alpaka Parallel Programming – Online Tutorial

Recap of Lecture 10 // Announcements

CASUS
CENTER FOR ADVANCED SYSTEMS UNDERSTANDING

www.casus.science

HZDR HELMHOLTZ ZENTRUM DRESDEN ROSSENDORF

TECHNISCHE UNIVERSITÄT DRESDEN

CBG Max Planck Institute of Molecular Cell Biology and Genetics

UFZ HELMHOLTZ Centre for Environmental Research
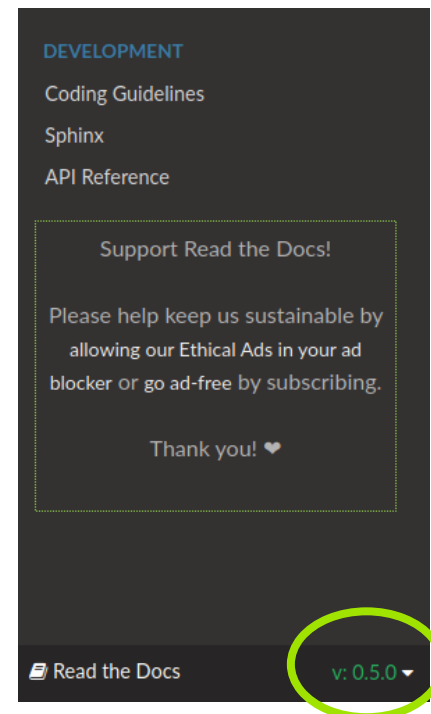
Uniwersytet Wrocławski

Recap of Lecture 10

- Threads are executed by physical / logical cores

- Thread scheduling order unspecified

- Set of cores: Device

- Devices are attached to one Host

- Threads apply Kernels to data elements

- Number of Threads needs to be adapted to the problem size

- Introduced Thread hierarchy

- Grid consists of all Threads

- Grid is divided into Thread Blocks of equal size

Announcements

- Additional prerequisite for examples: OpenMP 2.x

  - Apple users: **https://github.com/alpaka-group/alpaka/issues/1055**

- **https://alpaka.readthedocs.io**: Choose correct version