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Nota di contenuto	A Composite Finite Element-Finite Difference Model Applied to Turbulence Modelling -- Vortex Identification in the Wall Region of Turbulent Channel Flow -- Numerical Solution of a Two-Class LWR Traffic Flow Model by High-Resolution Central-Upwind Scheme -- User-Controllable GPGPU-Based Target-Driven Smoke Simulation -- Variable Relaxation Solve for Nonlinear Thermal Conduction -- A Moving Boundary Wave Run-Up Model -- Enabling Very-Large Scale

Earthquake Simulations on Parallel Machines -- Fast Insolation Computation in Large Territories -- Non-equilibrium Thermodynamics, Thermomechanics, Geodynamics -- A Finite Element Model for Epidermal Wound Healing -- Predicting Binding Sites of Hepatitis C Virus Complexes Using Residue Binding Propensity and Sequence Entropy -- Use of Parallel Simulated Annealing for Computational Modeling of Human Head Conductivity -- Mining Molecular Structure Data for the Patterns of Interactions Between Protein and RNA -- Detecting Periodically Expression in Unevenly Spaced Microarray Time Series -- Creating Individual Based Models of the Plankton Ecosystem -- A Hybrid Agent-Based Model of Chemotaxis -- Block-Based Approach to Solving Linear Systems -- Numerical Tests with Gauss-Type Nested Implicit Runge-Kutta Formulas -- An Efficient Implementation of the Thomas-Algorithm for Block Penta-diagonal Systems on Vector Computers -- Compatibility of Scalapack with the Discrete Wavelet Transform -- A Model for Representing Topological Relations Between Simple Concave Regions -- Speech Emotion Recognition Based on a Fusion of All-Class and Pairwise-Class Feature Selection -- Regularized Knowledge-Based Kernel Machine -- Three-Phase Inverse Design Stefan Problem -- Semi-supervised Clustering Using Incomplete Prior Knowledge -- Distributed Reasoning with Fuzzy Description Logics -- Effective Pattern Similarity Match for Multidimensional Sequence Data Sets -- GPU-Accelerated Montgomery Exponentiation -- Hierarchical-Matrix Preconditioners for Parabolic Optimal Control Problems -- Searching and Updating Metric Space Databases Using the Parallel EGNAT -- An Efficient Algorithm and Its Parallelization for Computing PageRank -- A Query Index for Stream Data Using Interval Skip Lists Exploiting Locality -- Accelerating XML Structural Matching Using Suffix Bitmaps -- Improving XML Querying with Maximal Frequent Query Patterns -- A Logic-Based Approach to Mining Inductive Databases -- An Efficient Quantum-Behaved Particle Swarm Optimization for Multiprocessor Scheduling -- Toward Optimizing Particle-Simulation Systems -- A Modified Quantum-Behaved Particle Swarm Optimization -- Neural Networks for Predicting the Behavior of Preconditioned Iterative Solvers -- On the Normal Boundary Intersection Method for Generation of Efficient Front -- An Improved Laplacian Smoothing Approach for Surface Meshes -- Red-Black Half-Sweep Iterative Method Using Triangle Finite Element Approximation for 2D Poisson Equations -- Optimizing Surface Triangulation Via Near Isometry with Reference Meshes -- Efficient Adaptive Strategy for Solving Inverse Problems -- Topology Preserving Tetrahedral Decomposition of Trilinear Cell -- FITTING: A Portal to Fit Potential Energy Functionals to ab initio Points -- Impact of QoS on Replica Placement in Tree Networks -- Generating Traffic Time Series Based on Generalized Cauchy Process -- Reliable and Scalable State Management Using Migration of State Information in Web Services -- Efficient and Reliable Execution of Legacy Codes Exposed as Services -- Provenance Provisioning in Mobile Agent-Based Distributed Job Workflow Execution -- EPLAS: An Epistemic Programming Language for All Scientists -- Translation of Common Information Model to Web Ontology Language -- XML Based Semantic Data Grid Service -- Communication-Aware Scheduling Algorithm Based on Heterogeneous Computing Systems -- Macro Adjustment Based Task Scheduling in Hierarchical Grid Market -- DGSS: A Dependability Guided Job Scheduling System for Grid Environment -- An Exact Algorithm for the Servers Allocation, Capacity and Flow Assignment Problem with Cost Criterion and Delay Constraint in Wide Area Networks -- Adaptive Divisible Load Model for Scheduling Data-Intensive Grid Applications --

