

SPAA 2010 Program

Saturday, June 12, 2010

7:00-9:00 pm: SPAA Reception at the Crystal Bar (Fira).

This bar is located at the center of caldera at Fira and it is just below the main road where the gold jewelry shops are located; from there, it is 15 steps to the entrance of the Crystal Bar. The bar is located next to Loucas Hotel.

Web site: <http://crystalbar-santorini.gr/>

Sunday, June 13, 2010

8:00am: Conference Registration Opens

9:10am-9:20am: Opening Remarks (location TBD)

9:20am-11:00am: Scheduling (Session Chair: David Bunde)

9:20am: Buffer-Space Efficient and Deadlock-Free Scheduling of Stream Applications on Multi-core Architectures
Jongsoo Park and William J. Dally

9:45am: Scheduling Jobs with Varying Parallelizability to Reduce Variance
Anupam Gupta, Sungjin Im, Ravishankar Krishnaswamy, Benjamin Moseley, and Kirk Pruhs

10:10am: Scheduling to Minimize Power Consumption using Submodular Functions
Erik D. Demaine and Morteza Zadimoghaddam

10:35am: Assigning Tasks for Efficiency in Hadoop
Michael Fischer, Xueyuan Su, and Yitong Yin

11:00am-11:30am: Coffee Break

11:30pm-12:30pm: Keynote Talk: (Session Chair: Nectarios Koziris)

Database Systems in the Multicore Era
Anastasia Ailamaki

12:30pm-2:00pm: Lunch break

2:00pm-3:15pm: Computing Despite an Adversary: (Session chair: Paul Spirakis)

2:00pm: Collaborative Scoring with Dishonest Participants
Seth Gilbert, Rachid Guerraoui, Faezeh Malakouti Rad, and Morteza Zadimoghaddam

2:25pm: Securing Every Bit: Authenticated Broadcast in Radio Networks
Dan Alistarh, Seth Gilbert, Rachid Guerraoui, Zarko Milosevic, and Calvin Newport

2:50pm: Multi-Sided Shared Coins and Randomized Set Agreement
Keren Censor Hillel

3:15pm-3:30pm: Break

3:30pm-4:20pm: Brief Announcements 1 (Session Chair: David Bunde)

3:30pm: Brief Announcement: On Speculative Replication of Transactional Systems
Paolo Romano, Roberto Palmieri, Francesco Quaglia, Nuno Carvalho, and Luis Rodrigues

3:40pm: Brief Announcement: Combine -- An Improved Directory-Based Consistency Protocol
Hagit Attiya, Vincent Gramoli, and Alessia Milani

3:50pm: Brief Announcement: Byzantine Agreement with Homonyms
Carole Delporte-Gallet, Hugues Fauconnier, Rachid Guerraoui, and Anne-Marie Kermarrec

4:00pm: Brief Announcement: Fun in Numbers -- A Platform for Sensor-Based Multiplayer Pervasive Games
Ioannis Chatzigiannakis, Georgeios Mylonas, Orestis Akribopoulos, Marios Logaras, Panagiotis Kakkinos, and Paul Spirakis

4:10pm: Brief Announcement: Lower Bounds on Communication for Sparse Cholesky Factorization of a Model Problem
Laura Grigori, Pierre-Yves David, James W. Demmel, and Sylvain Peyronnet

4:20pm-4:50pm: Coffee Break

4:50pm-6:05pm: Resource Management (Session Chair: Christos Kaklamani)

4:50pm: Data-Aware Scheduling of Legacy Kernels on Heterogeneous Platforms with Distributed Memory
Michela Becchi, Surendra Byna, Srihari Cadambi, and Srimat Chakradhar

5:15pm: Online Capacity Maximization in Wireless Networks

Alexander Fanghaenel, Sascha Geulen, Martin Hoefer, and Berthold Vöcking

5:40pm: Balls into Bins with Related Random Choices

Petra Berenbrink, André Brinkmann, Tom Friedetzky, and Lars Nagel

6:30 pm: Business meeting (Nomikos Center)

Monday, June 14, 2010

9:20am-11:00am: Network Algorithms (Session Chair: Friedhelm Meyer auf der Heide)

9:20am: Basic Network Creation Games

Noga Alon, Erik D. Demaine, MohammadTaghi Hajiaghayi, and Tom Leighton
(SPAA Best Paper Award)

9:45am: Tree Network Coding for Peer-to-Peer Networks

Arne Vater, Christian Schindelhauer, and Christian Ortolf

10:10am: Optimal Gossip-Based Aggregate Computation

Jen-Yeu Chen and Gopal Pandurangan

10:35am: On the Bit Communication Complexity of Randomized Rumor Spreading

Pierre Fraigniaud and George Giakkoupis

11:00am-11:30am: Coffee Break

11:30pm-12:30pm: Keynote Talk: (Session Chair: Cynthia Phillips)

Algorithms and Applications for Grids and Clouds

Geoffrey C. Fox

12:30pm-2:00pm: Lunch break

2:00pm-3:15pm: Tools and Methods for Performance Analysis (Session Chair: Mike Spear)

