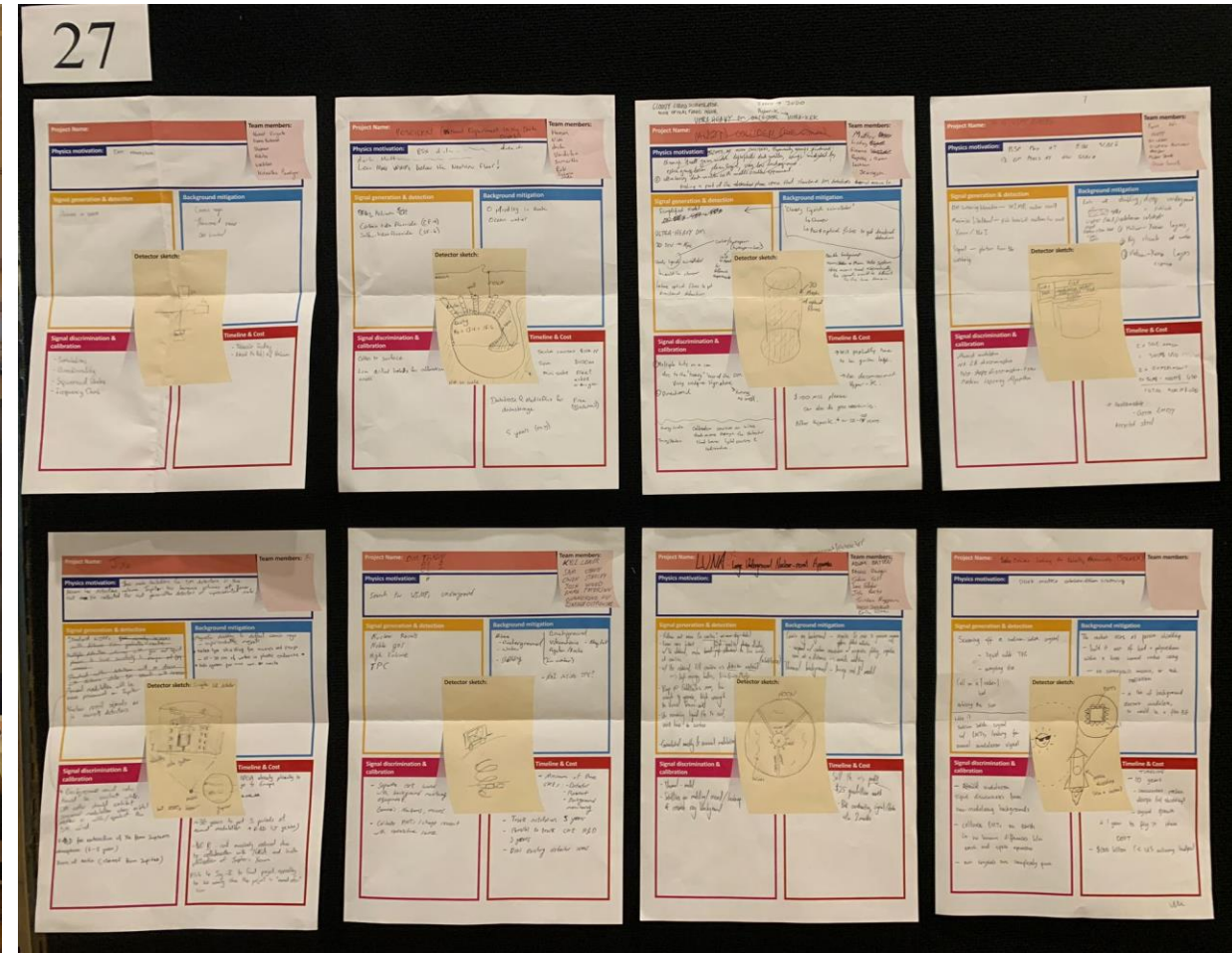


ECR updates and highlights from  
ECRs 2023  
Ellen, Ferdos, Jayden





# Workshop highlights



Build your own detector!

