Madeline Marshall

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Education

2017-Present Doctor of Philosophy University of Melbourne

Thesis: "The Host Galaxies of High-Redshift Black Holes" Supervisors: Professor Stuart Wyithe, Dr Simon Mutch

Expected Completion: August 2020

2016 Bachelor of Science with First Class Honours University of Tasmania

Thesis: "Triggering Active Galactic Nuclei in Galaxy Clusters" Supervisors: Dr Stanislav Shabala, Dr habil. Martin Krause

2015–2017 Diploma of Philosophy University of Tasmania 2013–2015 Bachelor of Science University of Tasmania

GPA: 7.0 on a 7 point grading scale

Additional Research Experience

Nov 2015–Jan Summer Research Program Monash University

2016 Thesis: "Simulating Binary Neutron Star Mergers with SPH"

Supervisors: Dr James Wurster, Dr Paul Lasky

July-Nov 2015 Physical Science Research Project University of Tasmania

Thesis: "Methanol absorption in PKS B1830-211 at milliarcsecond scales"

Supervisor: Professor Simon Ellingsen

Nov-Dec 2015 Summer Vacation Research Program University of New South

Thesis: "Exoplanet Detection using Radial Velocities" Wales

Supervisor: 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

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

Conference Talks

February 2019 ANITA Science Workshop

Swinburne University of Technology, Melbourne

The Sizes and Morphologies of High Redshift Galaxies from Semi-Analytics

July/August 2018 Are AGN Special?

Durham University, Durham, UK

Ram Pressure Triggers AGN in Galaxy Clusters

July 2018 The Early Growth of Supermassive Black Holes

Sexten Center for Astrophysics, Sexten, Italy

Exploring High-z Black Hole-Bulge Relations With Semi-Analytics

June 2018 Astronomical Society of Australia Annual Scientific Meeting

Swinburne University of Technology, Melbourne

Exploring High-z Black Hole-Bulge Relations With Semi-Analytics

February 2018 ANITA Theory Workshop

Curtin University, Perth

 $Exploring\ High-z\ Black\ Hole-Bulge\ Relations\ With\ Semi-Analytics$

July 2017 Astronomical Society of Australia Annual Scientific Meeting

Australian National University, Canberra Triggering AGN in Galaxy Clusters

Bok Prize Talk

Workshops & Training

■ 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

Scholarships & Prizes

- 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

Teaching Experience

- Lab Demonstrator, Third Year Physics University of Melbourne, Semester 1 2018 to present
- Lab Demonstrator, First Year Physics (Advanced) University of Melbourne, Semester 2 2017