Research IT
Helping you achieve your research outcomes
A newsletter from IT Services: Research IT

Welcome to issue #32, December 2015, in a [regular series](#) of updates on IT research support and facilities for postgraduates, researchers and academics of The University of Manchester.

Your main contact email address for research computing support is given on the last page; emailing your queries this way will automatically raise a job for you in the IT Services helpdesk system. Every day, routine work should continue to be submitted through the IT Service Desk on +44 (0) 161 306 5544 or via the Support Centre online at: www.itservices.manchester.ac.uk/help/

News

Helping you to raise the profile and the impact of your research

Increasingly, journal publishers and research funders ask that when you publish your results you make your data available too. Some funders provide their own repositories, or encourage the use of third-party facilities, enabling easy citation and controlled dissemination.

But many researchers at Manchester still need a secure, easy to use facility; one that makes the publication of their work complete by ensuring the long-term availability of their research data.

The University of Manchester research data repository project are holding a series of short (90 minute) workshops in December and January to ensure that our planned research data repository meets your needs.

We would like to listen to you and understand how we can help:

- **Make your data outputs easily citable and available to your peers**
- **Conserve your data outputs for future re-use**
- **Ensure an accessible, professional presentation of data joined up to research findings.**

If you would like to be involved in these workshops please contact the project via – nicholas.graham@manchester.ac.uk.

Make Your Views on Computational Research Heard

In order to secure funding for the next generation of computational research provision, EPSRC is assembling evidence to present a persuasive case for continued support. This will include capital and associated resource funding to provide the tools that the computational research community will need to carry out world leading research.

A key component of this process is to develop a science case across EPSRC's remit which;

• **Demonstrates current focus of computational research;**

•**Highlights successes;**

•**Identifies the future cutting edge science questions that will be a focus for the community in the years ahead.**

To enable this science case to be built EPSRC has developed a survey and are now asking for community opinions - http://www.smartsurvey.co.uk/s/P861D/

EPSRC are keen to receive responses from the broadest possible range of computational researchers and all responses will be considered to form a vital evidence base.

All Manchester researchers who fall within EPSRC's remit are urged to complete this short survey to ensure your voice is heard. Separately Research IT will soon be seeking the opinions of all University researchers including those who fall into the remit of other research councils. This survey will be complementary to the EPSRC survey.
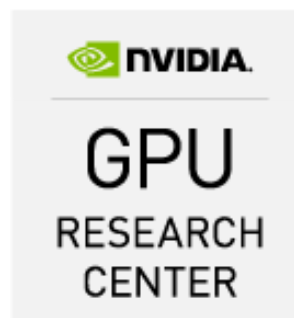
Inaugural Data Science Club Meeting

On 25 November 2015 the first meeting of the Data Science Club was held. The lively first edition of the club, led by Prof. Robert Stevens, Prof. Sarah Bridle, Dr Niels Peek and Dr David Topping and facilitated by Manchester Informatics and Research IT, was attended by 70 researchers from right across the university. To

initiate the club the meeting focussed on introducing data science, setting the context within the activities around the nascent Data Science Institute and involved members in gathering thoughts about what they would like to get from the club over the coming meetings. The next meeting will be on 26 January 2016 and we will provide a summary of the meeting, including slides, to all those who registered. If you would like to be added to the Data Science Club email list where you can discuss all elements of data science and be informed of upcoming meetings please contact Dr Gillian Sinclair gillian.sinclair@manchester.ac.uk. The slides and other material will be made available soon on the Data Science Institute website.

Applications open for the NVIDIA Grad Fellowship 2016-2017

A few years ago the University of Manchester achieved NVIDIA's "GPU Research Centre" status in recognition of the amount of compute/data-based research undertaken on the GPU architecture and also due to the national acclaims for the University GPU Club.

