PDCAT

December 8 (Tue)

Registration: 12:30–18:00

13:00–14:00 Room A Keynote1
The Role of Functional Memories in Parallel Information Processing
with Localized and Distributed Systems
Break

14:20–16:00 Room A Tutorial1
Theoretical Aspects of Autonomous Mobile Robots
Room C Tutorial2
Queue Machines: an unknown alternative
Break

16:20–18:00 Room A Tutorial1
Theoretical Aspects of Autonomous Mobile Robots
Room C Tutorial3
Methodologies and Performance Impacts of General Purpose Computing on GPUs

December 9 (Wed)

Registration: 8:30–18:00

8:50–9:00 Room A Opening

9:00–10:00 Room A Keynote2
Pains and Challenges in the Mobile Internet Evolution

Break

10:00–11:35 Room A

1A. Algorithms (1) Yamin Li (Hosei University)

Marc Moreno Maza and Yuzhen Xie.
Balanced Dense Polynomial Multiplication on Multi-cores

Pascal Bolzhauser, Anthony Sulistio, Gerhard Angst and Christoph Reich.
Parallelized Critical Path Search in Electrical Circuit Designs

Fabio Bellavia, Marco Cipolla, Domenico Tegolo and Cesare Valenti
An Evolution of the non-parameter Harris Affine Corner Detector: a Distributed Approach

Room B

1B. Storage Systems Yuichi Tsujita (Kinki University)

Liang Cao, Yu Wang and Jin Xiong.
Building Highly Available Cluster File System Based on Replication

Giovanni Agosta, Alessandro Barenghi, Fabrizio De Santis, Andrea Di Biagio
and Gerardo Pelosi.
Fast Disk Encryption Through GPGPU Acceleration

Junwei Zhang, Jingliang Zhang, Jiangang Zhang, Xiaoming Han and Lu Xu.
A Novel Metadata Management Architecture Based on Service Separation
in Cluster File System

Room C

1C. Service Oriented Architecture, Language Hiroyuki Sato (University of Tokyo)

Xiaoyi Lu, Yongqiang Zou, Fei Xiong, Jian Lin and Li Zha.
ICOMC: Invocation Complexity Of Multi-language Clients
for Classified Web Services and its Impact on Large Scale SOA Applications

Kazuma Kadowaki and Satoshi Fujita.
A Dynamic User Management in Networked Consumer Electronics
via Authentication Proxies

Tobias Schuele.
A Coordination Language for Programming Embedded Multi-Core Systems

Lunch

12:00–14:15 Room A

2A. Scheduling
Shi-Jinn Horng (National Taiwan University of Science and Technology)

Fukuhito Ooshita, Tomoko Izumi and Taisuke Izumi.
A Generalized Multi-Organization Scheduling on Unrelated Parallel Machines

Da-Ren Chen, Tasi-Duan Lin and Shu-Ming Hsieh.
A Transition-Aware DVS Method for Jitter-Controlled Real-Time Scheduling

Mu Xu, Hong An, Gu Liu, Yaobin Wang, Guang Xu, Ping Yao, Xiurui Hao, and Wenting Han
The Mapping Framework and Optimizing Strategy for Block Cryptography
on Cell Broadband Engine

Room B

2B. Parallel Systems Tomoaki Tsumura (Nagoya Institute of Technology)

Yuanming Zhang, Kanemitsu Ootsu, Takashi Yokota and Takanobu Baba.
Clustered Software Queue for Efficient Pipelined Multithreading

Guang Suo and Xue-jun Yang.
Cache Partitioning on Chip Multi-processors for Balanced Parallel Scientific Applications

Wei SUN.
A Novel Genetic Admission Control for Real-Time Multiprocessor Systems

Room C

2C. Network Computing, Peer-to-Peer
Yoshiaki Katayama (Nagoya Institute of Technology)

Hiroo Kitamura and Satoshi Fujita.
A Biased k-Random Walk to Find Useful Files in Unstructured Peer-to-Peer Networks

Lei Ni and Aaron Harwood.
P2P-Tuple: Towards a Robust Volunteer Computing Platform

Jian Ye, Jintao Li and Zhenmin Zhu.
Ubiquitous Computing-Oriented Distributed Fuzzy Reasoning Petri Net Modeling
and Simulation

