1. Record Nr. UNINA9910484303803321

Titolo	Parallel Processing and Applied Mathematics, Part II : 8th International Conference, PPAM 2009, Wroclaw, Poland, September 13-16, 2009, Proceedings / / edited by Roman Wyrzykowski, Jack Dongarra, Konrad Karczewski, Jerzy Wasniewski
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2010
ISBN	1-280-38796-3 9786613565884 3-642-14403-9
Edizione	[1st ed. 2010.]
Descrizione fisica	1 online resource (XXIV, 596 p. 272 illus.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 6068
Altri autori (Persone)	WyrzykowskiRoman
Disciplina	005.1
Soggetti	Software engineering Algorithms Application software Computer programming Computer science - Mathematics Software Engineering Computer and Information Systems Applications Programming Techniques Mathematics of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Workshop on Scheduling for Parallel Computing (SPC 2009) -- Fully Polynomial Time Approximation Schemes for Scheduling Divisible Loads -- Semi-online Preemptive Scheduling: Study of Special Cases -- Fast Multi-objective Reschulding of Grid Jobs by Heuristics and Evolution -- Comparison of Program Task Scheduling Algorithms for Dynamic SMP Clusters with Communication on the Fly -- Study on GEO Metaheuristic for Solving Multiprocessor Scheduling Problem -- Online Scheduling of Parallel Jobs on Hypercubes: Maximizing the Throughput -- The Third Workshop on Language-Based Parallel Programming Models (WLPP 2009) -- Verification of Causality Requirements in Java

Memory Model Is Undecidable -- A Team Object for CoArray Fortran -- On the Definition of Service Abstractions for Parallel Computing -- The Second Workshop on Performance Evaluation of Parallel Applications on Large-Scale Systems -- Performance Debugging of Parallel Compression on Multicore Machines -- Energy Considerations for Divisible Load Processing -- Deskilling HPL -- Monitoring of SLA Parameters within VO for the SOA Paradigm -- A Role-Based Approach to Self-healing in Autonomous Monitoring Systems -- Parallel Performance Evaluation of MIC(0) Preconditioning Algorithm for Voxel ? FE Simulation -- Parallel HAVEGE -- The Fourth Grid Applications and Middleware Workshop (GAMW 2009) -- UNICORE Virtual Organizations System -- Application of ADMIRE Data Mining and Integration Technologies in Environmental Scenarios -- Performance Based Matchmaking on Grid -- Replica Management for National Data Storage -- Churn Tolerant Virtual Organization File System for Grids -- The Fourth Workshop on Large Scale Computations on Grids (LaSCoG 2009) -- Quasi-random Approach in the Grid Application SALUTE -- Mobile Agents for Management of Native Applicationsin GRID -- Leveraging Complex Event Processing for Grid Monitoring -- Designing Execution Control in Programs with Global Application States Monitoring -- Distributed MIND – A New Processing Model Based on Mobile Interactive Documents -- A Framework for Observing Dynamics of Agent-Based Computations -- HyCube: A DHT Routing System Based on a Hierarchical Hypercube Geometry -- Workshop on Parallel Computational Biology (PBC 2009) -- Accuracy and Performance of Single versus Double Precision Arithmetics for Maximum Likelihood Phylogeny Reconstruction -- Automated Design of Assemblable, Modular, Synthetic Chromosomes -- GPU Parallelization of Algebraic Dynamic Programming -- Parallel Extreme Ray and Pathway Computation -- Minisymposium on Applications of Parallel Computation in Industry and Engineering -- Parallelized Transient Elastic Wave Propagation in Orthotropic Structures -- Parallel Numerical Solver for Modelling of Electromagnetic Properties of Thin Conductive Layers -- Numerical Health Check of Industrial Simulation Codes from HPC Environments to New Hardware Technologies -- Application of Parallel Technologies to Modeling Lithosphere Dynamics and Seismicity -- AMG for Linear Systems in Engine Flow Simulations -- Parallel Implementation of a Steady State Thermal and Hydraulic Analysis of Pipe Networks in OpenMP -- High-Performance Ocean Color Monte Carlo Simulation in the Geo-info Project -- EULAG Model for Multiscale Flows – Towards the Petascale Generation of Mesoscale Numerical Weather Prediction -- Parallel Implementation of Particle Tracking and Collision in a Turbulent Flow -- A Distributed Multilevel Ant-Colony Approach for Finite Element Mesh Decomposition -- Minisymposium on Interval Analysis -- Toward Definition of Systematic Criteria for the Comparison of VerifiedSolvers for Initial Value Problems -- Fuzzy Solution of Interval Nonlinear Equations -- Solving Systems of Interval Linear Equations with Use of Modified Interval Division Procedure -- Remarks on Algorithms Implemented in Some C++ Libraries for Floating-Point Conversions and Interval Arithmetic -- An Interval Method for Seeking the Nash Equilibria of Non-cooperative Games -- From Gauging Accuracy of Quantity Estimates to Gauging Accuracy and Resolution of Measuring Physical Fields -- A New Method for Normalization of Interval Weights -- A Global Optimization Method for Solving Parametric Linear Systems Whose Input Data Are Rational Functions of Interval Parameters -- Direct Method for Solving Parametric Interval Linear Systems with Non-affine Dependencies -- Workshop on Complex Collective Systems -- Evaluating Lava Flow

