

# National eResearch Newsletter - March 2022

# Message from AeRO:

The AeRO Executive is currently revising AeRO's focus for 2022, and sharpening the value proposition for members.

We will then be pursuing an active phase to recruit more members and strengthen AeRO's engagement with the sector.

Of course, we are also planning for eResearch 2022 to be in person in Brisbane (17 to 21 October), and very much welcoming a return to a face-face meeting, possibly with an online presence also.

We very much look forward to how AeRO may better be able to serve the sector in the future.

David Abramson, AeRO Chair.

#### **CONTENTS:**

- \* NVIDIA GTC: Conference for the Era of AI: 21-Mar.
- \* <u>Data Management Planning Interest</u> <u>Group: 22-Mar.</u>
- \* Webinar: 10 Years of Figshare: 24-Mar.
- \* ARDC Nectar Research Cloud Training: 24-Mar.
- \* CloudStor Clinic: 25-Mar.
- \* <u>Visible Research Software Interest</u> Group Launch: 29-Mar.
- \* AMD GPU Lunch-n-Learn with Access to Codelab: 30-Mar.
- \* <u>Urban Superdiversity Visualisation</u> <u>Workshop: 4-Apr.</u>
- \* <u>Announcing the 5th APAC HPC-AI</u> <u>Competition:</u> 7-Apr.
- \* NCI-NVIDIA GPU Bootcamps: Apr-May.
- \* Quantum Education and Research Program.
- \* Tackling Food Security Data Challenges.
- \* NCI and NSCC Sign Memorandum of Understanding.
- \* GLAM Workbench Open to New Collaborations.
- \* <u>Secure Access to Vital Services for</u> Researchers.
- \* NCI & Intersect Graduate Education Program.
- \* Women Leading Australia's Digital Research Platforms.
- \* 10 Years of the ARDC Nectar Research Cloud.
- \* AARNet and Australian Text Analytics Platform (ATAP).
- \* The Digital Research Skills Australasia.
- \* Federation's CeRDI Newsletter.
- \* <u>5 NCI Users Receive Academy of Science Awards.</u>
- \* Cancer Killers in 3D.
- \* Visualisation Access Available for Researchers.
- \* PaCER Conference Presentations
  Online!
- \* Data Science Week is back in 2022: 9 to 13-May.

# CONFERENCE & TRAINING MARCH 21 - 24, 2022 KEYNOTE MARCH 22

NVIDIA's GTC conference is all about four days of discovery. Come explore what's driving transformation in your industry — from the power of AI to the collaborative virtual worlds of NVIDIA Omniverse, and beyond.

Learn from some of the world's brightest minds. Connect with experts. Network with your peers. And discover the technological advancements and groundbreaking research that are making it possible to take on the world's greatest challenges — together.

21 March - 24 March 2022, Online.

Join NVIDIA this March and discover how to accelerate your life's work - <a href="https://www.nvidia.com/gtc/?ncid=GTC-NVMANCUSO">https://www.nvidia.com/gtc/?ncid=GTC-NVMANCUSO</a>.

# Data Management Planning Interest Group: 22-Mar



Join the interest group designed for people interested in discussing, building and improving Data Management Plans (DMPs). In this meeting we will meet panellists from the ARDC Institutional Underpinnings Phase 2 Projects.

When: 22 March, 2PM (AEDT)

Run by: ARDC

Register here: <a href="https://www.eventbrite.com.au/e/data-management-planning-interest-group-tickets-268697309887">https://www.eventbrite.com.au/e/data-management-planning-interest-group-tickets-268697309887</a>.

Webinar: 10 Years of Figshare: 24-Mar

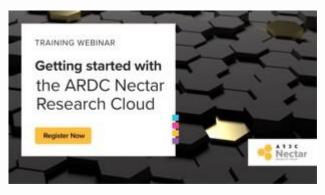


Figshare is celebrating a decade of progress in research management practices and pioneering community-driven product development at Figshare by providing leading repository software for universities, publishers, funders, government agencies, biopharmaceutical organizations, labs, and more.