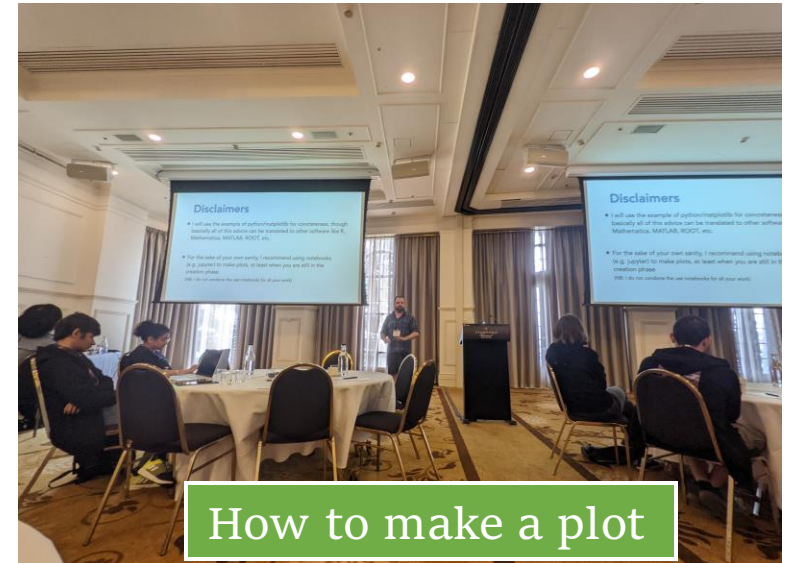
# Workshop highlights



Mental health session



Job Advice



How to make a plot

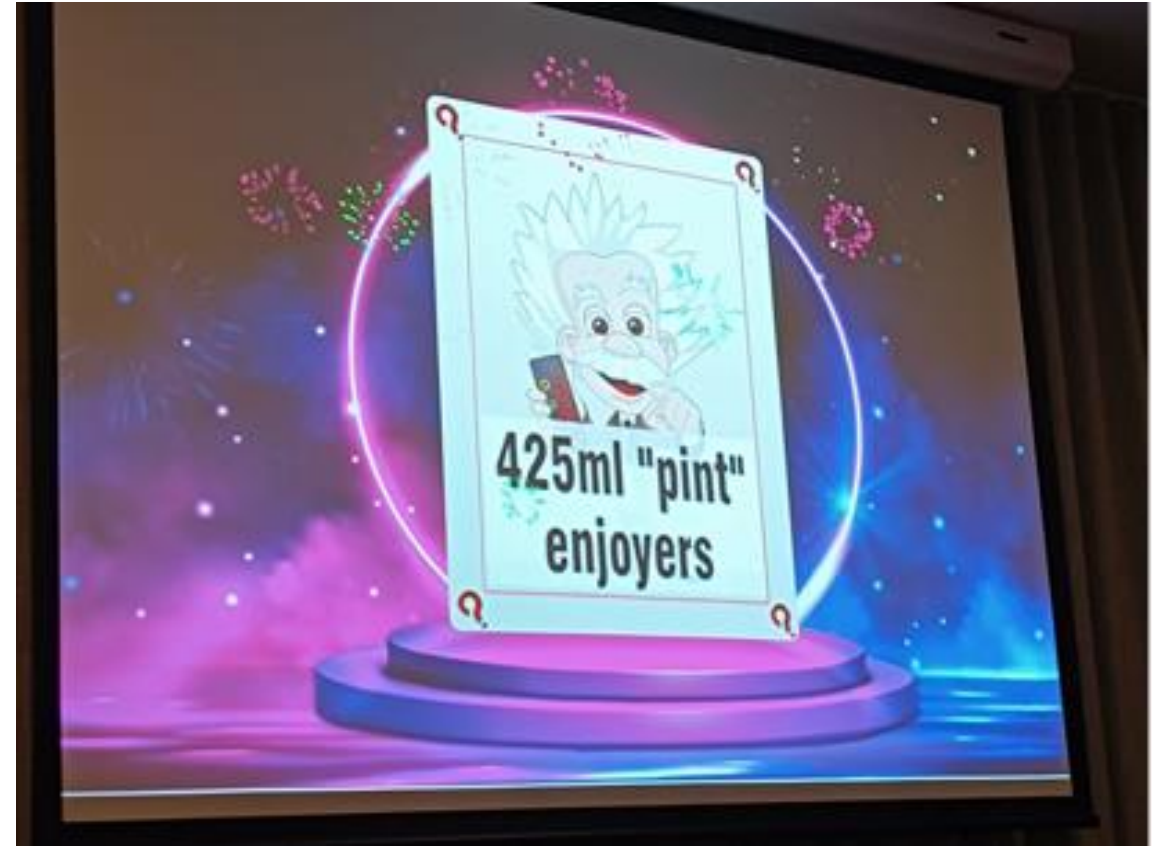


Outreach presentation

# Workshop highlights



Trivia!



The winners

# Workshop highlights

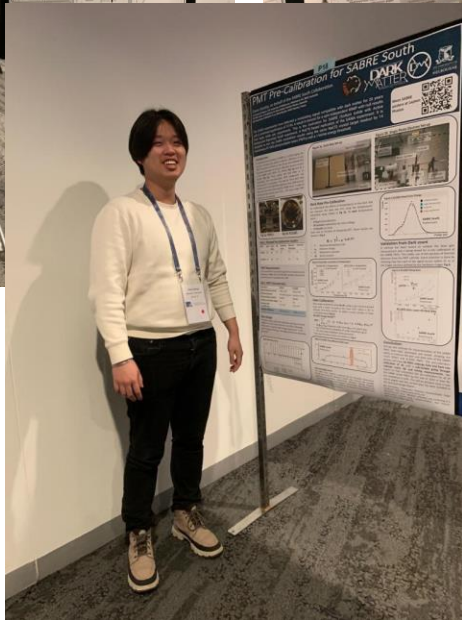
