



DISC 2015

The 29th International Symposium on Distributed Computing

DISC is held in cooperation with:



- 16:00 – 16:36 Brief Announcements session:**
- 16:00 – 16:06 Dominik Kaaser, Frederik Mallmann-Trenn and Emanuele Natale
Brief Announcement: On the Voting Time of the Deterministic Majority Process
- 16:06 – 16:12 Sebastian Daum, Fabian Kuhn and Yannic Maus
Brief Announcement: Rumor Spreading with Bounded In-Degree
- 16:12 – 16:18 Artur Menc, Dominik Pająk and Przemysław Uznański
Brief Announcement: On the Power of One Bit in Graph Exploration Without Backtracking
- 16:18 – 16:24 Li Ning, Dongxiao Yu, Yong Zhang, Yuexuan Wang, Francis C.M. Lau and Shengzhong Feng
Brief Announcement: Uniform Information Exchange in Multi-channel Wireless Ad Hoc Networks
- 16:24 – 16:30 Shlomi Dolev, Chryssis Georgiou, Ioannis Marcoullis and Elad M. Schiller
Brief Announcement: Self-Stabilizing Virtual Synchrony
- 16:30 – 16:36 Anna Dornhaus, Nancy Lynch, Tsvetomira Radeva and Hsin-Hao Su
Brief Announcement: Distributed Task Allocation in Ant Colonies
- Session IV:**
- 16:36 – 16:56 Dan Alistarh, Justin Kopinsky, Petr Kuznetsov, Srivatsan Ravi and Nir Shavit.
Inherent Limitations of Hybrid Transactional Memory
- 16:56 – 17:16 Joel Gibson and Vincent Gramoli
Why Non-Blocking Operations Should be Selfish
- 17:16 – 17:36 Wenjia Ruan and Michael Spear
Hybrid Transactional Memory Revisited
- 17:36 – 17:56 Petr Kuznetsov and Srivatsan Ravi
Grasping the Gap between Blocking and Non-Blocking Transactional Memories
- 18:00 – 18:45 Business Meeting

Thursday, October 8th, 2015

Held on the 26th floor of Boissonade Tower in HOSEI University (Ichigaya Campus).

- 08:00 – 08:30 Coffee
- Session V:**
- 08:30 – 08:50 Colin Cooper, Tomasz Radzik, Robert Elsässer, Takeharu Shiraga and Nicolás Rivera.
Fast Consensus for Voting on General Expander Graphs
- 08:50 – 09:10 Jochen Seidel, Jara Uitto and Roger Wattenhofer
Randomness vs. Time in Anonymous Networks
- 09:10 – 09:30 John Augustine, Gopal Pandurangan and Peter Robinson
Fast Byzantine Leader Election in Dynamic Networks
- 09:30 – 09:50 Yuezhou Lv and Thomas Moscibroda
Local Information in Influence Networks
Best Student Paper Award
- 09:50 – 10:00 **Spotlight session** – Flash introduction of posters
- 10:00 – 11:00 **Combined Poster session and extended coffee break**
- Session VI:**
- 11:00 – 11:20 Keren Censor-Hillel, Erez Kantor, Nancy Lynch and Merav Parter
Computing in Additive Networks with Bounded-Information Codes

- 11:20 – 11:40 Sebastian Daum and Fabian Kuhn
Tight Bounds for MIS in Multichannel Radio Networks
- 11:40 – 12:00 Erez Kantor, Zvi Lotker, Merav Parter and David Peleg
Nonuniform SINR+Voronoi Diagrams are Effectively Uniform
- 12:00 – 13:15 Lunch break
- Session VII:**
- 13:15 – 13:35 Kfir Lev-Ari, Gregory Chockler and Idit Keidar
A Constructive Approach for Proving Data Structures' Linearizability
- 13:35 – 13:55 Nir Hemed, Noam Rinetzky and Viktor Vafeiadis
Modular Verification of Concurrency-Aware Linearizability
- 13:55 – 14:15 Andrea Cerone, Alexey Gotsman and Hongseok Yang
Transaction Chopping for Parallel Snapshot Isolation
- 14:15 – 14:35 Yehuda Afek, Alexander Matveev, Oscar R. Moll and Nir Shavit
Amalgamated Lock-Elision
- 14:35 – 14:55 Ahmed Hassan, Roberto Palmieri and Binoy Ravindran
Transactional Interference-Less Balanced Tree
- 14:55 – 15:15 Aras Atalar, Paul Renaud-Goud and Philippos Tsigas
Analyzing the Performance of Lock-Free Data Structures: A Conflict-Based Model
- 15:30 – 19:30 Excursion
- 19:40 – 21:40 Conference Banquet

Friday, October 9th, 2015

Held on the 26th floor of Boissonade Tower in HOSEI University (Ichigaya Campus).

