

Bringing together the UCL community who use computational and data sciences or digital technologies in their research.

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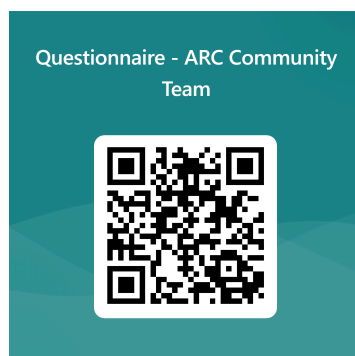


Dear Colleagues,

Welcome to the third edition of the UCL Digital Research Community newsletter! As we hope you already know, ARC (the UCL Centre for Advanced Research Computing) has joined forces with the eResearch Domain and you are receiving this newsletter because you previously signed up for either (or both) of the old newsletters. As always, please do forward this email to any colleagues you think may be interested.

If you haven't already signed up for this newsletter, you can do so here:

<http://eepurl.com/bBs6ov>



Reader Poll

We would be very grateful if you could spare a few minutes of your time to answer a few questions about the way we communicate with you, as we would like to make sure we are giving you the right information over the channels you prefer. You can scan the QR code or alternatively, visit the following link:

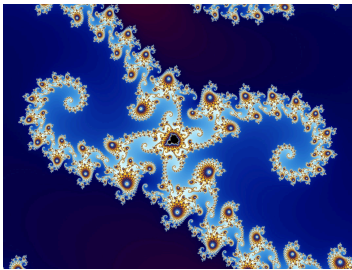
<https://forms.office.com/e/xkYTDDtWLw>

We would like to collect your responses by Friday, 1st December 2023, please. Many thanks for your help!

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Community Updates



Coming soon - Project Contender!

UCL's Centre for Advanced Research Computing (ARC) is this autumn installing various new one-off systems with new, or currently esoteric, accelerator cards, which we are calling Project Contender. These systems are:

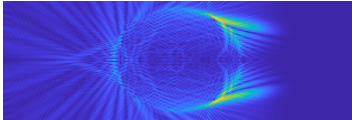
- “mandelbrot” – a Graphcore POD16
- “zeno” – Qualcomm Cloud AI100
- “cricket” – ARM CPU, Nvidia GPU
- “locust” – Nvidia Grace-Hopper superchip
- “terrarium” – NEC SX Aurora TSUBASA B300-8
- Nvidia BlueField cards

Most of these systems have been delivered already and so should be running early next year - we are looking for people to help us test the systems, and envisage that they will attract users from across UCL. Perhaps the most common use might be to benchmark machine learning codes on these against your usual current resources, or to work on codes to see how the novel systems may be leveraged. Please note that these are experimental machines and so are for projects that concern the machines themselves or their software - they are not intended for big production runs.

If you are interested, please visit:

<https://www.ucl.ac.uk/advanced-research-computing/coming-soon-platforms>

for further information and how to apply (we'll be starting to look at applications from the beginning of December).



Simulating Light Propagation through Matter - Case Study

Observing how light interacts with materials allows us to develop non-invasive medical imaging techniques, that rely on these interactions to assemble an image or infer an appropriate diagnosis.

In collaboration with the [UCL Medical Physics and Biomedical Engineering department](#), [Sam Cunliffe](#) and [William Graham](#) (two Research Software Engineers from ARC) have worked to open up a legacy C and MATLAB library which simulates light propagating through matter.

Find out more about this fascinating project at: <https://www.ucl.ac.uk/advanced-research-computing/case-studies/2023/oct/simulating-light-propagation-through-matter>



Open Source Software Sustainability Call Project Report - Making ALPS Usable and Sustainable

[Daniel Verscharen](#) reports on his project which received funding from the recent UCL Open Source Software Sustainability Funding call. There were three goals for the transformation of the ALPS code into a usable and sustainable open-source software project:

- 1) Make the ALPS code useable for researchers from all plasma-physics backgrounds.
- 2) Create a baseline documentation for researchers outside the development team.
- 3) Make the ALPS code open source and encourage community development.