In this webinar, we're looking back at the last ten years of research management and how the space has evolved. We'll also look at the last decade of product development at Figshare and how this has been driven by feedback from the communities we serve, trends we've observed over time, and evolving industry standards and compliance requirements.

To register, go to: https://attendee.gotowebinar.com/register/7941483736879491853.

# Getting Started with ARDC Nectar Research Cloud Training: 24-Mar



An online Introduction to Nectar Research Cloud Training for researchers. It is a detailed hands-on training session, designed to give researchers basic experience with using the Nectar Cloud.

When: 24 March, 9am AEST

Run by: ARDC

Register now: <a href="https://www.eventbrite.com.au/e/getting-started-with-nectar-research-cloud-training-">https://www.eventbrite.com.au/e/getting-started-with-nectar-research-cloud-training-</a>

tickets-251706068627.

CloudStor Clinic: 25-Mar



AARNet has introduced fortnightly CloudStor Clinics, running now through till 8 April, to help researchers and CloudStor users get the most out of CloudStor. The sessions cater for absolute beginners through to advanced users from all areas of research. Participants can drop in any time to discuss problems they are trying to solve or issues they would like to address relating to CloudStor. AARNet staff from the eResearch, CloudStor and Service Desk teams will be available to share knowledge and help users.

The next Clinic will be held at 1pm AEDT, Friday 25-March-22.

Find out more and register: <a href="https://www.aarnet.edu.au/cloudstor-clinics">https://www.aarnet.edu.au/cloudstor-clinics</a>.

# Visible Research Software Interest Group Launch: 29-Mar



The Visible Research Software IG was established to affect change: boosting the visibility and recognition of research software in scholarly communications. The IG seeks to engage research infrastructure managers, repository managers, research leaders, policy makers and other advocates with capacity to champion best practice and influence the adoption of policies, services and technologies in their areas. See <a href="https://ardc.edu.au/news/visible-research-software-interest-group/">https://ardc.edu.au/news/visible-research-software-interest-group/</a>.

At the launch event please provide feedback on the Terms of Reference and collaborate on a work plan for 2022 to address the key priorities of the group. Date: Tue, 29 March 2022 Time: 12:00 PM – 1:00 PM AEDT Register online at: <a href="https://www.eventbrite.com.au/e/visible-research-software-ig-launch-event-tickets-277212940367">https://www.eventbrite.com.au/e/visible-research-software-ig-launch-event-tickets-277212940367</a>.

AMD GPU Lunch-n-Learn with 10-day Access to Codelab: 30-Mar



Join Pawsey and AMD specialists for a 90-minute / 10-day Lunch & Learn that consists of:

- A 90-minute session on portable GPU programming with ROCm (30 March 12noon 1.30pm AWST/Perth time),
- 2 hands-on interactive codelab sessions (March 31 and April 1, 12:00noon 1:00pm AWST/Perth time), and
- 10-day access to the AMD Accelerator Cloud (AMD MI100) and Fluid Numerics' RCC cluster (Nvidia V100).

30 March 2022, 12:00pm - 1:30pm AWST, Online.Register for the event here: <a href="https://pawsey.org.au/event/eoi-amd-gpu-lunch-n-learn-with-10-day-access-to-codelab/">https://pawsey.org.au/event/eoi-amd-gpu-lunch-n-learn-with-10-day-access-to-codelab/</a>.

# **Urban Superdiversity Visualisation Workshop: 4-Apr**



Urban Superdiversity is a beginner friendly, geospatial visualisation tool for exploring economic, social, cultural, political, demographic and spatial dimensions of human populations in cities. It tackles the challenge "How might we lower the barrier to access for using and understanding multidimensional urban datasets?" Some background can be seen at: <a href="https://www.monash.edu/arts/migration-and-inclusion/news-and-events/articles/mmic-presents-visualizing-human-diversity-webinar-with-associate-professor-alan-gamlen">https://www.monash.edu/arts/migration-and-inclusion/news-and-events/articles/mmic-presents-visualizing-human-diversity-webinar-with-associate-professor-alan-gamlen</a>.

