

## National eResearch Newsletter - September 2021

#### **Message from AeRO:**

**AeRO's 11th Annual Forum** was held on the 14th September. This was a chance for the community to discuss where eResearch could, and should, be in 5 years' time, and how we can bridge the gap to create what we need for the future.

Despite the on-line format, it was clear from the lively chat and the engaging panel discussion that all who participated were very engaged.

The morning and afternoon panel sessions offered opportunities for key leaders from the sector sharing their observations. The final session included a masterful summary of the discussion from Luc Betbeder, which we hope to make available for download from the AeRO website. Information from the panel sessions will also be collated to help inform the next steps for the sector

Next up on AeRO's calendar is the eResearch Conference, 11-15 October.

Phil Gurney, Interim CEO, AeRO.

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#### Ask Me Anything: Merit Allocation Training: 20-Sep



Pawsey Supercomputing Centre invites you to join us for a Pawsey Hour (Ask. Me. Anything.), our way of reaching out to the research community. 10:00am - 11:00am AWST, 20 September 2021.

This session will focus on Merit Allocation Training, covering:

- New researchers who want to know if Pawsey services are for them;
- Current users who have specific questions about our infrastructure and expertise, or their research challenges;
- Cutting-edge hardware and software technology available in the new Setonix supercomputer;
- The phased deployment schedule and availability of Setonix;
- The revised resource accounting model;
- Available schemes and online application processes.

Register here: https://pawsey.org.au/event/ama-merit-2022-2/.

HASS RDC and Indigenous Research Capability Program Roundtable Discussions: 21-Sep



You are invited to a roundtable on the HASS Research Data Commons and Indigenous Research Capability Program, where we will seek further feedback on the project plans.

When: 21 September, 10AM (AEST).

Run by ARDC.

The day will be divided up to discuss each activity - we will release the program closer to the event, and attendees can choose which parts they would like to attend.

The roundtable will take place online and will be recorded and sent to all registered participants.

More information and to register: <a href="https://www.eventbrite.com.au/e/hass-rdc-and-indigenous-research-capability-program-roundtable-discussions-tickets-170859424137">https://www.eventbrite.com.au/e/hass-rdc-and-indigenous-research-capability-program-roundtable-discussions-tickets-170859424137</a>.

#### **Trainer Profiles Workshop: 22-Sep**



The aim of the workshop is to use a career profile framework to build a catalogue of trainer personas, examining professional development opportunities and challenges for trainers.

This workshop progresses the work of the Professional Development Pathways for Trainers Working Group, which was formed following the ARDC Skills Summit in 2020.

When: 22 September 2021, 11AM (AEST).

Run by ARDC.

More information and to register: <a href="https://www.eventbrite.com.au/e/trainer-profiles-workshop-tickets-167823543737">https://www.eventbrite.com.au/e/trainer-profiles-workshop-tickets-167823543737</a>.

HPC-Al AC: Australia: 23-Sep



Join the HPC-Al Advisory Council and Pawsey Supercomputing Centre for the fourth annual Australia Conference.

Thursday 23 and Friday 24 September from 1:30 pm to 5:30 pm AWST.

Register and gather with fellow practitioners, virtually, across time zones to share expertise and gain insights into the key domains and disciplines spurring our collective progress and potential.

Register here: <a href="https://www.hpcadvisorycouncil.com/events/2021/australia-conference/agenda.php">https://www.hpcadvisorycouncil.com/events/2021/australia-conference/agenda.php</a>.

eResearch-Australasia2021 EarlyBird Ends 24-Sep



A preliminary Program for the Conference, to run online from 11 to 15-Oct-21, has been released, and can be seen at <a href="https://conference.eresearch.edu.au/2021-program/">https://conference.eresearch.edu.au/2021-program/</a>.

Please note that EarlyBird registrations close on 24-Sep – register here: <a href="https://conference.eresearch.edu.au/registration/">https://conference.eresearch.edu.au/registration/</a>.

You are also advised that it may still be possible to submit a Workshop proposal - these will run in the week following the Conference, from 18 to 22-Oct.

