Thematic CERN School of Computing on Scientific Software for Heterogeneous Architectures

Contribution ID: 53 Type: Lecture

Scientific computing on heterogeneous architectures

Wednesday 8 October 2025 08:45 (1 hour)

Programming for Heterogeneous Architectures - lecture 1

- Introduction to heterogeneous architectures and the performance challenge
- From general to specialized: Hardware accelerators and applications
- Type of workloads ideal for different accelerators
- Trade-offs between multi-core and many-core architectures
- Implications of heterogeneous hardware on the design and architecture of scientific software
- Embarrassingly parallel scientific applications in HPC and CERN

Summary

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