The workshop runs for 2 hours on multiple occasions between 4 and 8 April. The workshop will introduce this continuously improving tool, and include some hands-on activities for everyone to play with the tool. Participation is free. Please fill out our short registration form by 19 March 2022, at <a href="https://www.surveycake.com/s/VrZDN">https://www.surveycake.com/s/VrZDN</a>.

Announcing the 5th APAC HPC-AI Competition: 7-Apr



This Competition, co-organised by the HPC-Al Advisory Council, National Supercomputing Centre (NSCC) Singapore, and NCI Australia, was announced on March 1. See https://www.hpcadvisorycouncil.com/events/2022/APAC-Al-HPC/.

High-performance computing and artificial intelligence are the most essential tools fuelling the advancement of science. The Committee welcomes applications from all countries in the APAC region, as a way of uplift the HPC and AI capacity. NCI will support this event by providing compute resource and access to Gadi.

Information session: 7 April 2022, 11:00 AM AEST, when you will have the competition procedure explained, followed by Q&A..

Please register here: <a href="https://anu.zoom.us/meeting/register/tZEpf-urrz0iGdHWArqUKBD5uSodiKJYBoWn">https://anu.zoom.us/meeting/register/tZEpf-urrz0iGdHWArqUKBD5uSodiKJYBoWn</a>.

#### **NCI-NVIDIA GPU Bootcamps: Apr-May**



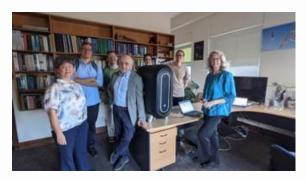
These GPU Bootcamps are an exciting and unique way for scientists and researchers to learn the skills needed to start quickly accelerating codes on GPUs. NVIDIA and NCI are holding three virtual events, each of 2 days' duration, over the coming months.

<u>RAPIDS</u> – software libraries enabling data scientists to execute end-to-end data science and analytics pipelines on GPUs. 20-21 April. See <a href="https://gpuhackathons.org/index.php/event/nci-australia-accelerated-data-science-gpu-bootcamp">https://gpuhackathons.org/index.php/event/nci-australia-accelerated-data-science-gpu-bootcamp</a>.

<u>Distributed Deep Learning</u> – fundamentals of Distributed Deep Learning and hands-on experience. 4-5 May. See <a href="https://gpuhackathons.org/index.php/event/nci-australia-distributed-deep-learning-gpu-bootcamp">https://gpuhackathons.org/index.php/event/nci-australia-distributed-deep-learning-gpu-bootcamp</a>.

<u>GPU programming in Python</u> – GPU programming using CuPY, Numba and CUDA Python, and using NVIDIA Nsight Systems. 18-19 May. See <a href="https://gpuhackathons.org/index.php/event/nci-cuda-python-gpu-bootcamp">https://gpuhackathons.org/index.php/event/nci-cuda-python-gpu-bootcamp</a>. More details and registration: <a href="https://opus.nci.org.au/display/Help/NCI-NVIDIA+bootcamps">https://opus.nci.org.au/display/Help/NCI-NVIDIA+bootcamps</a>.

**Quantum Education and Research Program** 



The Pawsey Supercomputing Research Centre is supporting a revolutionary quantum education and research program at the University of Western Australia (UWA) – the first quantum educational hub in Australia.

This program is led by renowned quantum physicist and educator, Professor Jingbo Wang, who leads active research into the area of quantum simulation, quantum walks, and quantum algorithm development.

This program will provide two quantum education computers to students, empowering them with a "quantum mindset" – to see the world beyond ones and zeros, to be on the cutting edge when quantum knowledge and skills grow in demand – in our near future.

For more information: <a href="https://pawsey.org.au/quantum-education-up-qcc/">https://pawsey.org.au/quantum-education-up-qcc/</a>.

# **Tackling Food Security Data Challenges**



The ARDC launched Food Security Data Challenges to create digital research infrastructure that improves food security in Australia. Register your interest now.