**HPCWire Awards: Vote Now! Closes 24-Sep** 



Vote now for the HPCWire Awards and celebrate some awesome Pawsey researchers, in the following categories (more details at the Survey site at <a href="https://www.surveymonkey.com/r/ZRNX9JP">https://www.surveymonkey.com/r/ZRNX9JP</a>):

- 1. Best Use of HPC in Life Sciences: Researchers at the University of Melbourne, and at the University of Western Australia.
- 2. Best Use of HPC in Physical Sciences: Researchers at CSIRO and Curtin University.
- 4. Best Use of HPC in Energy: Researchers from Griffith University.
- 5. Best Use of HPC in Industry: Researchers from the University of Melbourne and General Electric.
- 15. Best HPC Collaboration (Academia/Government/Industry): Pawsey's PaCER partnership.
- 20. Workforce Diversity & Inclusion Leadership Award: Pawsey Supercomputing Centre.

Vote here: https://www.surveymonkey.com/r/ZRNX9JP.

NCI Presents TechTake with Mathworks: 28-Sep



NCI Presents: TechTake is an exciting opportunity for international computational and data science leaders to discuss and demonstrate how technology supports research. TechTake is designed to prompt engaging and in-depth conversations about both the current state and potential futures of technology to broaden and deepen understanding. This month's TechTake, presented by Mathworks presenters, will cover Deep Learning Workflows on clusters and clouds.

Find out more: <a href="https://opus.nci.org.au/display/Help/NCI+Presents%3A+TechTake">https://opus.nci.org.au/display/Help/NCI+Presents%3A+TechTake</a>.

#### Getting Started with the ARDC Nectar Research Cloud: 28-Sep



Nectar Research Cloud Learning Resources - Build your practical cloud skills & knowledge with Nectar Research Cloud learning resources, which have varying modes of delivery to suit different user's needs.

Online Introductory live training will be delivered monthly from September 2021, via Zoom. Training dates and registration information will be updated here as they become available.

When: 28 & 30 September 2021 Run by ARDC.

For more information and to

register: <a href="https://support.ehelp.edu.au/support/solutions/articles/6000156761-learning-and-training-resources">https://support.ehelp.edu.au/support/solutions/articles/6000156761-learning-and-training-resources</a>.

#### **Bioinformatics First Community of Practice Meeting: 29-Sep**



Meet the specialists supporting researchers working on Bioinformatics at Pawsey, while they present about resources, tools and services available at the Centre for the community.

1:00pm - 2:30pm AWST, 29 September 2021. Register

here: https://pawsey.org.au/event/bioinformatics-cop-meeting/.

Ask Me Anything: Setonix: 4-Oct



Pawsey Supercomputing Centre invites you to join us for a Pawsey Hour (Ask. Me. Anything.), our way of reaching out to the research community.

10:00am - 11:00am AWST, 4 October 2021.

This session will focus on Setonix, Pawsey's new supercomputer. If you have any pressing questions please join the session, especially if you are:

- New researchers who want to know if Pawsey services are for them
- Current users who have specific questions about our infrastructure and expertise, or their research challenges (within the Pawsey context)

Register here: https://pawsey.org.au/event/ask-me-anything-setonix/.

National Computational Merit Allocation Scheme 2022 Closes: 5-Oct



NCMAS is the premier allocation scheme for meritorious access to Australian national supercomputing facilities. The 2022 round will provide more than 500 million service units of computing time across three facilities: NCI Australia's Gadi, Pawsey Research Supercomputing Centre's Setonix and MASSIVE.

The primary portal for applications and all associated information – including information about how to apply, eligibility, important dates, changes to the application process and frequently asked questions – is https://my.nci.org.au/mancini/ncmas/2022/.

Important Dates:

18 August – Applications Open.

5 October - Applications Close 5:00pm AEDT.

21 December – Announcement of outcomes.

From PC to Cloud or HPC Free Webinar: 5-Oct



Are you a HDR Student, researcher or research staff and want to know the difference between HPC and cloud computing? Come along to Intersect's webinar 'From PC to Cloud or High Performance Computing' on the 5th of October. This free and open to anyone webinar will give a good overview to the researchers thinking of making a move from their local computer to Cloud or High Performance Computing Cluster.

Register here: <a href="https://intersect.zoom.us/webinar/register/WN\_kA0uB7P5SluwHSF06c8UzA">https://intersect.zoom.us/webinar/register/WN\_kA0uB7P5SluwHSF06c8UzA</a>.

