



International  
Centre for  
Radio  
Astronomy  
Research



# UWA Master of Physics (Astronomy and Astrophysics)

Intro session to 2024 degree

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Interim ICRAR-UWA Science Director



Government of Western Australia  
Department of the Premier and Cabinet  
Office of Science



International  
Centre for  
Radio  
Astronomy  
Research



# Kaya! Hello! Welcome! Wandjoo!

We acknowledge that Aboriginal and Torres Strait Islander people are Australia's first astronomers.

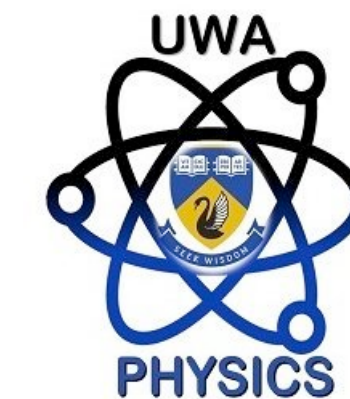
We acknowledge their long-standing systems of knowledge on which we continue to build and we acknowledge the Traditional Custodians of the unceded lands on which we are meeting today.

We are on Wajuk Noongar boodja, Wajuk Noongar country, and we pay our respects to their Elders past and present, and extend that respect to all First Peoples joining us here today.

We acknowledge the Wajarri Yamatji as the traditional owners of the Murchison Radio-astronomy Observatory site.



# Welcome to the University of Western Australia



Member of the prestigious  
Group of Eight universities



Ranked **90<sup>th</sup>** in the world  
in the QS World University  
Rankings 2023



Hybrid format: face-to-face and webinar simultaneously



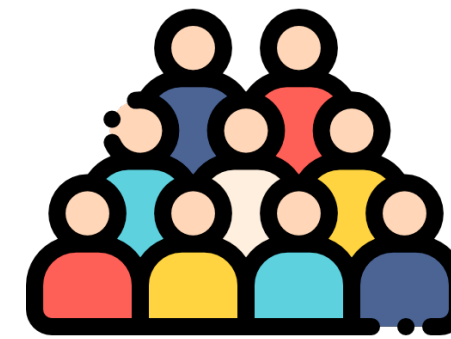
## On-line participants



Make sure you are muted



Post questions using Q&A function at any time



## In person participants



Feel free to ask questions at any time



## Presenters



Stay close to the computer



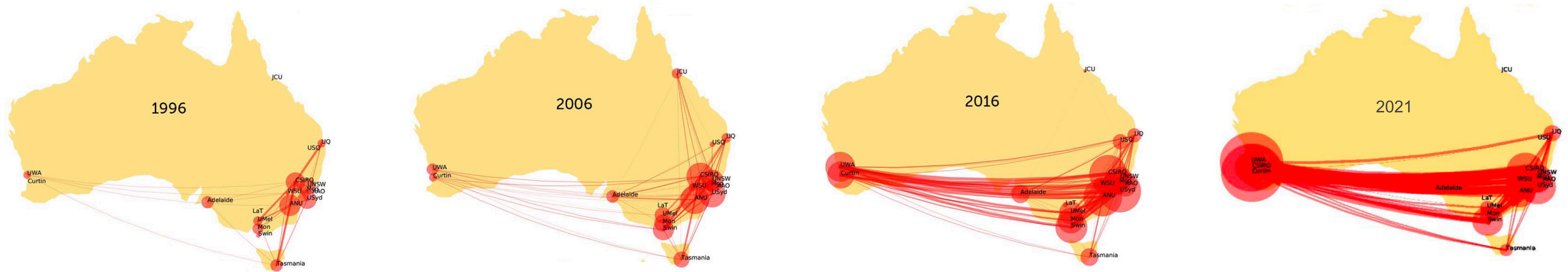
Please repeat questions from the audience



