

Program Summary

July 16, 2008

Time	Main Room	Room 1	Room 2
07:00am – 08:00am	Registration		
08:00am – 08:10am	Open Ceremony		
08:10am – 09:00am	Keynote: Philippe Remy Bernard Devloo , Title: OOPar: an object oriented environment for implementing parallel algorithms		
09:10am – 10:25am	CSE08 Session 1A	SEC-08 Session 1B	WCEMP-08 Session 1C
10:25am – 10:45am	Coffee break		
10:45am – 12:00am	CSE08 Session 2A	SEC-08 Session 2B	WCEMP-08 Session 2C
12:00am – 01:20pm	Lunch		
01:20pm – 03:00pm	CSE08 Session 3A	SEC-08 Session 3B	WSCEE-08 Session 3C
03:00pm – 03:20pm	Coffee break		
03:20pm – 06:00pm	CSE08 Session 4A	–	WSCEE-08 Session 4C

July 17, 2008

Time	Main Room	Room 1	Room 2
08:00am – 09:00am	Keynote: Ivan Stojmenovic , Title: Contribution of applied algorithms to applied computing		
09:10am – 10:25am	CSE08 Session 5A	SEC-08 Session 5B	CSE08 Session 5C
10:25am – 10:45am	Coffee break		
10:45am – 12:00am	CSE08 Session 6A	SEC-08 Session 6B	CSE08 Session 6C
12:00am – 01:20pm	Lunch		
01:20pm – 03:00pm	CSE08 Session 7A	SEC-08 Session 7B	PerGrid-08 Session 7C
03:00pm – 03:20pm	Coffee break		
03:20pm – 06:00pm	CSE08 Session 8A	SEC-08 Session 8B	PerGrid-08 Session 8C
07:00pm – 09:00pm	Banquet		

July 18, 2008

Time	Main Room	Room 1	Room 2
08:00am – 09:00am	Keynote: Hans P. Zima , Title: High-Productivity Programming and Execution Models for Multi-Core Based Parallel Systems		
09:10am – 10:25am	CSE08 Session 9A	SEC-08 Session 9B	Keynote: Mark Perry , Title: SaaS, the Web2 for business: can we put it in a Cloud?
10:25am – 10:45am	Coffee break		
10:45am – 12:00am	CSE08 Session 10A	SEC-08 Session 10B	Web2Touch-08 Session 10C
12:00am – 01:20pm	Lunch		
01:20pm – 03:00pm	CSE08 Session 11A	–	Web2Touch-08 Session 11C
03:00pm – 03:20pm	Coffee break		
03:20pm – 06:00pm	CSE08 Session 12A	–	Web2Touch-08 Session 12C

Keynote: High-Productivity Programming and Execution Models for Multi-Core Based Parallel Systems

Hans P. Zima



Summary

CMOS manufacturing technology has reached a state where physical limits of semiconductor-based microelectronics lead to serious heat dissipation and data synchronization problems. As a result, microprocessor clock speeds and straight-line instruction throughput have not significantly risen over the past few years. This has led to a revolutionary change in chip design characterized by multi-core architectures. In the near future, commercial-off-the-shelf (COTS) chips with tens or hundreds of processor cores will become the standard. As a consequence, parallel programming will no longer be restricted to the domain of high-performance computing but will become a mainstream technology. Despite significant efforts in industry and academia, at present no generally accepted strategies exist for the programming and execution models of the emerging multi-level hierarchical systems and their programming environments.

This presentation will discuss some key issues in this context based on the objective of finding a viable compromise between the goals of providing an API at a high level of abstraction and meeting the challenges related to target code performance, power consumption, and fault tolerance. We will particularly

address the question to which degree recent experiences in language design for peta-scale computing systems, such as those developed in the High-Productivity-Computing- Systems (HPCS) program, can contribute to the problem of programming multi-core systems in a productive, efficient, and reliable way.

About the Keynote Speaker

Hans P. Zima is a Principal Scientist at the Jet Propulsion Laboratory, California Institute of Technology, and a Professor Emeritus of the University of Vienna, Austria. He received his Ph.D. degree in Mathematics and Astronomy from the University of Vienna in 1964. His major research interests have been in the fields of high-level programming languages, compilers, and advanced software tools. In the early 1970s, while working in industry, he designed and implemented one of the first high-level real-time languages for the German Air Traffic Control Agency. During his tenure as a Professor of Computer Science at the University of Bonn, Germany, he contributed to the German supercomputer project "SUPRENUM", leading the design of the first Fortran-based compilation system for distributed-memory architectures (1989). From 1997 to 2007, Dr. Zima headed the Priority Research Program "Aurora", a ten-year program funded by the Austrian Science Foundation. His research over the past years focused on the design of the "Chapel" programming language in the framework of the DARPA-sponsored HPCS project "Cascade". More recently, Dr. Zima has become involved in the design of space-borne fault-tolerant high capability computing systems. Dr. Zima is the author or co-author of more than 170 publications, including 4 books.