As a GPU Research Centre, the University can obtain small discounts on NVIDIA GPU cards and its members can obtain access both to their new technologies and their experts. For example, Research IT is currently organising a "GPU Kitchen Sink" workshop for around Easter 2016. Further details are available by contacting Research IT.

PhD students can also apply to the "NVIDIA Grad Fellowship" which provides grants and technical support to graduate students undertaking outstanding GPU-based research. Successful PhD students will receive grants of $25,000 each for research that advances parallel computing to be awarded in the 2016

academic year. The deadline is **15 January 2016** and further details are available online.

My Research Essentials

The Library and the John Rylands Research Institute (JRRI) currently deliver a wide range of researcher development activities which complement those provided by the faculty researcher development teams. During 2015-16 activities are being grouped into a new programme, My Research Essentials (MRE).

MRE is being created to make it easier for researchers to find and decide what library training opportunities are appropriate for them and include these in their own development planning.

The sessions being offered include understanding reference management tools, Research Data Management, Open Access publishing and ways to raise researcher online identities.

The formal MRE programme for 2015-16 will launch in January 2016. Details of the planned sessions are available on the MRE website, and booking will open in November. These sessions are open to all researchers and Postgraduate Researchers but a number of sessions will also be delivered within faculty training programmes.

For more information please visit the My Research Essentials webpage.

Hartree Centre 4th Programme of Access to Intel® Xeon Phi™ Coprocessor Cluster

The Hartree Centre is pleased to announce a fourth programme of access to its Intel® Xeon Phi™ coprocessor cluster. This is for projects from academia and industry that would like to experiment with their code on this exciting new architecture. The fourth phase covers the period between Monday 4 January and Friday 1 April 2015.

It is a pre-requisite that if you are a member of a project granted access in previous access programmes,

the project has provided the feedback requested, i.e., a report detailing the work undertaken, particularly the science and engineering content and the impact of the project.

Of the 84 nodes in the Blue Wonder iDataPlex:
• 42 of these nodes have Intel® Xeon Phi™ coprocessor (5110P) accelerators;
• Each Intel® Xeon Phi™ coprocessor has 60 cores and can be used in native and off-load mode.

To find out how to apply please click here. The deadline for applications is **11 December 2015.**

If you have any questions please send these to the Hartree Helpdesk- hartree@stfc.ac.uk. All applicants will be notified of the outcome by 21 December.

ARCHER 7th eCSE Call for Proposals Now Open

ARCHER are inviting proposals to the 7th embedded CSE (eCSE) call. Embedded CSE (eCSE) support provides funding to the ARCHER user community to develop software in a sustainable manner for running on ARCHER. Funding will enable the employment of a researcher or code developer to work specifically on the relevant software to enable new features or improve the performance of the code. Examples of this could be:

- Improving the scalability of software on higher core counts
- Improvements to code which allow new science to be carried out
- Implementation of algorithmic improvements within an existing code
- Porting and optimising a code to run efficiently on ARCHER
- Adding new functionalities to existing codes
- Code development to take a code from a Tier-2 (Regional) to Tier-1 (National) level bringing New Communities onto ARCHER

More details of how to apply together with assessment criteria and eligibility are available by following the link to the eCSE calls page here. If you would like to discuss your application for this call please contact Research IT.

Deadline for proposals: **4pm on 19 January 2016.** Information is also available from the ARCHER helpdesk- support@archer.ac.uk.

Other News

Dr Lee Margetts elected Vice-Chairman of the PRACE Industrial Advisory Committee

Dr Lee Margetts has been elected Vice-Chairman of the PRACE Industrial Advisory Committee. PRACE, the Partnership for Advanced Computing in Europe, provides Europe's "leadership class" supercomputing infrastructure. The systems and services accessible through PRACE are provided by 4 PRACE members (BSC Spain, CINECA Italy, GCS Germany and GENCI France), a commitment valued in excess of €500 million.

