DISC 2012

DETAILED CONFERENCE PROGRAM

Monday (October 15)		Tuesday (October 16)		Wednesday (October 17)		Thursday (October 18)		Friday (October 19)
08:00 – 08:30	Registration	08:00 – 08:30	Registration	08:30 – 09:45	RP 4	09:00 – 10:15	RP 7	**Workshops (see last page)**
08:30 – 10:00	Tutorial 1	08:30 – 08:45	Opening remarks and awards	09:45 – 10:05	Coffee-break	10:15 – 10:35	Coffee-break	
10:00 – 10:20	Coffee-break	08:45 – 10:00	RP 1	10:05 – 11:05	BA 2	10:35 – 11:35	Keynote 2	
10:20 – 11:20	Tutorial 1	10:00 – 10:20	Coffee-break	11:05 – 11:15	Interval	11:35 – 11:45	Interval	
11:20 – 11:30	Interval	10:20 – 11:35	RP 2	11:15 – 12:30	RP 5	11:45 – 13:00	RP 8	
11:30 – 12:30	Tutorial 2	11:35 – 11:45	Interval	12:30 – 14:00	Lunch	13:00 – 14:30	Lunch	
12:30 – 14:00	Lunch	11:45 – 12:45	BA 1	14:00 – 15:15	RP 6	14:30 – 15:45	RP 9	
14:00 – 15:30	Tutorial 2	12:45 – 14:15	Lunch	15:30 – 19:00	Excursion	15:45 – 16:05	Coffee break	
15:30 – 15:50	Coffee-break	14:15 – 15:30	RP 3	19:30 – 22:30	Conference dinner	16:05 – 17:35	Tutorial 4	
15:50 – 17:20	Tutorial 3	15:30 – 15:50	Coffee-break			17:35 – 17:45	Interval	
17:20 – 17:30	Interval	15: 50 – 16:50	Keynote 1			17:45 – 18:45	Tutorial 4	
17:30 – 18:30	Tutorial 3	16:50 – 17:00	Interval					
18:30 – 20:30	Welcome reception	17:00 – 18:00	Business Meeting					

RP – Regular Paper presentation session
BA – Brief Announcement presentation session

MONDAY (OCTOBER 15)		
LOCATION: Federal University of Bahia (UFBA – Universidade Federal da Bahia), Mathematics Institute (Instituto de Matemática) Av. Adhemar de Barros, s/n – Campus Ondina		
08:00 – 08:30	**Registration**	Auditorium´s entrance
08:30 – 10:00	**Tutorial 1: An introduction to distributed computing by mobile entities: agents, robots, sensors.** Prof. Nicola Santoro (School of Computer Science, Carleton University, Canada)	Auditorium
10:00 – 10:20	Coffee-break	
10:20 – 11:20	**Tutorial 1: An introduction to distributed computing by mobile entities: agents, robots, sensors.** Prof. Nicola Santoro (School of Computer Science, Carleton University, Canada)	
11:20 – 11:30	Interval	
11:30 – 12:30	**Tutorial 2: Beyond the glamour of Byzantine fault tolerance: OR why resisting intrusions means more than BFT.** Prof. Paulo Veríssimo (Faculty of Sciences, University of Lisbon, Portugal)	
12:30 – 14:00	Lunch	
14:00 – 15:30	**Tutorial 2: Beyond the glamour of Byzantine fault tolerance: OR why resisting intrusions means more than BFT.** Prof. Paulo Veríssimo (Faculty of Sciences, University of Lisbon, Portugal)	
15:30 – 15:50	Coffee-break	
15:50 – 17:20	**Tutorial 3: System-level diagnosis: a stroll through 45 years of research on diagnosable systems.** Prof. Elias P. Duarte Jr. (Federal University of Paraná, Brazil)	
17:20 – 17:30	Interval	
17:30 – 18:30	**Tutorial 3: System-level diagnosis: a stroll through 45 years of research on diagnosable systems.** Prof. Elias P. Duarte Jr. (Federal University of Paraná, Brazil)	
18:30 – 20:30	**Welcome reception**	Auditorium´s entrance