With the help of the allocated funding from UCL's Advanced Research Computing Centre (ARC), the project team organised two hackathons in London of five days each in which Daniel Verscharen (Project Lead), Kristopher G. Klein (external partner from the University of Arizona), and two ARC Research Software Engineers ([David Stansby](#) and [Tuomas Koskela](#)) actively participated. The workshops achieved all of these aims.

Read more about how the team worked together and involved the community at the hackathons: <https://www.ucl.ac.uk/advanced-research-computing/case-studies/2023/nov/making-alps-usable-and-sustainable-open-source-software-sustainability-project>



ARC Staff News

Congratulations to [Miguel Xochicale](#), one of our Research Software Engineers, who won the Professional Services staff category of the UCL [Open Science and Scholarship Awards](#) (part of Open Science Week in October). Miguel hosted the “Open-source software for surgical technologies” workshop at the 2023 Hamlyn symposium on Medical Robotics, a half-day session that brought together experts from software engineering in medical imaging, academics specialising in surgical data science, and researchers at the forefront of surgical technology development. He also made recording of the talks and presentations, along with a work-in-progress white paper that is curated by them, and links to forums for inviting

others to join their [community available on Github](#).

You can find out more about our staff members at:

<https://www.ucl.ac.uk/advanced-research-computing/our-people>



Digital Research Community News

At the beginning of October, ARC welcomed [Dr Claire Ellul](#) (CEGE) as our new academic Chair of the Digital Research Community Steering Group. We also held the first meeting of the Steering Group this week, on 23rd November. This group has a remit of feeding back requirements from all research domains across UCL to the main governance group, the Digital Research Board led by [Prof Allison Littlejohn](#).

The terms of reference of the steering group are on the Digital Research Community site at: <https://www.ucl.ac.uk/advanced-research-computing/ucl-digital-research-community>.

If you are interested in becoming a member of the DRCSG, or just have some ideas for things we can do or events we can organise to foster UCL's fantastic Digital Research Community, we would be pleased to hear from you as we are keen to ensure we have representation from across UCL and at all career stages. Please visit the Community web page above for a link to a form.



Teach and Code Socials

The first "Teach and Code Social", a new series of termly social and informal seminars organised by ARC Education and in collaboration with the UCL community and beyond, was held on the afternoon of 15th November 2023. The aim is to

build community, and share knowledge and learning in teaching digital research skills.

Talks were as follows:

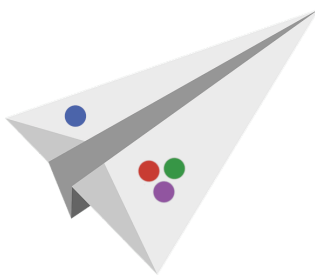
- [Samantha Ahern](#), ARC Education: Welcome and introduction to the event and ARC Education.
- Peter Bratby, MAPS : CoCalc (a web-based cloud computing and course management platform for computational mathematics).
- [David Pérez-Suárez](#), ARC: Submitty (an open source course management and assignment submission tool).

If you missed it, the Zoom recording will shortly be available on the ARC Education page:

<https://www.ucl.ac.uk/advanced-research-computing/education>

Date of next event: Wed 21 February, 15:00 - 17:00

(please save the date in your calendars - booking will soon be available from the link above). We hope to see you there!

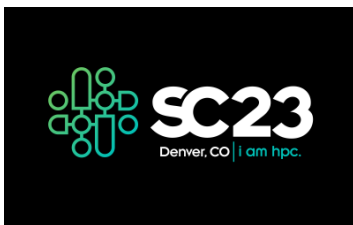


ARC's first Julia Workshop

On 10th of November) we ran our first ever Julia workshop - after years of having an expert in our team – [Dr Mosè Giordano](#) – who has introduced the rest of the team to this wonderful language and even convinced some collaborators to use it on their projects, we've at last made the leap to teaching it to the UCL community!

