2021 - present

2012, 2015 - 2016

2021

ORCID 0000-0002-3324-4824 Contact Centre for Astrophysics and Supercomputing, Email: rdavies@swin.edu.au Swinburne University of Technology INFORMATION H29, PO Box 218 Hawthorn VIC 3122, Australia **POSITIONS** Swinburne University of Technology Postdoctoral Research Fellow (Level B) 2023 - present Postdoctoral Research Associate (Level A) 2020 - 2022 Max Planck Institute for Extraterrestrial Physics PhD Student 2016 - 2020 Australian National University Research Assistant Jan - Feb 2013, Jan - Jul 2016 Ludwig-Maximilians-Universität München 2016 - 2020 **EDUCATION** Dr. rer. nat. (Doctor of Natural Sciences), Faculty of Physics Thesis Title: Feedback in Galaxies During the Peak Epoch of Cosmic Star Formation Activity and Black Hole Growth <u>Thesis Supervisor</u>: Dr. Natascha Förster Schreiber Australian National University 2012 - 2015 Bachelor of Philosophy (Honours), First Class Honours with the University Medal in Astronomy and Astrophysics Thesis Title: New Perspectives on AGN Host Galaxies From Optical Integral Field Spectroscopy Thesis Supervisor: Prof. Lisa Kewley ASTRO 3D Conference & Workshop Funding (AUD\$15,000) 2022 SELECTED Funding for an international scientific conference to be held near Melbourne in 2023 Grants & **PRIZES** Gruber Foundation Fellowship (US\$25,000) 2021 Research grant awarded by to the IAU to "extremely promising early career astrophysicists" Harvard-Smithsonian Center for Astrophysics - US\$500 Travel Grant 2020 For travel from Munich to Boston to give a CfA Galaxies & Cosmology Seminar University Medal, Australian National University 2015 For exceptional academic excellence throughout an Honours Degree program Australian Gemini Undergraduate Summer Studentship 2013 - 2014 10 week Research Internship at the Gemini South Headquarters in Chile ANU National Merit Scholarship (total value AUD\$26,000) 2012 - 2015 SUPERVISION Primary Supervisor: AND TEACHING Stephanie Rowlands (Honours, Swinburne) 2022 - present Jennifer Shi (Vacation Scholar, Swinburne) Nov 2021 - Feb 2022 Co-Supervisor: Alma Sebastian (PhD, Swinburne) 2022 – present Peixin Zhu (PhD, ANU) 2021 - present Aman Chopra (Honours, ANU) 2021 Aman's thesis was awarded a HD and he now works for Geoscience Australia.

Member of 3 Swinburne PhD Student Review Panels

Private Physics and Mathematics Tutor

an Effective Supervisor"

External Masters Thesis Examiner (QUT) 2022Attended ASTRO 3D Workshop "Being

**OBSERVING** ANU 2.3m Telescope (as Principal Investigator, 5 nights) **PROGRAMS** An Integral Field Study of Seyfert-LINER and LINER-HII transition objects **JWST** (Cycle 1, PI: Belli, 46 hours primary and 36 hours parallel) The Stellar and Gas Content of Galaxies at Cosmic Noon **ALMA** (PI: Herrera-Camus, 153 hours) CRISTAL: a survey of gas, dust and stars on kiloparsec scales in star-forming galaxies at z~4-5 OTHER Very Large Telescope (KMOS and SINFONI): 15 nights Observing ANU 2.3m Telescope (WiFeS): 10 nights EXPERIENCE Anglo-Australian Telescope (SAMI/AAOmega): 9 nights Gemini South (GeMS/GSAOI): 2 nights Keck (OSIRIS): 1 night SERVICE & Committees and Expert Review Professional External Expert Reviewer for JWST Cycle 2 Proposals 2023 INVOLVEMENT Distributed Peer Review of Observing Proposals (ALMA, ESO) 2022 - present Swinburne Time Allocation Committee for Keck (STACK) Technical Secretary 2023 - present Postdoc Member 2021 Swinburne Keck Room Operations Coordinator (KROC) 2021 - 2023Scientific Referee for A&A, ApJ, and MNRAS 2015 – present ASTRO 3D Junior Early Career Researcher Committee 2021 - 2022MPE IMPRS Student Representative 2016 - 2019Conference/Workshop Organization Co-chair of the international conference "New Views on Feedback and the Baryon Cycle of Galaxies" (Healesville VIC, July 17-21 2023) 2022 – present Organizing Committee, ASTRO 3D Academic Applications Workshop 2021 LOC member for the conference "In Situ View of Galaxy Formation" 2016 SOC member, 2014 Harley Wood Winter School 2013 - 2014Professional Organizations Junior Member, International Astronomical Union (IAU) 2022 - present Astronomical Society of Australia (ASA) Full member 2022 – present Student Member 2013 - 2016Conference <u>Department Seminars</u> & Seminar Australian National University, University of Sydney, University of NSW, and TALKS Macquarie University October 2022 **Invited** Colloquium, University of Melbourne August 2021 Invited AGN Webinar, IAG, USP (Universidade de Sao Paulo, Brazil) July 2021 **Invited** Colloquium, Osaka University June 2021 Invited Galaxies & Cosmology Seminar, Harvard-Smithsonian CfA February 2020 International Centre for Radio Astronomy Research (ICRAR) December 2019 University of NSW, Macquarie University, Swinburne University of Technology, and Australian National University February/March 2019 Australian National University January 2018 University of Sydney December 2017 Max Planck Institute for Extraterrestrial Physics November 2015

