Presentations will be 15 minutes followed by 5 minutes Q&A. Break out sessions will be available in WebEx after each presentation and during coffee breaks and lunches. Questions during the presentation can be asked by raising your virtual hand in WebEx.

Monday May 25th, 2020

9.00 – 9.20: Opening (20 min)

Henk Corporaal

9.20 – 10.20: Session 1 (60 min)

9.20 Data-Structure Optimization Based on Memory-Access-Pattern Analysis for Source-Code Performance Improvement (Research Paper)
Riyane Sid Lakhdar, Henri-Pierre Charles and Maha Kooli

9.40 Scheduling of Moldable Fork-Join Tasks with Inter- and Intra-Task Communications (Research Paper)
Hiroki Nishikawa, Kana Shimada, Ittetsu Taniguchi and Hiroyuki Tomiyama

10.00 On the Implementation and Execution of Adaptive Streaming Applications Modeled as MADF (Research Paper)
Sobhan Niknam, Peng Wang and Todor Stefanov

10.20 – 11.00 Coffee Break (40 min)

11.00 – 12.00: Session 2 (60 min)

11.00 Compiling Synchronous Languages to Optimal Move Code for Exposed Datapath Architectures (Research Paper)
Marc Dahlem and Klaus Schneider

11.20 Design Space Exploration for Layer-parallel Execution of Convolutional Neural Networks on CGRAs (Research Paper)
Christian Heidorn, Frank Hannig and Jürgen Teich

11.40 Compiler-based WCET Prediction Performing Function Specialization (Research Presentation)
Kateryna Muts and Heiko Falk

12.00 – 13.00 Lunch break (60 min)
**SCOPES 2020: Program**

13.00 – 14.00 Keynote: Efficient Computation with Spiking Recurrent Neural Networks for edge applications (60 min)
  *Federico Corradi*

14.00 – 14.40 Coffee Break (40 min)

**14.40 – 16.00: Session 3 (80 min)**

14.40 Programming Tensor Cores from an Image Processing DSL (Research Paper)
  *Savvas Sioutas, Sander Stuijk, Twan Basten, Lou Somers and Henk Corporaal*

15.00 OpenMP to CUDA graphs: a compiler-based transformation to enhance the programmability of NVIDIA devices (Research Paper)
  *Sara Royuela Alcazar, Eduardo Quiñones and Chenle Yu*

15.20 Reviewing Inference Performance of State-of-the-Art Deep Learning Frameworks (Research Paper)
  *Berk Ulker, Sander Stuijk, Henk Corporaal and Rob Wijnhoven*

15.40 Analog Implementation of Arithmetic Operations on Real Memritors (Research Presentation)
  *Thore Kolms, Andreas Waldner, Christine Lang, Philipp Grothe and Jan Haase*
SCOPES 2020: Program

Tuesday May 26th, 2020

9.00 – 10.00: Session 4 (60 min)

9.00  Efficient Parallel Reduction on GPUs with Hipacc (Research Presentation)
Bo Qiao, Oliver Reiche, M. Akif Özkan, Jürgen Teich and Frank Hannig

9.20  A Secure Hardware-Software Solution Based on RISC-V, Logic Locking and Microkernel (Research Presentation)
Dominik Šišejković, Farhad Merchant, Lennart M. Reimann, Rainer Leupers, Massimiliano Giacometti and Sascha Kegreiß

9.40  Exploration of GPU sharing policies under GEMM workloads (Research Presentation)
Ioannis Oroutzoglou, Dimosthenis Masouros, Konstantina Koliogeorgi, Sotirios Xydis and Dimitrios Soudris

10.00 – 10.40 Coffee Break (40 min)

10.40 – 12.00: Session 5 (80 min)

10.40  Configuring Loosely Time-Triggered Wireless Control Software (Research Presentation)
Philipp H. Kindt, Sumana Ghosh and Samarjit Chakraborty

11.00  Portable exploitation of parallel and heterogeneous HPC architectures in neural simulation using SkePU (Research Presentation)
Sotirios Panagiotou, August Erntsson, Johan Ahlqvist, Lazaros Papadopoulos, Christoph Kessler and Dimitrios Soudris

11.20  Cross-Layer Approaches for Improving the Dependability of Deep Learning Systems
Muhammad Abdullah Hanif, Le-Ha Hoang and Muhammad Shafique

11.40  Real-time Audio Processing for Hearing Aids using aModel-Based Bayesian Inference Framework
Martin Roa Villescas, Sander Stuijk, Bert de Vries and Henk Corporaal

12.00 – 12.20 Closing remarks (20 min)