



Call for Papers - LITES: Leibniz Transactions on Embedded Systems

Special Issue on Software and Compilers for Embedded Systems

This special issue is organized in conjuncture with the International Workshop on Software and Compilers for Embedded Systems (SCOPE S). This issue focuses on the software generation process for modern embedded systems.

Aims and Scope

The influence of embedded systems is constantly growing. Increasingly powerful and versatile devices are developed and put on the market at a fast pace. Their functionality and number of features is increasing, and so are the constraints on the systems concerning size, performance, energy dissipation and timing predictability. To meet all these constraints, multi-processor systems on a chip (MPSoCs) are becoming popular in embedded systems. In order to meet the performance and energy constraints of embedded applications, heterogeneous architectures incorporating functional units optimized for specific functions are commonly employed. This technological trend has dramatic consequences on the parallelization, mapping, compiler and design technology used to develop these systems.

Topics of Interest

We are looking for articles on all aspects of the compilation and mapping process of embedded single- and multi-processor systems. This includes (but is not limited to):

- models of computation and programming languages;
- performance analysis techniques for models of computation;
- automatic code parallelization techniques;
- mapping and scheduling techniques for embedded multi-processor systems;
- code generation techniques for embedded single- and multi-processor architectures;
- design-space exploration techniques for use in the HW/SW codesign process;
- techniques to exploit the dynamic behavior in

- embedded applications;
- interactions between operating systems and compilers;
- techniques for compiler aided profiling, measurement, debugging and validation of embedded software.

Important Dates

Full paper submission:	August 31, 2014
First editorial notice:	December 15, 2014
Revised submission:	January 15, 2015
Final decision:	March 15, 2015

Instruction for Submissions

Submissions are not limited to papers previously published at SCOPE S. All authors are encouraged to submit.

Information on paper preparation can be found at <http://www.dagstuhl.de/en/publications/lites/submission/>

Authors must submit their papers electronically using the online manuscript submission system located at <http://ojs.dagstuhl.de/index.php/lites>

Please mention in the comments to the editor that this submission is intended for the "Special Issue on Software and Compilers for Embedded Systems". This needs to be done in the first step of the submission process.

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