

MANCHESTER
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The University of Manchester

Research it

Supporting your research

A newsletter from IT Services: Research IT

Welcome to issue #26, June 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 addresses for research computing support are 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 online submission at:

www.manchester.ac.uk/servicedesk.

Web Page: Research IT

The web site for our support areas and all contact details is available here:

www.its.manchester.ac.uk/research/.

Clickable Web Links

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/DocuInfo.aspx?DocID=24312>

Please help us increase our readership by forwarding the link to colleagues.



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](#)
- [ARCHER UK 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 access to test 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

IT Services offer a portfolio of short courses in research computing. [Click here](#) for the latest schedule. We can also tailor courses for doctoral training programmes and arrange on-demand training with external tutors. Please [contact us](#) to discuss your requirements.

University of Manchester Advanced OpenMP Training

Research IT will be holding a two-day course from 2-3 July 2015 in the Kilburn Building, University of Manchester, aimed at programmers seeking to deepen their understanding of OpenMP and explore some of its more recent and advanced features.

Topics to be covered include nested parallelism, OpenMP tasks, the OpenMP memory model, performance tuning, hybrid OpenMP + MPI, OpenMP implementations, and new features in OpenMP 4.0. For more information and to register, please [click here](#).

Training Available via Research IT

Research IT are offering a small selection of training coming up in the next two months. These are available for free to all research staff and students at the University. Further details, and links to the registration pages, can be found [online](#).

- Introduction to UNIX
- Introduction to CSF
- Introduction to Version Control and Git
- Advanced OpenMP
- Python & TAU for High Performance Computing

Additionally, for EPS researchers, Wolfram Research will be on site in June to promote their popular [Mathematica](#) software, based upon symbolic mathematics. Please [email the Research Apps Team](#) for further information.

PRACE Advanced Training Courses

The Partnership for Advanced Computing in Europe (PRACE) offers [free courses](#) at different HPC centres in Europe. Courses offered in June and July 2015 include:

2-5 Jun	Introduction to CUDA Programming	Spain
4-5 Jun	Heterogeneous Programming	France
10-11 Jun	Atomic and Molecular Calculation	France
15-18 Jun	Hybrid MPI/OpenMP Programming	France
17-19 Jun	Workshop HPC Methods	Italy
25-26 Jun	Performance Analysis Workshop	Durham
29 Jun-1 Jul	Programming Paradigms	Italy
29 Jun- 1 Jul	Introduction to Molecular Dynamics	Glasgow
2-3 Jul	Advanced Open MP	Manchester
6-7 Jul	Node-level Performance Engineering	Germany
6-10 Jul	Programming and Tuning	Spain
13-14 Jul	Introduction to HPC	Edinburgh
15-17 Jul	Message Passing	Edinburgh

Upcoming Events

Women in HPC

In collaboration with ISC High Performance 2015, the Women in High Performance Computing network are running a half day workshop in Frankfurt on 16 July 2015. The workshop aims to bring together female early career researchers with a focus on European participation, providing them with the opportunity to showcase their work and network with role-models and peers.

For full details and to register for the event, please [click here](#).

MATLAB Data Analytics event

This one-day event will take place on 12 June 2015 in Room G.107, Alan Turing Building, University of Manchester, and will include presentations on data analytics, taking your analytics further and analytics implementation as well as a talk from guest speaker [Dr Jasmina Lazic](#) of MathWorks.

To register, please visit the [event website](#).

Hartree Centre Summer Schools

The Hartree Centre Summer Schools will be taking place at the STFC Daresbury Laboratory this June and July, focusing on the topics of Visualisation, Big Data and High Performance Computing. Each week of the summer school will comprise of a mixture of lectures from internationally renowned experts and practical exercises on state of the art systems for visualization, compute and Big Data (IBM BG/Q, iDataPlex and NeXTScale systems).

Week 1 – **VISUALIZATION** – 15-19 Jun

Week 2– **BIG DATA** – 29 Jun -3 Jul

Week 3 – **HIGH PERFORMANCE COMPUTING** – 6- 10 Jul

For further details and to complete the online registration form please [click here](#).

eSeminar: Topology Optimization with SIMULIA Tosca Fluid

This eSeminar from Dr Jens Iseler of Simulia Germany will give an introduction to flow topology optimization technology and provide details on functionalities and features available in the latest release of SIMULIA Tosca Fluid. The seminar will be held at 2pm on 3 June 2015.

To register please [click here](#). Once registered you will be emailed the details on how to dial in to the seminar from your desk.

Emerging Tech Conference - EMiT 2015 Registration closing soon!