The PRACE Industrial Advisory Committee is responsible for guiding PRACE in the development of its business engagement strategy. In addition to its academic and scientific goals, PRACE aims to promote the adoption of supercomputing in industry, boosting the economic impact of HPC in Europe.

Lee joined the PRACE Industrial Advisory Committee in May 2013 and was elected as Vice-Chairman in November 2015.

Vacancies

Are you trying to recruit someone? Let us know and we will help you advertise here.

Internship Opportunity

Research IT are looking for two recent graduates to join our team for up to 12 months with a start date of as soon as possible. The successful candidates will primarily work alongside permanent Research IT staff and university researchers on a small number of exciting projects and also help promote the range of services that we offer to researchers.

For more details and to apply please click here. Please note that access to CareersLink where the vacancies

are posted is only available to current and graduate students with University log in details. The deadline for applications is **6 December.**

Researcher Satisfaction Survey

We value your feedback; please take a moment to tell us how we're doing by completing this short survey.

Research Computing Facilities

IT Services supports University of Manchester researchers and staff on a wide range of facilities including your own desktop, University owned clusters and externally hosted facilities. Links to a range of facilities are provided below. If you would like to find out more about the best option for your particular research needs, please contact us.

- University of Manchester Computational Shared Facility
- University of Manchester Condor Service
- N8 Regional High Performance Computing Service (N8 HPC)
- PRACE EU High Performance Computing Service
- UK Hartree Centre Facilities
- PRACE EU High Performance Computing Service
- XSEDE USA High Performance Computing Service

Access to ARCHER

Researchers can request anything from pump-priming access to full projects on the UK High Performance Computing Service (ARCHER) for suitability for their work all year round via a lightweight application process. Click here for details.

Research Computing Training

University of Manchester Courses

Research IT is running a short series of hands-on training courses which provide skills for researchers to further enhance their research. For information on our courses or other training that we can provide, please take a look at our training catalogue or contact us.

PRACE Advanced Training Courses

The Partnership for Advanced Computing in Europe (PRACE) offers free courses at different HPC centres in Europe. Courses offered in December 2015 and January 2016 include:

1-3 Dec	Python for Computational Science	Italy
7-9 Dec	Programming on GPU's	France
8-10 Dec	Intro to Accelerator's	Finland
10-11 Dec	Node-Level Performance Engineering	Germany
10-11 Dec	Efficient Parallel IO on Archer	Oxford
14-15 Dec	Software Carpentry	Portsmouth
15-16 Dec	Intro to Simulation Environment	Spain
15-16 Dec	Shared-Memory Programming with OpenMP	York
16 Dec	Intro to OpenMP and MPI	Portsmouth
14 Jan	Intro to Hybrid Programming	Germany
19-22 Jan	Ab initio Periodic Codes	Warrington
25-27 Jan	Python in HPC	Finland
27-29 Jan	Advanced Visualisation with Paraview	France

Subject-specific Email Lists

Join the email lists below to collaborate and share ideas with a broad network of staff across campus. Please note that these email lists are subject specific discussion forums, rather than a way of contacting IT Services.

University HPC PhD Network

finite-elements@listserv.manchester.ac.uk

fortran@listserv.manchester.ac.uk

sciprogramming@listserv.manchester.ac.uk

university-gpuclub@listserv.manchester.ac.uk

Useful Links

Faculty of Humanities Blog for Researchers

Faculty of Humanities Training Hub for Postgraduates

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Online Copy

If you have received a printed copy of this newsletter and wish to follow the links, staff can download an electronic copy with clickable links at:
http://documents.manchester.ac.uk/display.aspx?DocID=26181

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Next edition

The next edition of this newsletter will be circulated early in the New Year..

Dalinder Sall has left IT Services as her internship with Research IT has come to an end. If you have any news to contribute, please contact Gillian Sinclair gillian.sinclair@manchester.ac.uk at any time.

Items received before 18 December 2015 will be included in the next edition. News from academic colleagues and researchers are most welcome.