/May 2018
- **ADACS - Introduction to high performance computing (HPC) for astronomers**, Swinburne University of Technology, November 2017

Selected Teaching, Outreach and Professional Activities

- **Member of the Astronomical Society of Australia, ASA**, 2017–present
- **Member of the Canadian Astronomical Society, CASCA**, 2021–present
- **Member of the ARC Centre of Excellence for All Sky Astrophysics in 3D, ASTRO 3D**, 2017–present
- **Referee for Monthly Notices of the Royal Astronomical Society, MNRAS**, 2021–present
- **Early Career Research Network (NRC ECRN)**, National Research Council of Canada, 2020–present
- **Tutor, Physical Cosmology (Masters level)**, University of Melbourne, 2018–2020
- **Lab Demonstrator, Third Year Laboratory and Computational Physics**, University of Melbourne, 2018–2019
- **Lab Demonstrator, First Year Physics (Advanced)**, University of Melbourne, Semester 2 2017
- **Invited outreach talks**, Riana Primary School, Smithton Primary School, and Smithton Rotary Club, Tasmania, 2018, 2019 and 2020

- Marshall, M. A.**, Wyithe, J. S. B., Windhorst, R. A., Di Matteo, T., Ni, Y., Wilkins, S., Croft, R. A. C., and Mechtley, M.: 2021, “*Observing the host galaxies of high-redshift quasars with JWST: predictions from the BlueTides simulation.*” MNRAS 506, 1, 1209, DOI: 10.1093/mnras/stab1763.
- Ren, K., Trenti, M., **Marshall, M. A.**, Di Matteo, T. and Ni, Y.: 2021, “*The Diversity of Environments Around Luminous Quasars at Redshift $z \sim 6$.*” Accepted for publication to ApJ, arXiv: 2106.07027
- Marshall, M. A.**, Mechtley, M., Windhorst, R. A., Cohen, S. H., Jansen, R. A., Jiang L., Jones, V. R., Wyithe, J. S. B., Fan, X., Hathi, N. P., Jahnke, K., Keel, W. C., Koekemoer, A. M., Marian, V., Ren, K., Robinson, J., Röttgering, H. J. A., Ryan, Jr., R. E., Scannapieco, E., Schneider, D. P., Schneider, G., Smith, B. M., and Yan, H.: 2020, “*Limits to Rest-Frame Ultraviolet Emission From Far-Infrared-Luminous $z \simeq 6$ Quasar Hosts.*” ApJ 900, 21 DOI: 10.3847/1538-4357/abaa4c.
- Marshall, M. A.**, Ni, Y., Di Matteo, T., Wyithe, J. S. B., Wilkins, S., and Croft R. A. C.: 2020, “*The host galaxies of $z = 7$ quasars: predictions from the BlueTides simulation.*” Accepted for publication in MNRAS. DOI: 10.1093/mnras/staa2982.
- Marshall, M. A.**, Mutch, S. J., Qin, Y., Poole, G. B., and Wyithe, J. S. B.: 2020, “*Dark-ages Reionization and Galaxy Formation Simulation – XVIII. The high-redshift evolution of black holes and their host galaxies.*” MNRAS 494, 2747 DOI: 10.1093/mnras/staa936.
- Marshall, M. A.**, Mutch, S. J., Qin, Y., Poole, G. B., and Wyithe, J. S. B.: 2019, “*Dark-ages Reionization and Galaxy Formation Simulation – XVII. Sizes, angular momenta and morphologies of high redshift galaxies.*” MNRAS 488, 1941. DOI: 10.1093/mnras/stz1810.
- Marshall, M. A.**, Shabala, S. S., Krause, M. G. H., Pimbblet, K. A., Croton, D. J., and Owers, M. S.: 2018, “*Triggering active galactic nuclei in galaxy clusters.*” MNRAS 474, 3615. DOI: 10.1093/mnras/stx2996.
- Marshall, M. A.**, Ellingsen, S. P., Lovell, J. E. J., Dickey, J. M., Voronkov, M. A., Breen, S. L.: 2017, “*Methanol absorption in PKS B1830-211 at milliarcsecond scales.*” MNRAS 466, 2450. DOI: 10.1093/mnras/stw3295.