

# Madeline Marshall

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## Education

2017–Present	<b>Doctor of Philosophy</b>	<b>University of Melbourne</b>
	<i>Thesis:</i> “The Host Galaxies of High-Redshift Black Holes”	
	<i>Supervisors:</i> Professor Stuart Wyithe, Dr Simon Mutch	
	<i>Expected Completion:</i> August 2020	
2016	<b>Bachelor of Science with First Class Honours</b>	<b>University of Tasmania</b>
	<i>Thesis:</i> “Triggering Active Galactic Nuclei in Galaxy Clusters”	
	<i>Supervisors:</i> Dr Stanislav Shabala, Dr habil. Martin Krause	
2015–2017	<b>Diploma of Philosophy</b>	<b>University of Tasmania</b>
2013–2015	<b>Bachelor of Science</b>	<b>University of Tasmania</b>
	<i>GPA:</i> 7.0 on a 7 point grading scale	

## Additional Research Experience

Nov 2015–Jan 2016	<b>Summer Research Program</b>	<b>Monash University</b>
	<i>Thesis:</i> “Simulating Binary Neutron Star Mergers with SPH”	
	<i>Supervisors:</i> Dr James Wurster, Dr Paul Lasky	
July–Nov 2015	<b>Physical Science Research Project</b>	<b>University of Tasmania</b>
	<i>Thesis:</i> “Methanol absorption in PKS B1830-211 at milliarcsecond scales”	
	<i>Supervisor:</i> Professor Simon Ellingsen	
Nov–Dec 2015	<b>Summer Vacation Research Program</b>	<b>University of New South Wales</b>
	<i>Thesis:</i> “Exoplanet Detection using Radial Velocities”	
	<i>Supervisor:</i> Professor Robert Wittenmyer	

## Publications

**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. Citations: 1

**Marshall, M. A.**, Shabala, S. S., Krause, M. G. H., Pimblett, 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. Citations: 8

**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. Citations: 3

## Awards & Scholarships

- **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**, University of Tasmania (UTAS), 2017
- **Tasmania Honours Scholarship**, UTAS, 2016
- **Adrian La Palombara Annual Appeal Honours Scholarship in Physics**, UTAS, 2016
- **Dean’s Roll of Excellence for the Faculty of Science, Engineering and Technology**, UTAS, 2013, 2014, 2015
- **Australian Institute of Physics Prize**, for greatest proficiency in final year undergraduate Physics, UTAS, 2015
- **Premier of Tasmania National Undergraduate Scholarship**, UTAS, 2013–2016

## Talks

August 2019	<b>Astrophysics Seminar</b> Carnegie Mellon University, Pittsburgh, USA <i>The Host Galaxies of High Redshift Quasars</i>
July 2019	<b>Barefoot Reionization: Exploring the First Billion Years of the Universe</b> Fitzroy Island, Queensland, Australia <i>The Host Galaxies of High Redshift Quasars</i>
February 2019	<b>ANITA Science Workshop</b> Swinburne University of Technology, Melbourne, Australia <i>The Sizes and Morphologies of High Redshift Galaxies from Semi-Analytics</i>
July/August 2018	<b>Are AGN Special?</b> Durham University, Durham, United Kingdom <i>Ram Pressure Triggers AGN in Galaxy Clusters</i>
July 2018	<b>The Early Growth of Supermassive Black Holes</b> Sexten Center for Astrophysics, Sexten, Italy <i>Exploring High-z Black Hole–Bulge Relations With Semi-Analytics</i>
June 2018	<b>Astronomical Society of Australia Annual Scientific Meeting</b> Swinburne University of Technology, Melbourne, Australia <i>Exploring High-z Black Hole–Bulge Relations With Semi-Analytics</i>
February 2018	<b>ANITA Theory Workshop</b> Curtin University, Perth, Australia <i>Exploring High-z Black Hole–Bulge Relations With Semi-Analytics</i>
July 2017	<b>Astronomical Society of Australia Annual Scientific Meeting</b> Australian National University, Canberra, Australia <i>Triggering AGN in Galaxy Clusters</i> Bok Prize Talk

## Workshops & Training

- **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
- **SciCoder Workshop**, University of Melbourne, November 2018
- **Harley Wood School of Astronomy**, Ballarat Observatory, June 2018 (LOC member)
- **ITSO/AAO Observational Techniques Workshop**, Australian Astronomical Observatory Headquarters, April/May 2018
- **ANITA Gravitational Wave Astronomy Summer School**, University of Western Australia, February 2018
- **CAASTRO Coding Workshop**, Swinburne University of Technology, December 2017
- **ADACS - Introduction to high performance computing (HPC) for astronomers**, Swinburne University of Technology, November 2017
- **CAASTRO Student Writing Workshop**, University of Melbourne, August 2017
- **Harley Wood School of Astronomy**, Australian National University, July 2017

## Teaching Experience

- **Tutor, Physical Cosmology (Masters level)**, University of Melbourne, 2018 to present
- **Lab Demonstrator, Third Year Laboratory and Computational Physics**, University of Melbourne, 2018 to present
- **Lab Demonstrator, First Year Physics (Advanced)**, University of Melbourne, Semester 2 2017