Read [David Pérez-Suárez's](#) blog post to see how it went:

<https://blogs.ucl.ac.uk/research-software-development/first-julia-workshop-at-arc/>



Supercomputing 23

UCL's presence at SC23, held in Denver from 13th - 17th November with a theme of "I am HPC", included an exhibition booth hosted by ARC staff members. You can visit our virtual booth and meet the team, see the posters and find out more about our professions, at:

<https://www.ucl.ac.uk/advanced-research-computing/supercomputing-23>



ARC Drop-in Sessions

A reminder that we have resumed our in-person drop-in support sessions - these are for all research staff and research students, where you can get support and advice to help plan and tackle problems with your research. If you have any problems related to the following areas, we should be able to help:

- choosing the right software, hardware and services,
- research programming,
- task automation and scripting,
- high performance computing,
- storing large datasets,
- Research Data Storage (RDS) service induction,
- handling sensitive data,
- research data management (including writing data management plans).

If the problem is likely to need a lengthy discussion (half an hour or more) or requires very specific knowledge (e.g. of an unusual programming language) it would be very helpful if you could email a short summary of your problem to arc@ucl.ac.uk at least 2 days before the session, so we can try to make sure a member of staff with appropriate expertise is available.

The last in-person drop-in session for 2023 is:

**Tuesday 5th December, 11:00 - 12:00, B1.03,
Cruciform Building**

For further details of the drop-in sessions and other support available, please visit:

<https://www.ucl.ac.uk/advanced-research-computing/support>

Dates for Term 2 will shortly be posted on the link above.



UCL R User Group

The UCL R user group is a friendly group for R users to meet, hear a talk and discuss R questions. It is open to all R users across all faculties. We aim to have a variety of talks to benefit beginners and more advanced R users. They meet at 1pm every 4th Thursday - if you'd like to join, please [email Naomi Launders](#).

Training & Workshops



UK Data Service Autumn Introductory Training Series

The UK Data Service runs a comprehensive programme of free, online introductory training - coming up in November and December:

- [How to document quantitative and qualitative data](#), 28 November, 11.00 – 12.30
- [Finding and accessing data from the UK Data Service](#), 29 November, 10.00 – 11.30
- [Consent issues in data sharing](#), 30 November, 10.00 – 11.30
- [Data in the spotlight: Census and population studies](#), 5 December, 10.00 – 11.30

- [Data in the spotlight: Longitudinal data](#), 7 December, 10.00 – 11.30
- [Data in the spotlight: International time series databanks](#), 12 December, 10.00 – 11.30
- [Data in the spotlight: Qualitative and mixed methods data](#), 14 December, 10.00 – 11.30

For details of their full autumn training series, please visit:

<https://ukdataservice.ac.uk/2023/08/16/uk-data-service-introductory-training-series-autumn-2023/>

If you've missed a workshop, recordings of past UK Data Service events are made available on the [UKDS YouTube channel](#).



UKDS SecureLab Drop-ins

The UK Data Service has introduced a monthly drop-in session for SecureLab Users who have any queries regarding aspects of SecureLab use. They run four fifteen minute sessions on Zoom over the course of an hour.

To book your place for the next sessions, from **12:00 - 13:00 on 12 December**, visit:

<https://ukdataservice.ac.uk/events/securelab-drop-in-sessions-2/>



ARCHER2 HPC Online Training

ARCHER2 Training is provided by EPCC (Edinburgh Parallel Computing Centre) as part of the ARCHER2 (Tier 1) national high performance computing service and is free of charge to research staff and students from academic institutions.

Upcoming online training includes:

- [ARCHER2 for Package Users](#) on **7 December, 9:30 - 15:30**

- [ARCHER2 for Software Developers](#) on **11 - 12 December 2023, 10:00 - 16:00**

Self service courses (always open):

- [Shared Memory Programming with OpenMP](#)
- [Message-Passing Programming with MPI](#)
- [QM/MM with GROMACS + CP2K](#)

For details of other training provided by ARCHER2, please visit:

<https://www.archer2.ac.uk/training/>



ARC Training

You can find a full list of ARC-provided training on our Education pages at:

<https://www.ucl.ac.uk/advanced-research-computing/education/training>

including self-paced courses via Moodle.

If an in-person or online instructor-led course has no dates listed, please fill in our [expression of interest form](#) and we will contact you as soon as we have dates for the next session.