Keynote: Contribution of applied algorithms to applied computing

Ivan Stojmenovic



Abstract

The focus of this and some other events is to bring together computer scientists, applied mathematician and engineers to discuss advanced computing for scientific, engineering, and practical problems. This talk is about the role and contribution of applied algorithms within applied computing. It will discuss some specific areas where design and analysis of algorithms is believed to be the key ingredient in solving problems, which are often large and complex and cope with tight timing schedules. The talk is based on recent Handbook of Applied Algorithms (Wiley, March 2008), co-edited by the speaker. The featured application areas for algorithms and discrete mathematics include computational biology, computational chemistry, wireless networks, Internet data streams, computer vision, and emergent systems. Techniques identified as important include graph theory, game theory, data mining, evolutionary, combinatorial and cryptographic, routing and localized algorithms.

About the Keynote Speaker

Ivan Stojmenovic received Ph.D. degree in mathematics. He held positions in Serbia, Japan, USA, Canada, France, Mexico, Spain

and UK. He is currently Chair Professor in Applied Computing at the University of Birmingham, UK. He published over 200 different papers, and edited four books on wireless, ad hoc and sensor networks and applied algorithms with Wiley/IEEE. He is currently editor of over dozen journals, and founder and editor-in-chief of three journals (Journal of Multiple-Valued Logic and Soft Computing, International Journal of Parallel, Emergent and Distributed Systems, and Ad Hoc & Sensor Networks, An International Journal). Stojmenovic is in the top 0.56% most cited authors in Computer Science (Citeseer 2006). One of his articles was recognized as the Fast Breaking Paper, for October 2003 (as the only one for all of computer science), by Thomson ISI Essential Science Indicators. He is recipient of the Royal Society Research Merit Award, UK. He is recently elected to IEEE Fellow status (class 2008). He chaired and/or organized more than 30 workshops and conferences, and served in over 100 program committees since 2004. Among others, he was/is program co/vice-chair at IEEE AINA-07, IEEE MASS-04 and -07, EUC-05, WONS-05, MSN-05 and -06, ISPA-05 and -07, founded workshop series at IEEE MASS, IEEE ICDCS and IEEE DCOSS, and Workshop Chair at ACM Mobicom/Mobihoc 2007. He presented over dozen tutorials.

Keynote: OOPar : an object oriented environment for implementing parallel algorithms

Philippe Remy Bernard Devloo



the study of object-oriented code structures, applied to scientific computing. He is the author of an object-oriented development environment, applied to finite elements method; and another environment focused on parallel computing algorithms development. Since 1992, Prof. Devloo is a lecturer at the Faculty of Civil Engineering, Architecture and Urbanism of UNICAMP. He had developed research projects in collaboration with Embraer, Petrobras and Commodity Systems.

Abstract

OOPar is a C++ library which implements an interface to MPI (or other communication library) to offer the user a high level interface for implementing parallel algorithms. Large scale software projects have been parallelized using OOPar and their results will be presented during this presentation.

OOPar introduces two concepts to help the programmer in defining a parallel algorithm: Distributed data and tasks which act on the distributed data.

OOPar is a public domain software project and can be downloaded at <http://labmec.fec.unicamp.br>

About the Keynote Speaker

Professor Philippe Devloo graduated in electro-mechanical engineering at Gent University, Belgium. He also did a one-year specialization in computer science at Leuven University, Belgium. From 1982 to 1987 he did his PhD. in Texas University, Austin, in the area of computational mechanics, where he developed h-p adaptive techniques, applied to simulation of Navier Stokes comprehensive equations. After his arrival to Brazil in 1998, Professor Devloo dedicated himself to

Workshop: Web2Touch – Keynote: SaaS, the Web2 for business: can we put it in a Cloud?

Mark Perry



Abstract

Web2.0 is often described as providing consumers added value, interactive website access, often as a collaborative endeavour giving free services (for example, Wikipedia, Skype and Google Docs). Software as a Service can be seen as a business equivalent where the business clients can access systems provision on their own terms within limits defined by the provider. This talk will look at the issues that arise in the provision of SaaS and also explore whether cloud computing frameworks can offer some solutions to issues that arise with widespread SaaS adoption.