This session is being recorded



Unanswered questions will be addressed via email after the event

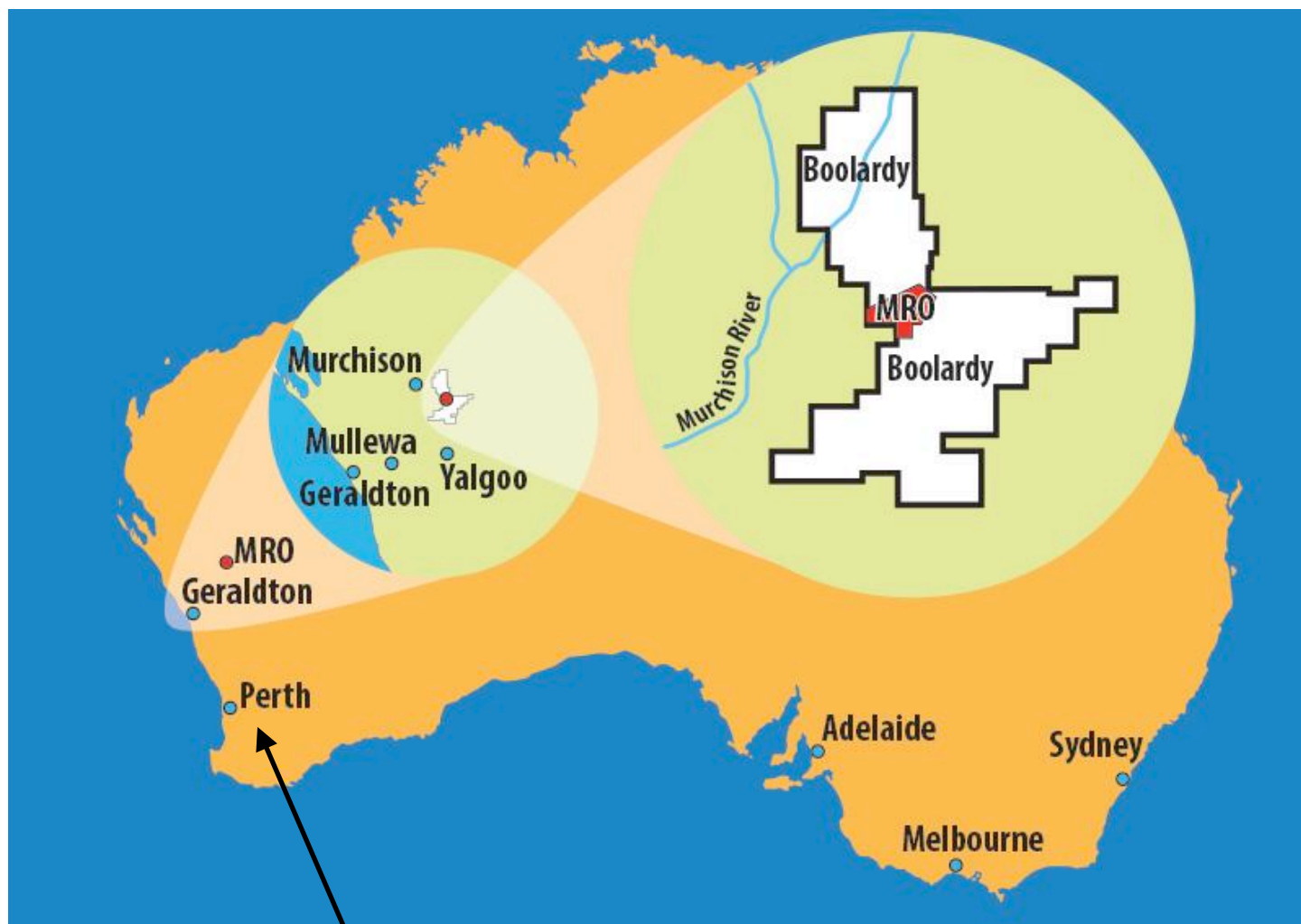
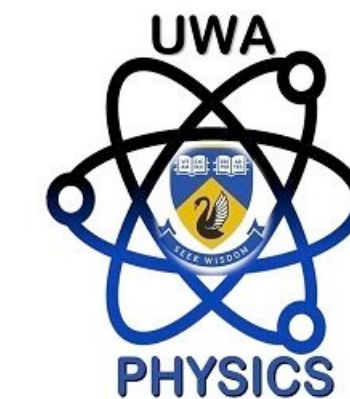


Significant growth (investment and people!) in the astronomy sector in WA in the last ~15 years