## **Brain Imaging Data Structure (BIDS): 13-Oct**



Australian Characterisation Commons at Scale (ACCS) and the Australian Chapter of the Organization for Human Brain Mapping (OHBM) are delighted to announce their new online webinar and workshop series, which has been developed in partnership with the National Imaging Facility, The University of Queensland and Monash University.

When: 13 October 2021, 4PM AEST.

Run by: OHBM & ACCS.

More information and to register: <a href="http://www.imagingtools.org.au/events-calendar/ohbm-accs-webinar-1-bids-20211013">http://www.imagingtools.org.au/events-calendar/ohbm-accs-webinar-1-bids-20211013</a>.

Virtual SciDataCon 2021: 18-Oct



CODATA and WDS have announced that the programme for the fully Virtual SciDataCon 2021 has now been published, at: <a href="https://www.scidatacon.org/virtual-2021/programme/">https://www.scidatacon.org/virtual-2021/programme/</a>.

Virtual SciDataCon 2021 will run in a series of sessions from Mon 18 October to Thu 28

October. Sessions are organised in regular slots at 07:00-08:30 UTC, 11:00-12:30 UTC, 13:00-14:30 UTC and 16:00-17:30 UTC. All the accepted sessions may be conveniently viewed at: <a href="https://www.scidatacon.org/virtual-2021/sessions/">https://www.scidatacon.org/virtual-2021/sessions/</a>.

Registration will be free and will be available shortly. Please note that you will need to register for each session you wish to attend. More information and to register: <a href="https://www.scidatacon.org/virtual-2021/programme/">https://www.scidatacon.org/virtual-2021/programme/</a>.

R for Ecologists Workshop: 20-Oct



EcoCommons together with QCIF will once again be running an introductory online 'R for ecologists' workshop on the 20th – 21st October 2021. More information and to register: <a href="https://www.ecocommons.org.au/r-for-ecologists/">https://www.ecocommons.org.au/r-for-ecologists/</a>.

Carpentries Connect Australia - Community Networking for New Instructors: 3-Nov



The Carpentries is a non-profit organisation that teaches software engineering and data science skills to researchers through instructional workshops. It's also a global community of researchers and professionals who share a passion for good teaching practices and peer learning (see <a href="https://carpentries.org/">https://carpentries.org/</a>).

This free and online event is for members of the Carpentries community and anyone who is interested in joining the community.

When: 3 November 2021, 11AM AEST Run by: ARDC More information and to

register: https://www.eventbrite.com.au/e/carpentry-connect-australia-tickets-170400229674.

Research Bazaar (ResBaz) Online for 2021: 23-Nov



ResBaz Sydney is back in 2021, for the first time as an online event, running from Tues 23 – Thurs 25 Nov! ResBaz is a no-cost event for researchers and research students across all disciplines to learn, share knowledge and experience with cutting edge technologies, methods and techniques in digital research. Check out the ResBaz website for details and register your interest in attending, or being involved. We look forward to everyone joining us at this exciting event!

ResBaz website: https://resbaz.github.io/resbaz2021/sydney/.

Register: http://eepurl.com/hGWsUH.

And there's another ResBaz in Brisbane 24 to 26-Nov-21 (see <a href="https://resbaz.github.io/resbaz2021qld/">https://resbaz.github.io/resbaz2021qld/</a>).

#### **AeRO Cloud Grants Scheme Awards**



AeRO, Google Cloud and QCIF are pleased to announce the successful completion of the inaugural AeRO Cloud Grants scheme.

The grant scheme has enabled us to provide 20 Early Career Researchers with up to US\$5,000 credit towards Google Cloud services, together with the option of either a one-day training course or a half day of 1:1 consultant support facilitated by QCIF.

Grant recipients come from universities and research organisations across Australia and New Zealand, with projects spanning a wide range of disciplines.

Plans are already underway to continue to support the community via future further grants. See <a href="https://aero.edu.au/grants/">https://aero.edu.au/grants/</a>.

#### **Google Cloud Research Credits Expanded**



Google has announced the latest expansion of the Google Cloud research credits program, to now cover researchers at non-profit institutions (it was previously limited to university researchers). Individuals from non-profit research focused organisations in Australia and New Zealand can apply for cloud credit grants of up to US\$5,000 to support their computing needs. This can include access to higher performance computing resources such as GPU and TPU accelerators.

Applications are accepted on a rolling basis.

See: <a href="https://edu.google.com/programs/credits/research/?modal\_active=none">https://edu.google.com/programs/credits/research/?modal\_active=none</a>.