Subscription to an on demand service requires agreements, such as a license and Service Level Agreements, to make sure users know their rights and constraints. Other types of consensus between the user and vendor, and/or end users that regulate the usage of systems internally, are also agreements. Enforcing these agreements requires flexible management mechanisms. However, when we look into the structure of proposed management systems, there are major challenges that have not been resolved, such as: 1) How to monitor the service; 2) How to analyze collected service status against the knowledge; 3) How to plan and enforce executions if necessary; 4) How to scale the system to meet demand; and

5) How to represent agreements and other information as knowledge;

One possible solution to scalability is the adoption of cloud computing models. Here we further look at what cloud computing concepts can bring to SaaS, and whether peer to peer clouds can offer SaaS solutions.

About the Keynote Speaker

Professor Mark Perry is jointly appointed to the Faculty of Science, Computer Science, and the Faculty of Law at the University of Western Ontario, London, Canada. He is a Faculty Fellow at IBM's Center for Advanced Studies, a Barrister and Solicitor of the Law Society of Upper Canada, a Correspondent for the Computer Law and Security Report, a member of the International Association for the Advancement of Teaching and Research in Intellectual Property, the IEEE, the Intellectual Property Institute of Canada, and the ACM. He is a committee member of the ACM SIGCAS, the College of Reviewers of the Canada Research Chairs, a reviewer for Canadian Foundation for Innovation, a member in the Selton Society and the Computer Research Association, on the executive committee for the ACM Special Interest Group on Computers and Society, in the UWO Bioethics Research Group, and a reviewer for Natural Science and Engineering Research Council (NSERC) and the Social Science and Humanities Research Council (SSHRC). Professor Perry's research is focused on the nexus of science and law, and in the area of autonomic computing system development. More information can be found at <http://www.csd.uwo.ca/markp>

Schedule for CSE-08

July 16th, 2008

08:00am – 08:10am: *Opening Ceremony*

08:10am – 09:00am: *Keynote 1*

09:00am – 10:25am: *Parallel Sessions 1A, 1B and 1C*

Session 1A – CSE-08 – *Scientific Computing I*

Session Chair: *Siang Wun Song, University of São Paulo, Brazil*

- Including Rigorous Numerical Bounds in Quantum Chemistry Calculations: Gaussian Integral Evaluation
Pete P. Janes and Alistair P. Rendell
- Specialized Eigenvalue Methods for Large-Scale Model Order Reduction Problems
Joost Rommes and Nelson Martins
- A Domain Decomposition Method Applied to the Simplified Transport Equations
Maxime Barrault, Bruno Lathuilière, Pierre Ramet, and Jean Roman
- A Parallel Direct/Iterative Solver Based on a Schur Complement Approach
J. Gaidamour and P. Hénon

Session 1B – SEC-08 – *Pervasive Computing and Intelligence I*

Session Chair: *Khalil Drira, LAAS-CNRS, France*

- An Event-Triggered Time Synchronization Scheme for Sensor Networks
Nuo Wei, Qiang Guo, Chun-jie Li, Rui-xia Liu, and Xiang-long Kong

- ZigBee Network for Measurement of Human Vibration
Alexandre Balbinot, Marilda Spíndola Chiaramonte, and Diogo Koenig

- A System for Unobtrusive Monitoring of Mobility in Bed
Adriana Miorelli Adami, André Gustavo Adami, Clifford Millo Singer, Tamara L. Hayes, and Misha Pavel

Session 1C – WCEMP-08 I

Session Chair: *João Batista Camargo Junior, University of São Paulo, Brazil*

- Multi-Agent Tools for Air Traffic Management
Ítalo Romani de Oliveira, Fábio Silva Carvalho, João Batista Camargo Junior, and Líria Matsumoto Sato
- Emergency Group Calls over Interoperable Networks
Raphael Frank, Thomas Scherer, and Thomas Engel

10:25am – 10:45am – *Coffee break*

10:45am – 12:00am – *Parallel Sessions 2A, 2B, 2C*

Session 2A – CSE-08 – *Embedded and Ubiquitous Computing*

Session Chair: *Ahmed Sameh, American University in Cairo, Egypt*

- Application Specific Processors for Multimedia Applications
Muhammad Rashid, Ludovic Apvrille, and Renaud Pacalet
- A New Context Script Language and Its Processor for Developing Context-Aware Applications in Ubiquitous Computing
Jaewoo Chang and Ahreum Kim

- Model to Integration of RFID into Wireless Sensor Network for Tracking and Monitoring Animals
Daniel Patrick Pereira, Wander-son Roger Azevedo Dias, Marcus de Lima Braga, Raimundo da Silva Barreto, Carlos Maurício S. Figueiredo, and Virgínia Brilhante
- Intelligent Open Spaces: Using Neural Networks for Prediction of Requested Resources in Smart Spaces
Amgad Madkour and Ahmed Sameh

