

Contents

Fast Two-Robot Disk Evacuation with Wireless Communication	1
<i>Ioannis Lamprou, Russell Martin, and Sven Schewe</i>	
Deterministic Leader Election in $O(D + \log n)$ Time with Messages of Size $O(1)$	16
<i>Arnaud Casteigts, Yves Métivier, John Michael Robson, and Akka Zemmari</i>	
Near-Linear Lower Bounds for Distributed Distance Computations, Even in Sparse Networks	29
<i>Amir Abboud, Keren Censor-Hillel, and Seri Khoury</i>	
Fast Distributed Algorithms for Testing Graph Properties	43
<i>Keren Censor-Hillel, Eldar Fischer, Gregory Schwartzman, and Yadu Vasudev</i>	
Further Algebraic Algorithms in the Congested Clique Model and Applications to Graph-Theoretic Problems	57
<i>François Le Gall</i>	
Towards a Universal Approach for Monotonic Searchability in Self-stabilizing Overlay Networks	71
<i>Christian Scheideler, Alexander Setzer, and Thim Strothmann</i>	
Asynchronous Embedded Pattern Formation Without Orientation	85
<i>Serafino Cicerone, Gabriele Di Stefano, and Alfredo Navarra</i>	
Polynomial Lower Bound for Distributed Graph Coloring in a Weak LOCAL Model	99
<i>Dan Hefetz, Fabian Kuhn, Yannic Maus, and Angelika Steger</i>	
Optimal Consistent Network Updates in Polynomial Time	114
<i>Pavol Černý, Nate Foster, Nilesch Jagnik, and Jedidiah McClurg</i>	
Distributed Construction of Purely Additive Spanners	129
<i>Keren Censor-Hillel, Telikepalli Kavitha, Ami Paz, and Amir Yehudayoff</i>	
Optimal Fair Computation	143
<i>Rachid Guerraoui and Jingjing Wang</i>	
Near-Optimal Low-Congestion Shortcuts on Bounded Parameter Graphs	158
<i>Bernhard Haeupler, Taisuke Izumi, and Goran Zuzic</i>	

Anonymity-Preserving Failure Detectors	173
<i>Zohir Bouzid and Corentin Travers</i>	
Certified Universal Gathering in $\mathbb{R}^2$ for Oblivious Mobile Robots	187
<i>Pierre Courtieu, Lionel Rieg, Sébastien Tixeuil, and Xavier Urbain</i>	
Non-local Probes Do Not Help with Many Graph Problems	201
<i>Mika Göös, Juho Hirvonen, Reut Levi, Moti Medina, and Jukka Suomela</i>	
Are Byzantine Failures Really Different from Crash Failures?.	215
<i>Damien Imbs, Michel Raynal, and Julien Stainer</i>	
Sublinear-Space Distance Labeling Using Hubs	230
<i>Paweł Gawrychowski, Adrian Kosowski, and Przemysław Uznański</i>	
Online Balanced Repartitioning.	243
<i>Chen Avin, Andreas Loukas, Maciej Pacut, and Stefan Schmid</i>	
Lower Bound on the Step Complexity of Anonymous Binary Consensus	257
<i>Hagit Attiya, Ohad Ben-Baruch, and Danny Hendler</i>	
Opacity vs TMS2: Expectations and Reality	269
<i>Sandeep Hans, Ahmed Hassan, Roberto Palmieri, Sebastiano Peluso, and Binoy Ravindran</i>	
On Composition and Implementation of Sequential Consistency	284
<i>Matthieu Perrin, Matoula Petrolia, Achour Mostéfaoui, and Claude Jard</i>	
k-Abortable Objects: Progress Under High Contention.	298
<i>Naama Ben-David, David Yu Cheng Chan, Vassos Hadzilacos, and Sam Toueg</i>	
Linearizability of Persistent Memory Objects Under a Full-System-Crash Failure Model.	313
<i>Joseph Izraelevitz, Hammurabi Mendes, and Michael L. Scott</i>	
Buffer Size for Routing Limited-Rate Adversarial Traffic.	328
<i>Avery Miller and Boaz Patt-Shamir</i>	
Distributed Testing of Excluded Subgraphs	342
<i>Pierre Fraigniaud, Ivan Rapaport, Ville Salo, and Ioan Todinca</i>	
How to Discreetly Spread a Rumor in a Crowd	357
<i>Mohsen Ghaffari and Calvin Newport</i>	
Depth of a Random Binary Search Tree with Concurrent Insertions.	371
<i>James Aspnes and Eric Ruppert</i>	

Priority Mutual Exclusion: Specification and Algorithm	385
<i>Chien-Chung Huang and Prasad Jayanti</i>	
Information Spreading in Dynamic Networks Under Oblivious Adversaries	399
<i>John Augustine, Chen Avin, Mehraneh Liaee, Gopal Pandurangan, and Rajmohan Rajaraman</i>	
Non-Bayesian Learning in the Presence of Byzantine Agents	414
<i>Lili Su and Nitin H. Vaidya</i>	
Asynchronous Computability Theorems for t-Resilient Systems	428
<i>Vikram Saraph, Maurice Herlihy, and Eli Gafni</i>	
Upper Bounds for Boundless Tagging with Bounded Objects	442
<i>Zahra Aghazadeh and Philipp Woelfel</i>	

Brief Announcements

Brief Announcement: Local Distributed Verification	461
<i>Alkida Balliu, Gianlorenzo D'Angelo, Pierre Fraigniaud, and Dennis Olivetti</i>	
Brief Announcement: A Step Optimal Implementation of Large Single-Writer Registers	465
<i>Tian Ze Chen and Yuanhao Wei</i>	
Brief Announcement: Deterministic MST Sparsification in the Congested Clique.	468
<i>Janne H. Korhonen</i>	
Brief Announcement: Symmetricity in 3D-space — Characterizing Formable Patterns by Synchronous Mobile Robots	471
<i>Yukiko Yamauchi, Taichi Uehara, and Masafumi Yamashita</i>	
Brief Announcement: Mending the Big-Data Missing Information.	474
<i>Hadassa Daltrophe, Shlomi Dolev, and Zvi Lotker</i>	
Brief Announcement: Set-Consensus Collections are Decidable.	477
<i>Carole Delporte-Gallet, Hugues Fauconnier, Eli Gafni, and Petr Kuznetsov</i>	
Brief Announcement: A Log*-Time Local MDS Approximation Scheme for Bounded Genus Graphs	480
<i>Saeed Akhoondian Amiri and Stefan Schmid</i>	
Brief Announcement: On the Space Complexity of Conflict Detector Objects	484
<i>Claire Capdevielle, Colette Johnen, and Alessia Milani</i>	

Brief Announcement: Public Vs. Private Randomness in Simultaneous Multi-party Communication Complexity.	487
<i>Orr Fischer, Rotem Oshman, and Uri Zwick</i>	
Brief Announcement: Beeping a Maximal Independent Set Fast	490
<i>Stephan Holzer and Nancy Lynch</i>	
Author Index	495