Call for Submissions: eResearch NZ 2022



Each year, the eResearch NZ conference series brings together communities that are exploring or innovating the ways digital tools and techniques can be used to advance research outcomes. The theme of eResearch NZ 2022 is Building capability together, reflecting the diverse range of perspectives, communities, and Mātauranga Māori approaches that are layered within Aotearoa New Zealand's research landscape.

eResearchNZ 2022 will explore cultural, organisational, and technical layers of eResearch. We welcome submissions of work that relate experiences and share these aspects of developing eResearch capabilities and delivering eResearch solutions.

Read more: https://www.eresearchnz2022.org.nz/submissions/.

#### ARDC Digital Research Skills Summit, part of eRA2021



Are you a digital research skills trainer or involved in data management and digital infrastructure training programs? If yes, the ARDC Skills Summit is for you! The virtual summit will run on Wednesday 13 October as an integrated stream within the eResearch Australasia Conference 2021 (eRA).

To register for a single day or the full conference, visit <a href="https://conference.eresearch.edu.au/ardc-skills-summit/">https://conference.eresearch.edu.au/ardc-skills-summit/</a>.

#### **Training for New Zealand Bioinformatics & Genomics Communities**



Between August and December 2021, New Zealand eScience Infrastructure (NeSI) and Genomics Aotearoa are co-hosting or helping deliver a range of hands-on skill-building events for New Zealand's bioinformatics and genomics communities. Ranging from single-day online sessions to multi-day inperson workshops, the topics range from introductions of bash and R, to an immersive look at the whole metagenomics data analysis pipeline. More

information: <a href="https://www.nesi.org.nz/news/2021/08/nesi-and-genomics-aotearoa-announce-new-bioinformatics-and-genomics-training-events">https://www.nesi.org.nz/news/2021/08/nesi-and-genomics-aotearoa-announce-new-bioinformatics-and-genomics-training-events</a>.

#### Tech Insights: NeSI Testing A100 Tensor Cores on Deep Learning Code



New Zealand eScience Infrastructure (NeSI) has been using a 'Tech Insights' blog series to share some of the behind-the-scenes work that's gone into preparing its new A100 Graphics Processing Unit (GPU) cards for machine learning use. The second instalment in the series focuses on a range of tests of deep learning code NeSI did in partnership with its users. More information: <a href="https://www.nesi.org.nz/case-studies/tech-insights-testing-a100-tensor-cores-deep-learning-code">https://www.nesi.org.nz/case-studies/tech-insights-testing-a100-tensor-cores-deep-learning-code</a>.

### **Pawsey Orders 130PB Storage**



Pawsey, the nationally funded research supercomputing centre located in Western Australia, will become home to one of the largest research-focused object storage systems in the world, with 130 petabytes of online and offline storage as part of the facility's \$70 million capital refresh project.

Pawsey has awarded two contracts for the storage, with a combined value of \$7 million, to Dell and Xenon, for multi-tier storage to improve data availability, data transfer speed, and overall storage capacity.

For more information, see: https://pawsey.org.au/pawsey-to-deploy-130pb-of-multi-tier-storage/.

## Centre for eResearch and Digital Innovation: Quarterly Newsletter.



3D image of wetlands extent

The Centre for eResearch and Digital Innovation (CeRDI) at Federation University Australia has published its latest newsletter. This issue includes news and updates about Soil CRC funding success for CeRDI researchers, the Lucas Girls Avenue of Honour: Audio tour, recent research highlights on the Ramsar Wetlands, chronicling Aboriginal Heroism: Fire, flood and food, and the development of a rating curve and water balance model for the Winton Wetlands.

To view the CeRDI Newsletter Winter 2021, go

to: https://www.cerdi.edu.au/CeRDINewsletterWinter2021.

#### **EcoCommons Team Announce the Launch of its Website!**



The expanded website provides information about the people and organisations behind EcoCommons Australia, and it will be the place where you can easily track the team's journey. When the platform is launched in 2022, this will be the gateway to accessing the fantastic modelling tools and datasets coming to you via EcoCommons.

Check it out at: https://ecocommons.org.au/.