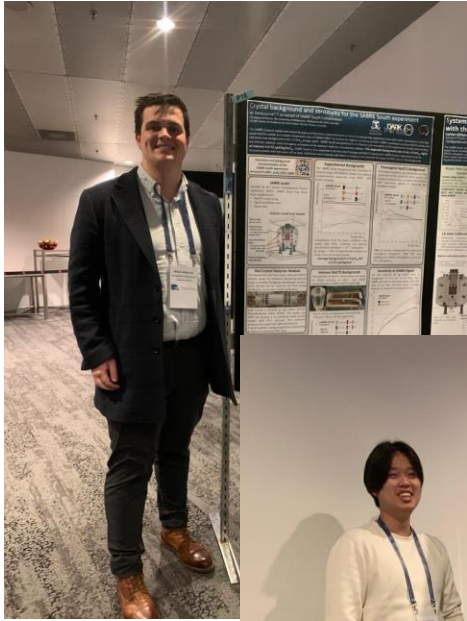
- Emma James Data and Analytics jobs  
[hr@funds.sa.gov.au](mailto:hr@funds.sa.gov.au).
- Irene Bolognino jobs
  - Two positions in Milan, Italy on experimental direct detection.
  - Reach out to Irene!
- Please let us know if you want us to advertise to ECRs!