Session 2B – SEC-08 – *Pervasive Computing and Intelligence II*

Session Chair: *Allan K.Y. Wong, Hong Kong Polytechnic University, China*

- Extension of Capture Information in Pervasive Healthcare Systems: A Case Study
Renato de Freitas Bulcao-Neto, José Antonio Camacho-Guerrero, and Alessandra Alaniz Macedo
- Dynamic Cache Tuning Aids the Success of Telemedicine
Jackei H.K. Wong, Allan K.Y. Wong, Wilfred W.K. Lin, and Tharam S. Dillon

Session 2C – WCEMP-08 II

Session Chair: *Regina B. Araujo, Federal University of São Carlos, Brazil*

- Access Control Solution for Command and Control Systems Integration
Marcio Varchavsky, Eduardo Guerra, and Clovis Fernandes
- Virtual Simulations of Nuclear Plants for Dose Assessment with On-line Measurements Collected by Networked Radiation Monitors
Antonio Carlos A. Mól, Maurício

Alves C. Aghina, Carlos Alexandre F. Jorge, and Pedro M. Couto

- Creating Emergency Management Training Simulations through Ontologies Integration
Regina B. Araujo, Rafaela V. Rocha, Marcio R. Campos, and Azzedine Boukerche

12:00am – 01:20pm – Lunch

01:20pm – 03:00pm – Parallel Sessions 3A, 3B, 3C

Session 3A – CSE-08 – *P2P, Web and Internet Computing*

Session Chair: *Carlos Maziero, Pontifícia Universidade Católica do Paraná, Brazil*

- Intelligent Search Agent for Internet Computing with Fuzzy Approach
Meikang Qiu, Hung-Chung Huang, Laurence T. Yang, and Jiande Wu
- Quality of Service Management for Web Service Compositions
Diego Zuquim Guimarães Garcia and Maria Beatriz Felgar de Toledo
- TIGRAS: A Topology-Independent Gradient Search Approach for Peer-to-Peer Key Look Up
Mutaleci Miranda, Geraldo Xexeo, and Jano Moreira de Souza
- An Experimental Peer-to-Peer Email System
Edson Kageyama, Carlos Maziero, and Altair Santin

Session 3B – SEC-08 – *Database and Data Mining*

Session Chair: *Peter Olveczky, UIO, Norway*

- Formal Modeling and Analysis of a Distributed Database Protocol in Maude
Peter Csaba Ölveczky
- GUF1: A New Algorithm for General Updating of Frequent Itemsets
Mohamed Anis Bach Tobji, Anissa Abrougui, and Boutheina Ben Yaghlane
- Combining Parallel Self-Organizing Maps and K-Means to Cluster Distributed Data
Flavius Luz Gorgonio and Jose Alfredo Ferreira Costa

Session 3C – WSCEE-08

Session Chair: *Yiming Li, Nat'l Chiao-Tung University, Taiwan*

- Temperature Aware Floorplanning via Geometry Programming
Yiming Li, Ying-Chieh Chen, and Hui-Wen Cheng
- Three-Dimensional Numerical Simulation of Switching Dynamics for Cylindrical-Shaped Phase Change Memory
Yiming Li, Chih-Hong Hwang, Yi-Ting Kuo, and Hui-Wen Cheng
- The Transformation Caused by the Introduction of New Information and Communication Technologies
Mauro Bezerril Meirelles, Bertholdo Werner Salles, Rosana Rosa Silveira, Angela Regina Heizen Amin, and Eduardo Juan-Soriano Sierra
- Size-correction Technique for k-p Simulation of Silicon Quantum Dots
F.M. Gómez-Campos, S. Rodríguez-Bolívar, and J.E. Carceller

03:00pm – 03:20pm – *Coffee break*

03:20pm – 06:30pm – *Parallel Sessions 4A, 4B, 4C*

Session 4A – CSE-08 – *Distributed and Parallel Computing*

Session Chair: *Nicolas Maillard, Federal University of Rio Grande do Sul, Brazil*

- An Experimental Study on How to Build Efficient Multi-core Clusters for High Performance Computing
Luiz Carlos Pinto, Luiz H. B. Tomazella, and M. A. R. Dantas
- A Study of Adaptive Co-scheduling Approach for an Opportunistic Software Environment to Execute in Multi-core and Multi-processor Configurations
R. P. Mendonça and M. A. R. Dantas
- Automatic Dynamic Task Distribution between CPU and GPU for Real-Time Systems
Mark Joselli, Marcelo Zamith, Esteban Clua, Anselmo Montenegro, Aura Conci, Regina Leal-Toledo, Luis Valente, Bruno Feijó, Marcos d'Ornellas, and Cesar Pozzer
- A High-Throughput Multi-cluster NoC Architecture
Henrique C. Freitas and Philippe O. A. Navaux
- ICE: Managing Multiple Clusters Using Web Services
Rodrigo Righi, Laércio Pilla, Alexandre Carissimi, Nicolas Maillard, and Philippe Navaux