Break

14:45–16:25 Room A

3A. Interconnection Networks Fkuhito Ooshita (Osaka University)

Yamin Li, Shietung Peng and Wanming Chu.
Disjoint-Paths and Fault-Tolerant Routing on Recursive Dual-Net

Antoine Bossard, Keiichi Kaneko and Shietung Peng.
Node-to-set Disjoint-path Routing in Metacube

Ming-Chien Yang.
Node-Pancyclicity of Faulty Twisted Cubes

Ming-Chien Yang.
Conditional Fault-Tolerant Cycle Embedding of Star Graphs

Room B

3B. Performance Optimization
Kanemitsu Ootsu (Utsunomiya University)

Juan Gonzalez Garcia, Judit Gimenez and Jesus Labarta.
Automatic evaluation of the computation structure of parallel applications

Juan Angel Lorenzo, Petr Tuma, Juan Carlos Pichel and Francisco F. Rivera.
On the Influence of Thread Allocation for Irregular Codes in NUMA Systems

Zhenhan Liu, Xiaoxuan Meng and Lu Xu.
Performance Optimization Under Small Files Intensive Workloads in BWFS

Yushi KAMIYA, Tomoaki TSUMURA, Hiroshi MATSUO and Yasuhiko Nakashima.
A Speculative Technique for Auto-Memoization Processor with Multithreading

Room C

3C. Security, Reliability Xavier Defago (JAIST)

Yidong Li and Hong Shen.
Equi-Width Data Swapping for Private Data Publication

Shi-Jinn Horng, Yuan-Hsin Chen, Ray-Shine Run, Rong-Jian Chen, Jui-Lin Lai and Kevin Octavius Sentosa.
An Improved Score Level Fusion in Multimodal Biometric Systems

Wang Zhiyuan and Yang Xuejun.
Reliability Speedup: An Effective Metric for Parallel Application with Checkpointing

Gopinatha Jakadeesan and Dhrubajyoti Goswami.
A Classification-Based Approach to Fault-Tolerance Support in Parallel Programs

Break

16:55–18:10 Room A

4A. Algorithms (2) Ming-Chien Yang (Aletheia University)

Shihong Xu and Hong Shen.
A Distributed (|R|,2)-Approximation Algorithm for Fault-Tolerant Facility Location

Junya Nakamura, Tadashi Araragi and Shigeru Masuyama.
Acceleration of Byzantine Fault Tolerance by Parallelizing Consensuses

Khaled Almi'ani, Javid Taheri and Anastasios Viglas.
A Data Caching Approach for Sensor Applications

Room B

4B. Communication Wei Sun (NEC)

SingLing Lee, JungChun Liu and Hann-Jang Ho.
Scalable Multi-hop Scheduling with Overlapping the Tuning Latency in WDM Optical Star Networks

Yu Jiang, Yuhong Zhao, Jian Ren and Binxing Fang.
Using Mixed and Hybrid TCP Probe methods for Forward IP Paths Inference

Risto Honkanen.
Lambda-Systolic Routing in a Wavelenght-Division Multiplexed All-Optical Butterfly

Room C

4C. Programming Environment Tobias Schuele (Siemens AG)

Kai-Cheung Leung, Zhiyi Huang, Qihang Huang and Paul Werstein.
Maotai 2.0: Data Race Prevention in View-Oriented Parallel Programming

Hiroyuki Sato.
Idiom Recognition and Program Scheme Recognition
based Program Transformation for Performance Tuning
-- Beyond Compiler Optimizations--

Julian Kunkel, Yuichi Tsujita, Olga Mordvinova and Thomas Ludwig.
Tracing Internal Communication in MPI and MPI-I/O

Break

18:30-- Reception

December 10 (Thu)

Registration: 8:30-10:00, 17:00-19:00

9:00-10:00 Room A Keynote3
Computing with Membranes: An Overview

10:15-- Excursion
Tour to two UNESCO world heritage sites in Hiroshima

19:00-- Saijo Hakuwa Hotel
Banquet

December 11 (Fri)