Save the dates:

- [Software Carpentry Workshop](#): **21st - 22nd February 2024 (2 full days)**, online
- [UCL Introduction to High Performance Computing](#): **13th February 2024 (AM)**, **14th February 2024 (AM)**, **15th February 2024 (full day)**, in-person



Digital Skills Development Training

UCL's Digital Skills Development Team runs a variety of free training courses, many of which may be of interest to researchers - details of the full course programme for the autumn term can be found at:

<https://blogs.ucl.ac.uk/digital-education/tag/digital-skills-development-schedule/>

Upcoming data analysis and visualisation online courses include:

- [Scripting Stata Graphs](#) **5 December, 14:00 - 15:00**
- [In a Nutshell: Starting an Nvivo Project](#) **13 December, 14:00: - 15:00**
- [Data manipulation in R with Rstudio](#) **14 December, 10:00 - 12:00**



CLOSER Learning Hub

Longitudinal studies track the same individuals and households over time. They are powerful research tools to help us understand how our early circumstances and experiences influence our later lives. The CLOSER Learning Hub has information and resources to help you explore longitudinal studies and get you started using the data. Visit:

<https://learning.closer.ac.uk/>

November & December Events



UCL NeuroAI Annual Conference 2023

**Tue 28 November 2023, 09:00 - 17:30,
Sainsbury Wellcome Centre**

The 2023 UCL NeuroAI Annual Conference features leading speakers from around the world

at the cutting edge of machine learning and neuroscience. The rise of AI has gathered pace in recent years and will continue to fundamentally change our ways of life. This flagship NeuroAI event aims to foster collaboration and discussion between machine learning researchers and neuroscientists.

For further information and to register, please visit:

<https://www.sainsburywellcome.org/web/events/ucf-neuroai-annual-conference-2023>



Streaming Optimised Scientific Software: an Introduction to EESSI

Have you ever wished that all the scientific software you use was available on all the resources you had access to, without having to go through the pain of getting them installed the way you want/need? The European Environment for Scientific Software Installations (EESSI, pronounced “easy”) is a common stack of scientific software installations for HPC systems and beyond, including laptops, personal workstations and cloud infrastructure. In many ways it works like a streaming service for scientific software, instantly giving you the software you need, when you need it, and compiled to work efficiently for the architecture you have access to.

On **Tuesday 5 December 2023 (13:30-15:00)** there will be an online presentation on EESSI (<https://eessi.io>) entitled “Streaming Optimised Scientific Software: an Introduction to EESSI”, which is being organised in the context of the MultiXscale EuroHPC Centre-of-Excellence (<https://www.multixscale.eu>), but open to anyone who’s interested.

In this talk, we’ll explain what EESSI is, how it is

being designed, how to get access to it, and how to use it. We'll give a number of demonstrations and also give access to a resource where you can try EESSI out for yourself.

If you would like to attend this session, please register via:

<https://event.ugent.be/registration/eurohpcncees-si202312>



Open Research for Early Career Researchers - Webinar

Wed 6 December 2023, 11:00 - 12:00

This is the latest in the series of regular free webinars from the [UK Research Integrity Office](#) on research integrity and related issues.

Open research applies to all disciplines and encompasses a variety of strategies and practices for transparently sharing research publicly and free of charge. This includes but is not limited to

- Open Access
- Open Data
- Open Code
- Open Practice
- Open Science
- Open Innovation
- Pre-registrations
- Replication Studies

Speakers:

How openness facilitates collaboration Dr Jemeen Sreedharan, Wellcome Trust Senior Research Fellow, Honorary Consultant Neurologist

Navigating Open Research at the University of Exeter Sofia Fernandes, Open Research Manager, Library, University of Exeter

Please visit:

<https://www.eventbrite.co.uk/e/open-research-for-early-career-researchers-tickets-662978686097>

to find out more and to register.



CIUK (Computing Insight UK) 2023

[Computing Insight UK 2023](#) will be held at [Manchester Central](#) on the **7-8 December**. The theme for this year's conference is "Productive Supercomputing (Accessible and diverse large scale computing)" with sub-themes including "User Support", "Industry Use of HPC", "Making HPC More Accessible", "User Portals", "Convergence of AI and Simulation" and "Co-Design of Supercomputing Services and Systems". There will also be a session on the [UKRI Digital Research Infrastructure](#) including the [ExCALIBUR project](#).

