ARCHER2 Training Courses

General Overview













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What is EPCC?

- UK national supercomputer centre
 - founded in 1990 (originally Edinburgh Parallel Computing Centre)
 - a self-funding Centre of Excellence at The University of Edinburgh
 - running national parallel systems since Cray T3D in 1994
 - over 100 full-time staff
 - a range of academic research and commercial projects
 - postgraduate teaching and HPC training courses
- Get in contact if you want to collaborate
 - many staff are named RAs on research grants
 - joint research proposals
 - European project consortia





Who am I?

David Henty <u>d.henty@epcc.ed.ac.uk</u>

- In charge of education and training programme at EPCC
 - MSc
 - PRACE Training Centre
 - courses on the ARCHER2 training programme
 - commercial training
 - •
- Also do HPC research
 - new parallel programming models, accelerators, performance, ...





Why am I teaching this workshop?

- Teaching HPC and message-passing for decades
 - developed conceptual training for a MOOC
 - www.futurelearn.com/courses/supercomputing
 - but no programming examples
 - teach many technical MPI courses, e.g. <u>www.archer2.ac.uk/training</u>
 - requires C, C++ or Fortran and access to a parallel computer
- I knew almost nothing about Jupyter notebooks
 - and not much about Python, numpy, mpi4py etc.
- Developed this course to bridge the gap
 - do actual coding examples using Python
 - run as much as possible using notebooks





I hope you enjoy the course





... and please ask questions!





Key resources

- Workshop materials at:
 - www.github.com/EPCCed/PythonHPC
- Setup materials at:
 - www.github.com/davidhenty/PythonHPCprep



