FPGA Best Paper Awards

The ACM/SIGDA International Symposium on Field Programmable Gate Arrays (FPGA) has awarded Best Paper Awards to the following papers:

2025

FlightVGM: Efficient Video Generation Model Inference with Online Sparsification and Hybrid Precision on FPGAs
Jun Liu, Shulin Zeng, Li Ding, Widyadewi Soedarmadji, Hao Zhou, Zehao Wang, Jinhao Li, Jintao Li, Yadong Dai, Kairui Wen, Shan He, Yaqi Sun, Yu Wang and Guohao Dai

2024

Formal Verification of Source-to-Source Transformations for HLS
Louis-Noël Pouchet, Emily Tucker, Niansong Zhang, Hongzheng Chen, Debjit Pal, Gabriel Rodríguez and Zhiru Zhang

2023

DONGLE: Direct FPGA-Orchestrated NVMe Storage for HLS
Linus Y. Wong, Jialiang Zhang and Jing (Jane) Li

2022

RapidStream: Parallel Physical Implementation of FPGA HLS Designs
Licheng Guo, Pongstorn Maidee, Yun Zhou, Chris Lavin, Jie Wang, Yuze Chi, Weikang Qiao, Alireza Kaviani, Zhiru Zhang and Jason Cong

2021

AutoBridge: Coupling Coarse-Grained Floorplanning and Pipelining for High-Frequency HLS Design on Multi-Die FPGAs
Licheng Guo, Yuze Chi, Jie Wang, Jason Lau, Weikang Qiao, Ecenur Ustun, Zhiru Zhang and Jason Cong

2020

Buffer Placement and Sizing for High-Performance Dataflow Circuits

Lana Josipović, Shabnam Sheikhha, Andrea Guerrieri, Paolo Ienne and Jordi Cortadella

2019

HeteroCL: A Multi-Paradigm Programming Infrastructure for Software-Defined Reconfigurable Computing

Yi-Hsiang Lai, Yuze Chi, Yuwei Hu, Jie Wang, Cody Hao Yu, Yuan Zhou, Jason Cong and Zhiru Zhang

2018

FASTCF: FPGA-based Accelerator for Stochastic-Gradient-Descent-based Collaborative Filtering

Shijie Zhou, Rajgopal Kannan, Yu Min and Viktor K. Prasanna

2017

ESE: Efficient Speech Recognition Engine with Compressed LSTM on FPGA

Song Han, Junlong Kang, Huizi Mao, Yiming Hu, Xin Li, Yubin Li, Dongliang Xie, Hong Luo, Song Yao, Yu Wang, Huazhong Yang, William (Bill) J. Dally

2016

FPRESSO: Enabling Express Transistor-Level Exploration of FPGA Architectures

Grace Zgheib, Manana Lortkipanidze, Muhsen Owaida, David Novo and Paolo Ienne

2015

Take the Highway: Design for Embedded NoCs on FPGAs

Mohamed S. Abdelfattah, Andrew Bitar and Vaughn Betz

2014

Optimizing Effective Interconnect Capacitance for FPGA Power Reduction

Safeen Huda, Jason Anderson and Hirotaka Tamura

2013

Polyhedral-Based Data Reuse Optimization for Configurable Computing

Louis-Noel Pouchet, Peng Zhang, P. Sadayappan and Jason Cong

2012

Rethinking FPGAs: elude the flexibility excess of LUTs with and-inverter cones

Hadi Parandeh-Afshar, Hind Benbihi, David Novo and Paolo Ienne

2011

CoRAM: an in-fabric memory architecture for FPGA-based computing

Eric S. Chung, James C. Hoe, and Ken Mai