Providing Fault-Tolerance in Unreliable Grid Systems Through Adaptive Checkpointing and Replication -- A Machine-Learning Based Load Prediction Approach for Distributed Service-Oriented Applications -- A Balanced Resource Allocation and Overload Control Infrastructure for the Service Grid Environment -- Recognition and Optimization of Loop-Carried Stream Reusing of Scientific Computing Applications on the Stream Processor -- A Scalable Parallel Software Volume Rendering Algorithm for Large-Scale Unstructured Data -- Geometry-Driven Nonlinear Equation with an Accelerating Coupled Scheme for Image Enhancement -- A Graph Clustering Algorithm Based on Minimum and Normalized Cut -- A-PARM: Adaptive Division of Sub-cells in the PARM for Efficient Volume Ray Casting -- Inaccuracies of Shape Averaging Method Using Dynamic Time Warping for Time Series Data -- An Algebraic Substructuring Method for High-Frequency Response Analysis of Micro-systems -- Multilevel Task Partition Algorithm for Parallel Simulation of Power System Dynamics -- An Extended Implementation of the Great Deluge Algorithm for Course Timetabling -- Cubage-Weight Balance Algorithm for the Scattered Goods Loading with Two Aims -- Modeling VaR in Crude Oil Market: A Multi Scale Nonlinear Ensemble Approach Incorporating Wavelet Analysis and ANN -- On the Assessment of Petroleum Corporation's Sustainability Based on Linguistic Fuzzy Method -- A Multiagent Model for Supporting Tourism Policy-Making by Market Simulations -- An Improved Chaos-Based Image Encryption Scheme -- A Factory Pattern in Fortran 95 -- Mapping Pipeline Skeletons onto Heterogeneous Platforms -- On the Optimal Object-Oriented Program Re-modularization -- A Buffered-Mode MPI Implementation for the Cell BETM Processor -- Implementation of the Parallel Superposition in Bulk-Synchronous Parallel ML -- Parallelization of Generic Libraries Based on Type Properties -- Traffic Routing Through Off-Line LSP Creation -- Simulating Trust Overlay in P2P Networks -- Detecting Shrew HTTP Flood Attacks for Flash Crowds -- A New Fault-Tolerant Routing Algorithm for m-ary n-cube Multi-computers and Its Performance Analysis -- CARP: Context-Aware Resource Provisioning for Multimedia over 4G Wireless Networks -- Improved Fast Handovers for Mobile IPv6 over IEEE 802.16e Network -- Advanced Bounded Shortest Multicast Algorithm for Delay Constrained Minimum Cost -- Efficient Deadlock Detection in Parallel Computer Systems with Wormhole Routing -- Type-Based Query Expansion for Sentence Retrieval -- An Extended R-Tree Indexing Method Using Selective Prefetching in Main Memory -- Single Data Copying for MPI Communication Optimization on Shared Memory System -- Adaptive Sparse Grid Classification Using Grid Environments -- Latency-Optimized Parallelization of the FMM Near-Field Computations -- Efficient Generation of Parallel Quasirandom Faure Sequences Via Scrambling -- Complexity of Monte Carlo Algorithms for a Class of Integral Equations -- Modeling of Carrier Transport in Nanowires -- Monte Carlo Numerical Treatment of Large Linear Algebra Problems -- Simulation of Multiphysics Multiscale Systems: Introduction to the ICCS'2007 Workshop -- Simulating Weed Propagation Via Hierarchical, Patch-Based Cellular Automata -- A Multiscale, Cell-Based Framework for Modeling Cancer Development -- Stochastic Modelling and Simulation of Coupled Autoregulated Oscillators in a Multicellular Environment: The her1/her7 Genes -- Multiscale Modeling of Biopolymer Translocation Through a Nanopore -- Multi-physics and Multi-scale Modelling in Cardiovascular Physiology: Advanced User Methods for Simulation of Biological Systems with ANSYS/CFX -- Lattice Boltzmann Simulation of Mixed Convection in a Driven Cavity Packed with Porous Medium -- Numerical

Study of Cross Diffusion Effects on Double Diffusive Convection with Lattice Boltzmann Method -- Lattice Boltzmann Simulation of Some Nonlinear Complex Equations -- A General Long-Time Molecular Dynamics Scheme in Atomistic Systems: Hyperdynamics in Entropy Dominated Systems -- A New Constitutive Model for the Analysis of Semi-flexible Polymers with Internal Viscosity -- Coupled Navier-Stokes/DSMC Method for Transient and Steady-State Gas Flows -- Multi-scale Simulations of Gas Flows with Unified Flow Solver -- Coupling Atomistic and Continuum Models for Multi-scale Simulations of Gas Flows -- Modelling Macroscopic Phenomena with Cellular Automata and Parallel Genetic Algorithms: An Application to Lava Flows -- Acceleration of Preconditioned Krylov Solvers for Bubbly Flow Problems -- An Efficient Characteristic Method for the Magnetic Induction Equation with Various Resistivity Scales -- Multiscale Discontinuous Galerkin Methods for Modeling Flow and Transport in Porous Media -- Fourier Spectral Solver for the Incompressible Navier-Stokes Equations with Volume-Penalization -- High Quality Surface Mesh Generation for Multi-physics Bio-medical Simulations -- Macro-micro Interlocked Simulation for Multiscale Phenomena -- Towards a Complex Automata Framework for Multi-scale Modeling: Formalism and the Scale Separation Map -- Multilingual Interfaces for Parallel Coupling in Multiphysics and Multiscale Systems -- On a New Isothermal Quantum Euler Model: Derivation, Asymptotic Analysis and Simulation -- Grate Furnace Combustion: A Submodel for the Solid Fuel Layer -- to the ICCS 2007 Workshop on Dynamic Data Driven Applications Systems -- Pharmaceutical Informatics and the Pathway to Personalized Medicines -- Towards Real-Time Distributed Signal Modeling for Brain-Machine Interfaces -- Using Cyber-Infrastructure for Dynamic Data Driven Laser Treatment of Cancer -- Grid-Enabled Software Environment f.