CIUK 2023 will include an [exhibition](#) of the latest hardware and software releases plus a full, two day [programme of presentations](#) and a series of [parallel breakout sessions](#), including our annual Women in HPC breakfast. There will be a [student poster competition](#) plus the fourth instalment of the [Student Cluster Challenge](#). We will also present our annual [Jacky Pallas Memorial Award](#).

For detailed information and registration, please visit:

www.ukri.org/CIUK

ARC will have a presence at the conference including an exhibitor stand - we hope to meet some of you in Manchester!

Data Stewardship Webinar and Panel Discussion



Thur 14 December 08:00 - 09:30

Join a panel of European and Australasian research support professionals for an interactive discussion on Data Stewardship.

Hosted by the Australian Research Data Commons, this online event is part of the [10-year anniversary of Research Data Alliance](#), this event is especially aimed at Australasian professional support staff, but anyone is welcome to come along to learn and engage with our panel of experts.

For further information and to register, please visit:

<https://www.eventbrite.com.au/e/data-stewardship-webinar-and-panel-discussion-tickets-760243668277>

2024 Dates for your Diaries!



UCL Institute of Healthcare Engineering Early-Career Researcher Festival 2024

**Fri 16 February 2024, 09:30 - 18:00, Gustave
Tuck Lecture Theatre, Wilkins Building**

A festival by researchers, for researchers! With keynote talks, workshops and lots of chance to network, we'll be hosting this conference for ECR's on 16 February.

We welcome abstract submissions in all areas of Healthcare Engineering! Deadline for abstracts: **15 January**. To make a submission, click [here](#).

We will provide more details on the event schedule soon but for now...

[Book your free ticket](#)

Health Data Research UK Conference 2024: The Grand Challenges in Health Data

**5 - 6 March 2024, 09:15 - 16:30, Royal
Armouries Museum, Leeds**

Health Data Research UK's annual conference will be a free two-day, hybrid event to celebrate progress and bring people together to accelerate the trustworthy use of health data for public benefit.

The UK is in a unique position to realise the potential of health data, thanks to the NHS and its cradle-to-grave records for a population of over 65 million people. The last few years have demonstrated the enormous power of data to advance medical knowledge and deliver radical improvements to people's lives. But there is much more that can be done through large-scale data, advanced analytics and innovative developments in data governance.

- **Day 1** tackles the grand challenges in health data. Talks and panel discussions will cover everything from molecules to AI, GP data to wearables, maintaining public confidence to gaining an international perspective. The sessions are designed to inspire, enthuse and bring together members of the scientific community, industry, patients and the public.
- **Day 2** aims to promote the technology ecosystem and the contributions of colleagues across the sector addressing the grand challenges in health data research. This means bringing together the community to develop technical solutions, encouraging the adoption of standards for interoperability and pushing the science of data infrastructure, capacity building and training. Join scientists, research software

engineers and technologists from across the UK and around the world in sessions to share learning and technical solutions and build new networks.

For further information and registration, visit:

<https://www.hdruc.ac.uk/hdruc-conference-2024/>



ARChER2 Celebration of Science - Registration and Call for Posters

We are pleased to announce that the ARChER2 Celebration of Science will take place on the **7th – 8th March 2024** in Edinburgh at South Hall, The University of Edinburgh..The event will provide ARChER2 users with the opportunity to showcase their science achievements on ARChER2. The two-day programme will include a variety of talks from members of the ARChER2 research consortia and other invited presenters involved in the ARChER2 service, a poster session and a panel session focusing on preparing the UK science community for future Exascale systems. All attendees are welcome to join the drink reception on the evening of the first day. The event is in-person and there is no registration fee.

Please visit:

<https://www.archer2.ac.uk/community/events/celebration-of-science-2024>

to participate.

The registration deadline is **29th February 2024**

Regards,
UCL Centre for Advanced Research Computing (ARC)

You can [update your preferences](#) or [unsubscribe from this list](#).