**Roughly one third of the Australian astronomy community is now based in WA**



# The Square Kilometre Array

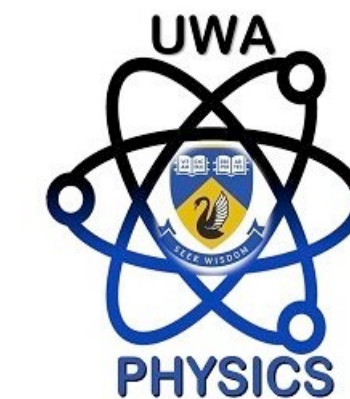


SKA computing in Perth:  
Pawsey supercomputing centre  
and  
Australian SKA Regional Centre  
(AusSRC)



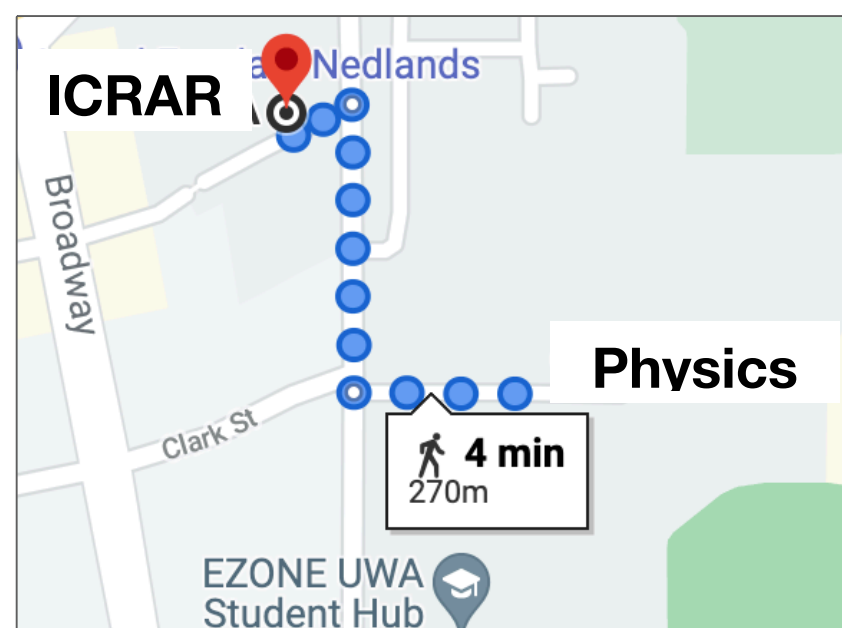


# Astronomy & Astrophysics at UWA



**The International Centre  
for Radio Astronomy Research**

**Department of Physics**



**Well above world standard!**



Australian Government  
Australian Research Council

**ERA2018**

**0201 Astronomical and Space Sciences**



>\$60M investment in Astronomy

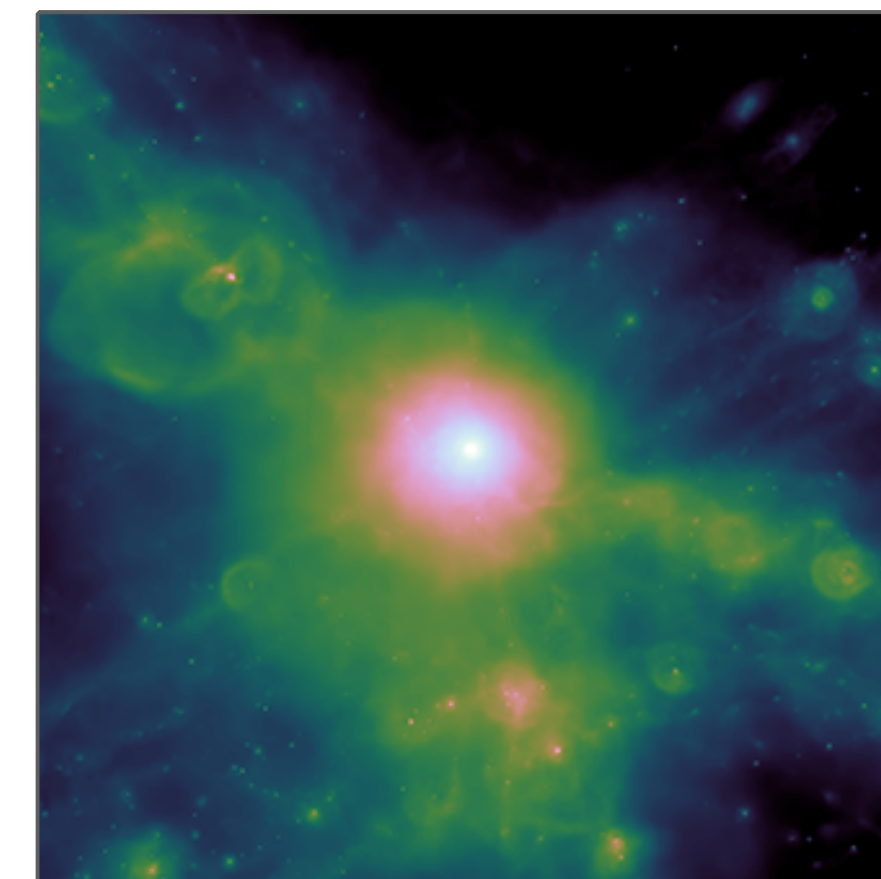
**The gas cycle in the local  
Universe**



