

EINLADUNG

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Ort: E2, Raum 5056, Ahornstraße 55

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Titel: Programmer's perspective on evolving hardware -
Challenges and Success Stories

Abstract:

Hardware architectures are becoming increasingly heterogeneous. Smartphone architectures are a complex amalgamation of CPU cores and specialized processors handling AI, voice recognition, graphic rendering, and many more. Similarly, large-scale processors or HPC machines consist of CPUs along with accelerators or co-processors or many-core processors such as the recent Shenwei processors. Such supercomputers tackle data intensive subject multidisciplinary areas like astronomy, DNA sequencing, carbon sequestration, weather modeling and so on. Hardware architectures have been evolving to tackle such applications. But software development has not kept pace with it. Programming heterogeneous systems continues to remain as a challenge.

This talk brings a programmer's perspective on the challenges and the success stories observed while creating both high-level and low-level software stack to port applications to both embedded and HPC architectures.

Es laden ein: Die Dozenten der Informatik