Registration: 8:30-12:00

Room A The Second International Workshop on
Sensor Networks and Ambient Intelligence(SENAMI 2009)
Room B Workshop on
Ultra Performance and Dependable Acceleration Systems (UPDAS 2009)
Room C Second International Workshop on
Reliability, Availability, and Security (WRAS 2009)
Room D International Workshop on
Parallel and Distributed Algorithms and Applications (PDAA 2009)

18:30-- Kamoizumi Hall
Farewell party

WRAS

9:00–10:15 Session 1

Fabienne Carrier, Stéphane Devismes, Franck Petit, Yvan Rivierre
Space-Optimal Deterministic Rendezvous

H.B. Acharya, E.S. Elmallah, M.G. Gouda
Consistent Fixed Points and Negative Gain

Doina Bein, Toshimitsu Masuzawa, Yukiko Yamauchi
Reliable Communication on Emulated Channels Resilient to Transient Faults

10:30–11:45 Session 2

Peter Pecho, Jan Nagy, Petr Hanácek
Power Consumption of Hardware Cryptography Platform for Wireless Sensor

Shlomi Dolev, Marina Sadetsky
Heuristic Certificates via Approximations

Shlomi Dolev, Yuval Elovici, Alex Kesselman, Polina Zilberman
Link Trawling Traffic under Attack, Overcoming DDoS Attacks
by Target-Controlled Traffic Filtering

13:00–14:15 Session 3 & Posters

Kaouther Drira, Lyes Dekar, Hamamache Kheddouci
A Self-Stabilizing (delta+1)-Edge-Coloring Algorithm of Arbitrary Graphs

Jorge A. Cobb, Chin-Tser Huang
Stabilization of Maximal-Metric Routing without Knowledge of Network Size

Poster: Tatsuya Noguchi, Tatsuhiro Tsuchiya, Tohru Kikuno
Converting Consensus Algorithms from a Round Model
into a Conventional Distributed System Model

Poster: Atsushi Takada, Yukiko Yamauchi, Fukuhito Ooshita,
Hirotsugu Kakugawa and Toshimitsu Masuzawa
A Distributed Algorithm to Update Spanning Trees Minimizing
the Number of Output Changes

Poster: Daisuke Baba, Tomoko Izumi, Fukuhito Ooshita,
Hirotsugu Kakugawa, Toshimitsu Masuzawa
Mobile Agents Rendezvous In Tree Networks

Poster: Tatsuya Noguchi, Tatsuhiro Tsuchiya, Tohru Kikuno
Safety Verification of Asynchronous Consensus Algorithms Using Model

14:30–15:45 Session 4

Timo Warns, Christian Storm, Oliver Theel
How to be a More Efficient Snoop: Refined Probe Complexity of Quorum Sets

Felix C. Freiling, Christian Lambertz, Mila Majster-Cederbaum
Modular Consensus Algorithms for the Crash-Recovery Model

E. Anceaume, F. Brasileiro, R. Ludinard, B. Sericola, F. Tronel
Analytical Study of Adversarial Strategies in Cluster-based Overlays

16:00–18:15 Session 5

Masaki Kondo, Shoichi Saito, Kiyohisa Ishiguro, Hiroyuki Tanaka, Hiroshi Matsuo
Bifrost : A Novel Anonymous Communication System with DHT

Dalibor Peric, Thomas Bocek, Fabio Victora Hecht, David Hausheer, Burkhard Stiller
The Design and Evaluation of a Distributed Reliable File System

Yann Busnel, Roberto Beraldi, Roberto Baldoni
A Formal Characterization of Uniform Peer Sampling Based on View Shuffling

SeNAmI

09:00 – 10:15 Session 1

Hiroshi Sato, Takeru Inoue, Hideaki Iwamoto, and Noriyuki Takahashi
Virtual Scent: Finding a Location of Interest in Ambient Intelligence Environment

Shuqiao Zhou, Haoran Feng, and Ruixin Yuan
Error Compensation for Cricket Indoor Location System

Ana M. Bernardos, Paula Tarrío, and José R. Casar
CASanDRA: A framework to provide Context Acquisition Services
ANd Reasoning Algorithms for Ambient Intelligence Applications

10:30 – 11:45 Session 2

Takayuki Nakamura, Motonori Nakamura, Atsushi Yamamoto, Keichiro Kashiwagi,
Yutaka Arakawa, Masato Matsuo, and Hiroya Minami
uTupleSpace: A Bi-Directional Shared Data Space for Wide-Area Sensor Network

