



Energy Efficiency in HPC

(PRACE Training Course)

29 - 30 January 2020

VSB - Technical University of Ostrava IT4Innovations

Lecturers: Lubomir Riha - IT4Innovations, Ondrej Vysocky - IT4Innovations, Andrea Bartolini - University of Bologna, Daniele Cesarini - CINECA, Robert Schöne - Technische Universität Dresden

The school will give an introductory course on the fundamental concept of power consumption and energy efficiency in HPC systems. Then it will focus on the mechanisms that today's computing elements and systems provide in terms of monitoring and control of power and energy dissipation. As well as insights on the European Processor Initiative power management design. Finally it will introduce and give a hands-on for a set of tools for reducing the energy consumption in HPC devices.

Wednesday 29th January 2020

- 09:00 09:30 Registration/Presentation
- 09:30 09:45 Welcome and introduction
- 09:45 10:45 The Energy Efficiency Problem in HPC and Power

Thursday 30th January 2020

08:30 - 09:30	Power Monitoring
	and Measurement
09:30 - 10:30	COUNTDOWN Theory
10.00 11.00	

Problem in HPC and Power
Management Basics

- 10:45 11:15 Power management in EPI
- 11:15 11:45 Coffee break
- 11:45 13:15 Energy Efficiency Features of the Intel Processors & Intel Power Management
- 13:15 14:15 Lunch
- 14:15 15:15 System Monitoring with lo2s Hands on
- 15:30 15:45 Coffee break
- 15:45 17:00 System Monitoring with lo2s Hands on

 10:30 - 11:00
 Coffee break

 11:00 - 12:15
 COUNTDOWN Hands on

 12:15 - 13:15
 Lunch

 13:15 - 14:15
 MERIC Theory

 14:15 - 15:15
 MERIC Hands on



ĺ

More information & registration: events.it4i.cz/event/39/



This event was partially supported by The Ministry of Education, Youth and Sports from the Large Infrastructures for Research, Experimental Development and Innovations project "e-Infrastruktura CZ – LM2018140" and partially by the PRACE-6IP project - the European Union's Horizon 2020 research and innovation programme under grant agreement No. 823767.