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Marcos K. Aguilera (Ed.)

Distributed Computing

26th International Symposium, DISC 2012

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Preface

DISC is the International Symposium on Distributed Computing, 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 2012, which was held during 16–18 October 2012 in Salvador, Brazil.

This year, the symposium received 112 regular paper submissions, of which 27 were selected for regular presentations at the symposium. Each regular presentation was accompanied by a paper of up to 15 pages in this volume. The symposium also received 7 brief announcement submissions. Among these submissions and the regular paper submissions, 24 submissions were selected to appear as brief announcements. Each brief announcement reflected ongoing work or recent results, and was accompanied by a two-page abstract in this volume. It is expected that these brief announcements will appear as full papers in other conferences or journals.

Submissions were evaluated in two phases. In the first phase, every submission was evaluated by three members of the program committee. Submissions deemed promising were further examined in the second phase by at least two additional program committee members. As a result of this two-phase review process, every submission was evaluated by at least three program committee members, while every submission accepted for a regular presentation was evaluated by at least five program committee members. Program committee members were assisted by around 122 external reviewers. After the reviews were completed, the program committee engaged in email discussions and made tentative decisions for some papers. The program committee later held a phone meeting on 28 July 2012 to discuss the borderline papers and finalize all decisions.

Revised and expanded versions of several accepted papers will be considered for publication in a special issue of the Distributed Computing journal.

The Best Paper Award of DISC 2012 was presented to Mika Göös and Jukka Suomela for the paper titled “No Sublogarithmic-Time Approximation Scheme for Bipartite Vertex Cover”.

The Best Student Paper Award of DISC 2012 was presented to Boris Korenfeld and Adam Morrison for the paper titled “CBTree: A Practical Concurrent Self-Adjusting Search Tree”, which was co-authored with Yehuda Afek, Haim Kaplan, and Robert E. Tarjan.

The symposium featured two keynote presentations. The first one was given by Yehuda Afek from Tel-Aviv University, and was titled “Launching Academic Ideas into the Real World”. The second keynote presentation was given by Simon Peyton-Jones from Microsoft Research, and was titled “Towards Haskell in the Cloud”.

In addition, the symposium included four tutorials. The first tutorial, presented by Elias P. Duarte Jr., was titled “System-Level Diagnosis: A Stroll through 45 Years of Research on Diagnosable Systems”. The second tutorial, presented by Michel Raynal, was titled “Implementing Concurrent Objects in Multiprocessor Machines”. The third tutorial, presented by Nicola Santoro, was titled “An Introduction to Distributed Computing by Mobile Entities: Agents, Robots, Sensors”. The fourth tutorial, presented by Paulo Veríssimo, was titled “Beyond the Glamour of Byzantine Fault Tolerance: OR Why Resisting Intrusions Means More Than BFT”.

Two workshops were co-located with the symposium and were held on 19 October 2012. The Workshop on Advances in Distributed Graph Algorithms (ADGA) was organized by Amos Korman. DISC’s Social Network Workshop (DISC’s SON) was organized by Anne-Marie Kermarrec and Alessandro Mei.

DISC 2012 acknowledges the use of the HotCRP system for handling submissions and managing the review process.

October 2012

Marcos K. Aguilera

Symposium Organization

DISC, the International Symposium on Distributed Computing, is an annual forum for the presentation of research on all aspects of distributed computing. It is organized in cooperation with the European Association for Theoretical Computer Science (EATCS). The symposium was established in 1985 as a biennial International Workshop on Distributed Algorithms on Graphs (WDAG). Its scope was soon extended to cover all aspects of distributed algorithms, and WDAG came to stand for International Workshop on Distributed Algorithms, becoming an annual symposium in 1989. In 1998, WDAG was renamed to DISC (International Symposium on Distributed Computing) to reflect the expansion of its coverage to all aspects of distributed computing, a field that has featured rapid and exciting developments.

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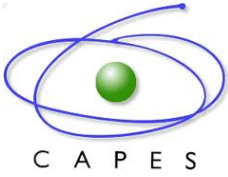
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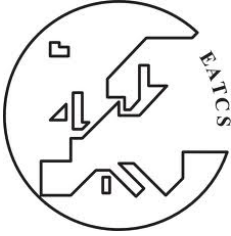
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