For more information, go to: <a href="https://ardc.edu.au/news/tackling-food-security-data-challenges/">https://ardc.edu.au/news/tackling-food-security-data-challenges/</a>.

**NCI and NSCC Sign Memorandum of Understanding** 





The national supercomputer and big data facilities of Australia and Singapore, the National Computational Infrastructure (NCI Australia), and the National Supercomputing Centre Singapore (NSCC), are building on their already close partnership to deepen their joint activities into areas that will further improve technology, software development, staff and user training, and data sharing for both organisations over the next three years.

NCI and NSCC have today signed a Memorandum of Understanding (MoU) in a ceremony that took place virtually at ANU and the Australian High Commission in Singapore at the annual SupercomputingAsia 2022 (SCA22) conference, held in Singapore.

Further information at: <a href="https://nci.org.au/news-events/news/nci-and-nscc-sign-memorandum-understanding">https://nci.org.au/news-events/news/nci-and-nscc-sign-memorandum-understanding</a>.

# **GLAM Workbench Open to New Collaborations**



The GLAM Workbench is inviting galleries, libraries, archives, and museums to develop new digital tools for HASS researchers. Organisations or individuals that want to add collections of Jupyter notebooks to the GLAM Workbench can use the new repository template, that includes basic QA, testing, and integrations with Binder, Reclaim Cloud, Nectar, Docker, Quay.io, and Zenodo. The template makes it easier to get up and running with Jupyter development, and ensures notebooks can be run using a range of services.

Detailed documentation is available here: <a href="https://glam-workbench.net/get-involved/developing-repositories/">https://glam-workbench.net/get-involved/developing-repositories/</a>.

**Secure Access to Vital Services for Researchers** 



The Australian Access Federation enhanced its hosted cloud solution, Rapid IdP, to give researchers access to digital research platforms and services, thanks to co-investment from the ARDC. For more information, go to: <a href="https://ardc.edu.au/news/secure-access-to-vital-services-for-researchers/">https://ardc.edu.au/news/secure-access-to-vital-services-for-researchers/</a>.

# **NCI & Intersect Graduate Education Program**



Intersect and NCI's inaugural collaborative graduate-level course HPC and Data in Materials Design and Discovery was successfully run from Sep to Nov 2021. Course materials, including recorded lectures and tutorials, remain available to HDR students! If you are a student or researcher who is interested in and new to this course, register here: <a href="https://lnkd.in/gXRnR5Me">https://lnkd.in/gXRnR5Me</a>.

# Meet the Women Leading Australia's Digital Research Platforms



To celebrate the International Day for Women and Girls in Science and International Women's Day, the ARDC shines the spotlight on women scientists leading ARDC-supported research infrastructure projects.

For more information, go to: <a href="https://ardc.edu.au/news/meet-the-women-leading-australias-digital-research-platforms/">https://ardc.edu.au/news/meet-the-women-leading-australias-digital-research-platforms/</a>.

10 Key Milestones in 10 Years of the ARDC Nectar Research Cloud



The ARDC is celebrating 10 years of the ARDC Nectar Research Cloud, the world's first national federated cloud dedicated to research. For more information, go to: <a href="https://ardc.edu.au/news/10-key-milestones-in-10-years-of-the-ardc-nectar-research-cloud/">https://ardc.edu.au/news/10-key-milestones-in-10-years-of-the-ardc-nectar-research-cloud/</a>.

# AARNet Partners to Develop the Australian Text Analytics Platform (ATAP)



AARNet is proud to be a partner organisation, with the University of Queensland and the University of Sydney, to develop ATAP, an ARDC-supported Research Platforms project. AARNet's CloudStor SWAN (Service for Web-based Analysis) will form a crucial component of ATAP. Based on Jupyter Notebooks, SWAN is a cloud-based workbench to write, run and share code for data analysis. AARNet will also support ATAP by delivering hands-on workshops and online training modules. Read more: <a href="https://www.aarnet.edu.au/aarnet-partners-with-two-universities-to-develop-the-australian-text-analytics-platform">https://www.aarnet.edu.au/aarnet-partners-with-two-universities-to-develop-the-australian-text-analytics-platform</a>.

