

**PRACE Summer of HPC 2016**

# **Report of Contributions**

Contribution ID: 0

Type: **Lecture**

# Shared-Memory Programming with OpenMP

Contribution ID: 1

Type: **Practical**

## **CUDA: task dependencies**

Contribution ID: 2

Type: **Practical**

## **Practical: divide-and-conquer with Multisort in OpenMP**

Contribution ID: 3

Type: **Lecture**

## **Hybrid MPI/OpenMP: practical matrix computation code**

Contribution ID: 4

Type: **Practical**

## **A look into accelerators: CUDA advanced examples**

Contribution ID: 5

Type: **Lecture**

## **MPI: Point-to-point communication, collective communication**

Contribution ID: 6

Type: **Lecture**

## **MPI: Blocking and non-blocking communications**



Contribution ID: 7

Type: **Practical**

## **Practical: Simple matrix computations in MPI**

Contribution ID: 8

Type: **Lecture**

## **Introduction to parallel architectures, algorithms design and performance parameters**

*Tuesday, 5 July 2016 09:00 (45 minutes)*

**Session Classification:** Ideas and Basics of Parallel Computing MPI: Introduction

Contribution ID: 9

Type: **Lecture**

## **Introduction to the MPI programming model**

*Tuesday, 5 July 2016 09:45 (45 minutes)*

**Session Classification:** Ideas and Basics of Parallel Computing MPI: Introduction

Contribution ID: **10**

Type: **Practical**

## **MPI (Non-)Blocking P2P communication**

*Tuesday, 5 July 2016 11:00 (1h 30m)*

**Session Classification:** Ideas and Basics of Parallel Computing MPI: Introduction

Contribution ID: 11

Type: **Lecture**

## **Introduction to 3D Scientific Visualisation**

**Primary author:** Dr KOS, Leon (University of Ljubljana)

**Presenter:** Dr KOS, Leon (University of Ljubljana)

Contribution ID: 12

Type: **Lecture**

## Visit overview

**Primary author:** Dr KOS, Leon (University of Ljubljana)

**Presenter:** Dr KOS, Leon (University of Ljubljana)

Contribution ID: 13

Type: **Practical**

## Open Foam and ParaView

**Presenter:** Dr TELENTA, Marijo (UL)

Contribution ID: 14

Type: **Practical**

# OpenGL programming

**Primary author:** Dr KOS, Leon (University of Ljubljana)

**Presenter:** Dr KOS, Leon (University of Ljubljana)



Contribution ID: 15

Type: **Lecture**

## **Introduction to OpenMP**

*Wednesday, 6 July 2016 08:30 (2 hours)*

**Session Classification:** Introduction to OpenMP

Contribution ID: 16

Type: **Lecture**

## **OpenMP: Parallel regions and work sharing constructs**

Contribution ID: 17

Type: **Lecture**

## **OpenMP: Synchronization mechanisms**

Contribution ID: **18**

Type: **Practical**

## **OpenMP: parallel loops and regions, worksharing constructs**

*Wednesday, 6 July 2016 11:00 (1h 30m)*

**Session Classification:** Introduction to OpenMP

Contribution ID: 19

Type: **Lecture**

## **Introduction to CUDA and GPUs**

Contribution ID: 20

Type: **Practical**

## **Practical: CUDA through some very simple examples**

Contribution ID: 21

Type: **not specified**

## **CUDA: understanding and predicting the potential of task decomposition strategies**

Contribution ID: 22

Type: **not specified**

## **Tour of the JSC Supercomputer Facility**

*Monday, 4 July 2016 16:30 (1 hour)*

**Presenter:** Dr HOMBERG, Willi (JSC)



Contribution ID: 23

Type: **not specified**

## Supercomputer HowTo

*Monday, 4 July 2016 17:30 (1h 30m)*

hands-on. Login, ssh, remote editor etc.

**Presenter:** Dr KABADSHOW, Ivo (JSC)

Contribution ID: 24

Type: **not specified**

## **MPI: Blocking collective communication**

*Tuesday, 5 July 2016 13:30 (2h 30m)*

**Session Classification:** Ideas and Basics of Parallel Computing MPI: Introduction

Contribution ID: 25

Type: **not specified**

## **MPI: Outlook (derived data types, communicators and groups, MPI I/O)**

*Tuesday, 5 July 2016 16:30 (2h 30m)*

**Session Classification:** Ideas and Basics of Parallel Computing MPI: Introduction

Contribution ID: 26

Type: **not specified**

## **MPI+OpenMP Training + Hands-On**

*Wednesday, 6 July 2016 13:30 (3 hours)*

**Session Classification:** Introduction to OpenMP

Contribution ID: 27

Type: **not specified**

## Introduction to ParaView

*Thursday, 7 July 2016 09:00 (3h 30m)*

**Presenter:** Dr ZILKEN, Herwig (JSC)

**Session Classification:** Visualization (Paraview, Rotunda)

Contribution ID: 28

Type: **not specified**

## **In-Situ Visualization**

*Thursday, 7 July 2016 13:30 (5h 30m)*

**Presenter:** Dr GOEBBERT, Jens Henrik (JSC)

**Session Classification:** Visualization (Paraview, Rotunda)