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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2823
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Soggetti	Computer architecture Logic design Computer arithmetic and logic units Computer input-output equipment Microprocessors Computer networks Computer System Implementation Logic Design Arithmetic and Logic Structures Input/Output and Data Communications Processor Architectures Computer Communication Networks
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	How Can the Earth Simulator Impact on Human Activities -- Toward Architecting and Designing Novel Computers -- Designing Ultra-large Instruction Issue Windows -- Multi-threaded Microprocessors -- Evolution or Revolution -- The Development of System Software for Parallel Supercomputers -- Asynchronous Bit-Serial Datapath for Object-Oriented Reconfigurable Architecture PCA -- Reconfigurable Logic: A Saviour for Experimental Computer Architecture Research -- Design and Implementation of Java Processors -- MOOSS: CPU Architecture with Memory Protection and Support for OOP -- Reducing

Access Count to Register-Files through Operand Reuse -- SimAlpha
 Version 1.0: Simple and Readable Alpha Processor Simulator --
 Towards an Asynchronous MIPS Processor -- On Implementing High
 Level Concurrency in Java -- Simultaneous MultiStreaming for
 Complexity-Effective VLIW Architectures -- A Novel Architecture for
 Genomic Sequence Searching and Alignment -- A Reconfigurable
 Multi-threaded Architecture Model -- Reconfigurable Instruction-Level
 Parallel Processor Architecture -- Mapping Applications to a Coarse
 Grain Reconfigurable System -- Packing with Boundary Constraints for
 a Reconfigurable Operating System -- Arithmetic Circuits Combining
 Residue and Signed-Digit Representations -- A New On-the-fly
 Summation Algorithm -- State Reordering for Low Power
 Combinational Logic -- User-Level Management of Kernel Memory --
 Variable Radix Page Table: A Page Table for Modern Architectures -- L1
 Cache and TLB Enhancements to the RAMPAGE Memory Hierarchy --
 Legba: Fast Hardware Support for Fine-Grained Protection -- Live-
 Cache: Exploiting Data Redundancy to Reduce Leakage Energy in a
 Cache Subsystem -- Implementation of Fast Address-Space Switching
 and TLB Sharing on the StrongARM Processor -- Performance of the
 Achilles Router -- Latency Improvement in Virtual Multicasting -- A
 Router Architecture to Achieve Link Rate Throughput in Suburban Ad-
 hoc Networks.

Sommario/riassunto

This conference marked the first time that the Asia-Pacific Computer Systems Architecture Conference was held outside Australasia (i. e. Australia and New Zealand), and was, we hope, the start of what will be a regular event. The conference started in 1992 as a workshop for computer architects in Australia and subsequently developed into a full-fledged conference covering Australia. Two additional major changes led to the present conference. The first was a change from "computer architecture" to "computer systems architecture", a change that recognized the importance and close relationship to computer architecture of certain levels of software (e. g. operating systems and compilers) and of other areas (e. g. computer networks). The second change, which reflected the increasing number of papers being submitted from Asia, was the replacement of "Australasia" with "Asia-Pacific". This year's event was therefore particularly significant, in that it marked the beginning of a truly "Asia-Pacific" conference. It is intended that in the future the conference venue will alternate between Asia and Australia/New Zealand and, although still small, we hope that in time the conference will develop into a major one that represents Asia to the same extent as existing major computer-architecture conferences in North America and Europe represent those regions.
