

ARCHER Training Courses

General Overview

EPSRC

NERC SCIENCE OF THE ENVIRONMENT



CRAY
THE SUPERCOMPUTER COMPANY

epcc



Reusing this material



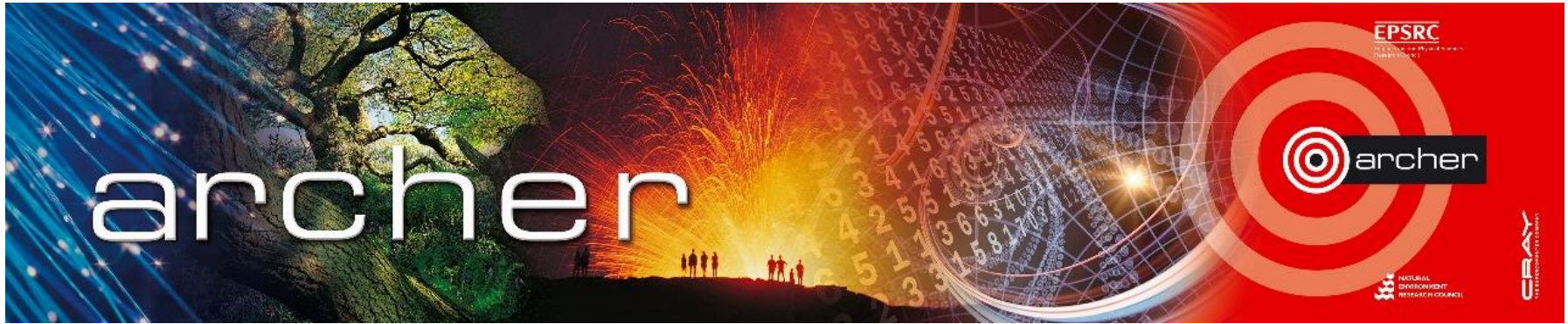
This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

http://creativecommons.org/licenses/by-nc-sa/4.0/deed.en_US

This means you are free to copy and redistribute the material and adapt and build on the material under the following terms: You must give appropriate credit, provide a link to the license and indicate if changes were made. If you adapt or build on the material you must distribute your work under the same license as the original.

Note that this presentation contains images owned by others. Please seek their permission before reusing these images.