2:00pm: The Cilkview Scalability Analyzer

Yuxiong He, Charles Leiserson, and William Leiserson

2:25pm: Towards Optimizing Energy Costs of Algorithms for Shared Memory Architectures

Vijay Anand Korthikanti and Gul Agha

2:50pm: Computing the Throughput of Probabilistic and Replicated Streaming Applications

Anne Benoit, Fanny Dufossé, Mattieu Gallet, Yves Robert, and Bruno Gaujal

3:15pm-3:30pm: Break

3:30pm-4:20pm: Brief Announcements II (Session Chair: Mike Spear)

3:30pm: Brief Announcement: Flashcrowding in Tiled Multiprocessors under Thermal Constraints
Enoch Perserico

3:40pm: Brief Announcement: On Regenerator Placement Problems in Optical Networks
Arunabha Sen, Sujogya Banerjee, Pavel Ghosh, Sudheendra Murthy, and Hung Ngo

3:50pm: Brief Announcement: A Reinforcement Learning Approach for Dynamic Load Balancing of Parallel Digital Logic Simulation
Sina Meraji, Wei Zhang, and Carl Tropper

4:00pm: Brief Announcement: Locality-Aware Load Balancing for Speculatively-Parallelized Irregular Applications
Youngjoon Jo and Miland Kulkarni

4:10pm: Brief Announcement: Serial-Parallel Reciprocity in Dynamic Multithreaded Languages
Kunal Agrawal, ITing Angelina Lee, and Jim Sukha

4:20pm-4:50pm: Coffee Break

4:50pm-6:05 pm: Matrix Algorithms (Session Chair: Nectarios Koziris)

4:50pm: Low Depth Cache-Oblivious Algorithms
Guy Blelloch, Phillip B. Gibbons, and Harsha Vardhan Simhadri

5:15pm: Managing the Complexity of Lookahead for LU Factorization with Pivoting
Ernie Chan, Robert van de Geijn, and Andrew Chapman

5:40pm: New Algorithms for Efficient Parallel String Comparison
Peter Krusche and Alexander Tiskin

8:30 pm: Banquet

Tuesday, June 15, 2009

8:40am-10:20am: Local and Distributed Algorithms (Session Chair: Christian Scheideler)

8:40am: A Local $O(n^2)$ Gathering Algorithm
Bastian Degener, Barbara Kempkes, and Friedhelm Meyer auf der Heide

9:05am: Delays Induce an Exponential Memory Gap for Rendezvous in Trees
Pierre Fraigniaud and Andrzej Pelc

9:30am: Best-Effort Group Service in Dynamic Networks
Bertrand Ducourthial, Sofiane Khalfallah, and Franck Petit

9:55am: Deadlock Avoidance for Streaming Computations with Filtering
Peng Li, Kunal Agrawal, Jeremy Buhler, and Roger D. Chamberlain

10:20am-10:50am: Coffee Break

10:50am-12:30pm: Transactional Memory (Session Chair: Cynthia Phillips)

10:50am: Implementing and Evaluating Nested Parallel Transactions in Software Transactional Memory
Woongki Baek, Nathan Bronson, Christos Kozyrakis, and Kunle Olukotun

11:15am: Transactions in the Jungle
Rachid Guerraoui, Thomas Henzinger, Michal Kapalka, and Vasu Singh

11:40am: Lightweight, Robust Adaptivity for Software Transactional Memory
Michael F. Spear

12:05pm: TLRW: Return of the Read-Write Lock
Dave Dice and Nir Shavit

12:30pm-2:00pm: Lunch break

2:00pm-3:15pm: Graph Algorithms (Session Chair: Paul Spirakis)

2:00pm: Fast Distributed Approximation Algorithms for Vertex Cover and Set Cover in Anonymous Networks
Matti Åstrand and Jukka Suomela

2:25pm: A Work-Efficient Parallel Breadth-First Search Algorithm (or How to Cope with Nondeterminism of Reducers)
Charles E. Leiserson and Tao B. Schardl

2:50pm: Parallel Approximation Algorithms for Facility-Location Problems
Guy Blelloch and Kanat Tangwongsan

3:15pm-3:45pm: Coffee Break

3:45pm-5:25pm: Concurrent Data Structures (Session Chair: Christos Kaklamanis)

3:45pm: Simplifying Concurrent Algorithms by Exploiting Hardware TM
Dave Dice, Yossi Lev, Virendra Marathe, Mark Moir, Dan Nussbaum, and Marek Olszewski

4:10pm: A Universal Construction for Wait-Free Transaction Friendly Data Structures
Phong Chuong, Faith Ellen, and Vijaya Ramachandran

4:35pm: Low-Contention Data Structures
James Aspnes, David Eisenstat, and Yitong Yin

5:00pm: Flat Combining and the Synchronization-Parallelism Tradeoff
Danny Hendler, Itai Incze, Nir Shavit, and Moran Tzafrir