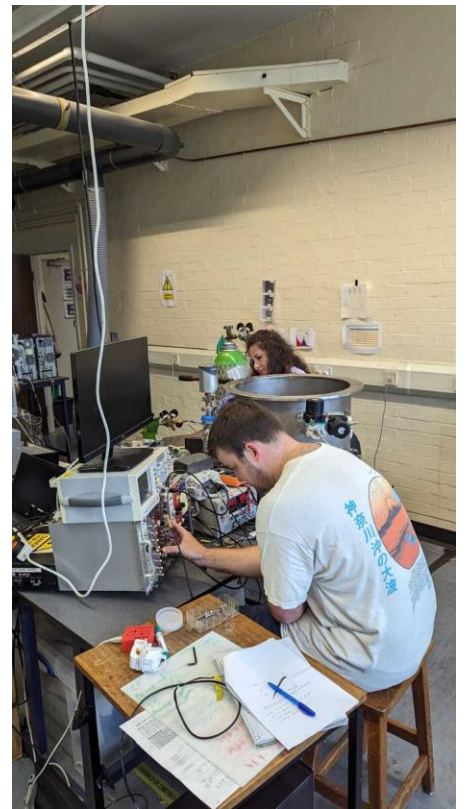
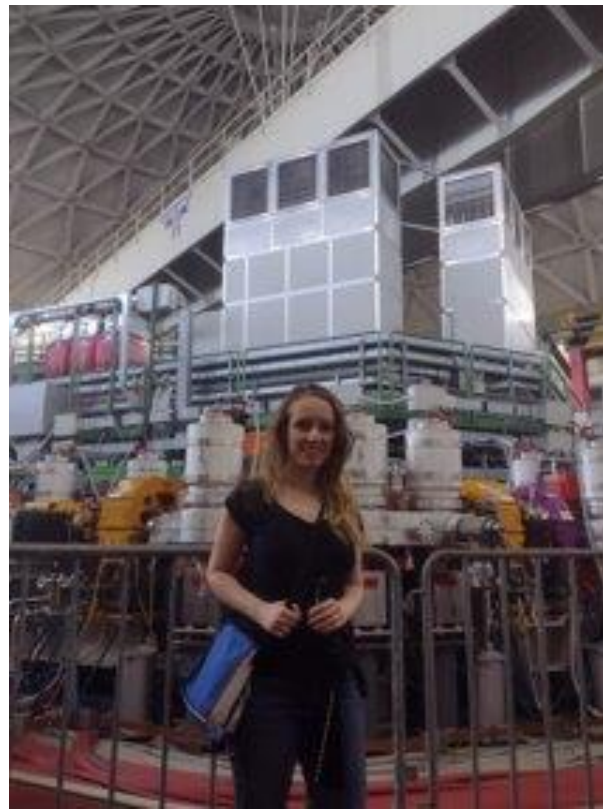
# Internode collaboration