University of Cambridge and University of Oxford

Universidad de Concepcion Chile

July 2014

January 2014

Conference Talks (with links when recorded)	
Invited New Views on Feedback and the Baryon Cycle of Galaxies	July 2023
Invited Shedding new light on the first billion year of the Universe	July 2023
First Light - showcasing first results on the early Universe from JW	ST June 2023
Invited American Physical Society April Meeting "Quarks to Cosmo	s" <i>April 2023</i>
Charting the Metallicity Evolution of the Universe	September 2022
Gas2022: What Matter(s) around Galaxies	September 2022
A Holistic View of Stellar Feedback and Galaxy Evolution	July 2022
Large-Volume Spectroscopic Analyses of Galaxies in the Era of JWS	ST March 2022
Annual Scientific Meeting of the Astronomical Society of Australia	July 2021
EAS: S10 (Black Hole Accretion) and S7 (Quasars at the EoR)	July 2021
Past, Present and Future of Galaxy Evolution	April 2021
Annual Meeting of the German Astronomical Society	September 2020
Linking Galaxies from the Epoch of Initial Formation to Today	February 2019
Challenges at KMOS 5th Year	December 2018
The Role of Feedback in Galaxy Formation	September 2018
A Star Was Born	April 2018
Sharp Views of Galaxy Formation and Evolution	November 2017
In Situ View of Galaxy Formation	November 2016
Annual Scientific Meeting of the Astronomical Society of Australia	July 2016
A 3D View on Galaxy Evolution: from Statistics to Physics	July 2015
Multi-Wavelength Dissection of Galaxies	May 2015
HECTOR Science Workshop	April 2015
Unveiling the AGN-Galaxy Evolution Connection	March 2015
Multiwavelength Emission from Accreting Black Holes	February 2015
Australasian Conference of Undergraduate Research	September 2014
Annual Scientific Meeting of the Astronomical Society of Australia	July 2014
Annual Meeting of the Astronomical Society of Chile (SOCHIAS)	January 2014
Annual Scientific Meeting of the Astronomical Society of Australia	July 2013
Feeding, Feedback and Fireworks	June 2013
Dissecting Galaxies Using 2D Integral Field Spectroscopy	March 2013
Swinburne Orientation Week	February 2023
Ran Virtual Reality tours of space for undergraduate students	
ASA "Speed Meet a Mentor"	February 2023
Participated in an online event to connect astronomers in Australia	across different
career stages, where I engaged as both a mentee and mentor.	
Curious Minds STEM Mentor Program	2020 - 2022
Mentored 3 female high school students from rural areas to undertain	=
interest projects in astrophysics and space exploration. This include	d curating learning
materials at an appropriate level for the students.	
School Q&A Session	2021
Engaged with a primary school class (remotely) on the ethics of space travel.	
Outreach, Max Planck Institute for Extraterrestrial Physics	2016 - 2020
- Assisted at public events including Girls Day and Tag der Offenen	Tür (Open Day)
- Ran guided tours for visiting student groups	
Student Ambassador, ANU CPMS	2013-2015
- Helped at academic events such as Science & Engineering Challeng	ge and Maths Day
- Represented ANU at Open Days and Careers Expos	

MENTORING, OUTREACH,

DEI

- Ran outreach events for National Science Week and the transit of Venus

ANU Black Hole Society (1st Year Rep, Secretary, President)

- Coordinated a public lecture series and oversaw events planning for the society

2012 - 2015

- Helped coordinate the ANU World Record Stargazing event in August 2015

ASTRO 3D Press Release: Tracing 13 billion years of cosmic history by the light of **MEDIA** ancient quasars 2023 Also released by *Science in Public*, *INAF* (Italian) Featured articles in COSMOS magazine, Innovation News Network, News Beezer, News Trackerz, Phys.org, Protect and Love Pets, Sci News, Science Springs, Space Daily, Researchnews, Astronieuws.nl (Dutch), allesoversterrenkunde.nl (Dutch), astroblogs (Dutch), scinexx (German), Futura (French), free (French), Global Science (Italian), Meteoweb (Italian), msn.com (Portuguese), Planeta (Portuguese), Cosmo Universitario (Spanish), Cronica (Spanish), Diario Estrategia (Spanish), Europapress (Spanish), ferplei.com (Spanish), teknomers (Turkish) Swinburne Women Astronomers feature: 2021 https://www.swinburne.edu.au/news/2021/07/swinburne-celebrates-womenastronomers/ ANU Student Profile: 2015 Article: https://rsaa.anu.edu.au/study/student-profiles/rebecca-davies-0 Interview: https://www.facebook.com/watch/?v=10153659689781294

https://aat.anu.edu.au/science/students/gemini-summer/experiences#rebecca

Refraction media: https://careerswithstem.com.au/student-exchanges/

2014

AGUSS Studentship: