

# 44<sup>th</sup> VI-HPS Tuning Workshop

RWTH Aachen & ZIH TU Dresden, Germany,  
26 February - 01 March 2024

<http://www.vi-hps.org/training/tws/tw44.html>

**Thomas Gruber**  
Erlangen Computing Centre

**Cédric Valensi, Emmanuel Oseret  
& Jäsper Ibnamar**  
University of Versailles

**William Williams, Bert Wesarg  
& Christian von Elm**  
Technische Universität Dresden

**Markus Geimer  
& Michael Knobloch**  
Jülich Supercomputing Centre

**Sameer Shende**  
University of Oregon

## Agenda (Monday)

Time	Topic	Presenter
09:00	Welcome;	Hermanns
	Introduction to VI-HPS & overview of tools	
	Introduction to parallel performance engineering	
	Lab setup; Building and running a code on CLAIX-2023 & Barnard	Wesarg / Hermanns
10:30	<i>Break</i>	
11:00	Job Monitoring using PIKA (ZIH) and JMS (RWTH)	
	PIKA / JMS Hands-on exercises	
12:30	<i>Lunch</i>	
14:00	Hands-on coaching to port participants' own code(s) to the local systems	
17:30	<i>Adjourn</i>	

## Agenda (Tuesday)

Time	Topic	Presenter
09:00	LIKWID Performance tool suite	Gruber
	LIKWID hands-on exercises	
10:30	Break	
11:00	MAQAO performance analysis framework	Valensi
	MAQAO hands-on exercises	Oseret & Ibnamar
12:30	Lunch	
14:00	Hands-on coaching to apply LIKWID & MAQAO to analyze your own code(s)	Gruber, Oseret, Ibnamar & Valensi
15:30	Break	
16:00	Hands-on coaching to apply LIKWID & MAQAO to analyze your own code(s)	Gruber, Oseret, Ibnamar & Valensi
17:30	Adjourn	

## Agenda (Wednesday)

Time	Topic	Presenter
09:00	Score-P instrumentation & measurement	Williams
	CUBE profile explorer	Knobloch
10:30	<i>Break</i>	
11:00	Score-P specialized instrumentation and measurement	Wesarg
	Score-P/CUBE hands-on exercises	
12:30	<i>Lunch</i>	
14:00	Hands-on coaching to apply Score-P/CUBE to analyze your own code(s)	Williams, Knobloch & Wesarg
15:30	<i>Break</i>	
16:00	TAU performance system	Shende
	TAU hands-on exercises	
17:30	<i>Adjourn</i>	

## Agenda (Thursday)

Time	Topic	Presenter
09:00	Scalasca automated trace analysis	Geimer & Knobloch
	Scalasca hands-on exercises	
10:30	Break	
11:00	Hands-on coaching to apply Score-P/Scalasca to analyze your own code(s)	Geimer, Williams, Knobloch & Wesarg
12:30	Lunch	
14:00	Hands-on coaching to apply Score-P/Scalasca to analyze your own code(s)	Geimer, Williams, Knobloch & Wesarg
15:30	Break	
16:00	Hands-on coaching to apply TAU to analyze your own code(s)	Shende
17:30	Adjourn	



## Agenda (Friday)

Time	Topic	Presenter
09:00	Vampir interactive trace analysis	Wesarg
	Vampir hands-on exercises	
10:30	<i>Break</i>	
11:00	lo2s	Von Elm
	lo2s hands-on exercises	
	Workshop review	
12:30	<i>Lunch</i>	
14:00	Hands-on coaching to apply Vampir & lo2 to analyze your own code(s)	Wesarg & von Elm
15:30	<i>Break</i>	
16:00	Hands-on coaching to apply Vampir & lo2 to analyze your own code(s)	Wesarg & von Elm
17:30	<i>End of workshop</i>	

# Workshop Communication

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- Video Conference via Zoom:
  - <https://rwth.zoom-x.de/j/68934817245?pwd=V3lnMjh1THQ0SIFtbUZCVWpqWEoxdz09>
  - Videostreaming of presentations
  - Breakout rooms for site-specific Job Monitoring Presentation
  - Breakout rooms for individual consulting during hands-on
  
- Q &A Chat via Slack:
  - [https://join.slack.com/t/vihps-tw44/shared\\_invite/zt-2d7la6q1y-NlgMIKJq537ObLmHitLLXg](https://join.slack.com/t/vihps-tw44/shared_invite/zt-2d7la6q1y-NlgMIKJq537ObLmHitLLXg)
  - Different Channels for different topics
    - Please ask questions in the appropriate channels
    - Please answer using threads
    - When a question is answered, react with a :white\_check\_mark:
    - Important information is pinned to the channel:

# Workshop Material

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- Presentation Slides:
  - Available via Sciebo Share: <https://rwth-aachen.sciebo.de/s/Cr3AmeLRZdygGaj>
  - Also available via VI-HPS website (may need some time for updates)
  
- Hands-on Material:
  - Available on Sciebo Share
  - Available on \$VIHPS\_ROOT/hands-on/ on both clusters
    - (after loading the VI-HPS tutorial environment)