# Conferences





# International Collaborations



# IdeaSquare

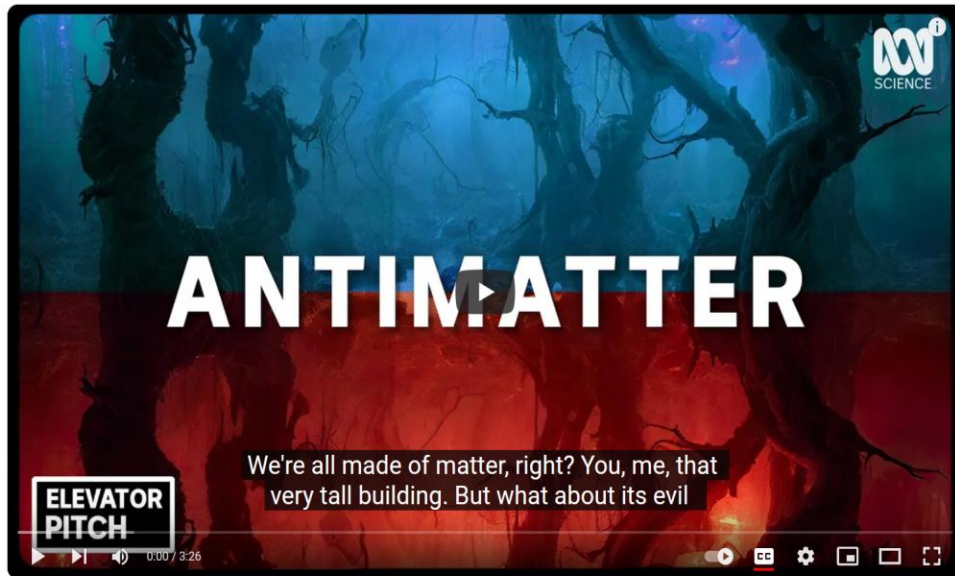


# Outreach - Media

## ABC NEWS Interview With Zuzana Slavkovska



**Zuzana Slavkovska (NPAA)** was invited to ABC NEWS to talk about the dark matter-related research conducted at the ANU and within the Centre of Excellence of Dark Matter Particle Physics. As a part of the Afternoons with Georgia Stynes on 30th October 2023, Zuzana explained what we know about this+ mysterious substance called dark matter, why the search for dark matter is important and advertised the Dark Matter Day at the ANU 2023 event that took pace later on that day. The ANU's contribution to the dark matter research is significant. Several students, academic and technical staff are involved with the dark matter research that helps us to understand our universe better.



## COSMOS

My Cosmos | Space | Tech | Nature | Earth | History

Planning and Aboriginal heritage policy.

telescope, and a home-made "find my phone" satellite link, all housed in 3D-printed casing inside a foam capsule, tethered by archery release to its own parachute as well as the telescope.



The data recovery system in its packaging / Credit: Steve Benton

A report on the system and instructions for its design are [published](#) in the journal *Aerospace*.

ANTIMATTER – explained in elevator ride | Elevator Pitch

ABC Science 280K subscribers

99 likes | Share | Save

# Colouring Book

Summary: Dark Matter Colouring book for school children (age 8+) highlighting the research happening in the centre explaining basic concepts of dark matter and the experimental search for it.

Up to **\$5,000** from the CDM Special Initiatives ECR/Student Scheme

Outline:

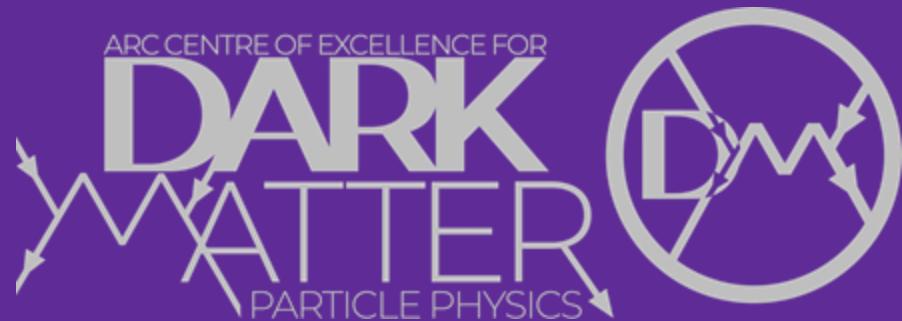
- Astronomy: Evidence for dark matter and candidates (3 pages)
- WIMP direct detection: SABRE and radio-assay for low backgrounds (3 pages)
- WISP search: ORGAN (3 pages)
- Collider physics: Dark matter searches at the LHC (3 pages)

Team: Ellen, Renee, Zuzana, **Theresa**, Ciaran, Giorgio, Chiara, Ferdos, Ben, Emily, Victoria, Rob, Sharry

# CDM Computing Subgroup

Matthew Green  
On behalf of the organisers

Funded via the ECR Special Initiative scheme



/CDM/Computing/Organisers\$ Is

Lead Organisers:

Jayden Newstead (UniMelb)  
Matthew Green (Adelaide)

Node representatives:

**ANU:** L. Bignell

**UoA:** M.Green/ D. Sengupta

**USyd:** E. Sirks

**UMelb:** J. Newstead / S. Meighen-Berger

**Swinburne:** B. McAllister

**UWA:** M. Goryachev

# Why?

We have this CoE with leading specialists in theory, experiment & pheno, are there anyways we can find a common ground where we can share knowledge helpful for everyone?

# What?

The Computing Subgroup will bring together Centre Members from all themes, nodes and levels. The goal of the subgroup is for Members to meet and discuss advancements in computing, share their skills and experience, and foster internode collaboration!