- 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/>



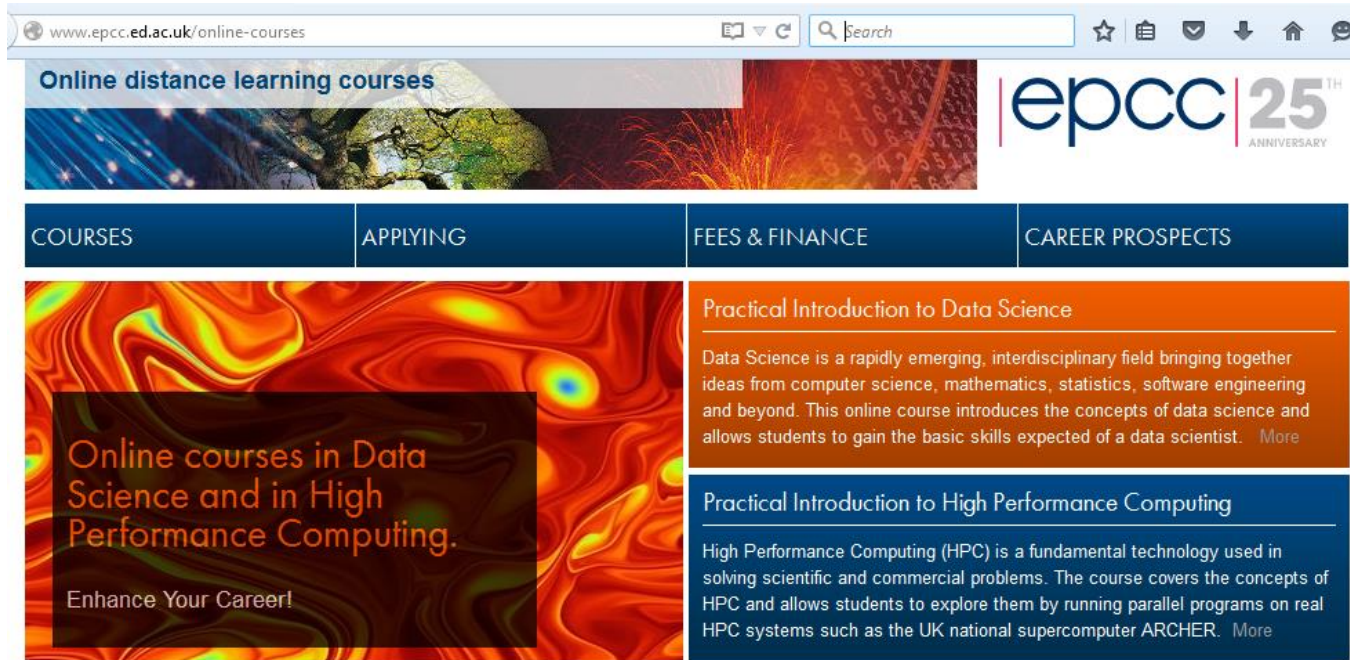
MSc in HPC / HPC with Data Science



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



Online accredited courses



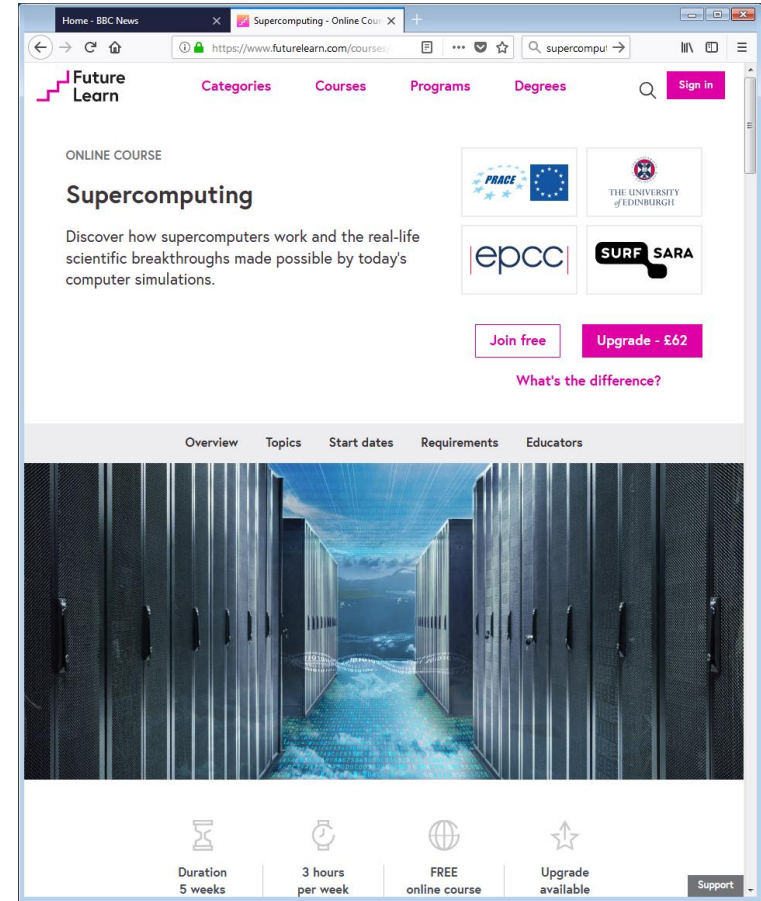
The screenshot shows the website www.epcc.ed.ac.uk/online-courses. The page features a navigation menu with links for COURSES, APPLYING, FEES & FINANCE, and CAREER PROSPECTS. The main content area highlights two courses: "Online courses in Data Science and in High Performance Computing" and "Practical Introduction to Data Science". The "Practical Introduction to Data Science" course is described as a rapidly emerging, interdisciplinary field bringing together ideas from computer science, mathematics, statistics, software engineering and beyond. The "Practical Introduction to High Performance Computing" course is described as a fundamental technology used in solving scientific and commercial problems. The website also features a banner for "Online distance learning courses" and a "25th Anniversary" logo for EPCC.

- 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)



Supercomputing MOOC

- futurelearn.com/supercomputing
 - 5 weeks
 - free
 - conceptual
 - no computer programming required
- Third run 15th January 2018
 - typically 3000 “joiners”
 - over 300 still active in the final week
 - very collaborative
 - lots of support from fellow learners



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/



Subscribing to training emails

- Weekly service updates sent to registered ARCHER users
 - many contain information relevant to training
- You can subscribe to receive only training-related emails
 - even if you don't have an ARCHER account

- Visit:

`https://www.jiscmail.ed.ac.uk/cgi-bin/webadmin?SUBED1=ARCHER-TRAINING&A=1`



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

