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

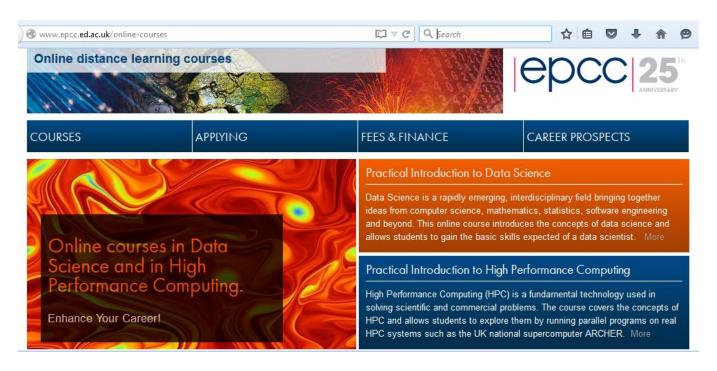


- taught by EPCC staff (plus options in Informatics, Maths, Physics, ...)
- 12 taught courses (8 months); research dissertation (4 months)





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 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/







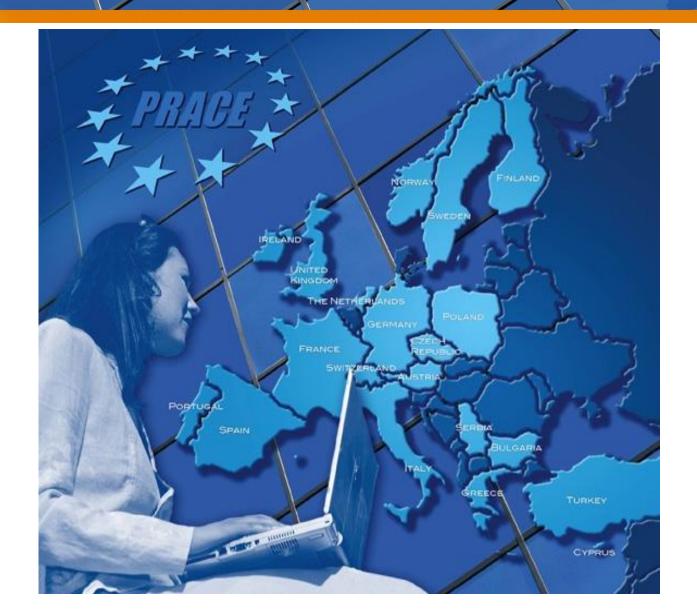
EPCC's PRACE Advanced Training Centre







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)



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