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	Nota di contenuto	Fast Performance Estimation and Design Space Exploration of SSD Using AI Techniques -- Combining Task- and Data-level Parallelism for High-throughput CNN Inference on Embedded CPUs-GPUs MPSoCs -- AMAIX: A Generic Analytical Model for Deep Learning Accelerators -- Data Mining in System-Level Design Space Exploration of Embedded Systems -- CoPTA: Contiguous Pattern Speculating TLB Architecture -- A Fine-Granularity Image Pyramid Accelerator for Embedded Processors -- Rec2Poly: Converting Recursions to Polyhedral Optimized Loops Using an Inspector-Executor Strategy -- DRAMSys4.0: A Fast and Cycle-Accurate SystemC/TLM-Based DRAM Simulator -- Transpiling

Python to Rust for Optimized Performance -- A Fast Heuristic to Pipeline SDF Graphs -- System Simulation of Memristor Based Computation in Memory Platforms -- Compiler Optimizations for Safe Insertion of Checkpoints in Intermittently Powered Systems -- Fine-Grained Power Modeling of Multicore Processors using FFNNs -- From High-Level Synthesis to Bundled-Data Circuits -- Energy-aware Partial-Duplication Task Mapping under Real-Time and Reliability Constraints -- A Quantitative Study of Locality in GPU Caches -- SPECIAL SESSION: Innovative Architectures for Security -- CHASM: Security Evaluation of Cache Mapping Schemes -- DeePar-SCA: Breaking Parallel Architectures of Lattice Cryptography via Learning Based Side-Channel Attacks -- Profiling Dilithium Digital Signature Traces for Correlation Differential Side Channel Attacks -- S-NET: A Confusion Based Countermeasure Against Power Attacks for SBOX -- Risk and Architecture factors in Digital Exposure Notification -- SPECIAL SESSION: European Projects on Embedded and High Performance Computing for Health Applications -- Introduction to the Special Session on "European Projects on Embedded and High Performance Computing for Health Applications" -- VGM-Bench: FPU Benchmark Suite for Computer Vision, Computer Graphics and Machine Learning applications -- Decision Support Systems to Promote Health and Well-being of People of Working Age: the Case of the WorkingAge EU Project -- Technical Debt Management and Energy Consumption Evaluation in Implantable Medical Devices: The SDK4ED Approach -- Distributed Training on a Highly Heterogeneus HPC System.

Sommario/riassunto	This book constitutes the refereed proceedings of the 20th International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation, SAMOS 2020, held in Samos, Greece, in July 2020.* The 16 regular papers presented were carefully reviewed and selected from 35 submissions. In addition, 9 papers from two special sessions were included, which were organized on topics of current interest: innovative architectures for security and European projects on embedded and high performance computing for health applications. * The conference was held virtually due to the COVID-19 pandemic.