COURSE OVERVIEW
GSP GPU COURSE 2018

8 August 2018 | Andreas Herten | Forschungszentrum Jülich

JÜLICH Forschungszentrum | JÜLICH SUPERCOMPUTING CENTRE

GPU Course

- This course: Based on other JSC courses
- Mostly CUDA course
- At end: OpenACC
- Interactive course – many hands-ons 👐

JÜLICH
Forschungszentrum

JÜLICH
SUPERCOMPUTING
CENTRE

Timetable

Session	Day 1	Day 2
M1	Introduction to GPU Programming *I* *Andreas*, *Jan*	Multi-Node GPU *I* *Andreas*, **Jan**
B	*Coffee Break (10:30 - 11:00)*	
M2	Introduction to GPU Programming *II* *Andreas*, **Jan**	Multi-Node GPU *II* *Andreas*, **Jan**
B	*Lunch Break (12:30 - 13:30)*	
A1	GPU Tools *Andreas*, *Jan*	OpenACC *I* ***Andreas***, *Jan*
B	*Coffee Break (15:00 - 15:30)*	
A2	CUDA Unified Memory ***Andreas***, *Jan*	OpenACC *II* ***Andreas***, *Jan*

JÜLICH
Forschungszentrum

JÜLICH
SUPERCOMPUTING
CENTRE

Organizationals

- Curriculum not very strict
    - We take more time when necessary
    - We can be faster (at parts) on your request
- Coffee breaks: Up to you!
- Lunch breaks: In canteen (*Casino*)
- Interactive course!
    - Lots of hands-on in different tasks!
    - Feel free to ask questions, also during lectures

- No time to cover **all things GPU** $\rightarrow$ we want to give **jump start**

JÜLICH
Forschungszentrum | JÜLICH
SUPERCOMPUTING
CENTRE

More Technicalities

- Supercomputers for this course: **JUWELS**
- Supernew supercomputer; **you're privileged to be** beta testers!
- Infrastructure for tasks
  - Each person has login: `train093` - `train120`
  - Logins for each
- Tasks
  - Tasks are in home directory of supercomputers → best to solely work on JUWELS
  - Sorted by session
  - Solutions are always given, you decide how long you tinker before peaking into solutions
    (Hint: The later, the more benefit you will get from this course!)
  - There's a cheat sheet for the most important commands!

JÜLICH Forschungszentrum | JÜLICH SUPERCOMPUTING CENTRE

Let's Get Started!

Questions?

JÜLICH
Forschungszentrum

JÜLICH
SUPERCOMPUTING
CENTRE