

EINLADUNG

Zeit: Donnerstag, 23.01.2014, 16.15 Uhr

Ort: AH I, Ahornstr. 55

Referent: Dr. Valentin Ziegler
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Titel: The C++ Memory Model

Abstract:

Memory models define how multiple threads interact with memory and shared data, enabling developers to reason about concurrent code in a platform independent way. While formal memory or machine models for concurrent programming have always been an important research topic of computer science, they only recently made inroads into the broader industrial practice and mainstream programming languages. With the advent of C++11, developers will now be able to base their portable programs on sound theoretical foundations.

This talk will briefly motivate the introduction of formal memory models, and then go straight into a detailed explanation of the practical applications and implications. The talk explains how the memory models enable and interact with the well understood abstractions on which programmers rely when they build concurrent applications. The talk will then introduce relaxed memory models in detail, giving attendees a framework to understand the different guarantees and practical performance implications each model gives.