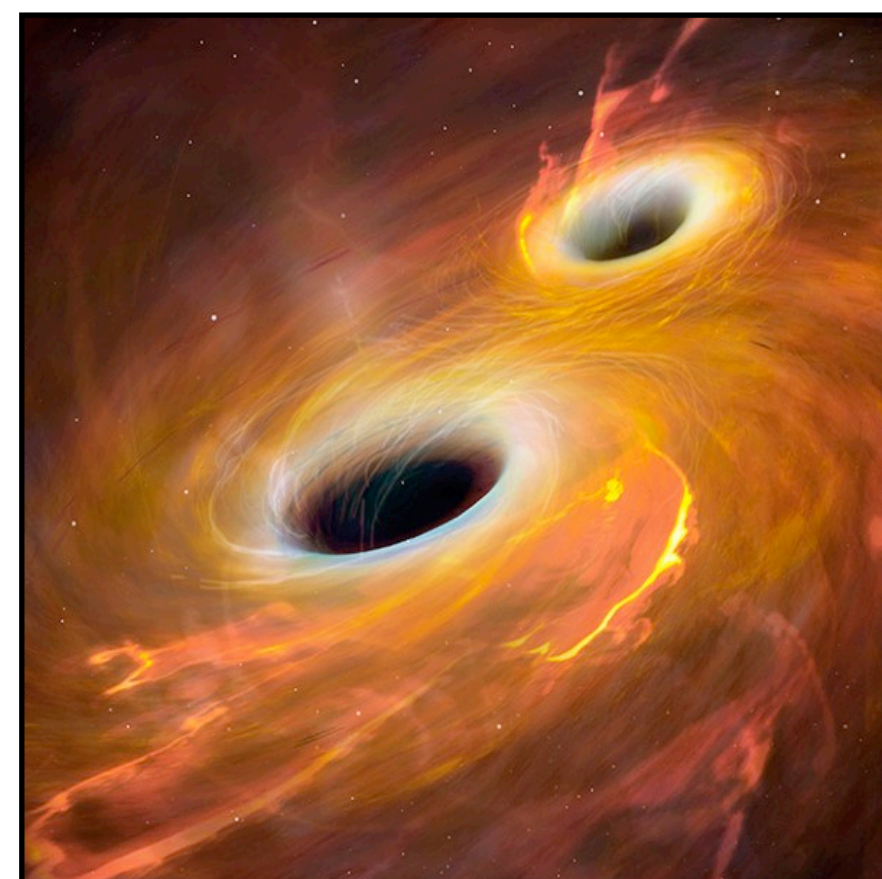
**The distant Universe**



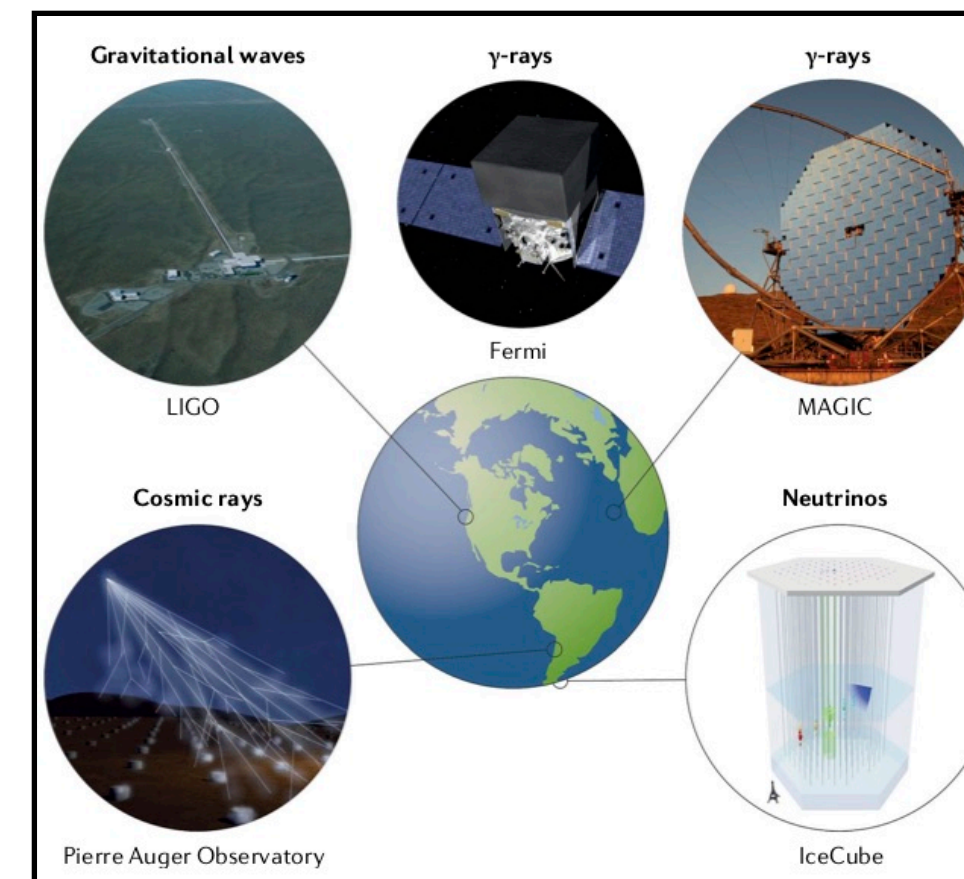
**Cosmological Theory**



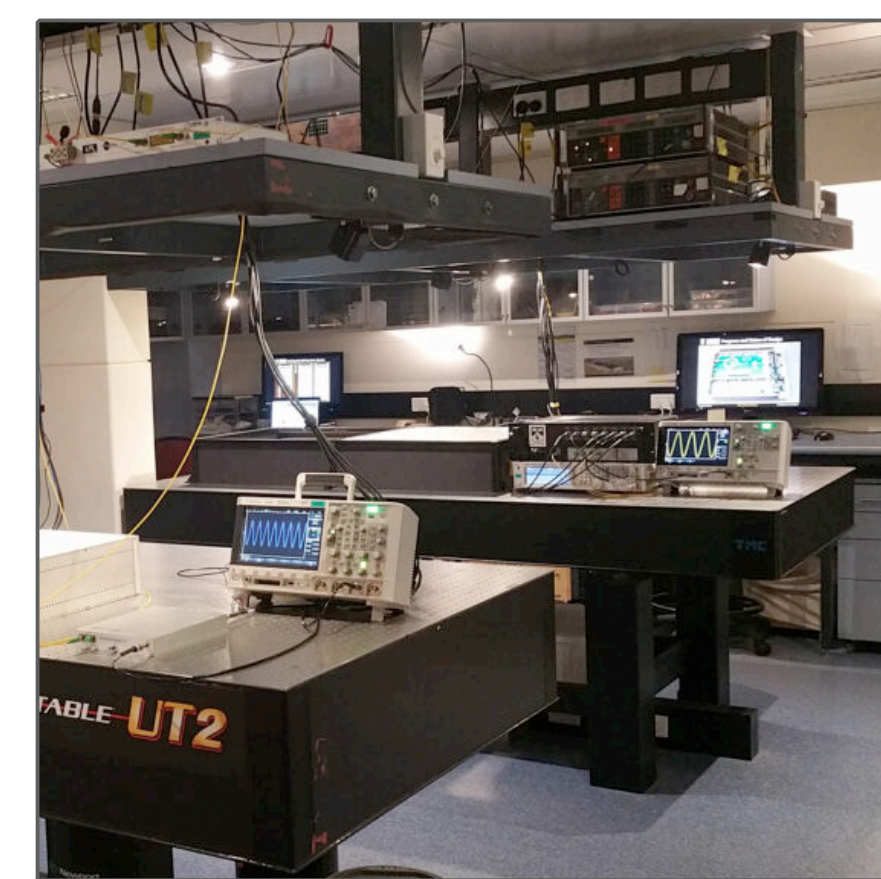
**Gravitational Wave  
Astronomy**



**Multimessenger  
Astronomy**

