

Summer School 2015 - Program

20-30/07/2015

Week 1: MPI & OpenMP

	Mon.	Tue.	Wed.	Thur.	Fri
9:00 - 10:30	Introduction to HPC	OpenMP (Cumming)	MPI (Martinasso)	MPI (Martinasso)	Efficient I/O and visualization (Favre)
Break					
11:00 - 12:30	CSCS systems, PE, tools (interactive) and experience on systems (compile, run...)	OpenMP (Cumming)	MPI (Martinasso)	MPI (Martinasso)	Efficient I/O and visualization (Favre)
Break					
14:00 - 15:30	Introduction to the Mini App. (Cumming)	Miniapp Add OpenMP parallelism)	MPI (Martinasso)	Miniapp add MPI support	Miniapp experiment with Viz
Break					
16:00 - 17:30	OpenMP (Cumming)	VISIT to CSCS	MPI (Martinasso)	Miniapp add MPI support	Miniapp experiment with Viz
Goal	Be ready to use CSCS systems, run familiarize with Mini-App and start learning OpenMP	Learn OpenMP and apply to Mini-App	Improve MPI know-how	Toward hybrid computing	Learn about I/O and visualization

Week 2: GPUs

	Mon.	Tue.	Wed.	Thur.	Fri
9:00 - 10:30	Intro to GPU architecture (Cumming)	CUDA (Cumming)	OpenACC (Wetzstein)	Scientific libraries (Sanan)	
Break					
11:00 - 12:30	CUDA (Cumming)	CUDA (Cumming)	OpenACC (Wetzstein)	Scientific libraries (Sanan)	
Break				Wrap-up of the accomplished work	
14:00 - 15:30	CUDA (Cumming)	Miniapp CUDA support	Miniapp OpenACC support		
Break					
16:00 - 17:30	Miniapp CUDA setup and simple kernels implementation	Miniapp CUDA support	Miniapp OpenACC support		
Goal	Introduce GPUs and CUDA	CUDA	OpenACC	Learn about libraries and wrap up benchmarks and results for miniapp	