The upcoming EMiT Conference will be held over two days at The Place Apartment Hotel in Manchester on 30 June and 1 July. Focusing on emerging computational technology, EMiT 2015 is a ground-breaking conference showcasing how this technology is revolutionising today's research across all research fields as well as influencing tomorrow's applied computing. Keynote speakers include Prof. Stephen Furber (University of Manchester), Prof. Laura Grigori (INRIA), Dr John Linford (ParaTools Inc.) and Dr Filippo Mantovani (Barcelona Supercomputing Centre).

A full programme along with registration details is available on the [EMiT website](#). Final registration will close on **16 June 2015**. A special reduced rate is available for students; please email emit@manchester.ac.uk for further details.



MATLAB EXPO Conference- Call for Posters

MathWorks invites researchers to submit a technical poster for presentation at the upcoming MATLAB EXPO 2015 UK conference, to be held at Silverstone Circuit on 7 October 2015. Topics in any area of engineering, robotics, science or data analytics are welcome. Please apply for the poster session by emailing Jasmina Lazic-jasmina.lazic@mathworks.co.uk with an abstract of up to 150 words or a draft poster by **26 June 2015**. For further information please contact Jasmina on the above email address. More information about the MATLAB EXPO Conference including last year's highlights, and a registration form for this year's event, is available [here](#).

Other News

Appentra Automatic Parallelising Tool

A start-up company of The University of A Coruña, called Appentra, have developed an automatic parallelising tool for converting sequential C code to OpenMP C code (and could be used to convert MPI to mixed OpenMP/MPI). This type of tool could improve productivity in HPC centres which are limited in terms of RSE effort. Click [here](#) to see a demo given at this year's PRACEDays in Dublin. A free 30-day trial is also available by contacting [Appentra](#).

EPSRC Research Data Management Policy

From 1 May 2015, the University and its researchers must adhere to new EPSRC expectations for research data management. If your research is EPSRC funded, the University Library's Research Data Management team has produced a summary guidance to help you meet the [requirements](#):

[University of Manchester Research Data Management: Summary Guidance](#)

If you have any questions, please contact the RDM team at; researchdata@manchester.ac.uk- Tel: 57853

EPSRC Calls for Proposals

[Research Software Engineer \(RSE\) Fellowships](#)

This call will support Research Software Engineer (RSE) Fellowships for a period of up to five years. The RSE Fellowship describes exceptional individuals with combined expertise in programming and a solid knowledge of the research environment. Applicants are expected to hold a PhD by the start date of the fellowship (1 January 2016) or have equivalent experience. Closing date **21 July 2015**.

[State of the Art in Simulation and Design Workshop](#)

EPSRC and Innovate UK would like to invite applications to participate in a workshop to help explore the state of the art in simulation and modelling tools for engineering design. Closing date **10 June 2015**.

Fellowships are available in a number of [priority areas](#). Applications can be submitted at any time. Further information on the application and peer review process can be found [here](#).

If you experience any problems, please contact the [EPSRC Webteam](#).

Vacancies

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

[Research Scientist - Energy Efficient Computing at STFC Daresbury Laboratory](#)

Research Software Applications Deployment & User Acceptance Testing- University of Manchester Grade 4 roles.

*(Note from Editor- this was a late submission to the newsletter; please note that the deadline for applications is **3 June 2015**).*

The University of Manchester's IT Services is looking to employ two people on short fixed term contracts over the summer. They are looking for enthusiastic people who have experience installing and testing software with an ability to trouble-shoot issues and identify solutions, and produce clear, concise software installation instructions.

This is an excellent opportunity for recent graduates and those looking for experience of working within Research IT at a world class university.

If you are interested please contact Dr Michael Bane (details below) with a covering letter, an up-to-date 2-page CV and names of two referees before noon, **3 June 2015**. Your covering letter should include relevant experience and your available start date.

For More Information / Informal Discussion

Michael Bane, Manager, Research Apps Team: 0161 306 6652, michael.bane@manchester.ac.uk

Jonathan Boyle, Research IT Software Engineer: 0161 306 6653, jonathan.boyle@manchester.ac.uk

Useful Links

[Faculty of Humanities Blog for Researchers](#)

[Faculty of Humanities Training Hub for Postgraduates](#)

Subject-specific Email Lists

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

Contact Emails

Research IT:

its-research@manchester.ac.uk

Humanities:

Hum-ITResearch@manchester.ac.uk

Engineering and Physical Sciences:

EPS-ITResearch@manchester.ac.uk

Medical and Human Sciences:

MHS-ITResearch@manchester.ac.uk

Life Sciences:

FLS-ITResearch@manchester.ac.uk

Next edition

The next edition of this newsletter will be circulated at the beginning of July 2015.

If you have any news to contribute, please contact Gillian Sinclair gillian.sinclair@manchester.ac.uk and Dalinder Sall dalinder.sall@manchester.ac.uk at any time.

Items received **before 26 June 2015** will be included in the next edition. News from academic colleagues and researchers are most welcome.