

ARCHER Training Courses

General Overview



EPSRC



NERC SCIENCE OF THE ENVIRONMENT



WHPC



archer



CRAY
THE SUPERCOMPUTER COMPANY



epcc



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- UK National Supercomputer Service, managed by EPSRC
 - housed, operated and supported by EPCC
 - hardware Supplied by Cray
- Training provided by the ARCHER Computational Science and Engineering (CSE) support team
 - 72 days per year at various locations round the UK
 - free to all academics



EPCCC's Advanced Computing Facility



What is EPCC?

- UK national supercomputer centre
 - founded in 1990 (originally Edinburgh Parallel Computing Centre)
 - a self-funding Institute at The University of Edinburgh
 - running national parallel systems since Cray T3D in 1994
 - around 70 full-time staff
 - a range of academic research and commercial projects
 - one-year postgraduate masters in HPC www.epcc.ed.ac.uk/msc/
 - new online accredited courses www.epcc.ed.ac.uk/online-courses/
- Get in contact if you want to collaborate
 - many staff are named RAs on research grants
 - joint research proposals
 - European project consortia



Key ARCHER Resources

- Upcoming courses
 - <http://www.archer.ac.uk/training/>
- Material from past courses
 - http://www.archer.ac.uk/training/past_courses.php
- Virtual tutorials (online)
 - <http://www.archer.ac.uk/training/virtual/>
- Documentation
 - <http://www.archer.ac.uk/documentation/>



Who am I?

David Henty d.henty@epcc.ed.ac.uk

- In charge of training at EPCC
 - MSc
 - PRACE Advanced Training Centre
 - ARCHER training programme
 - commercial training
 - ...
- Also do HPC research
 - new parallel programming models, accelerators, performance, ...



Other Resources

- Please fill in the feedback form!
 - <http://www.archer.ac.uk/training/feedback/>
- General enquiries about ARCHER go to the helpdesk
 - support@archer.ac.uk
- EPCC runs one-year taught postgraduate masters courses
 - **MSc in HPC** and **MSc in HPC with Data Science**
 - awarded by the University of Edinburgh since 2001
 - scholarships available
 - <http://www.epcc.ed.ac.uk/msc/>



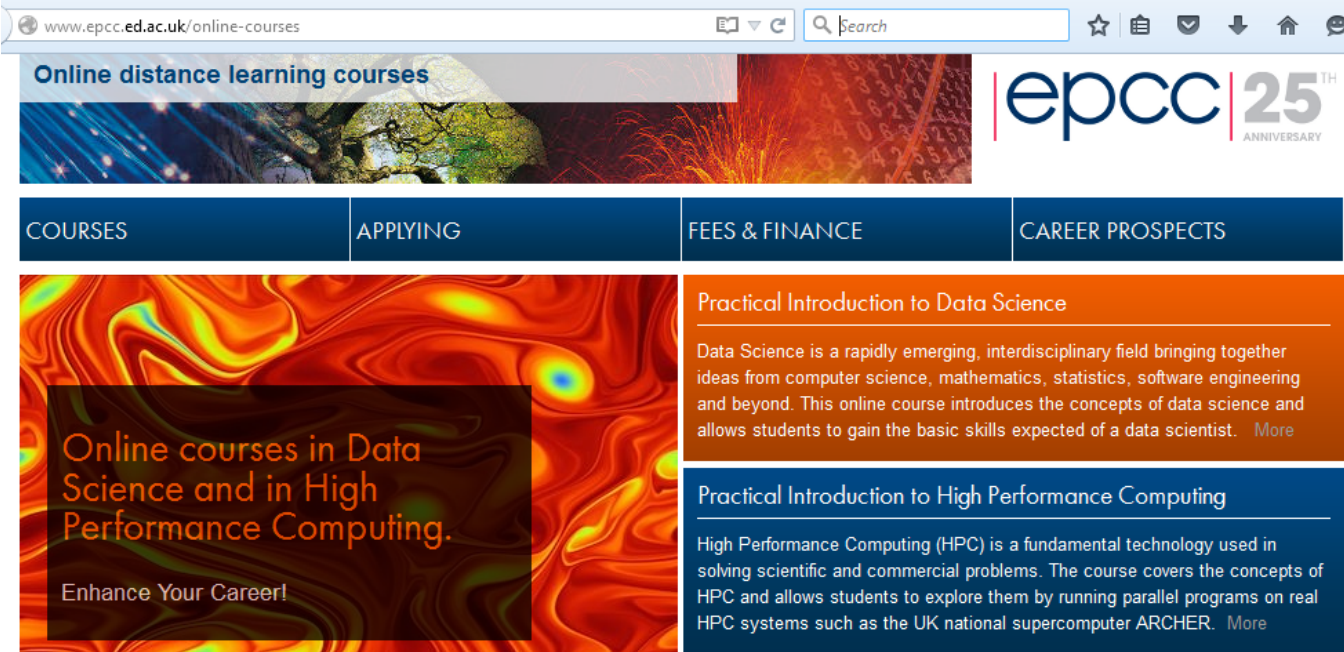
MSc in HPC / HPC with Data Science



- taught by EPCC staff (plus options in Informatics, Maths, Physics, ...)
- 12 taught courses (8 months); research dissertation (4 months)



