Einladung

zum Informatik-Kolloquium des
AB Programmiersprachen und Übersetzer am
Dienstag, den 28. Januar 2014, um 17:00 Uhr s.t.
in der Bibliothek E185.1, Argentinierstr. 8, 4. Stock (Mitte)

Es spricht

Dipl.-Ing. Herbert Jordan

Universität Innsbruck, Österreich

über

The Insieme Compiler and Runtime Infrastructure

Developing applications for contemporary heterogeneous architectures is a labor intensive task, in particular when aiming for high performance. Nowadays developers, in addition to finding efficient algorithmic solutions, are confronted with the problem of managing workloads, data, and concurrent resources since popular parallel APIs (OpenMP, Cilk, OpenCL, MPI,...) are delegating this performance critical issues to the end user. Even worse, in order to achieve portable performance, most of those management decisions have to be reconsidered whenever the underlaying hardware changes - another burden typically left to the programmer due to lack of appropriate tool support.

This talk gives an overview on the Insieme project with its goal of establishing and utilizing a research platform for developing techniques and tools which assist programmers in creating efficient and portable parallel applications by delegating the management of workloads and resources to a combination of compiler and runtime system based solutions. The talk will cover details of the Insieme compiler, its internal high-level intermediate language, the Insieme runtime system and a number of applications built on top of those so far.

Biographie: Herbert Jordan is currently finishing his PhD in Computer Science at the University of Innsbruck. His research interests include parallel programming languages, compilers and paradigms. He is the chief architect and lead developer of the Insieme Compiler and in particular responsible for its internal representation, program analysis, transformations, and code generation components. (`http://insieme-compiler.org/`)

Zu diesem Vortrag lädt der *Arbeitsbereich für Programmiersprachen und Übersetzer am Institut für Computersprachen* herzlich ein.
Tee: 16:30 Uhr in der Bibliothek E185.1, Argentinierstr. 8, 4. Stock (Mitte).