

Jonah **Gannon**

Astrophysics Postgraduate

'A scientifically and academically astute astrophysics student with an innate curiosity for the cosmos along with the desire and skill foundation to grow as a researcher.'

Address

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Jul/16 - Nov/17

Masters Thesis

The University of Western Australia (UWA)

As part of the Master of Physics (Astrophysics) degree I commissioned an innovative low surface brightness telescope StarFox. Included in this thesis was a written project proposal and a seminar given on my work upon completion of the thesis. Here I was able to demonstrate strong written and oral communication skills.

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Email

Oct/16 - Jul/17

StarFox Observer

The International Center for Radio Astronomy Research

In commissioning the StarFox telescope, I was required to design, conduct and evaluate a low surface brightness survey on NGC 2997 totalling over 125 hours of optical imaging. In doing so, I wrote a bespoke data reduction pipeline and telescope control software to allow deep imaging. The final result of my observing was to create cutting edge deep diffuse light imaging using a comparatively amateur telescope on a non-ideal non-dark sky site. I was able to develop both my coding skills but also my optical observing expertise.

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LinkedIn

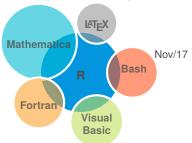
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Oct/16 - Present ATCA Observer

The International Center for Radio Astronomy Research

To contribute to my thesis work I assisted in observing for a large legacy survey on the Australian Telescope Compact Array (ATCA), IMAGINE (Imaging of Galaxies and Nearby Environment - P.I Attila Popping). This low HI column density survey was later used to provide radio counterpart data for my deep optical survey, allowing a basic comparison of the diffuse gas and stellar populations of the galaxy. This provided me not only training conducting radio observations but also a basic experience using multi-wavelength data to infer properties of a galaxy.

Programming



GAMA Group Meeting

The International Center for Radio Astronomy Research

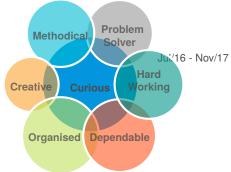
The week after the submission of my thesis, I attended the GAMA Group Meeting. For the meeting I created a poster to advertise my work and presented a sparkler talk resulting in a number of fruitful conversations with other attendees. I found this contact invaluable allowing me practice explaining my thesis to astrophysicists who may not necessarily be from my field.

Sep/16 & Sep/17 ICRARcon

The International Center for Radio Astronomy Research

During both years of my Masters degree I attended the intra-group research conference ICRARcon during which I gave short presentations on my research. I particularly benefited from hearing others research and being able to converse with them during breaks in the meeting to deepen my understanding of astrophysical studies beyond my own.

Personal Skills



Simulations Experience The International Center for Radio Astronomy Research

As part of a coursework component of the Master of Physics (Astrophysics) degree, I analysed snapshots taken from both the GADGET-3 and GALFORM to investigate real astrophysical problems demonstrating both coding and data analysis skills.

Continuing my involvement in the IMAGINE project I was part of a successful AAO-Lens project proposal using DECam on the Victor M Blanco 4m Telescope allowing us two half nights observations in April 2018. I then created the observing plan and conducted the observations. This continued my growth as an optical observer as I moved from StarFox to a more complex deep sky imaging instrument.

Volunteer Work

Jan/17 - Dec/17 Journal Club Organiser

The International Center for Radio Astronomy Research

While studying at the International Center for Radio Astronomy Research (UWA Campus) I was a member of the team responsible for leading and presenting of papers at the research group's journal club. This included organising, and periodically chairing, the weekly meetings.

The University of Western Australia

> For the 2015 Academic year I was elected the Vice President for Education for the UWA Mathematics Union. Here I was able to collate student feedback to the faculty, in doing so I organised the first mathematics staff student meeting held during my degree. The results of our feedback to the faculty created lasting improvements in many units. I also helped to write both of our first year study guides, each in excess of 100 pages, which we sold to fund events for our members.

Aug/16 - Dec/17 Outreach Assistant

The International Center for Radio Astronomy Research

Throughout my postgraduate studies I set aside time to communicate both my passion and understanding of science to the general community. I developed my verbal communication skills while improving my own understanding of the topics I was presenting. Refining them so they may be more easily understood by my audience, often school children and prospective students for the university, outreach helped place my research in a broader context focusing my studies and improved my personal productivity.

2012 - 2017

Student Representative to Faculty

The University of Western Australia

Throughout both of my degrees at UWA I represented my units at the staff student meetings put on by the Physics faculty at the beginning and end of each semester. This allowed me to curate students feedback for presentation to the faculty improving the student experience in the physics department.

Jun/18 - Present Cricket Club Registrar

Warwick Greenwood Cricket Club

I am currently serving as the registrar for the cricket club I play with during the summer. In my work I am developing my interpersonal communication skills and am working on improving my leadership skills while giving back to a cricket club I have enjoyed playing with for five years now.

Education

2016 - 2017 Master of Physics (Astrophysics)

The University of Western Australia

Half coursework and half thesis the degree was completed in semester 2 2017 with a weighted average mark of 82.75% and a thesis mark of 85%. The degree was received with distinction to indicate my high academic achievements throughout.

2013 - 2016

Bachelor of Science (Physics/Mathematics) The University of Western Australia Completed in semester 1 2016 with dual majors in *Physics* and *Mathematics* and *Statistics* I became a New Colombo Plan Scholar in 2015. As part of this funding I received an Asia bound scholarship to facilitate a research summer placement at Nanjing University in China. I worked with their Topological Insulator group studying the surface characteristics of special materials using their scanning tunneling electron microscope.

2008 - 2012 **High School**

St Stephens School

While in high school I was a member of a school volunteering program aimed to provide community service for less fortunate members of society in need. I graduated in the top 3% of graduates for my year across the state and received a UWA School Excellence Award upon admission to university.

Employment History

Jul/16 - Present Lab Demonstrator

The University of Western Australia

Duties Include:

- Teaching first year physics labs on a variety of topics.
- Providing students feedback on their work in a timely manner to facilitate their learning.

Jul/16 - Present Outreach Assistant

The International Center for Radio Astronomy Research

Duties Include:

- Assisting the outreach staff in preparing equipment for events.
- Talking to prospective students about the student experience and my own research.
- Running stalls at science festivals and events advertising the research being conducted by ICRAR and the positive benefits it is bringing to the state.
- Running astrophysical themed kids craft programs to foster interest in space science.

Oct/09 - Present McDonalds Crew Member

McDonalds

Duties Include:

- Communicating with customers efficiently and effectively to ensure high customer satisfaction.
- Safety Team Member [2010]: Duties included monthly meetings overseeing safety procedures in the store and cataloguing of potential hazards in the store.

Duties Include:

- Being responsible for ensuring the rules and regulations of the sport as set out by the *Marylebone Cricket Club* are adhered to at all times.
- Communicating with the captains of both teams to ensure they understood the manner in which the game was to be played.
- Providing consistent rulings to allow for a fair game between the opposing teams.