

# Shared Memory Programming with OpenMP

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## Overview



# Who am I?

Mark Bull [markb@epcc.ed.ac.uk](mailto:markb@epcc.ed.ac.uk)

- Senior researcher at EPCC
  - Interests in parallel algorithms, parallel programming models, benchmarking, novel uses of HPC
- Lecture on EPCC's MSc in HPC
- EPCC's representative on the OpenMP ARB

# Timetable

- Week 1: Shared Memory Concepts; OpenMP Fundamentals
  - Week 2: Parallel Regions; Work sharing
  - Week 3: Synchronisation; Further Topics
  - Week 4: Tips and Tricks; Performance
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- Each session will run from 2.00pm to 4.30pm with a 30 minute break between lectures

# Lecture notes etc.

Go to

<http://www.archer.ac.uk/training>

and follow the links!

# Access to Cirrus for practicals

- Cirrus is EPCC's Tier-2 cluster - <http://www.cirrus.ac.uk/>
- Guest accounts for the course
  - will remain active until the end of December
  - please register if you have not already done so
- Work on the practical exercises in your own time
- If you have problems, please post on the course chat page – follow the link from course web page
  - I, or one of my colleagues will be monitoring this regularly
  - Please feel free to help each other out!
- Full instructions for the exercises are in the exercise sheet on the course web page

# Logging on to Cirrus

You will have been given a guest account ID – referred to generically here as username - and a password.

Linux/Mac users can use:

```
ssh -Y username@login.cirrus.ac.uk
```

Windows users should install MobaXterm – see course page for details

# Practical exercises source code

To get the source code for the practical exercises, use the following commands :

```
cp /home/shared/OpenMP-Online.tar .  
tar xvf OpenMP-Online.tar  
cd OpenMP-Online
```

# Reusing this material



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