Monday May 28th, 2018

12.00 – 13.15 Lunch

13.15 – 13.30 Opening
   Henk Corporaal

13.30 – 14.30 Session 0
13.30  Mitigating Data Cache Aging through Compiler-Driven Memory Allocation
       Dominic Oehlert, Arno Luppolr and Heiko Falk
14.00  Interrelations between Software Quality Metrics, Performance and Energy Consumption in Embedded Applications
       Lazaros Papadopoulos, Charalampos Marantos, Georgios Digkas, Apostolos Ampatzoglou, Alexander Chatzigeorgiou and Dimitrios Soudris

14.30 – 15.00 Coffee Break

15.00 – 16.00 Session 1
15.00  Reinforcement Learning for Power-Efficient Grant Prediction in LTE (Full Paper)
       Peter Brand, Joachim Falk, Jonathan Ah Sue, Johannes Brendel, Ralph Hasholzner and Jürgen Teich
15.30  On the Cost of Freedom From Interference in Heterogeneous SoCs
       Bjoern Forsberg, Luca Benini and Andrea Marongiu

16.00 – 16.30 Coffee Break

16.30 – 17.30 Session 2
16.30  Fast and Portable Vector DSP Simulation Through Automatic Vectorization (Full Paper)
       Jumana Mundichipparakkal, Mohamed Bamakhrama and Roel Jordans
17.00  Control Flow Vectorization for ARM NEON (Full Paper)
       Angela Pohl, Nicolás Morini, Biagio Cosenza and Ben Juurlink

19.00 – 22.00 Diner
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Tuesday May 29th, 2018

9.00 – 10.30 Session 3

9.00 Optimizing Worst-Case Execution Times Using Mainstream Compilers  
*Martin Becker and Samarjit Chakraborty*

9.30 Measuring and Modeling Energy Consumption of Embedded Systems for Optimizing Compilers  
*Mikko Roth, Arno Luppold and Heiko Falk*

10.00 Less is More: Exploiting the Standard Compiler Optimization Levels for Better Performance and Energy Consumption (Full Paper)  
*Kyriakos Georgiou, Craig Blackmore, Samuel Xavier de Souza and Kerstin Eder*

10.30 – 11.00 Coffee Break

11.00 – 12.00 Session 4

11.00 Restricted Scheduling Windows for Dynamic Fault-Tolerant Primary/Backup Approach-Based Scheduling on Embedded Systems  
*Petr Dobias, Emmanuel Casseau and Oliver Sinnen*

11.30 Toward Efficient Many-Core Scheduling Using Partial Expansion Graphs  
*Hai-Nam Tran, Shuvra S. Bhattacharyya, Jean-Pierre Talpin Talpin and Thierry Gautier*

12.00 – 13.30 Lunch

13.30 – 15.00 Session 5

13.30 Automatic Optimization of Redundant Message Routings in Automotive Networks (Full Paper)  
*Fedor Smirnov, Felix Reimann, Jürgen Teich, Zhao Han and Michael Glaß*

14.00 Exploiting Specification Modularity to Prune the Optimization-Space of Manufacturing Systems (Full Paper)  
*Joao Bastos, Jeroen Voeten, Sander Stuijk, Ramon Schiffelers and Henk Corporaal*

14.30 Dataflow-Based Modeling and Scheduling of Real-Time Networks-of-Systems  
*Andreas Gerstlauer*

15.00 – 15.30 Coffee break
SCOPES 2018: Program

15.30 – 16.30 Session 7
15.30  Automatic Kernel Fusion for Image Processing DSLs (Full Paper)
   Bo Qiao, Oliver Reiche, Frank Hannig and Jürgen Teich
16.00  stdcbench - A Benchmark for Small Systems
   Philipp Klaus Krause

18.00 – 19.00 Visit to Castle

19.00 – 22.00 Diner
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Wednesday May 30th, 2018

9.00 – 10.00 Keynote
   Peter Marwedel

10.00 – 10.30 Session 8
10.00  Low-Power Radar Signal Processing
       Oguz Meteer and Marco Bekooij

10.30 – 11.00 Coffee Break

11.00 – 12.00 Session 9
11.00  Multi-Criteria Compiler-Based Optimization of Hard Real-Time Systems
       Kateryna Muts, Arno Luppold and Heiko Falk
11.30  Towards a verified Lustre compiler with modular reset
       Timothy Bourke, Lélío Brun and Marc Pouzet

12.00 – 12.30 Best presentation award ceremony / Closing remarks

12.30 – 13.30 Lunch