

ASCI A24:
A Programmer's Guide to Modern
HPC Architectures

Goal

- Show the new trends in HPC + technologies that you can use in your own research
 - With or without additional help

The implementation

- 4 days = 3 different (HPC) technologies
 - Day 1: Introduction + typical problems + parallelism + solutions + performance
 - Ana Lucia Varbanescu, UvA + TUDelft
 - Day 2: Shared memory machines + programming
 - Clemens Grelck, UvA
 - Day 3: GPGPU for HPC
 - Ana Lucia Varbanescu
 - Moises Vinas
 - Day 4: Large-scale systems and solutions: Cloud computing + Big data
 - Alexandru Iosup, TUDelft

Main structure

- In theory ...
 - Morning for theory, afternoon for hands-on practice
- In practice ...
 - We'll mix things up.
- Use DAS4 and its heterogeneous resources
- Connect using your own laptops

Homework

- Tell us what you've learned in a short essay
 - Introduce your research
 - Tell us what you've learned from each day
 - ... and how each technology could impact your research
- Not more than 3 pages!
- Deadline: 15/01
 - The sooner, the better ...

Questions?

Before we start ...

- Introduction round...