

# ARCHER Training Courses

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General Overview

**EPSRC**

**NERC** SCIENCE OF THE ENVIRONMENT

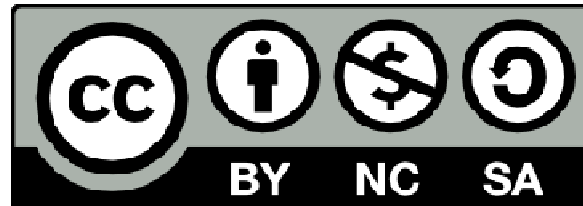


**CRAY**  
THE SUPERCOMPUTER COMPANY

**epcc**



# Reusing this material



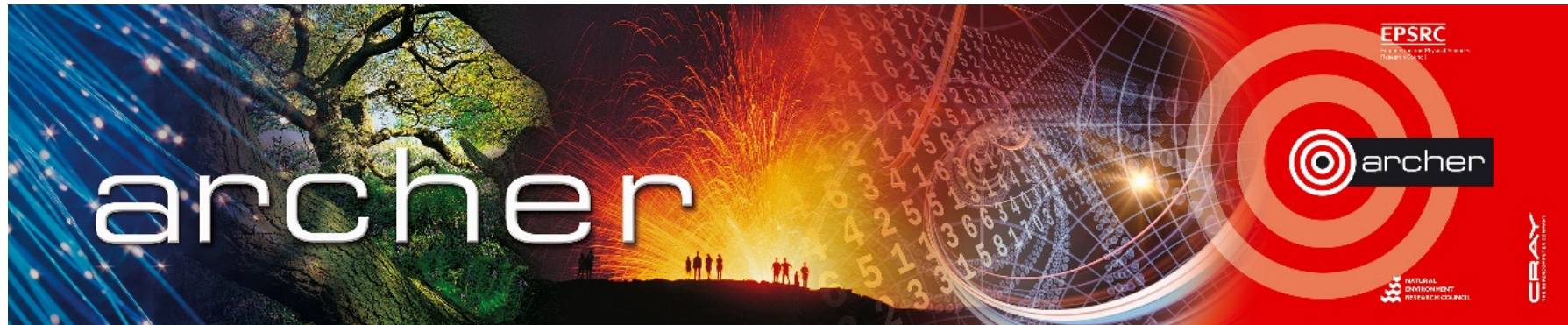
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- UK National Supercomputer Service, managed by EPSRC
  - housed, operated and supported by EPCC
  - hardware Supplied by Cray
- Training provided by the ARCHER Computational Science and Engineering (CSE) support team
  - 72 days per year at various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



# EPCC'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 65 full-time staff
  - a range of academic research and commercial projects
  - one-year postgraduate masters in HPC [www.epcc.ed.ac.uk/msc/](http://www.epcc.ed.ac.uk/msc/)
  - new online accredited courses [www.epcc.ed.ac.uk/online-courses/](http://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
  - RSE support



# Key ARCHER Resources

- Upcoming courses
  - <http://www.archer.ac.uk/training/>
- Material from past courses
  - [http://www.archer.ac.uk/training/past\\_courses.php](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?

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- Help out with 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](mailto: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/>





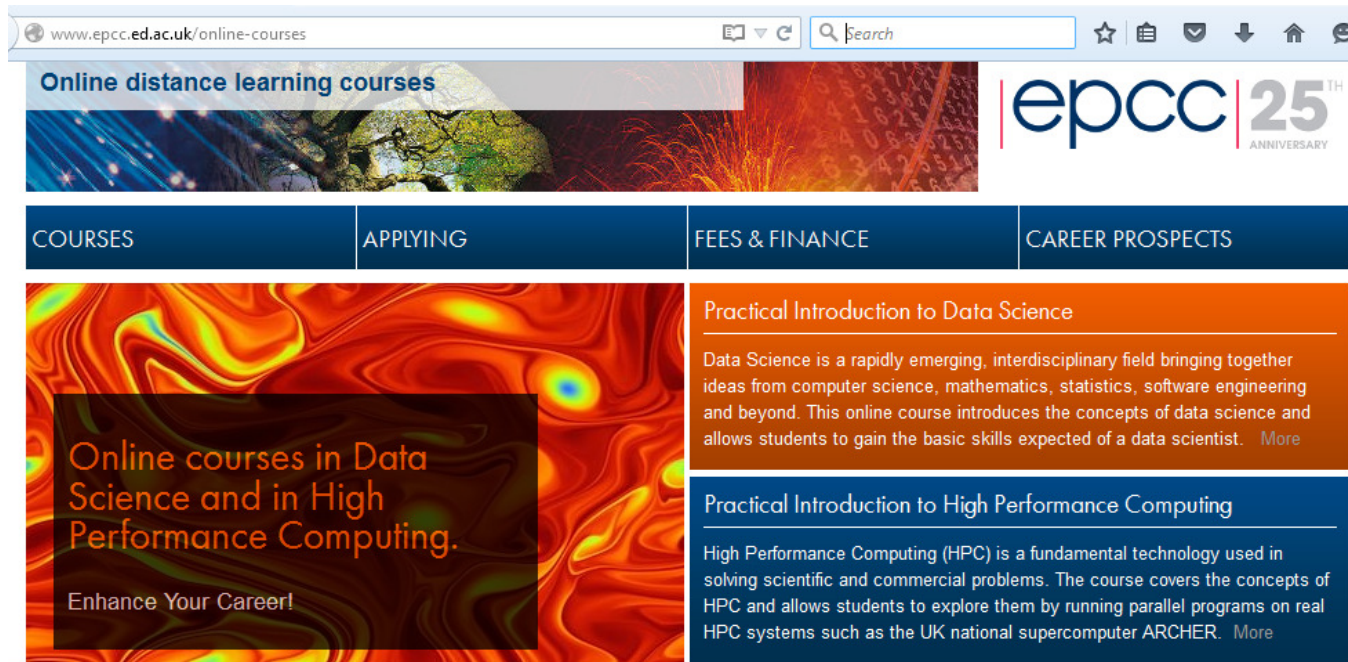
# MSc in HPC / HPC with Data Science



- 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](http://www.epcc.ed.ac.uk/online-courses). The page features a navigation menu with links for COURSES, APPLYING, FEES & FINANCE, and CAREER PROSPECTS. A prominent banner advertises "Online courses in Data Science and in High Performance Computing" with the tagline "Enhance Your Career!". Below the banner, two course listings are visible: "Practical Introduction to Data Science" and "Practical Introduction to High Performance Computing". The website also includes a search bar and a 25th Anniversary logo for EPCC.

- Run from January to May
  - entirely online: [www.epcc.ed.ac.uk/online-courses/](http://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](http://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/](http://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
  - Sixth call currently open
  - The 11th eCSE call opens on the 28<sup>th</sup> March and closed at 4pm on Tuesday 9th May 2017
  - Happen every 4 months
- See <http://www.archer.ac.uk> for details



# MPI Quiz

<https://b.socrative.com/login/student/>

and enter HPCQUIZ as the “Room Name”

