Proceedings of the

23th International Workshop on Software and Compilers for Embedded Systems

SCOPES 2020

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Proceedings of the

23th International Workshop on
Software and Compilers for Embedded Systems

SCOPES 2020

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Editor
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### Table of Contents

- Preface .......................................................................................................................... iii
- Committee ......................................................................................................................... v
- Sponsors ............................................................................................................................. vii
- Data-Structure Optimization Based on Memory-Access-Pattern Analysis for Source-Code Performance Improvement ................................................................. 1
  Riyane Sid Lakhdar, Henri-Pierre Charles and Maha Kooli
- Scheduling of Moldable Fork-Join Tasks with Inter- and Intra-Task Communications .......... 7
  Hiroki Nishikawa, Kana Shimada, Ittetsu Taniguchi and Hiroyuki Tomiyama
- On the Implementation and Execution of Adaptive Streaming Applications Modeled as MADF .......................................................................................................... 13
  Sobhan Niknam, Peng Wang and Todor Stefanov
- Compiling Synchronous Languages to Optimal Move Code for Exposed Datapath Architectures ......................................................................................... 19
  Marc Dahlem and Klaus Schneider
- Design Space Exploration for Layer-parallel Execution of Convolutional Neural Networks on CGRAs ............................................................... 26
  Christian Heidorn, Frank Hannig and Jürgen Teich
- Compiler-based WCET Prediction Performing Function Specialization .......................... 32
  Kateryna Muts and Heiko Falk
- Programming Tensor Cores from an Image Processing DSL ............................................. 36
  Savvas Sioutas, Sander Stuijk, Twan Basten, Lou Somers and Henk Corporaal
- OpenMP to CUDA graphs: a compiler-based transformation to enhance the programmability of NVIDIA devices ................................................................. 42
  Sara Royuela Alcazar, Eduardo Quiñones and Chenle Yu
- Reviewing Inference Performance of State-of-the-Art Deep Learning Frameworks ............ 48
  Berk Ulker, Sander Stuijk, Henk Corporaal and Rob Wijnhoven
- Analog Implementation of Arithmetic Operations on Real Memritors ............................... 54
  Thore Kolms, Andreas Waldner, Christine Lang, Philipp Grothe and Jan Haase
- Efficient Parallel Reduction on GPUs with Hipacc ............................................................ 58
  Bo Qiao, Oliver Reiche, M. Akif Özkan, Jürgen Teich and Frank Hannig
- A Secure Hardware-Software Solution Based on RISC-V, Logic Locking and Microkernel ................................................................. 62
  Dominik Šišejković, Farhad Merchant, Lennart M. Reimann, Rainer Leupers, Massimiliano Giacometti and Sascha Kegreiß
- Exploration of GPU sharing policies under GEMM workloads ......................................... 66
  Ioannis Oroutzoglou, Dimosthenis Masouros, Konstantina Koliogeorgi, Sotirios Xydis and Dimitrios Soudris
- Configuring Loosely Time-Triggered Wireless Control Software ..................................... 70
  Philipp H. Kindt, Sumana Ghosh and Samarjit Chakraborty
- Portable exploitation of parallel and heterogeneous HPC architectures in neural simulation using SkePU ...... 74
  Sotirios Panagiotou, August Ernstrss, Johan Ahlqvist, Lazaros Papadopoulos, Christoph Kessler and Dimitrios Soudris
- Cross-Layer Approaches for Improving the Dependability of Deep Learning Systems ........ 78
  Muhammad Abdullah Hanif, Le-Ha Hoang and Muhammad Shafigue
- Real-time Audio Processing for Hearing Aids using a Model-Based Bayesian Inference Framework ................................................................. 82
  Martin Roa Villescas, Sander Stuijk, Bert de Vries and Henk Corporaal
Preface

Dear Colleague,

Welcome to the SCOPES workshop. Due to the COVID-19 pandemic, we are meeting in a virtual venue instead of Sankt Goar. This year we are presenting a workshop program that features many interesting talks on all aspects related to the design of modern embedded systems. I hope that you will find our program interesting, stimulating and exciting.

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. The SCOPES workshop focuses on the software generation process for these modern embedded systems. Topics of interest include all aspects of the compilation and mapping process of embedded single and multi-processor systems.

SCOPES received a total of 13 research papers coming from many different countries in Europe and North-America. Each paper has been reviewed by at least three 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 8 papers out of these 13 submissions. This gives an acceptance rate of 62% which is slightly higher compared to earlier editions of the SCOPES workshop. It also reflects our commitment to only select high quality papers for presentation at our workshop.

In addition to the research papers, the workshop features also 9 research presentations. The idea of research presentations was previously used at the Map2MPSoC workshop. After the merger of SCOPES and Map2MPSoC this idea has been continued in the SCOPES workshop program. Research presentations show research results relevant to the topics addressed by the workshop. These presentations may be based on on-going work or research results that have previously been presented in other forums. Research presentations may include a short publication in the SCOPES proceedings. Therefore all submitted presentations have undergone a light review.

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 2020. I wish all of you a fruitful conference.

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