Session 4C – WSCEE-08

Session Chair: *Shih-Ching Lo, Chung Hua University, Taiwan*

- Reference Model for Development of Human-Computer Interfaces
Luciano de Castro

- Simulation of Polarizer Impact on Circular Interferometer Performance
Reuben Shar
- PARM: A Power-Aware Message Scheduling Algorithm for Real-Time Wireless Networks
Mohammed I. Alghamdi
- Cellular Automata Simulation for Traffic Flow with Advanced Control Vehicles
Shih-Ching Lo and Chia-Hung Hsu

July 17th, 2008

08:00am – 09:00am – *Keynote 2*

09:00am – 10:25am – *Parallel Sessions 5A, 5B and 5C*

Session 5A – CSE-08 – *Advanced Networking and Applications*

Session Chair: *Aqueo Kamada, CTI, Science and Technology Ministry, Brazil*

- Work-Optimal Routing in Wavelength-Division Multiplexed Dense Optical Tori
Juha-Pekka Liimatainen and Risto T. Honkanen
- A Multicriteria Model Applied in the Diagnosis of Alzheimer's Disease: A Bayesian Network
Plácido Rogério Pinheiro, Ana Karoline A. de Castro, and Mirian Caliope D. Pinheiro
- An Efficient Context-Specific Pure Overlay Space for Context Dissemination in Ambient Networks
Dineshbalu Balakrishnan and Amiya Nayak

Session 5B – SEC-08 – *Grid, P2P and Web Computing*

Session Chair: *Vladimir Vlassov, KTH Royal Institute of Technology, Sweden*

- Collaborating Mechanical Design Phases across a Grid
Zhifeng Yun, Maoyuan Xie, Fuguo Zhou, Gabrielle Allen, Teyfik Kosar, and Zhou Lei
- An Economic Approach for Scheduling Dependent Tasks in Grid Computing
Hamid Mohammadi Fard and Hossein Deldari
- Design and Implementation of a Virtual Organization File System for Dynamic VOs

Hamid-Reza Mizani, Liang Zheng, Vladimir Vlassov, and Konstantin Popov

- An Approach to Predict User's Interests in Web-based Educational Systems using a Collaborative Filtering Weighted Method
Reginaldo A. Gotardo, Cesar A.C. Teixeira, and Sérgio D. Zorzo

Session 5C – CSE-08 – *Engineering Computing I*

Session Chair: *Edson Satoshi Gomi, University of São Paulo, Brazil*

- Improving Potts MRF Model Parameter Estimation in Image Analysis
Alexandre L. M. Levada, Nelson D. A. Mascarenhas, and Alberto Tannús
- A Novel Model for Combining Projection and Image Filtering Using Kalman and Discrete Wavelet Transform in Computerized Tomography
Marcos A. M. Laia, Alexandre L. M. Levada, Leonardo C. Botega, Maurício F. L. Pereira, Paulo E. Cruvinel, and Álvaro Macedo
- Implementation and Test of B.R.A.S.I.L: An Epilepsy Computer-Aided Diagnosis Toolkit
Lucas Ferrari de Oliveira, Paulo M. de Azevedo-Marques, Lauro Wichert-Ana, and Américo Ceiki Sakamoto
- Parallel Modeling of Fish Interaction
Lamia Youseff, Alethea Barbarob, Peterson Trethewey, Björn Birnir, and John R. Gilbert

10:25am – 10:45am – *Coffee break*

10:45am – 12:00am – *Parallel Sessions 6A, 6B, 6C*

Session 6A – CSE-08 – *Intelligent and Bio-inspired Computing I*

Session Chair: *Jose Hiroki Saito, Federal University of São Carlos, Brazil*

- A Clustering Approach Based on Artificial Neural Networks to Solve Routing Problems
Thiago A. S. Masutti and Leandro N. de Castro
- Stabilizing and Improving the Learning Speed of 2-Layered LSTM Network
Débora C. Corrêa, Alexandre L. M. Levada, and José Hiroki Saito
- A Comparison between Hybrid and Non-hybrid Classifiers in Diagnosis of Induction Motor Faults
Sergio P. Santos and Jose Alfredo F. Costa
- Stochastic Synchronization and Array-Enhanced Coherence Resonance in a Bio-inspired Chemical Sensor Array
Kazuki Nakada, Jun Igarashi, Tetsuya Asai, Katsumi Tateno, Hatsuo Hayashi, Yoshitaka Ohtubo, Tsutomu Miki, and Kiyonori Yoshii