Hazard at Mount Etna (Italy) by a Cellular Automata Based Methodology -- Application of CoSMoS Parallel Design Patterns to a Pedestrian Simulation -- Artificial Intelligence of Virtual People in CA FF Pedestrian Dynamics Model -- Towards the Calibration of Pedestrian Stream Models -- Two Concurrent Algorithms of Discrete Potential Field Construction -- Frustration and Collectivity in Spatial Networks -- Weakness Analysis of a Key Stream Generator Based on Cellular Automata -- Fuzzy Cellular Model for On-Line Traffic Simulation -- Modeling Stop-and-Go Waves in Pedestrian Dynamics -- FPGA Realization of a Cellular Automata Based Epidemic Processor -- Empirical Results for Pedestrian Dynamics at Bottlenecks -- Properties of Safe Cellular Automata-Based S-Boxes.

Sommario/riassunto

Wearepleasedtopresenttheproceedingsofthe8thInternationalConference on Parallel Processing and Applied Mathematics - PPAM 2009, which was held in Wrocla w, Poland, September 13-16, 2009. It was organized by the Department ofComputer andInformationSciencesof theCzestochowaUniversity ofTechno- logy,withthehelpoftheWroc lawUniversityofTechnology,FacultyofComputer Science and Management. The main organizer was Roman Wyrzykowski. PPAM is a biennial conference. Seven previous events have been held in di'erentplacesinPolandsince1994. Theproceedingsofthelastfourconferences havebeenpublishedbySpringerintheLectureNotes in Computer Science series (Nal ecz´ ow, 2001,vol.2328;Czestochowa,2003,vol.3019; Poznan´, 2005,vol.3911; Gdan´sk, 2007, vol. 4967). The PPAM conferences have become an international forum for exchanging ideasbetweenresearchersinvolvedinparallelanddistributedcomputing, incl- ing theory and applications, as well as applied and computational mathematics. The focus of PPAM 2009 was on models, algorithms, and software tools which facilitate e'cient and convenient utilization of modern parallel and distributed computing architectures, as well as on large-scale applications. Thismeeting gatheredmorethan210participantsfrom 32countries.A strict refereeing process resulted in the acceptance of 129 contributed presentations, while approximately46% of the submissionswere rejected. Regular tracksof the conference covered such important ?elds of parallel/distributed/grid computing and applied mathematics as: - Parallel/distributed architectures and mobile computing - Numerical algorithms and parallel numerics - Parallel and distributed non-numerical algorithms - Tools and environments for parallel/distributed/grid computing - Applications of parallel/distributed computing - Applied mathematics and neural networks Plenary and Invited Speakers The plenary and invited talks were presented by: - Srinivas Aluru from the Iowa State University (USA) - Dominik Behr from AMD (USA) - Ewa Deelman from the University of Southern California (USA) - Jack Dongarra from the University of Tennessee and Oak Ridge National