Online accredited courses



The screenshot shows the website www.epcc.ed.ac.uk/online-courses. The page features a navigation menu with four categories: COURSES, APPLYING, FEES & FINANCE, and CAREER PROSPECTS. Below the menu, there are two main content areas. The left area has a background of colorful, abstract patterns and contains the text: "Online courses in Data Science and in High Performance Computing. Enhance Your Career!". The right area has a background of a network diagram and contains two course listings: "Practical Introduction to Data Science" and "Practical Introduction to High Performance Computing". The EPCC 25th Anniversary logo is visible in the top right corner.

- Run from January to June each year
 - entirely online: www.epcc.ed.ac.uk/online-courses/.
 - each course is 20 credits (c.f. a 180-credit MSc)



Access to ARCHER (during course)

- Guest accounts for duration of course
 - should only be used in the classroom
- Accounts will be closed immediately after the course
 - all files etc will be deleted
- Take copies of all your work before course ends!
- Course materials (slides, exercises etc) available from course web page
 - archived on ARCHER web pages for future reference



Access to ARCHER (longer term)

- Various ways to apply for time on ARCHER
 - see <http://www.archer.ac.uk/access/>
- All require justification of resources
 - Instant Access has the lowest barrier to entry
 - designed for exploratory work, e.g. in advance of a full application
- Or take the “ARCHER Driving Test”
 - www.archer.ac.uk/training/course-material/online/driving_test.php
 - successful completion allows you to apply for an account for 12 months with an allocation of around 80,000 core-hours
 - backed up by online training materials
 - www.archer.ac.uk/training/course-material/online/



Funding calls

- Embedded CSE support
 - Through a series of regular calls, 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
 - Apply for funding for development effort
 - Happen roughly every 4 months
- See <https://www.archer.ac.uk/community/eCSE/calls.php> for details





PARTNERSHIP FOR ADVANCED COMPUTING IN EUROPE

EPCC's PRACE Advanced Training Centre





Currently 25 members

- Austria
- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Israel
- Italy
- Netherlands
- Norway
- Poland
- Portugal
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- UK

UK represented by EPCC
(on behalf of EPSRC)



Six PRACE Advanced Training Centres (PATCs)

Hubs for world-class HPC training for researchers in Europe

www.training.prace-ri.eu

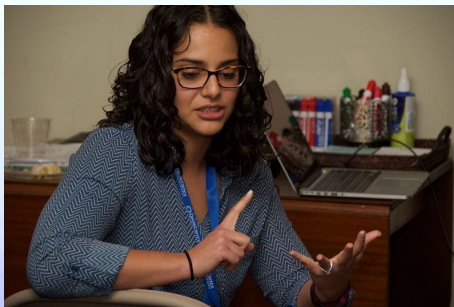
- Barcelona Supercomputing Center (Spain)
- CINECA - Consorzio Interuniversitario (Italy)
- CSC - IT Center for Science Ltd (Finland)
- EPCC at the University of Edinburgh (UK)
- Gauss Centre for Supercomputing (Germany)
- Maison de la Simulation (France)

PRACE support

- PRACE also funds catering and other expenses for PATC courses
- Upcoming courses (at EPCC and throughout Europe)
 - www.archer.ac.uk/training/
 - www.training.prace-ri.eu
- Please fill in the course feedback form!
 - see www.archer.ac.uk/training/feedback/
 - opens on last day of course

Women in High Performance Computing

Changing the face of HPC



WHPC: Striving for Equality for Women in High Performance Computing

Our mission

To promote, build and leverage a diverse and inclusive HPC workforce by enabling and energising those in the HPC community to increase the participation of women and to highlight their contribution to the success of supercomputing. To ensure that women are treated fairly and have equal opportunities to succeed in their chosen HPC career. To ensure everyone understands the benefits of promoting and achieving inclusivity.



Join Women in HPC

Join the conversation on social media

Membership is free and open to all
We need male advocates and allies to join us
www.womeninhpc.org/membership