Internal testing of the EcoCommons platform is underway. If you are interested in helping test the platform in the coming months, sign-up here to become an EcoCommons

Pioneer: <a href="https://docs.google.com/forms/d/e/1FAlpQLSeT7LN4Dt2SYLgXe-">https://docs.google.com/forms/d/e/1FAlpQLSeT7LN4Dt2SYLgXe-</a>

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Sydney Weather and Air Quality Data Now Available from TERN



Detailed time-series weather and air-quality data collected at Sydney schools are now available for download via TERN. The data collected by the Schools Weather and Air Quality (SWAQ) citizen science project includes the Black Summer bushfires and multiple COVID-19 lockdown periods.

See: https://www.tern.org.au/news-swaq-data/.

# **Evapotranspiration Data for the Entire Australian Continent Now Available from TERN**



High-resolution (30m), high-frequency (monthly), continuous (no gaps due to clouds) actual evapotranspiration data are now freely available for download from TERN. These world-leading satellite-derived data promote accurate water balance modelling for any catchment or groundwater system in Australia.

See: https://www.tern.org.au/news-australia-wide-aet-data/.

#### Students Visualise Perth's Water Data



The Gnangara Mound is a crucial water resource for Perth – and its dependent ecosystems. Rainfall is declining, the banksia woodlands still need water, so what does this mean for the sustainability of Perth's water supply? TERN's Research Infrastructure and data are helping to investigate some of these questions and a new interactive website, built by uni students, tells this story, and visualises the data behind it. See: <a href="https://www.tern.org.au/news-visualise-perths-water-data/">https://www.tern.org.au/news-visualise-perths-water-data/</a>.

Building a Treaty-Compliant Data Archive for New Zealand's Taonga Species



New Zealand eScience Infrastructure (NeSI) has been collaborating with Genomics Aotearoa to build a national repository that provides a secure place for the New Zealand research community to store and to share genomic data within a Māori values context, following the principles of Māori Data Sovereignty.

Read more: <a href="https://www.nesi.org.nz/news/2021/09/building-treaty-compliant-data-archive-new-zealands-taonga-species">https://www.nesi.org.nz/news/2021/09/building-treaty-compliant-data-archive-new-zealands-taonga-species</a>.

#### Concrete Steps for Supporting a Diverse HPC and eResearch Workforce



How can research facilities and their leaders increase diversity within their workforce? A range of opportunities exist across all levels of an organisation, from governance and leadership positions to workplace environments to event-related actions.

Members of the Australasian Chapter of Women in High Performance Computing (WHPCAusNZ) have produced a helpful guide of concrete steps to create and support inclusion of women and other unheard groups within the HPC and eResearch sectors.

Read more: <a href="https://www.nesi.org.nz/news/2021/08/concrete-steps-supporting-diverse-hpc-and-eresearch-workforce">https://www.nesi.org.nz/news/2021/08/concrete-steps-supporting-diverse-hpc-and-eresearch-workforce</a>.

#### Report: Leading Australia to Data-Driven Research Impact



The ARDC has published a new impact booklet, Leading Australia to Data-Driven Research Impact, which showcases the breadth and depth of the services and collaborations that the ARDC provides the research community and sets out our vision for the future. See <a href="https://ardc.edu.au/about\_us/case-studies/leading-australia-to-data-driven-research-impact/">https://ardc.edu.au/about\_us/case-studies/leading-australia-to-data-driven-research-impact/</a>.

#### Dirt To Desktop: Digital Tools in the Field



100s of researchers around the world are collecting data in remote locations via the ARDC-supported FAIMS Mobile app.

 $See: \ \underline{https://ardc.edu.au/about\_us/case-studies/dirt-to-desktop-digital-tools-in-the-field/.}$ 

#### The Pillars of Australia's Research System



Professor Andy Lowe writes in InnovationAus about the National Research Infrastructure Roadmap process currently underway, which will identify Australia's research infrastructure needs and priorities for the next 5 to 10 years.

See: https://www.innovationaus.com/the-pillars-of-australias-research-system/.

# **Contributions**

This newsletter is based on contributions from members of the eResearch community, and draws on news articles and newsletters published across the sector. The Newsletter is published around the 16th of each month. Please send all contributions (max. 100 words + link + image) or pointers to any other relevant articles or newsletters to <a href="mailto:editor@aero.edu.au">editor@aero.edu.au</a>.

Newsletter archives are available at <a href="http://aero.edu.au/newsletters/">http://aero.edu.au/newsletters/</a>.

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Thanks, Alex Reid, AeRO Newsletter Editor.

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