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Nota di contenuto	Theory -- Analytical Modeling of Parallel Applications in Heterogeneous Computing Environments: A Study of Cholesky Factorization -- Skeletons and Transformations in an Integrated Parallel Programming Environment* -- Sequential Unification and Aggressive Lookahead Mechanisms for Data Memory Accesses -- A Coordination Model and Facilities for Efficient Parallel Computation -- Parallelizing of Sequential Programs on the Basis of Pipeline and Speculative Features of the Operators* -- Kinetic Model of Parallel Data Processing -- PSA Approach to Population Models for Parallel Genetic Algorithms -- Highly Accurate Numerical Methods for Incompressible 3D Fluid Flows on Parallel Architectures -- Dynamic Task Scheduling with Precedence Constraints and Communication Delays -- Two-Dimensional Scheduling of Algorithms with Uniform Dependencies -- Consistent Lamport Clocks for Asynchronous Groups with Process Crashes -- Comparative Analysis of Learning Methods of Cellular-Neural Associative Memory -- Emergence and Propagation of Round Autowave in Cellular Neural Network -- Parametric Behaviour Analysis for Time Petri Nets* -- A Blackboard Approach for the Automatic Optimization of Parallel I/O Operations -- Routing and Embeddings in Super Cayley Graphs -- Software -- Implementing Cellular Automata Based Models on Parallel Architectures: The CAPP Project -- Methods for Achieving Peak Computational Rates for Linear Algebra Operations on Superscalar

RISC Processors -- The Parallel Mathematical Libraries Project (PMLP): Overview, Design Innovations, and Preliminary Results -- Implementing Model Checking and Equivalence Checking for Time Petri Nets by the RT-MEC Tool -- Learning Concurrent Programming: A Constructionist Approach -- The Speedup Performance of an Associative Memory Based Logic Simulator -- A High-Level Programming Environment for Distributed Memory Architectures -- Virtual Shared Files: Towards User-Friendly Inter-Process Communications -- An Object Oriented Environment to Manage the Parallelism of the FIIT Applications -- Performance Studies of Shared-Nothing Parallel Transaction Processing Systems -- Synergetic Tool Environments* -- Logically Instantaneous Communication on Top of Distributed Memory Parallel Machines -- Three Complementary Approaches to Parallelization of Local BLAST Service on Workstation Clusters -- An Implementation of the Lifecycle Service Object Mobility on CORBA -- SKiPPER: A Skeleton-Based Parallel Programming Environment for Real-Time Image Processing Applications -- A Queuing Model of a Multi-threaded Architecture: A Case Study -- BSP Performance Analysis and Prediction: Tools and Application -- Message Passing vs Tuple Space Coordination in an Aerodynamics Application* -- Architecture -- Two Examples of Distributed Architecture for Solving Combinatorial Optimization Problems -- Performance of the NAS Benchmarks on a Cluster of SMP PCs Using a Parallelization of the MPI Programs with OpenMP -- COOL Approach to Petaflops Computing -- Hardware and Software Optimizations for Multimedia Databases -- Cellular Recursive Algorithm Architecture for Long Integers Multiplication in Arrays of Restricted Size -- Applications -- A Parallel Model Based on Cellular Automata for the Simulation of Pesticide Percolation in the Soil* -- Comparative Study of Cellular-Automata Diffusion Models -- Creating and Running Mobile Agents with XJ DOME -- Parallelization and Integration of the LU and ILU Algorithm in the LINSOL Program Package -- CDL++ for the Description of Moving Objects in Cellular Automata -- Parallel Solution of Large Sparse SPD Linear Systems Based on Overlapping Domain Decomposition -- Restructuring Parallel Programs for On-the-Fly Race Detection* -- Solving Initial Value Problems with a Multiprocessor Code -- Parallel Implementation of Constraint Solving* -- Posters -- Experiences on Parallelization of Divide and Conquer Algorithms with Parallel Paradigms* -- Differentiating Message Passing Interface and Bulk Synchronous Parallel Computation Models -- Realization of Complex Arithmetic on Cellular Automata -- Parallel Programming System Based on Super Pascal Language -- Group-Theoretic Methods for Parallel Computation of Convolution -- Knowledge Exploitation for Improved Data Distribution -- An Expert System Approach to Data Distribution and Distribution Analysis -- Automated Communication Analysis and Code Generation for Non-contiguous Partitions of Two-Dimensional Arrays -- Tool -- WinALT, a Software Tool for Fine-Grain Algorithms and Structures Synthesis and Simulation -- DEALed — A Tool Suite for Distributed Real-Time Systems Development -- PLATINUM: A Placement Tool Based on Process Initiative.