TUESDAY (OCTOBER 16)		
LOCATION: Pestana Bahia Hotel - Rua Fonte do Boi, 216 – Rio Vermelho neighborhood		
08:00 – 08:30	**Registration**	
08:30 – 08:45	**Opening remarks and awards**	Room: Fernando Pessoa I
08:45 – 10:00	**Regular Paper Session 1: SHARED MEMORY I** **Chair:**	
08:45 – 09:10	*CBTree: A Practical Concurrent Self-Adjusting Search Tree* Yehuda Afek, Haim Kaplan, Boris Korenfeld, Adam Morrison, Robert E. Tarjan	
09:10 – 09:35	*Efficient Fetch-and-Increment* Faith Ellen, Vijaya Ramachandran, Philipp Woelfel	
09:35 – 10:00	*Show No Weakness: Sequentially Consistent Specifications of TSO Libraries* Alexey Gotsman, Madanlal Musuvathi, Hongseok Yang	
10:00 – 10:20	Coffee-break	
10:20 – 11:35	**Regular Paper Session 2: MOBILE AGENTS AND OVERLAY NETWORKS** **Chair:**	
10:20 – 10:45	*Collecting Information by Power-Aware Mobile Agents* Julian Anaya, Jeereemie Chalopin, Jurek Czyzowicz, Arnaud Labourel, Andrzej Pelc, Yann Vaxes	
10:45 – 11:10	*Memory Lower Bounds for Randomized Collaborative Search and Implications for Biology* Ofer Feinerman, Amos Korman	
11:10 – 11:35	*A Generalized Algorithm for Publish/Subscribe Overlay Design and its Fast Implementation* Chen Chen, Roman Vitenberg, Hans-Arno Jacobsen	
11:35 – 11:45	Interval	
11:45 – 12:45	**Brief Announcements Session 1** **Chair:** *Wait-Free Gathering of Mobile Robots* Zohir Bouzid, Shantanu Das, Sebastien Tixeuil *Distributed Exclusive and Perpetual Tree Searching* Lelia Blin, Janna Burman, Nicolas Nisse *Reaching Approximate Byzantine Consensus in Partially-Connected Mobile Networks* Chuanyou Li, Michel Hurfin, Yun Wang *Distributed Algorithms for Maximum Link Scheduling in the Physical Interference Model* Guanhong Pei, Anil Kumar S. Vullikanti *A Fast Distributed Approximation Algorithm for Minimum Spanning Trees in the SINR Model* Maleq Khan, Gopal Pandurangan, Guanhong Pei, Anil Kumar S. Vullikanti *Deterministic Protocol for the Membership Problem in Beeping Channels* Bojun Huang *Probabilistic Stabilization under Probabilistic Schedulers* Yukiko Yamauchi, Sebastien Tixeuil, Shuji Kijima, Masafumi Yamashita	

	An Analysis Framework for Distributed Hierarchical Directories Gokarna Sharma, Costas Busch *Flooding in Dynamic Graphs with Arbitrary Degree Sequence* Herve Baumann, Pierluigi Crescenzi, Pierre Fraigniaud *Node Sampling Using Centrifugal Random Walks* Andres Sevilla, Alberto Mozo, Antonio Fernandez Anta *Concurrent Wait-Free Red-Black Trees* Aravind Natarajan, Lee Savoie, Neeraj Mittal *A Contention-Friendly, Non-Blocking Skip List* Tyler Crain, Vincent Gramoli, Michel Raynal	
12:45 – 14:15	Lunch	
14:15 – 15:30	**Regular Paper Session 3: WIRELESS AND MULTIPLE ACCESS CHANNEL NETWORKS** **Chair:**	
14:15 – 14:40	*Bounded-Contention Coding for Wireless Networks in the High SNR Regime* Keren Censor-Hillel, Bernhard Haeupler, Nancy Lynch, Muriel Medard	
14:40 – 15:05	*Distributed Backbone Structure for Algorithms in the SINR Model of Wireless Networks* Tomasz Jurdzinski, Dariusz R. Kowalski	
15:05 – 15:30	*Distributed Online and Stochastic Queuing on a Multiple Access Channel* Marcin Bienkowski, Tomasz Jurdzinski, Miroslaw Korzeniowski, Dariusz R. Kowalski	
15:30 – 15:50	Coffee-break	
15:50 – 16:50	**Keynote 1: LAUNCHING ACADEMIC IDEAS INTO THE REAL WORLD.** Prof. Yehuda Afek (Blavatnik School of Computer Sciences, Tel-Aviv University)	
16:50 – 17:00	Interval	
17:00 – 18:00	**Business Meeting**	

