

Seminar

Roofline Models for Near-Memory Accelerators

The Roofline Model, presented by Williams et.al. in 2009, is an intuitive and visual way to illustrate the system's performance and to observe potential bottlenecks. Based on the proposal in 2009, various approaches have been presented recently to apply the Roofline Model to a wide range of Computer architectures.

This seminar puts the Roofline Model in the context of Near-Memory Computing and Hardware Accelerators. It differentiates thereby between fixed-function accelerators and software-programmable cores and considers also the system architecture and the memory hierarchy.

The task during the seminar consists of an exhaustive literature study on that topic in order to describe, analyze and compare the most important approaches. Individual adjustments of the seminar topic according to the student's preferences is possible.

Prerequisites

B.Sc. in Electrical Engineering, Computer Science or a similar topic

Contact

Oliver Lenke

o.lenke@tum.de

Advisors

Oliver Lenke