

Best Paper Award

Award Winners

2B-1: “GraphSAR: A Sparsity-Aware Processing-in-Memory Architecture for Large-Scale Graph Processing on ReRAMs”

Guohao Dai (Tsinghua Univ., China), Tianhao Huang (Massachusetts Inst. of Tech., U.S.A.), Yu Wang, Huazhong Yang (Tsinghua Univ., China), John Wawrzynek (Univ. of California, Berkeley, U.S.A.)

3D-1: “Energy-Efficient, Low-Latency Realization of Neural Networks through Boolean Logic Minimization”

Mahdi Nazemi, Ghasem Pasandi, Massoud Pedram (USC, U.S.A.)

Candidates

1D-1: “Leakage-Aware Thermal Management for Multi-Core Systems Using Piecewise Linear Model Based Predictive Control”

Xingxing Guo, Hai Wang, Chi Zhang, He Tang, Yuan Yuan (Univ. of Electronic Science and Tech. of China, China)

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3B-1: “A Staircase Structure for Scalable and Efficient Synthesis of Memristor-Aided Logic”

Alwin Zulehner (Johannes Kepler Univ. Linz, Austria), Kamalika Datta (National Inst. of Tech. Meghalaya, India), Indranil Sengupta (Indian Inst. of Tech. Kharagpur, India), Robert Wille (Johannes Kepler Univ. Linz, Austria)

3D-1: “Energy-Efficient, Low-Latency Realization of Neural Networks through Boolean Logic Minimization”

Mahdi Nazemi, Ghasem Pasandi, Massoud Pedram (USC, U.S.A.)

4D-1: “Routing in Optical Network-on-Chip: Minimizing Contention with Guaranteed Thermal Reliability”

Mengquan Li (Chongqing Univ., China), Weichen Liu (Nanyang Technological Univ., Singapore), Lei Yang, Peng Chen, Duo Liu (Chongqing Univ., China), Nan Guan (Hong Kong Polytechnic Univ., Hong Kong)

5C-1: “SRAF Insertion via Supervised Dictionary Learning”

Hao Geng, Haoyu Yang, Yuzhe Ma (Chinese Univ. of Hong Kong, Hong Kong), Joydeep Mitra (Cadence, U.S.A.), Bei Yu (Chinese Univ. of Hong Kong, Hong Kong)

5D-3: “Handling Stuck-at-faults in Memristor Crossbar Arrays using Matrix Transformations”

Baogang Zhang, Necati Uysal, Deliang Fan, Rickard Ewetz (Univ. of Central Florida, U.S.A.)

7B-3: “Phone-nomenon: A System-Level Thermal Simulator for Handheld Devices”

Hong-Wen Chiou, Yu-Min Lee, Shin-Yu Shiau (National Chiao Tung Univ., Taiwan), Chi-Wen Pan, Tai-Yu Chen (Mediatek, Taiwan)

7C-1: “Diffusion Break-Aware Leakage Power Optimization and Detailed Placement in Sub-10nm VLSI”

Sun ik Heo (Samsung Electronics, Republic of Korea), Andrew B. Kahng, Minsoo Kim, Lutong Wang (UC San Diego, U.S.A.)

9C-1: “A Figure of Merit for Assertions in Verification”

Samuel Hertz, Debjit Pal, Spencer Offenberger, Shobha Vasudevan (Univ. of Illinois, Urbana-Champaign, U.S.A.)