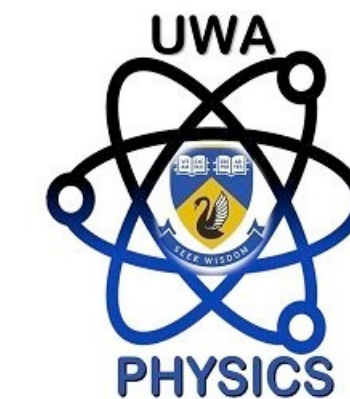


**Astrophotonics**





# Master of Physics (Astronomy and Astrophysics)



## Advanced Coursework Units

Galaxies and Galactic Dynamics

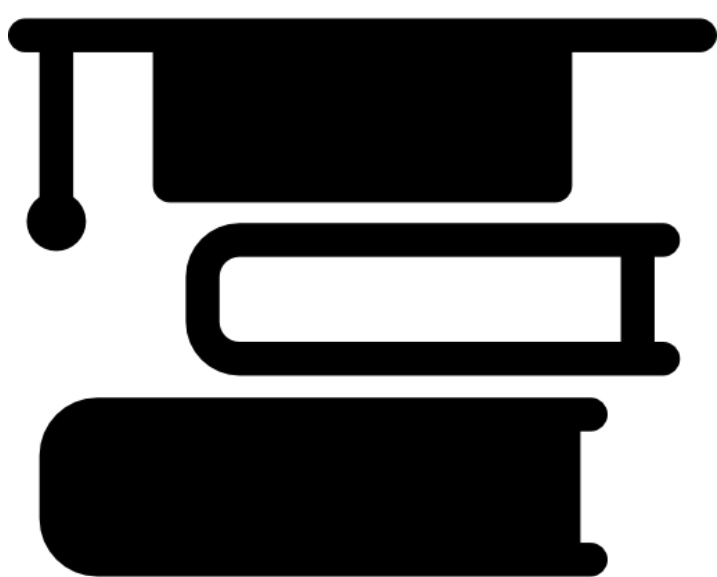
Radio Astronomy and the Interstellar Medium

