# **ARCHER** Training Courses

#### **General Overview**



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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 <u>www.epcc.ed.ac.uk/msc/</u>
  - new online accredited courses <u>www.epcc.ed.ac.uk/online-courses</u>/
- 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 <u>d.henty@epcc.ed.ac.uk</u>

#### 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, ...)

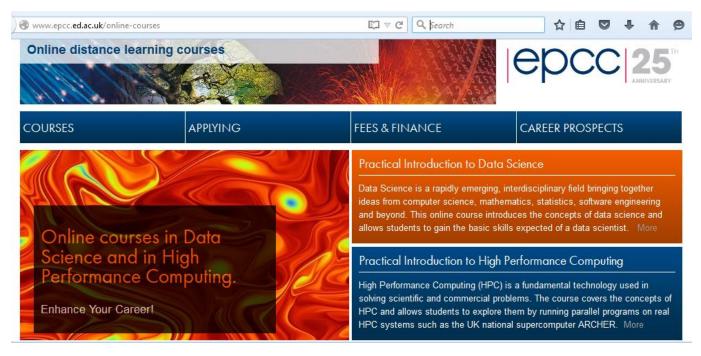
• 12 taught courses (8 months); research dissertation (4 months)







### **Online accredited courses**



- Run from January to May
  - 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 <u>http://www.archer.ac.uk/access/</u>
- 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
  - <u>www.archer.ac.uk/training/course-material/online/</u>





#### PARTNERSHIP FOR ADVANCED COMPUTING IN EUROPE

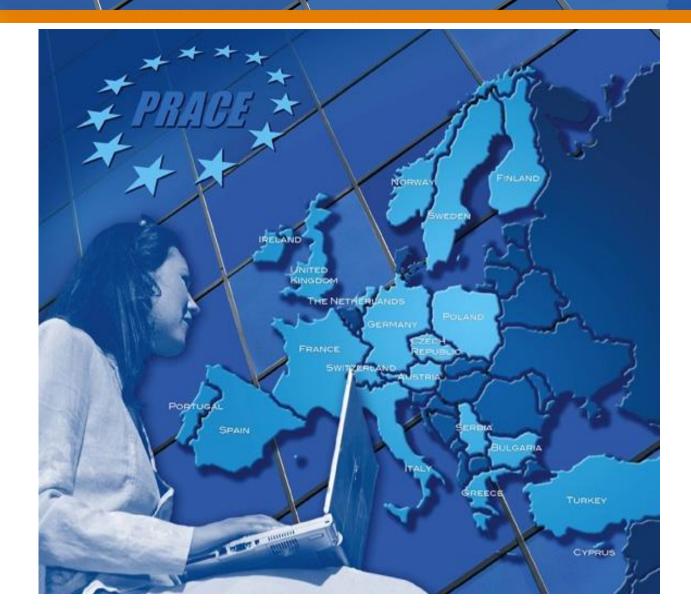
#### EPCC's PRACE Advanced Training Centre







PARTNERSHIP FOR ADVANCED COMPUTING IN EUROPE





#### 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)

Partnership For Advanced Computing IN Europe

#### 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