WEDNESDAY (OCTOBER 17)		
LOCATION: Pestana Bahia Hotel - Rua Fonte do Boi, 216 – Rio Vermelho neighborhood		
08:30 – 09:45	**Regular Paper Session 4: DYNAMIC NETWORKS** **Chair:**	Room: Fernando Pessoa I
08:30 – 08:55	*Fast Distributed Computation in Dynamic Networks via Random Walks* Atish Das Sarma, Anisur Rahaman Molla, Gopal Pandurangan	
08:55 – 09:20	*Dense Subgraphs on Dynamic Networks* Atish Das Sarma, Ashwin Lall, Danupon Nanongkai, Amitabh Trehan	
09:20 – 09:45	*Lower Bounds on Information Dissemination in Dynamic Networks* Bernhard Haeupler, Fabian Kuhn	
09:45 – 10:05	Coffee-break	
10:05 – 11:05	**Brief Announcements Session 2** **Chair:** *Consensus and Efficient Passive Replication* Flavio Junqueira, Marco Serafini *Anonymity, Failures, Detectors and Consensus* Zohir Bouzid, Corentin Travers *Do VNet Embeddings Leak Information about ISP Topology?* Yvonne-Anne Pignolet, Stefan Schmid, Gilles Tredan *Efficient Private Distributed Computation on Unbounded Input Streams* Shlomi Dolev, Juan Garay, Niv Gilboa, Vladimir Kolesnikov, Yelena Yuditsky *Fast Travellers: Infrastructure-Independent Deadlock Resolution in Resource-Restricted Distributed Systems* Sebastian Ertel, Christof Fetzer, Michael J. Beckerle *Hashed Predecessor Patricia Trie---A Data Structure for Efficient Predecessor Queries in Peer-to-Peer Systems* Sebastian Kniesburges, Christian Scheideler *Naming and Counting in Anonymous Unknown Dynamic Networks* Othon Michail, Ioannis Chatzigiannakis, Paul G. Spirakis *SplayNets Towards Self-Adjusting Distributed Data Structures* Stefan Schmid, Chen Avin, Christian Scheideler, Bernhard Haeupler, Zvi Lotker *Semantics of Eventually Consistent Replicated Sets* Annette Bieniusa, Marek Zawirski, Nuno Preguica, Marc Shapiro, Carlos Baquero, Valter Balegas, Sergio Duarte *Decoupled and Consensus-Free Reconfiguration for Fault-Tolerant Storage* Eduardo Alchieri, Alysson Bessani, Fabiola Greve, Joni Fraga *Atomic Consistency and Partition Tolerance in Scalable Key-Value Stores* Cosmin Arad, Tallat M. Shafaat, Seif Haridi *Weighted Partial Message Matching for Implicit Multicast Systems* William Culhane, K. R. Jayaram, Patrick Eugster	
11:05 – 11:15	Interval	

11:15 – 12:30	**Regular Paper Session 5: DISTRIBUTED GRAPH ALGORITHMS** **Chair:**	
11:15 – 11:40	*No Sublogarithmic-Time Approximation Scheme for Bipartite Vertex Cover* Mika Goos, Jukka Suomela	
11:40 – 12:05	*"Tri, Tri Again": Finding Triangles and Small Subgraphs in a Distributed Setting* Danny Dolev, Christoph Lenzen, Shir Peled	
12:05 – 12:30	*Distributed 2-Approximation Algorithm for the Semi-Matching Problem* Andrzej Czygrinow, Michal Hanckowiak, Edyta Szymanska, Wojciech Wawrzyniak	
12:30 – 14:00	Lunch	
14:00 – 15:15	**Regular Paper Session 6: WIRELESS AND LOOSELY CONNECTED NETWORKS** **Chair:**	
14:00 – 14:25	*Counting-Based Impossibility Proofs for Renaming and Set Agreement* Hagit Attiya, Ami Paz	
14:25 – 14:50	*Efficient Symmetry Breaking in Multi-Channel Radio Networks* Sebastian Daum, Fabian Kuhn, Calvin Newport	
14:50 – 15:15	*On Byzantine Broadcast in Loosely Connected Networks* Alexandre Maurer, Sebastien Tixeuil	
15:30 – 19:00	**Excursion: Pelourinho and Historic Center**	
19:30 – 22:30	**Conference dinner**	

