

Center for Information Services and High Performance Computing (ZIH)

Performance analysis of HPC Applications with Vampir & Score-P

ORNL – Tools Workshop

19-20 Jan 2022

Course schedule

	Day 1
09:00	Welcome and introduction to performance engineering
09:35	Introduction to Score-P and instrumenting BT-MZ
10:10	Break
10:20	Scoring measurement overhead
10:55	Vampir with case studies
11:30	Close
	Day 2
09:00	Bring-your-own-code breakout sessions and advising

ORNL and Vampir: a Brief History

- Vampir and Score-P development has always been guided by the needs of leadership-class machines
 - Scalability of measurement, analysis, and visualization
 - Architecture support
 - New parallel paradigms: CUDA, ROCm/HIP, Kokkos, etc.
- A sampling of recent features in collaboration with ORNL:
 - Improved multi-GPU support
 - GPU-aware MPI support
 - Grouping of trace locations
 - Generic threading support (orphan threads)
 - Kokkos support
 - Support for new hardware in Summit and Frontier

Get Involved!

- We want *users* involved in the development of Score-P and Vampir
 - New features
 - Refinement of existing features
 - Bug reports
- Our main ORNL contact: Mike Brim
 - Long-term development
- Support available via email:
 - support@score-p.org
 - service@vampir.eu