Andreas Starzacher and Berhard Rinner
Single Sensor Acoustic Feature Extraction for Embedded Realtime Vehicle Classification

Yakir Berchenko and Mina Teicher
Greedy Convex Embeddings for Sensor Networks

13:25 – 14:15 Session 3

Poster/Demo Session

14:30 – 15:20 Session 4

Poster/Demo Session

UPDAS

09:00–09:25 Opening Session

09:25–10:15 Session 1

Yosuke Mori, Kenji Kise
The Cache-Core Architecture to Enhance the Memory Performance
on Multi-Core Processors

Mitsutaka Nakano, Masahiro Iida, Toshinori Sueyoshi
Improvement of Execution Efficiency on the MX Core

Invited Talk

10:30–11:45

Prof. Daisuke Takahashi, Ph.D. (University of Tsukuba – Tsukuba, Japan)
Parallel Implementation of Multiple-Precision Arithmetic and
2.576 Trillion Digits of Pi Calculation on a Massively Parallel Cluster
of Multi-Core Processors

13:00–14:15 Session 2

Reiji Suda, DaQi Ren
Accurate Measurements and Precise Modeling of Power Dissipation of CUDA Kernels
toward Power Optimized High Performance CPU-GPU Computing

Hiroyuki Takizawa, Katsuto Sato, Kazuhiko Komatsu, Hiroaki Kobayashi
CheCUDA: A Checkpoint/Restart Tool for CUDA Applications

Nikhil Jain, Brajesh Pande, Phalguni Gupta
SMP Based Solver for Large Binary Systems

14:30–15:20 Session 3

Koh Uehara, Shimpei Sato, Takefumi Miyoshi, Kenji Kise
A Study of an Infrastructure for Research and Development of Many-Core Processors

Xiaosong Li, Hao Wang, Taoying Liu, Wei Li
Key Elements Tracing Method for Parallel XML Parsing in Multi-Core System

PDAA

09:00–10:15 Session 1

Yakir Berchenko, Mina Teicher
Greedy Convex Embeddings for Ad-Hoc Networks

Ashish Shrestha, Firat Tekiner
On MANET Routing Protocols for Mobility and Scalability

P. Vieira, M.F. Caetano, P.S. Barreto, J.L. Bordim
Traffic Provisioning for HTTP Applications in WiFi Networks

10:30–11:45 Session 2

Ting Ting Qin, Qi Cao, Qi Ying Wei, Satoshi Fujita
A Hierarchical Architecture for Real-Time Search in Peer-to-Peer Networks

Tianyang Sun, Chengchun Shu, Feng Li, Haiyan Yu, Lili Ma, Yitong Fang
An Efficient Hierarchical Clustering Method for Large Datasets with Map-Reduce

Yuichiro Mori, Koichi Asakura, Toyohide Watanabe
A Task Selection Based Power-aware Scheduling Algorithm for Applying DVS

13:00–14:15 Session 3

Hiroaki Irino, Yuuki Tanaka, Hiroyuki Kawai, Shingo Osawa, Yukio Shibata
Broadcasting Multiple Messages Using Cycle-Rooted Trees

Nasser Giacaman, Oliver Sinnen
Supporting Partial Ordering with the Parallel Iterator

Oliver Sinnen, Ratha Long, Quoc Huy
Aiding Parallel Programming with On-the-Fly Dependence Visualisation

14:30–16:10 Session 4

Asim Munawar, Mohamed Wahib, Masaharu Munetomo, Kiyoshi Akama, Chikara Miyaji
Theoretical and Empirical Analysis of a GPU
Based Parallel Bayesian Optimization Algorithm

Shinichi Yamagiwa, Hiroshi Ichikawa
Performance Acceleration for Video Synthesizing Software Targeted to Sports Training
Using Multicore Processor

Yasuaki Ito, Koji Nakano
An Efficient Parallel Sorting Compatible with the Standard qsort Duhu Man

Masaya Nakagawa, Duhu Man, Yasuaki Ito, Koji Nakano
A Simple Parallel Convex Hulls Algorithm for Sorted Points and
the Performance Evaluation on the Multicore Processors