2. Record Nr. UNINA9910427693603321

Titolo	Computational Methods in Systems Biology : 18th International Conference, CMSB 2020, Konstanz, Germany, September 23–25, 2020, Proceedings / / edited by Alessandro Abate, Tatjana Petrov, Verena Wolf
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-60327-X
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XIX, 387 p. 208 illus., 57 illus. in color.)
Collana	Lecture Notes in Bioinformatics, , 2366-6331 ; ; 12314
Disciplina	572.80285
Soggetti	Bioinformatics Computer science - Mathematics Computer networks Computer science Artificial intelligence Software engineering Computational and Systems Biology Mathematics of Computing Computer Communication Networks Theory of Computation Artificial Intelligence Software Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Modelling and Analysis -- Rate Equations For Graphs -- Stationary Distributions and Metastable Behaviour for Self-Regulating Proteins with General Lifetime Distributions -- Accelerating Reactions at the DNA Can Slow Down Transient Gene Expression -- Graphical Conditions for Rate Independence in Chemical Reaction Networks -- Interval Constraint Satisfaction and Optimization for Biological Homeostasis and Multistationarity -- Growth Dependent Computation of Chokepoints in Metabolic Networks -- On the Complexity of

Quadratization for Polynomial Differential Equations -- Comparing Probabilistic and Logic Programming Approaches to Predict the Effects of Enzymes in a Neurogenerative Disease Model -- Boolean Networks -- Control Strategy Identification via Trap Spaces in Boolean Networks -- Qualitative Analysis of Mammalian Circadian Oscillations: Cycle Dynamics and Robustness -- Synthesis and Simulation of Ensembles of Boolean Networks for Cell Fate Decision -- Classifier Construction in Boolean Networks Using Algebraic Methods -- Sequential Temporary and Permanent Control of Boolean Networks -- Inference and Identification -- ABC(SMC)^2: Simultaneous Inference and Model Checking of Chemical Reaction Networks -- Parameter Synthesis for Hybrid Systems from Hybrid CTL Specifications -- Core Models of Receptor Reactions Evaluate Basic Pathway Designs Enabling Heterogeneous Commitments to Apoptosis -- Drawing the Line: Basin Boundaries in Safe Petri Nets -- Tools -- ModRev - Model Revision Tool for Boolean Logical Models of Biological Regulatory Networks -- fnyzer: a Python Package for the Analysis of Flexible Nets -- eBCSgen: A Software Tool for Biochemical Space Language -- What is a Cell Cycle Checkpoint ? The TotemBioNet Answer -- Kaemika App, Integrating Protocols and Chemical Simulation -- Tutorials -- Tutorial: The CoLoMoTo Interactive Notebook, Accessible and Reproducible Computational Analyses for Qualitative Biological Networks -- Integrating Experimental Pharmacology and Systems Biology for GPCR Drug Discovery.

Sommario/riassunto

This book constitutes the refereed proceedings of the 18th International Conference on Computational Methods in Systems Biology, CMSB 2020, held in Konstanz, Germany, in September 2020.* The 17 full papers and 5 tool papers were carefully reviewed and selected from 30 submissions. In addition 3 abstracts of invited talks and 2 tutorials have been included in this volume. Topics of interest include formalisms for modeling biological processes; models and their biological applications; frameworks for model verification, validation, analysis, and simulation of biological systems; high-performance computational systems biology and parallel implementations; model inference from experimental data; model integration from biological databases; multi-scale modeling and analysis methods; computational approaches for synthetic biology; and case studies in systems and synthetic biology. * The conference was held virtually due to the COVID-19 pandemic.