



Proceedings of the

**14th International Workshop on
Software and Compilers for Embedded Systems**

SCOPES 2011

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**14th International Workshop on
Software and Compilers for Embedded Systems**

SCOPEs 2011

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Preface

Dear Colleague,

Welcome to Sankt Goar and the 14th workshop on Software and Compilers for Embedded Systems (SCOPES). Since its start in 1994, SCOPES has been addressing the key design challenges involved in generating software for modern embedded systems. Topics of interest include all aspects of the compilation process, starting with suitable modeling and specification techniques and programming languages for embedded systems. The emphasis of the workshop lies on code generation techniques for embedded processors. The exploitation of specialized instruction set characteristics is as important as the development of new optimizations for embedded application domains. Cost criteria for the entire code generation and optimization process include runtime, timing predictability, energy dissipation, code size and others. Since today's embedded devices increasingly consist of a multi-processor system-on-chip, the scope of this workshop particularly covers compilation techniques for MPSoC architectures.

SCOPES received a total of 15 papers coming from many different countries in Europe and Asia. Each paper has been reviewed by at least four independent reviewers to ensure the quality of the workshop. Each reviewer provided a score together with detailed comments and suggestions on how to improve the overall quality of each paper. After an on-line meeting, the program committee has decided to accept 5 papers out of these 15 submissions. This gives an acceptance rate of 33% which is in-line with earlier editions of the SCOPES workshop. It also reflects our commitment to only select high quality papers for presentation at our workshop.

The workshop features several sessions with regular papers. In addition, the program committee has also decided to include a special session on "Multi-Processor Compilation Strategies and Challenges". Because of energy and performance constraints, many of today's embedded systems are becoming true multi-processor systems. Programming these systems poses new challenges that need to be addressed by our community. The special session also emphasizes the tight links between the SCOPES workshop and the Map2MPSoC workshop that has been co-located with SCOPES for the past four years. The papers in this session should provide a basis for a stimulating discussion on this interesting and challenging topic.

In conclusion, I would like to thank the members of the program committee and the external reviewers for their contribution to the quality of this workshop. I would also like to thank all authors for choosing SCOPES as the workshop where to report your research and your contributions to the scientific community. Finally, I would like to thank our sponsors for their support to SCOPES 2011. I wish all of you a fruitful conference and a pleasant stay in Sankt Goar.

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