

Preface

DISC, the International Symposium on Distributed Computing, is an international forum on the theory, design, analysis, implementation, and application of distributed systems and networks. DISC is organized in cooperation with the European Association for Theoretical Computer Science (EATCS).

This volume contains the papers presented at DISC 2016, the 30th International Symposium on Distributed Computing, held during September 27–29, 2016, in Paris, France. The volume includes the citation for the 2016 Edsger W. Dijkstra Prize in Distributed Computing, jointly sponsored by DISC and PODC (the ACM Symposium on Principles of Distributed Computing), which was presented at PODC 2016 in Chicago and split between Noga Alon, Laszlo Babai, and Alon Itai; and Michael Luby for their two seminal papers both published in 1986: “A Fast and Simple Randomized Parallel Algorithm for the Maximal Independent Set Problem” and “A Simple Parallel Algorithm for the Maximal Independent Set Problem”. The volume also includes the citation for the 2016 Doctoral Dissertation Award, also jointly sponsored by DISC and PODC, which was presented at DISC 2016 in Paris. This year the award was split between Hsin-Hao Su, who completed his dissertation “Algorithms for Fundamental Problems in Computer Networks” in July 2015, under the supervision of Seth Pettie at the University of Michigan, and Shahar Timnat, who completed his dissertation “Practical Parallel Data Structures” in July 2015, under the supervision of Erez Petrank at Technion.

In total, 132 regular papers and 13 brief announcements were submitted and peer reviewed. The Program Committee selected 32 contributions out of the 132 submissions for regular presentations at the symposium. Each presentation was accompanied by a paper of up to 14 pages in this volume. Every submission was read and evaluated by at least three members of the Program Committee (PC). The PC was assisted by 148 external reviewers. Following a 10-day discussion period, the PC held a physical meeting in Paris, France, on July 4, 2016, with some of the PC members participating by conference call. Revised and expanded versions of several selected papers will be considered for publication in a special issue of the journal *Distributed Computing*. Four of the regular submissions that were rejected, but generated substantial interest among the members of the PC, were invited to be published as brief announcements. In total, 10 brief announcements were accepted for a short presentation and accompanied by a 3-page publication presented in the back-matter pages of this volume. Each brief announcement summarizes ongoing work or recent results, and it can be expected that these results will appear as full papers in later conferences or journals.

The Best Paper Award for DISC 2016 was presented to Dan Hefetz, Fabian Khun, Yannic Maus, and Angelika Steger for their paper “A Polynomial Lower Bound for Distributed Graph Coloring in a Weak LOCAL Model”. This year three papers have been nominated for the Best Student Paper Award. It will be awarded after a vote on the student talk at the conference during a special session. The nominated students are

Amir Abboud and Seri Khoury for their paper “Near-Linear Lower Bounds for Distributed Distance Computations, Even in Sparse Networks” (co-authored by Keren Censor-Hillel), Ohad Ben-Baruch for his paper “Lower Bound on the Step Complexity of Anonymous Binary Consensus” (co-authored by Hagit Attiya and Danny Hendler), and Lili Su for the paper “Non-Bayesian Learning in the Presence of Byzantine Agents” (co-authored by Nitin H. Vaidya).

The program featured three invited lectures, presented by Javier Esparza (Technische Universität München), Serge Abitboul (Inria & ENS Cachan), and Graham Cormode (University of Warwick). An abstract of each invited lecture is included in the front-matter pages of the proceedings. Three workshops were co-located with the DISC symposium this year. The 5th Workshop on Advances on Distributed Graph Algorithms (ADGA) chaired by Danupon Nanongkai, the 6th Research Meeting on Distributed Computing by Mobile Robots (MAC) co-chaired by Paola Flocchini and Maria Potop-Butucaru, and the 1st Workshop on Dynamic Graph in Distributed Computing (DGDC) co-chaired by Arnaud Casteight and Swan Dubois. The workshops AGDA and MAC were held on September 26, and DGDC on September 30.

We wish to thank the many contributors to DISC 2016: the authors of the submitted papers, the PC members, who performed a huge and difficult job, the three invited speakers, the conference general chair and local organizers led by Maria Potop-Butucaru for the great effort they put in, the logistics chair Lélia Blin, the sponsoring chair Petr Kuznetsov, the publicity chair Swan Dubois, the web chair Stéphane Rovedakis, the workshop organizers led by the workshop chair Colette Johnen, the Steering Committee for its guidance led by Shlomi Dolev.

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