# The Digital Research Skills Australasia



DReSA makes it easier for learners, trainers, and training providers to find digital research skillsfocused educational events and resources.

Through DReSA, its creators seek to: Lift Australasian researchers' capabilities and skills by improving the findability of events and resources, Build national, collaborative, training partnerships, Strategically leverage trainers' and learners' time and resources

For more information, go to: https://dresa.org.au/about.

**Centre for eResearch and Digital Innovation Newsletter** 



The Centre for eResearch and Digital Innovation (CeRDI) at Federation University Australia has published its summer newsletter. This issue includes the following research updates:

- Improving water security for farms and lakes in the northern Lake Corangamite area
- · Informed decisions for managing climate variability in grazing systems
- 3D soil constraints
- CeRDI representing Australia at global ground water data workshop
- Australian National Soil Information System
- PhD scholarship and top-up opportunity

To view these and other stories,

visit: https://www.cerdi.edu.au/cb\_pages/news/CeRDINewsletterSummer2022.php.

# **Five NCI Users Receive Prestigious Academy of Science Awards**



Congratulations to all the recipients of the Australian Academy of Science Honorific Awards today, and in particular the five NCI users receiving prestigious awards recognising their contributions to the advancement of science. Those five recipients are: Professor Richard Henley (ANU), Professor Tim Senden (ANU), Associate Professor Jenny Fisher (UoW), Dr Francis Hui (ANU) and Professor Kerrylee Rogers (UoW). Read more: <a href="https://nci.org.au/news-events/news/five-nci-users-receive-prestigious-academy-science-awards">https://nci.org.au/news-events/news/five-nci-users-receive-prestigious-academy-science-awards</a>.

#### **Cancer Killers in 3D**



Dr Maja Divjak is an award-winning biomedical animator for the Peter MacCallum Cancer Centre. Her latest work utilises Pawsey's Nebula cluster to animate CAR-T cell technology. This is a revolutionary cancer treatment which retrains the body's immune system to find and kill cancerous cells. Read the full case study here: <a href="https://pawsey.org.au/case\_studies/cancer-killers-in-3d/">https://pawsey.org.au/case\_studies/cancer-killers-in-3d/</a>.

**Visualisation Access Available for Researchers** 



The Pawsey Supercomputing Research Centre is pleased to officially announce the release of Nebula: Windows-based visualisation cluster. Access to Nebula is provided via web, which means researchers will be able to access this resource on the fly without the need to install any client software on their laptops. Also, it supports touch enabled interfaces.

Principal Investigators (who must be employed at an Australian university or research institution) can apply for Nebula cluster allocation via Pawsey Application Portal - <a href="https://apply.pawsey.org.au/portal/">https://apply.pawsey.org.au/portal/</a> and allocations will be granted per project per calendar year.

#### **PaCER Conference Presentations Online!**



P'Con21 was Pawsey Supercomputing Centre's first PaCER Conference, where researchers showcase their work as we prepare for the exascale era of supercomputing. Head to the video playlist on YouTube containing the recordings from the week-long conference. Now available online to watch here: <a href="https://www.youtube.com/playlist?list=PLmu61dgAX-aa5FH\_VwfSnb7RygCQ2iLRQ">https://www.youtube.com/playlist?list=PLmu61dgAX-aa5FH\_VwfSnb7RygCQ2iLRQ</a>.

# Data Science Week is back in 2022: 9 to 13-May



Australia's #DataScienceWeek is back in 2022 and we're looking for YOUR amazing events to complete the week!

Focusing on the theme Data Science Every Day, this week aims to bring together a community of data scientists, technologists, educators, data science enthusiasts and more to raise awareness around data science, STEM, network and share ideas with like-minded peers. Register your event here: <a href="www.datascienceweek.org">www.datascienceweek.org</a>.

# **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>.

Click **HERE** to subscribe to the eResearch Mailing List.

Thanks, Alex Reid, AeRO Newsletter Editor.

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