Gravitational Wave and Multi-messenger Astronomy

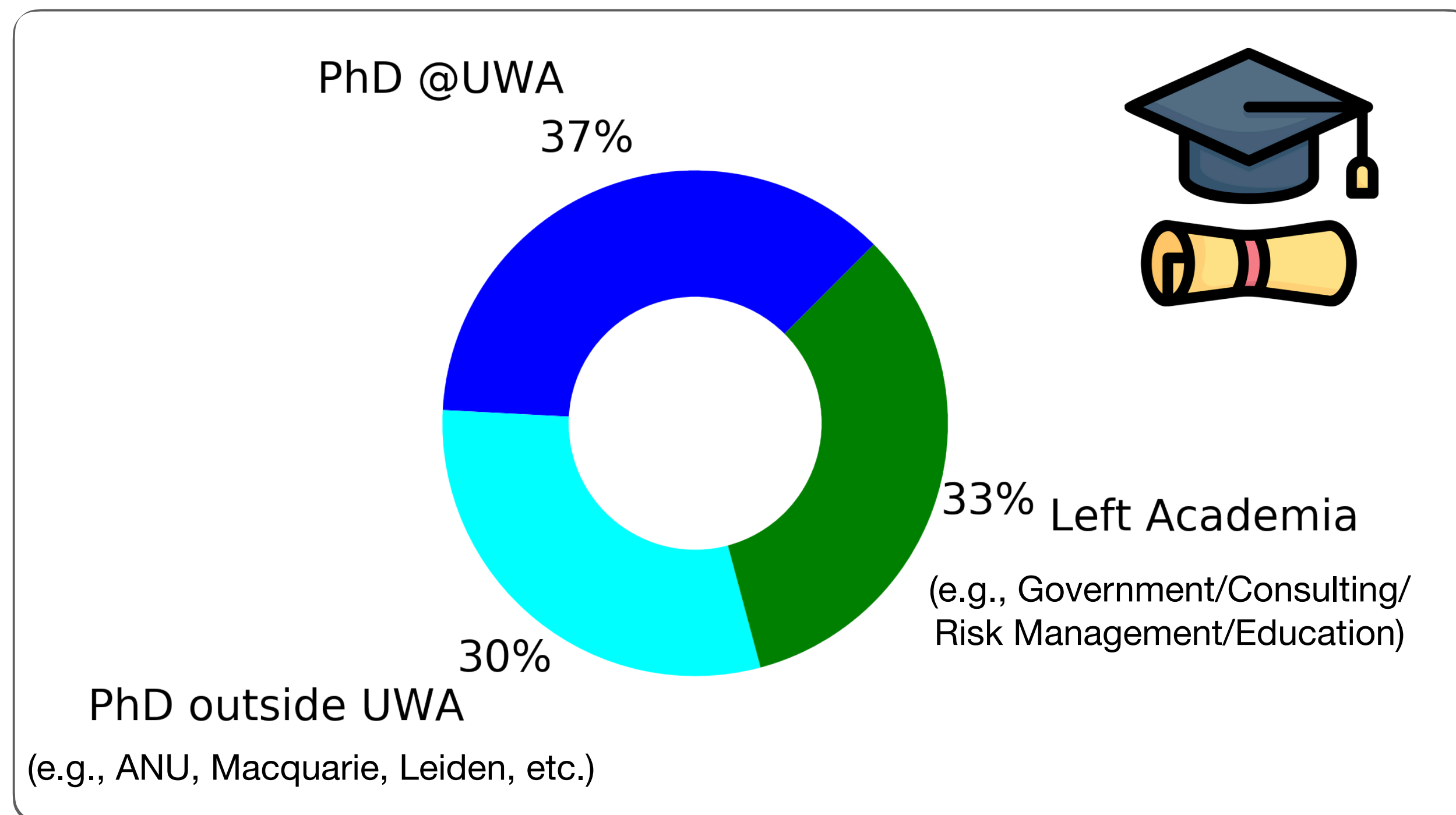
Cosmological Physics

Computational Statistics for Physics

and more...!



## Transferrable skills!





Make the most of what UWA offers to postgraduate students!

## Research/Coursework

- **Desk/Desktop**  
Your place where to study, do research and interact with staff and students
- **Research group meetings**  
Discuss with your supervisor
- **Seminars/Journal Club**  
Hear the latest about the research work done  
At UWA and/or world-wide
- **Student's Plot of the Week**  
Students-only event to discuss research and socialise

## Training/Support Network

- **Mentors**  
PhD student/ECR/Staff to provide one-on-one support and expand network
- **Development, Equity and Inclusion Initiatives**  
Training (Mental Health, Resilience, Writing workshops, etc)  
Wards - support network in case of confidential issues  
Anonymous feedback (on-line form or pigeon-hole)

One of the most supportive environments in Australia!



