

SIROCCO 2007
14th Colloquium on Structural Information and Communication Complexity
Conference Program

Tuesday, June 5

Session 1: Invited Talks (part I)

17:00 - 18:00

Alessandro Panconesi

Fast Distributed Algorithms via Primal-Dual

18:20 - 19:20

S. Muthukrishnan

Looking Up and Down Stream Algorithms Research

20:00 - 22:00 Welcome reception

Wednesday, June 6

08:45 - 09:00 Opening

Session 1: Invited Talks (part II)

09:00 - 10:00

Luisa Gargano

Time Optimal Gathering in Sensor Networks

10:20 - 11:20

Hans Bodlaender

Treewidth: Structure and Algorithms

11:30 - 12:30 Open slot

12:30 - 14:00 Lunch

Session 2: Autonomous Systems: Graph Exploration

14:00 - 15:15

Leszek Gasieniec, Ralf Klasing, Russel A. Martin, Alfredo Navarra and Xiaohui Zhang
Fast Periodic Graph Exploration with Constant Memory

Mirosław Dynia, Jakub Łopuszanski and Christian Schindelhauer
Why Robots Need Maps

David Soguet and Nicolas Nisse
Graph searching with advice

15:15 - 16:00 coffee break

Session 3: Distributed Algorithms: Fault Tolerance

16:00 - 17:15

Achour Mosteafoui, Michel Raynal and Corentin Travers
From Renaming to Set Agreement

Victor Chepoi, Tristan Févat, Emmanuel Godard and Yann Vaxès
A Self-Stabilizing Algorithm for the Median Problem in Partial Rectangular Grids and their Relatives

Fredrik Manne, Morten Mjelde, Laurence Pilard and Sebastien Tixeuil
A New Self-Stabilizing Maximal Matching Algorithm

17:30 - 19:00 Business meeting + Open problems

Thursday, June 7

Session 4: Distributed Algorithms and Data Structures

09:00 - 10:15

Amos Korman and Shay Kutten
Labeling Schemes with Queries

Maurice Herlihy, Yossi Lev, Victor Luchangco and Nir Shavit
A Simple Optimistic skip-list Algorithm

*Peter Korteweg, Alberto Marchetti-Spaccamela, Leen Stougie
and Andrea Vitaletti*
Data Aggregation in Sensor Networks: Balancing Communication and Delay Costs

10:15 - 11:00 coffee break

Session 5: Autonomous Systems: Location Problems

11:00 - 12:15

Tomoko Suzuki, Taisuke Izumi, Fukuhito Ooshita, Hirotsugu Kakugawa and Toshimitsu Masuzawa
Optimal Moves for Gossiping among Mobile Agents

Yoann Dieudonné and Franck Petit
Swing Words to Make Circle Formation Quiescent

Asaf Efrima and David Peleg
Distributed Algorithms for Partitioning a Swarm of Autonomous Mobile Robots

12:30 - 14:00 Lunch

Session 6: Wireless Networks

14:00 - 15:15

Jurek Czyzowicz, Stefan Dobrev, Evangelos Kranakis, Jaroslav Opatrny and Jorge Urrutia
Local Edge Colouring of Yao-like Subgraphs of Unit Disk Graphs

Tiziana Calamoneri, Emanuele Guido Fusco, Anil Shende and Sunil Shende
Proxy Assignments for Filling Gaps in Wireless Ad-hoc Lattice Computers

Mathieu Couture, Michel Barbeau, Prosenjit Bose, Evangelos Kranakis and Paz Carmi
Location Oblivious Distributed Unit Disk Graph Coloring

15:15 - 17:00 Open slot

17:00 - 21:00 Conference tour and banquet

Friday, June 8

Session 7: Communication Networks - Fault Tolerance

08:30 - 09:45

Iztok Banic and Janez Zerovnik
Edge fault-diameter of Cartesian product of graphs

Rastislav Kralovic and Richard Kralovic
Rapid Almost-Complete Broadcasting in Faulty Networks

Jean-Claude Bermond, Frederic Giroire and Stephane Perennes
Design of Minimal Fault Tolerant On-Board Networks: practical constructions

09:45 - 10:00 coffee break

Session 8: Autonomous Systems - Fault Tolerance

10:00 - 10:50

Yoshiaki Katayama, Yuichi Tomida, Hiroyuki Imazu, Nobuhiro Inuzuka and Koichi Wada

Dynamic Compass Models and Gathering Algorithms for Autonomous Mobile Robots

Shantanu Das, Paola Flocchini, Nicola Santoro and Masafumi Yamashita

Fault-Tolerant Simulation of Message-Passing Algorithms by Mobile Agents

10:50 - 11:05 Short break

Session 9: Communication Networks: Parallel Computing and Selfish Routing

11:05 - 12:20

Guy Even, Tamir Levi and Ami Litman

Optimal Conclusive Sets for Comparator Networks

George Karakostas, Taeyon Kim, Hao Xia and Anastasios Viglas

Selfish Routing with Oblivious Users

Hajo Broersma, Matthew Johnson and Daniel Paulusma

Upper Bounds and Algorithms for Parallel Knock-out Numbers

12:20 - 12:30 Closing