# CDM Computing Subgroup events

Tentative Dates:

**Early-Mid Feb 2024:**

*Remote 2-3 day workshop upskilling*

**Mar - Jun 2024:**

*Ongoing, biweekly meetings/lectures specifically aimed at Machine Learning*

**Mid July 2024:**

*In-person hackathon to use the skills*



# What now?

What do you want to learn? *Please* fill in this survey!

<https://forms.office.com/r/C3R9XTgjTi>

\* will take about ~2mins

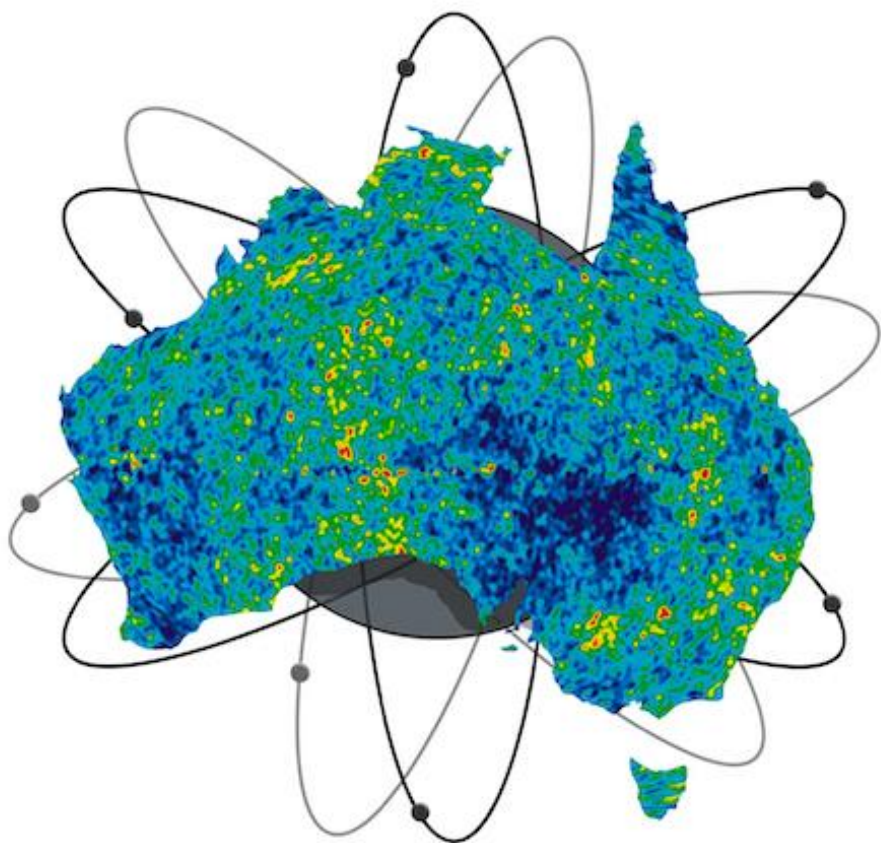


Want to be involved in the organisation? Let Jay or myself know!

Prize!  
Best ECR Talk

# Thank you!





# NATIONAL Quantum & Dark Matter ROAD TRIP



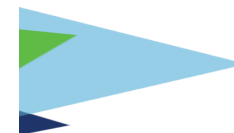
**EQUS**

Australian Research Council  
Centre of Excellence for  
Engineered Quantum Systems

ARC CENTRE OF EXCELLENCE FOR  
**DARK  
MATTER**  
PARTICLE PHYSICS



**national  
science  
week**



**An Australian Govern.**

# It's Fun!

- 2–3 cases of food poisoning
- 1 lost (but recovered) bag
- 1 road-kill incident
- 1 30th birthday
- 0 car magnets lost



# National Quantum & Dark Matter Road Trip

- Applied for a third National Science Week grant
- Visit places we haven't been
  - Tasmania
  - Brisbane to Perth a long way?
  - Brisbane to Brisbane a really long way?
  - Brisbane to Adelaide?
  - Darwin to Perth?
- Higher budget
- Longer(?)
- [qdmroadtrip.org](http://qdmroadtrip.org)
- [@qdmroadtrip](https://twitter.com/qdmroadtrip)