THURSDAY (OCTOBER 18)		
LOCATION: Pestana Bahia Hotel - Rua Fonte do Boi, 216 – Rio Vermelho neighborhood		
09:00 – 10:15	**Regular Paper Session 7: SHARED MEMORY II** **Chair:**	Room: Fernando Pessoa I
09:00 – 09:25	*RMR-Efficient Randomized Abortable Mutual Exclusion* Abhijeet Pareek, Philipp Woelfel	
09:25 – 09:50	*Abortable Reader-Writer Locks are No More Complex Than Abortable Mutex Locks* Prasad Jayanti, Zhiyu Liu	
09:50 – 10:15	*Pessimistic Software Lock-Elision* Yehuda Afek, Alexander Matveev, Nir Shavit	
10:15 – 10:35	Coffee-break	
10:35 – 11:35	**Keynote 2: TOWARDS HASKELL IN THE CLOUD** Simon Peyton-Jones (Microsoft Research, Cambridge, England)	
11:35 – 11:45	Interval	
11:45 – 13:00	**Regular Paper Session 8: ROBOTS** **Chair:**	
11:45 – 12:10	*Asynchronous Pattern Formation by Anonymous Oblivious Mobile Robots* Nao Fujinaga, Yukiko Yamauchi, Shuji Kijima, Masafumi Yamashita	
12:10 – 12:35	*How to Gather Asynchronous Oblivious Robots on Anonymous Rings* Gianlorenzo D'Angelo, Gabriele Di Stefano, Alfredo Navarra	
12:35 – 13:00	*Position Discovery for a System of Bouncing Robots* Jurek Czyzowicz, Leszek Gasieniec, Adrian Kosowski, Evangelos Kranakis, Oscar Morales Ponce, Eduardo Pacheco	
13:00 – 14:30	Lunch	
14:30 – 15:45	**Regular Paper Session 9: LOWER BOUNDS AND SEPARATION** **Chair:**	
14:30 – 14:55	*Bounds on Contention Management in Radio Networks* Mohsen Ghaffari, Bernhard Haeupler, Nancy Lynch, Calvin Newport	
14:55 – 15:20	*Randomized Distributed Decision* Pierre Fraigniaud, Amos Korman, Merav Parter, David Peleg	
15:20 – 15:45	*The Strong At-Most-Once Problem* Sotirios Kentros, Chadi Kari, Aggelos Kiayias	
15:45 – 16:05	Coffee-break	
16:05 – 17:35	**Tutorial 4: Implementing concurrent objects in multiprocessor machines.** Prof. Michel Raynal (University of Rennes, France)	
17:35 – 17:45	Interval	
17:45 – 18:45	**Tutorial 4: Implementing concurrent objects in multiprocessor machines.** Prof. Michel Raynal (University of Rennes, France)	

WORKSHOP ON *ADVANCES ON DISTRIBUTED GRAPH ALGORITHMS* (ADGA)

LOCATION: Pestana Bahia Hotel - Rua Fonte do Boi, 216 – Rio Vermelho neighborhood		
CHAIR: Amos Korman (CNRS and University of Paris Diderot, France)		
08:30 – 09:30	**Global solutions based on local information.** Prof. Fabian Kuhn (University of Lugano, Switzerland)	Room: Fernando Pessoa I
09:30 – 09:50	Coffee break	
09:50 – 10:50	**To use ID or not to use ID, is that a question?** Prof. Pierre Fraigniaud (University Paris Diderot, France)	
10:50 – 11:10	Interval	
11:10 – 12:10	**Distributed computing on the (fruit) fly** Prof. Yuval Emek (ETH Zurich, Switzerland)	
12:10 – 13:30	Lunch	
13:30 – 14:30	**Self-stabilizing distributed data structures** Prof. Christian Scheideler (University of Paderborn, Germany)	
14:30 – 14:50	Interval	
14:50 – 15:50	**Rumor spreading** George Giakkoupis (ASAP team, IRISA/INRIA Rennes, France)	
15:50 – 16:10	Coffee-break	
16:10 – 17:10	**Progress and challenges for labeling schemes** Prof. Cyril Gavoille (University of Bordeaux, France)	

WORKSHOP ON *SOCIAL NETWORKS* (SON)

This workshop was canceled.