

# Introduction to OpenMP

## Overview



# Reusing this material



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

<https://creativecommons.org/licenses/by-nc-sa/4.0/>

This means you are free to copy and redistribute the material and adapt and build on the material under the following terms: You must give appropriate credit, provide a link to the license and indicate if changes were made. If you adapt or build on the material you must distribute your work under the same license as the original.

Note that this presentation contains images owned by others. Please seek their permission before reusing these images.



# Who am I?



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

- Senior research fellow at EPCC
- Lecture on EPCC's MSc in HPC
- EPCC's representative on the OpenMP ARB



# Access to Cirrus



- Your Cirrus `tc054` project accounts
  - Small amount of budget
  - Accounts will be closed a few weeks after course ends: all files etc. will be deleted
  - Take copies of all your work beforehand!
- Course materials (slides, exercises etc) available from GitHub repo  
**`https://github.com/EPCCed/MetOfficeTrainingDec23`**
  - This will not be deleted after the course!



## Timetable – Monday



- 12:00 - 13:00 **Lectures:** Overview, Concepts
- 13:00 - 14:00: Lunch
- 14:00 - 15:30 **Lectures:** Introduction to OpenMP, Parallel regions
- 15:30 - 16:00 Break
- 16:00 - 17:00 **Practical session**

## Timetable – Tuesday



- 09:30 - 11:00 **Lectures:** Worksharing, Synchronisation
- 11:00 - 11:30 Break
- 11:30 - 13:00 **Practical session**
- 13:00 - 14:00 Lunch
- 14:00 - 15:00 **Lectures:** Further Topics, Tips, Tricks and Gotchas
- 15:30 - 16:00 Break
- 16:00 - 17:00 **Practical session**

## Timetable – Wednesday



- 09:30 - 11:00 **Lecture:** Performance
- 11:00 - 11:30 Break
- 11:30 - 12:00 **Practical session / consultancy**

## Practical exercises source code



To download the source code for the practical exercises, make sure you are in your **work** directory on Cirrus, then use the following command :

```
cp /home/z04/shared/MetO_OpenMP.tar .  
tar xvf MetO_OpenMP.tar
```





I hope you enjoy the course



- ... and *please ask questions!*