**Madeleine McKenzie**



2021 Astronomical Society of Australia  
Bok Prize for best Masters Dissertation

**Alex Moroianu**



First author publication on  
Nature Astronomy

**William McDonald**

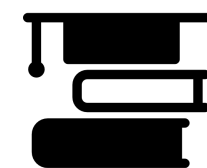


2023 Astronomical Society of Australia  
Bok Prize for best Masters Dissertation

# The program for today

10:10-10:30

**Enrolment and Coursework**



10:30-11:00

**Break**



11:00-11:10

**A chat with former M(Phys) students**



11:10-12:10

**An overview of UWA's research areas**



**Gravitational Wave Astronomy**

**Multi-messenger Astronomy**

**The gas cycle in the local Universe**

**The distant Universe**

**Cosmological Theory**

**Astrophotonics**

12:10ish

**End** - light lunch for those attending in person

Matthew Young



Eloise Moore  
Samuel Hansen



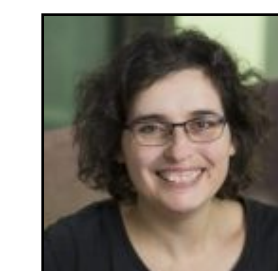
Linqing Wen



David Coward



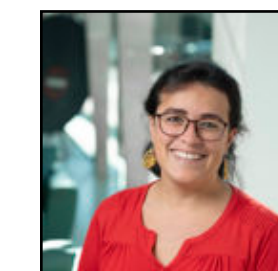
Barbara Catinella



Sabine Bellstedt



Claudia Lagos



David Gozzard