Session 6B – SEC-08 – *Scientific Computing*

Session Chair: *Vasos Pavlika, University of Westminster, UK*

- A New Method for Solving Convection-Diffusion Equations
Wenyuan Liao and Jianping Zhu
- Genetic Local Search Algorithm for the Minimum Total Tardiness Permutation Flowshop Problem
Tiago de Oliveira Januario, José Elias Claudio Arroyo, Mayron César de Oliveira Moreira, and Edmar Hell Kampke
- The Formal Evolutionary Development of Low Entropy Dendritic

Thermal Systems
*M.H Kobayashi, H.C. Pedro,
C.F.M. Coimbra, and A.K. da Silva*

- The Calculation of a Stratford-Curle Diffusion Curve on a Uniform Rectangular Mesh to avoid Boundary layer Separation
Vasos Pavlika

Session 6C – CSE-08 – HPC Applications

Session Chair: *Gesil Amarante, Universidade Estadual de Santa Cruz, Brazil*

- Application Performance Tuning for Clusters with ccNUMA Nodes
Abdullah Kayi, Edward Kornkven, Tarek El-Ghazawi, and Greg Newby
- Exploiting Intensive Multithreading for the Efficient Simulation of 3D Seismic Wave Propagation
Fabrice Dupros, Hideo Aochi, Ariane Ducellier, Dimitri Komatitsch, and Jean Roman
- Parallelization of the Electrodiffusion Mechanism of the Computational Model of Spreading Depression
H. Z. Teixeira, D. J. Alvarenga, A. C. G. Almeida, A. M. Rodrigues, and M. A. Duarte
- Ion Cyclotron Antennas (ICANT) Code Parallelization
Paulo S. Silveira, Gesil S. Amarante Segundo, Martha Torres, and Marcos V. V. Souza
- An Adaptive System for Forest Fire Behavior Prediction
Roque Rodriguez, Ana Cortés, Tomás Margalef, and Emilio Luque

12:00am – 01:20pm – Lunch

01:20pm – 03:00pm – Parallel Sessions 7A, 7B, 7C

Session 7A – CSE-08 – Scientific Computing II

Session Chair: *Philippe Navaux, Federal University of Rio Grande do Sul, Brazil*

- Object Localization Based on Global Structure Constraint Model and Particle Swarm Optimization
Miao Liu, Dongwei Guo, Jie Ma, Chunguang Zhou, and Congshi Wang
- Building Efficient Frontier by CVaR Minimization for Non-normal Asset Returns Using Copula Theory
Kapil Agrawal
- Accelerating Simulations of Light Scattering Based on Finite-Difference Time-Domain Method with General Purpose GPUs
A. Balevic, L. Rockstroh, A. Tausendfreund, S. Patzelt, G. Goch, and S. Simon
- A Theoretical Framework for Local Search Techniques
Eric Monfroy, Frédéric Saubion, Broderick Crawford, and Carlos Castro

Session 7B – SEC-08 – Engineering Computing and Applications

Session Chair: *Hai Jiang, Arkansas State University, USA*

- DUTOCAD: A Customized Auto-cad Environment for Pipe Analysis
Raimundo Aprígio de Menezes Jr., Angelo Vieira Mendonca, and Joao Batista de Paiva
- A Cell Formation Algorithm Incorporating Multiple Practical Production Factors
ChenGuang Liu, Kazuyuki Tanaka, and Yong Yin

- Effects of Multi-class Driving Behavior on Fundamental Diagram in One-Dimensional Cellular Automata Traffic Simulation
Shih-Ching Lo and Chia-Hung Hsu

Session 7C – PerGrid-08 I

Session Chair: *Laurence T. Yang, St. Francis Xavier University, Canada*

- View-based Storage-Independent Model for SPARQL-to-SQL Translation Algorithms in Semantic Grid Environment
Dongwon Jeong, Jiseong Son, Doo-Kwon Baik, and Laurence T. Yang
- A Multi-target User Interface Design for Pervasive Grid Environment
A.O. Ipadeola, J.S. Iyilade, M.O. Adigun, and S.S. Xulu
- Design of a Structured Fine-Grained Access Control Mechanism for Authorizing Grid Resources
Mustafa Kaiiali, Rajeev Wankar, C.R. Rao, and Arun Agarwal

