# Parallel Debugging with Allinea DDT

## Date : 21st May 2014

**08:30-09:00** **Welcome**

**09:00-09:15** **Introduction to Allinea tools (presentation)**

**09:15-09:30** **Getting started**
Start a buggy code on University of Wroclaw cluster
Debugging good practices : test scripts, logbooks

**09:30-10:15** **Debug straightforward crashes with Allinea DDT**
Compiling a code for debugging
Starting an MPI job with Allinea DDT
Discover the GUI of Allinea DDT

**10:15-11:00** **Debug incorrect results on an OpenACC code with Allinea DDT**
Compiling a code for debugging with PGI OpenACC
Starting an OpenACC job with Allinea DDT
Visualize arrays within the GPU

**11:00-11:15** **Coffee Break**

**11:15-12:00** **Debug MPI deadlocks with Allinea DDT**
Detect MPI deadlocks
Attach to running processes
Optional : use MPI message queue

**12:00-13:00** **Lunch**

**13:00-13:45** **Debug memory errors in a CUDA code with Allinea DDT**
Enable memory debugging
Tweak memory debugging options

**13:45-14:30** **Debug memory leaks with Allinea DDT**
Identify memory leaks
Use the debugger to investigate the problem
Resolve memory leaks issues

**14:30-15:30** **Debug incorrect results with Allinea DDT**
Re-use what you have learnt to debug a buggy application !

**15:30-15:45** **Coffee Break**

**15:45-16:45** **Free hands-on session.**
Debug other sample examples
Bring your own codes !

**16:45-17:00** **Wrap-up and questions**
Optional : Allinea MAP and Allinea Performance Reports discussions