- 08:00 – 08:30 Coffee
- Session VIII:**
- 08:30 – 09:30 Keynote talk by Michael Ben-Or (Hebrew University)
Quantum Distributed Computing
- 09:30 – 09:50 Rati Gelashvili
On the Optimal Space Complexity of Consensus for Anonymous Processes
Best paper award
- 09:50 – 10:15 Coffee break
- 10:15 – 11:03 Brief Announcements session:**
- 10:15 – 10:21 Vincent Gramoli, Petr Kuznetsov, Srivatsan Ravi and Di Shang
Brief Announcement: A Concurrency-Optimal List-Based Set
- 10:21 – 10:27 Alex Kogan and Yossi Lev
Brief Announcement: HTM-Assisted Combining
- 10:27 – 10:33 Pedro Ramalhete and Andreia Correia
Brief Announcement: Left-Right – A Concurrency Control Technique with Wait-Free Population Oblivious Reads
- 10:33 – 10:39 Leqi Zhu
Brief Announcement: Tight Space Bounds for Memoryless Anonymous Consensus
- 10:39 – 10:45 Claire Capdevielle, Colette Johnen, Petr Kuznetsov and Alessia Milani
Brief Announcement: On the Uncontended Complexity of Anonymous Consensus

10:45 – 10:51 Zohir Bouzid, Michel Raynal and Pierre Sutra
Brief Announcement: Anonymous Obstruction-free (n,k) -Set Agreement with $n-k+1$ Atomic Read/Write Registers

10:51 – 10:57 Trevor Brown
Brief Announcement: Faster Data Structures in Transactional Memory Using Three Paths

10:57 – 11:03 Gregory Chockler, Dan Dobre, Alexander Shraer and Alexander Spiegelman
Brief Announcement: Space Bounds for Reliable Multi-Writer Data Store: Inherent Cost of Read/Write Primitives

Session IX:

11:05 – 11:25 Yael Tauman Kalai and Ilan Komargodski
Compressing Communication in Distributed Protocols

11:25 – 11:45 George Giakkoupis, Rachid Guerraoui, Arnaud Jégou, Anne-Marie Kermarrec and Nupur Mittal
Privacy-Conscious Information Diffusion in Social Networks

11:45 – 12:05 Juan A. Garay, Björn Tackmann and Vassilis Zikas
Fair Distributed Computation of Reactive Functions

12:05 – 13:20 Lunch break

Session X:

13:20 – 13:40 Michael Dinitz, Jeremy Fineman, Seth Gilbert and Calvin Newport
Smoothed Analysis of Dynamic Networks

13:40 – 14:00 Keerti Choudhary, Surender Baswana and Liam Roditty
Fault Tolerant Reachability for Directed Graphs

14:00 – 14:20 Laurent Feuilloley, Juho Hirvonen and Jukka Suomela
Locally Optimal Load Balancing

14:20 – 14:40 Magnus M. Halldorsson and Christian Konrad
Distributed Large Independent Sets in One Round On Bounded-Independence Graphs

14:40 – 15:00 Armando Castañeda, Sergio Rajsbaum and Michel Raynal
Specifying Concurrent Problems: Beyond Linearizability and up to Tasks

15:00 – 15:20 Éric Goubault, Samuel Mimram and Christine Tasson
From Geometric Semantics to Asynchronous Computability

15:20 – 15:45 Coffee break

Session XI:

15:45 – 16:05 David Doty and David Soloveichik
Stable Leader Election in Population Protocols Requires Linear Time

16:05 – 16:25 Joffroy Beauquier, Janna Burman, Simon Clavière and Devan Sohler
Space-Optimal Counting in Population Protocols

16:25 – 16:45 Eli Gafni and Dahlia Malkhi.
Elastic Configuration Maintenance via a Parsimonious Speculating Snapshot Solution

16:45

Closing remarks