FCCM Best Paper Awards

The IEEE International Symposium on Field-Programmable Custom Computing Machines (FCCM) has awarded Best Paper Awards to the following papers:

2026, Atlanta, GA

HGQ-LUT: Fast LUT-Aware Training and Efficient Architectures for DNN Inference
Chang Sun, Zhiqiang Que, Bakhtiar Zadeh, Qibin Liu, Kevin H. Alvarez, Wayne Luk, andMaria Spiropulu

2025, Fayetteville, AR

Guaranteed Yet Hard to Find: Uncovering FPGA Routing Convergence Paradox
Shashwat Shrivastava, Stefan Nikolić, Sun Tanaka, Chirag Ravishankar, Dinesh Gaitonde and Mirjana Stojilovic

2024, Orlando, FL

A Data-Driven, Congestion-Aware and Open-Source Timing-Driven FPGA Placer Accelerated by GPUs
Zhili Xiong, Rachel Selina Rajarathnam and David Z. Pan

Best Short Paper: **Synthesis of LUT Networks for Random-Looking Dense Functions with Don’t Cares – Towards Efficient FPGA Implementation of DNN**
Yukio Miyasaka, Alan Mishchenko, Nicholas Fraser and John Wawrzynek

2023, Marina Del Rey, CA

A Machine Learning Approach for Predicting the Difficulty of FPGA Routing Problems
Andrew David Gunter and Steven J.E. Wilton

Best Paper Runner Up: **LightningSim: Fast and Accurate Trace-Based Simulation for High-Level Synthesis**
Rishov Sarkar and Cong Hao

2022, New York City, NY

CoMeFa: Compute-in-Memory Blocks for FPGAs
Aman Arora, Tanmay Anand, Aatman Borda, Rishabh Sehgal, Bagus Hanindhito, Jaydeep Kulkarni and Lizy K. John

2021, Virtual Conference

Clockwork: Resource-Efficient Static Scheduling for Multi-Rate Image Processing Applications on FPGAs
Dillon Huff, Steve Dai and Pat Hanrahan

Best Short Paper: **ESCA: Event-Based Split-CNN Architecture with Data-Level Parallelism on UltraScale+ FPGA**
Pankaj Bhowmik, Jubaer Hossain Pantho, Joel Mandebi Mbongue and Christophe Bobda

2020, Virtual Conference

Comparison of Arithmetic Number Formats for Inference in Sum-Product Networks on FPGAs
Lukas Sommer, Lukas Weber, Martin Kumm and Andreas Koch

Best Short Paper: **Yosys+nextpnr: an Open Source Framework from Verilog to Bitstream for Commercial FPGAs**
David Shah, Eddie Hung, Clifford Wolf, Serge Bazanski, Dan Gisselquist and Miodrag Milanovic

2019, San Diego, CA

Templatised soft floating-point for High-Level Synthesis
David B. Thomas

2018, Boulder, CO

ReBNet: Residual Binarized Neural Network
Mohammad Ghasemzadeh, Mohammad Samragh and Farinaz Koushanfar

Best Short Paper: **Fast and Accurate Estimation of Quality of Results in High-Level Synthesis with Machine Learning**
Steve Dai, Yuan Zhou, Hang Zhang, Ecenur Ustun, Evangeline F.Y. Young and Zhiru Zhang

2017, Napa, CA

High-Performance Hardware Merge Sorter
Susumu Mashimo, Thiem Van Chu and Kenji Kise

Best Short Paper: **Evaluating Rapid Application Development with Python for Heterogeneous Processor-based FPGAs**
Andrew G. Schmidt, Gabriel Weisz and Matthew French

2016, Washington DC

KAPow: A System Identification Approach to Online Per-module Power Estimation in FPGA Designs
Eddie Hung, James J. Davis, Joshua M. Levine, Edward A. Stott, Peter Y.K. Cheung and George A. Constantinides

Best Short Paper: **GRVI Phalanx: A Massively Parallel RISC-V FPGA Accelerator Accelerator**
Jan Gray

2015, Vancouver, Canada

Using Dynamic Signal-Tracing to Debug Compiler-Optimized HLS Circuits on FPGAs
Jeffrey Goeders and Steve J.E. Wilton

2014, Boston, MA

Speeding Up FPGA Placement: Parallel Algorithms and Methods
Matthew An, J. Gregory Steffan and Vaughn Betz

2013, Seattle, WA

Parallel Computation of Skyline Queries
Louis Woods, Gustavo Alonso and Jens Teubner

2012, Toronto, Canada

Hardware Acceleration of Short Read Mapping
Corey B. Olson, Maria Kim, Cooper Clauson, Boris Kogon, Carl Ebeling, Scott Hauck and Walter L. Ruzzo

2011, Salt Lake City, UT

Multilevel Granularity Parallelism Synthesis on FPGAs
Alexandros Papakonstantinou, Yun Liang, John A. Stratton, Karthik Gururaj, Deming Chen, Wen-Mei

W. Hwu and Jason Cong

2010, Charlotte, NC

Hardware Acceleration of Approximate Tandem Repeat Detection

Tomáš Martínek and Matej Lexa

Rapid RNA Folding: Analysis and Acceleration of the Zuker Recurrence

Arpith C. Jacob, Jeremy D. Buhler and Roger D. Chamberlain

Revision #7
Created 2024-09-18 10:27:37 UTC by Suhaib Fahmy (Admin)
Updated 2026-08-24 14:58:05 UTC by Suhaib Fahmy (Admin)