03:00pm – 03:20pm – *Coffee break*

03:20pm – 06:30pm – *Parallel Sessions 8A, 8B, 8C*

Session 8A – CSE-08 – Engineering Computing II

Session Chair: *Renat A. Sultanov, St. Cloud State Univ., USA*

- Hybrid Heuristic Strategies for Planning and Scheduling Forest Harvest and Transportation Activities
Arnaldo Vieira Moura and Rafael Augusto Scaraficci

- Heuristics and Constraint Programming Hybridizations for a Real Pipeline Planning and Scheduling Problem
Arnaldo V. Moura, Cid C. de Souza, Andre A. Cire, and Tony M. T. Lopes

- Tail-A Java Technical Analysis Library
Márcio V. Santos, Alexandre Takinami, Alfredo Goldman, and Cecilia Fernandes
- An Efficient Technique for Computing a Sub-optimal Disturbance Attenuation H_{inf} Control Problem Feedback Solution
Francisco Damasceno Freitas, João Yoshiyuki Ishihara, and Geovany de Araújo Borges
- 3D Computer Simulations of Pulsatile Human Blood Flows in Vessels and in the Aortic Arch: Investigation of Non-Newtonian Characteristics of Human Blood
Renat A. Sultanov, Dennis Guster, Brent Engelbrekt, and Richard Blankenbecler

Session 8B – SEC-08 – Distributed and Parallel Computing

Session Chair: *Stan Kurkovsky, Central Connecticut State University, USA*

- An Anisotropic Diffusion Filtering Implementation to Execute in Parallel Distributed Systems
Antonio C. Sobieranski, Leandro Coser, M.A.R. Dantas, Aldo v. Wangenheim, and Eros Comunello
- Evaluating On-Chip Interconnection Architectures for Parallel Processing
Henrique Cota de Freitas and Philippe Olivier Alexandre Navaux
- Efficient Strategies for Workload Distribution in Heterogeneous

Computing Systems
Jean Marcos Laine and Edson Toshimi Midorikawa

- Managing Complexity in Open Adaptive Middleware
Tarcisio da Rocha and Maria Beatriz Felgar de Toledo

Session 8C – PerGrid-08 II

Session Chair: *Dongwon Jeong, Kunsan National University, Korea*

- Jena Storage Plug-in Providing an Improved Query Processing Performance for Semantic Grid Computing Environment
Jeong-Dong Kim, Heeyoung Shin, Dongwon Jeong, and Doo-Kwon Baik
- Model Driven Development of Context-aware Service Oriented Architecture
Samyr Vale and Slimane Hammoudi
- CAAM: A Context Aware Adaptation Model for Mobile Grid Service Infrastructure
A.M. Otebolaku, J.S. Iyilade, and M.O. Adigun

July 18th, 2008

08:00am – 09:00am – *Keynote 3*

09:00am – 10:25am – *Parallel Sessions 9A, 9B and 9C*

Session 9A – CSE-08 – Database, Data Mining and Analysis

Session Chair: *Francisco Isidro Massetto, University of São Paulo, Brazil*

- Adaptive and Fault Tolerant Simulation of Relativistic Particle Transport with Data-Level Checkpointing
Ruipeng Li, Hai Jiang, Hung-Chi Su, Bin Zhang, and Jeff Jenness
- Accessing and Processing Sensing Data
Gilberto Zonta Pastorello Jr., Claudia Bauzer Medeiros, and André Santanchè
- A Fuzzy Clustering Algorithm Based on Fuzzy Distance Norms for Asynchronously Sampled Data
JiHsian Lee and Ruijie Liu
- ACN: An Associative Classifier with Negative Rules
Gourab Kundu, Md. Monirul Islam, Sirajum Munir, and Md. Faizul Bari

Session 9B – SEC-08 – Neural Network and Applications

Session Chair: *Edson Toshimi Midorikawa, University of São Paulo, Brazil*

- Adaptive Regularizer for Recursive Neural Network Training Algorithms
Vijanth S. Asirvadam
- Composing Music with BPTT and LSTM Networks: Comparing Learning and Generalization Aspects
Débora Cristina Correa, José Hiroki Saito, and Sandra Abib

- Load Behavior Changes after Holidays on Thursdays
Luiz Angelo Daros de Luca, Claudio Magalhaes de Oliveira, and Raul Sidnei Wazlawick

Session 9C – Web2Touch-08 – Keynote

10:25am – 10:45am – Coffee break

10:45am – 12:00am – Parallel Sessions
10A, 10B, 10C

Session 10A – CSE-08 – Mobile Computing and Wireless Communications

Session Chair: *Waltenegus Dargie, TU Dresden, Germany*

- Available Bandwidth Estimation in Wireless Ad Hoc Network: Accuracy and Probing Time
Abdelaziz Amamra and Kun Mean Hou
- Energy Model for H2S Monitoring Wireless Sensor Network
Xiaojuan Chao, Waltenegus Dargie, and Guan Lin

