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VI-HPS



Agenda: 27th VI-HPS Tuning Workshop

Day 1: Monday 23 April

08:30 (*registration & set-up of course accounts on workshop computers*)

09:00 **Welcome**

- **Welcome to LRZ** [Dieter Kranzlmüller, LRZ]
- **Introduction to VI-HPS & overview of tools** [Josef Weidendorfer, LRZ]
- **Introduction to parallel performance engineering** [Martin Schulz, TUM]
- **CoolMUC3 computer system and software environment** [Volker Weinberg, LRZ]
- **Building and running NPB/BT-MZ on CoolMUC3** [Ilya Zhukov, JSC]

10:30 (*break*)

11:00 **mpiP lightweight MPI profiling** [Martin Schulz, TUM]

- **mpiP hands-on exercises MAQAO performance analysis tools** [Cédric Valensi, Emmanuel Oseret & Salah Ibn Amar, UVSQ]
- **MAQAO hands-on exercises**

12:30 (*lunch*)

13:30 **Hands-on coaching** to apply tools to analyze participants' own code(s).

17:30 Review of day and schedule for remainder of workshop

18:00 (*adjourn*)

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Day 2: Tuesday 24 April

09:00 **Score-P instrumentation & measurement toolset** [Ronny Tschüter, TUD]

- **Score-P hands-on exercises**
- **CUBE profile explorer hands-on exercises** [Ilya Zhukov, JSC]

10:30 **Group Picture** (and break)

11:00 **Score-P analysis scoring & measurement filtering** [R. Tschüter, TUD]

- **Measuring hardware counters and other metrics Extra-P automated performance modeling** [Sergei Shudler, TUDarmstadt]
- **Extra-P hands-on exercises**

12:30 (lunch)

13:30 **Hands-on coaching** to apply tools to analyze participants' own code(s).

17:30 Review of day and schedule for remainder of workshop

18:00 (adjourn)

18:10 **Bus leaving at LRZ main entrance for the social event: Guided tour of Weihenstephan Brewery and dinner**

22:00 **Bus leaving at Weihenstephan**

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Day 3: *Wednesday 25 April*

09:00 Scalasca automated trace analysis [Ilya Zhukov, JSC]

- Scalasca hands-on exercises Vampir interactive trace analysis [Matthias Weber, TUDresden]
- Vampir hands-on exercises

10:30 *(break)*

11:00 Paraver tracing tools suite [Judit Giménez & Lau Mercadal, BSC]

- Paraver hands-on exercises

12:30 *(lunch)*

13:30 **Hands-on coaching** to apply tools to analyze participants' own code(s).

15:00-16:30 Guided LRZ double cube tour

17:30 Review of day and schedule for remainder of workshop

18:00 *(adjourn)*

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Day 4: Thursday 26 April

09:00 JUBE workflow execution environment [Thomas Breuer, JSC]

- JUBE hands-on exercises Periscope Tuning Framework [Robert Mijakovic, TUM]
- Periscope hands-on exercises

10:30 *(break)*

11:00 TAU performance system [Sameer Shende, UOregon]

- TAU hands-on exercises

12:30 *(lunch)*

13:30 **Hands-on coaching** to apply tools to analyze participants' own code(s).

17:30 Review of day and schedule for remainder of workshop

18:00 *(adjourn)*

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Day 5: *Friday 27 April*

09:00 **MUST MPI runtime error detection** [Joachim Protze, RWTH]

- **MUST hands-on exercises ARCHER OpenMP runtime error detection** [Joachim Protze, RWTH]
- **ARCHER hands-on exercises**

10:30 (*break*)

11:00 **Kcachegrind cache analysis** [Josef Weidendorfer, LRZ]

- **Kcachegrind hands-on exercises Review**

12:30 (*lunch*)

13:30 **Hands-on coaching** to apply tools to analyze participants' own code(s).

17:00 (*adjourn*)

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