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Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 13227
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Soggetti	Computer systems Computer input-output equipment Artificial intelligence Application software Software engineering Computer System Implementation Input/Output and Data Communications Artificial Intelligence Computer and Information Systems Applications Software Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Simulation and Design Space Exploration -- Accurate LLVM IR to Binary CFGs Mapping for Simulation of Optimized Embedded Software -- RVfpLib: A Fast and Compact Open-Source Floating-Point Emulation Library for Tiny RISC-V Processors.-Exploiting Similarity in Evolutionary Product Design for Improved Design Space Exploration -- Automatic Search-Space Compression in System-Level Design Space Exploration using Deep Generative Models -- The 3Cs - Cache, Cluster and Cloud.-A Case for Partial Co-Allocation Constraints in Compressed Caches -- PoCL-R: A Scalable Low Latency Distributed OpenCL Runtime -- An analytical model for loop tiling transformation.-Interference-aware workload placement for improving latency distribution of

converged HPC/Big Data cloud infrastructures -- Energy-efficient and High-throughput CNN Inference on Embedded CPUsGPUs MPSoCs -- Evaluating System Identification Methods for Predicting Thermal Dissipation of Heterogeneous SoCs -- Embeddings of Task Mappings to Multicore Systems -- Novel CPU Architectures and Applications -- RT-LIFE: Portable RISC-V Interface for Real-Time Lightweight Security Enforcement -- Phase-Aware CPU Workload Forecasting -- WhiskEras 2.0: Fast and Accurate Whisker Tracking In Rodents -- Periodic Scheduling of Cyclo-Static Dataflow Models -- Efficient Operator Sharing Modulo Scheduling for Sum-Product Network Inference on FPGAs -- A Framework for Fixed Priority Periodic Scheduling Synthesis from Synchronous Data-flow Graphs -- Special Session on Innovative Architectures and tools for Security -- Hard edges: Hardware-based Control-Flow Integrity for Embedded Devices -- Deep Learning Techniques for Side-Channel Analysis on AES Datasets Collected from Hardware and Software Platforms -- Special Session on Reports from research projects – Digital services and platforms: Application areas automotive industry, energy, agriculture, healthcare and industry 4.0 workshop -- EDRA: A Hardware-assisted Decoupled Access/Execute Framework on the Digital Market -- Modeling the Scalability of the EuroExa Reconfigurable Accelerators - Preliminary Results? .-The Known Unknowns: Discovering Trade-offs Between Heterogeneous Code Changes -- Towards efficient HW acceleration in edge-cloud infrastructures: The SERRANO approach -- Cross-domain Modelling of Verification and Validation Workflows in the Large Scale European Research Project VALU3S -- Special Session on Next Generation Computing.

Sommario/riassunto

This book constitutes the proceedings of the 21st International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation, SAMOS 2021, which took place in July 2021. Due to COVID-19 pandemic the conference was held virtually. The 17 full papers presented in this volume were carefully reviewed and selected from 45 submissions. The papers are organized in topics as follows: simulation and design space exploration; the 3Cs - Cache, Cluster and Cloud; heterogeneous SoC; novel CPU architectures and applications; dataflow; innovative architectures and tools for security; next generation computing; insights from negative results.