Session 10B – SEC-08 – Security

Session Chair: *Hermes Senger, UniSantos, Brazil*

- An RC4-Based Lightweight Security Protocol for Resource-constrained Communications
Chang N. Zhang, Qian Yu, Xun Huang, and Cungang Yang
- Good practices for Long-Term Key Management in a Public Key Infrastructure
Marcelo Carlomagno Carlos, Ricardo Felipe Custódio, and Jeandré Monteiro Sutil
- Applying Computational Grids for Enhancing Intrusion Detection Systems
Hermes Senger and Jorge Nakahara Junior

Session 10C – Web2Touch-08 I

Session Chair: *Olga Nabuco, CenPRA, Brazil*

- An Approach to Search Web Services using Ontologies and CBR
Ferrucio de Franco Rosa and Jose Maria Parente de Oliveira
- A Web Service Privacy Framework Based on a Policy Approach Enhanced with Ontologies
Diego Zuquim Guimaraes Garcia and Maria Beatriz Felgar de Toledo
- Convergence of Web 2.0 and SOA: Taking Advantage of Web Services to Implement a Multimodal Social Networking System
Stan Kurkovsky, David Strimple, Eric Nuzzi, and Kerry Verdecchia
- Web Services Planning Agent in Dynamic Environments with Incomplete Information and Time Restrictions
Jaime A. Guzmán Luna and Demetrio Arturo Ovalle

12:00am – 01:20pm – Lunch

01:20pm – 03:00pm – Parallel Sessions *11A, 11B, 11C*

Session 11A – CSE-08 – Intelligent and Bio-inspired Computing II

Session Chair: *Mario Donato Marino, University of São Paulo, Brazil*

- Fusion of Fingerprint Recognition Methods for Robust Human Identification
Fernanda Pereira Sartori Falguera, Aparecido Nilceu Marana, and Juan Rogelio Falguera
- AdSeD: An Adaptive Quality of Security Control in Disk Systems
Mais Nijim and Adel Ali

- A Trust Model Applied to E-mail Servers
Leonardo Oliveira and Carlos Maziero

Session 11C – CSE-08 – *Web2Touch-08 II*

Session Chair: *Miriam Capretz, The University of Western Ontario, Canada*

- A Semantic-Based Approach for the Management of Digital Documents
Durley Torres Pardo, Juan D. Giraldo, and Jaime A. Guzmán
- Business Rules and Services in the Context of Model Driven Architecture
Aqueo Kamada
- A Service Oriented Ontology Management Framework in the Automotive Retail Domain
Jinghui Lu, Shuying Wang, and Miriam A. M. Capretz
- An Ontology Based Architecture for a Free Software Portal
Rodrigo Bonacin, Marcos A. Rodrigues, and Miriam A. M. Capretz

03:00pm – 03:20pm – *Coffee break*

03:20pm – 06:00pm – *Parallel Sessions 12A, 12B, 12C*

Session 12A – CSE-08 – *Grid Computing*

Session Chair: *Jose Augusto Andrade Filho, University of São Paulo, Brazil*

- Toward an Efficient Middleware for Multithreaded Applications in Computational Grid
José Augusto Andrade Filho, Rodrigo Fernandes de Mello, Evgueni Dodonov, Luciano José Senger, Laurence Tianruo Yang, and Kuan-Ching Li

- Extending OGSA-DAI Possibilities with a JDBC Driver
Mathias Santos de Brito and Lúria Matsumoto Sato

- Improving Application Execution in Multicluster Grids
Zhou Lei, Zhifeng Yun, Gabrielle Allen, Xin Li, Nian-Feng Tzeng, and Christopher White

- Adaptation to Dynamic Resource Availability in Ad Hoc Grids through a Learning Mechanism
Behnaz Pourebrahimi and Koen Bertels

Session 12C – *Web2Touch-08 III*

Session Chair: *Maria Beatriz Felgar de Toledo, Unicamp, Brazil*

- Ontologies and Social Technologies in Health Research: The Case of Fiocruz
Laura Cristina Simoes Viana

- Defining a Self-Healing QoS-based Infrastructure for Web Services Applications
Francisco Moo-Mena, Juan Garcilazo-Ortiz, Luis Basto-Díaz, Fernando Curi-Quintal, and Fernando Alonzo-Canul

- Web-Serving Health with ST-Guide
Márcio Paixao Dantas, Jacques Wainer, and Cleo Zanella Billa

- A Self-Healing Architecture for Web Service-Based Applications
Rene Pegoraro, Humberto Ferasoli Filho, Marco Antônio Rahal Sacoman, and João Mauricio Rosário