Shared Memory Programming with OpenMP

Overview

Who am I?

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- 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

- 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!

epcc

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 regulary
    - 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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