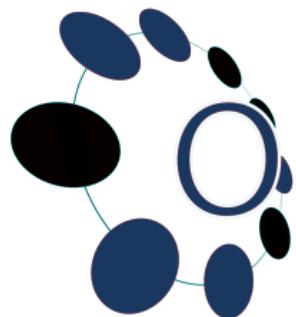


19th International Conference On Principles Of Distributed Systems

OPODIS'15, December 14–17th, 2015, Rennes, France

Edited by

**Emmanuelle Anceaume
Christian Cachin
Maria Potop-Butucaru**



Editors

Emmanuelle Anceaume CNRS – IRISA UMR 6074 Rennes Emmanuelle.Anceaume@irisa.fr	Christian Cachin IBM Research Zürich Christian.Cachin@zurich.ibm.com
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Maria Potop-Butucaru
University Paris 6
Paris
Maria.Potop-Butucaru@lip6.fr

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Preface

The papers in this volume were presented at the 19th International Conference on Principles of Distributed Systems (OPODIS 2015), held from December 14th to December 17th 2015 in Rennes, France. It was organized by CNRS and IRISA and took place in the modern auditorium of Inria on the campus universitaire de Beaulieu.

OPODIS is an open forum for the exchange of knowledge on distributed computing and distributed computer systems. All aspects of distributed systems are within the scope of OPODIS, including theory, specification, design, performance, and system building. With strong roots in the theory of distributed systems, OPODIS covers nowadays the whole range between the theoretical aspects and practical implementations of distributed systems, as well as experimentation and quantitative assessments. This year the topics of interest of OPODIS were:

- Algorithms for distributed systems (static or dynamic) and their complexity;
- Cluster, cloud, grid and high-performance computing;
- Distributed operating systems, middleware, and database systems;
- Communication networks (protocols, architectures, services, applications);
- Cryptographic protocols and security mechanisms;
- Fault tolerance, reliability, availability;
- Internet applications, social systems, peer-to-peer and overlay networks;
- Self-* solutions for distributed systems;
- Mobile and wireless computing and sensor networks;
- Mobile agents and autonomous robots.

We received 91 submissions and each submission was reviewed by at least three members of the Program Committee with the help of external reviewers. This year, the papers of the Program Committee members have been reviewed by at least four members of the Program Committee. Out of the 91 submissions, 31 papers have been accepted as regular papers. The submission and review process was handled using Shai Halevi's web-review software, hosted by the International Association for Cryptographic Research (IACR).

This edition of OPODIS marks the first time where the proceedings appear in the Leibniz International Proceedings in Informatics (LIPIcs) series. LIPIcs proceedings are available online and free of charge to readers, and the production costs are paid in part from the conference budget. This form of publication ensures the widest possible dissemination and reduces the cost of accessing the technical contributions for readers.

The Best Paper Award was given to Niloufar Shafiei for the paper "Non-Blocking Doubly-Linked Lists with Good Amortized Complexity".

This year OPODIS had three distinguished invited keynote speakers: Idit Keidar (Technion, Israel), Nicola Santoro (Carleton University, Canada) and Juan Garay (Yahoo Labs, USA). Additionally, the first morning of the conference has been dedicated to the excellent tutorials given by Michel Raynal (Institut Universitaire de France, Université de Rennes 1, France) and Alexander Spiegelman and Idit Keidar (Electrical Engineering Department, Technion, Haifa, Israel).

We would like to thank all authors for submitting their work to OPODIS. We also would like to thank the members of the Program Committee and the external reviewers for their



tremendous work and for their availability during the physical Program Committee meeting held at IBM Research – Zürich on November 2–3, 2015.

Organizing this event would not have been possible without the time and the effort of the Organizing Committee, consisting of: Yann Busnel (ENSAI), Romaric Ludinard (ENSAI) as publicity chair and responsible for the website, Elisabeth Lebret (INRIA), and Lydie Mabil (INRIA). On behalf of all participants we thank them for their work that made the conference a truly enjoyable event beyond the scientific and technical aspects.

Finally, we would like to thank the Steering Committee members for their valuable advice.

January 2016

Emmanuelle Anceaume, CNRS / IRISA
Christian Cachin, IBM Research – Zürich
Maria Potop-Butucaru, UPMC Sorbonne Universités

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List of Authors

Mohamad Ahmadi Department of Computer Science, University of Freiburg, Germany mahmadi@cs.uni-freiburg.de	Jingshu Chen Michigan State University, USA chenji15@cse.msu.edu
Hagit Attiya Technion, Israel hagitcs.technion.ac.il	Gregory Chockler CS Department, Royal Holloway, University of London, UK gregory.chockler@rhul.ac.uk
Joffroy Beauquier LRI, Paris-South University, France joffroy.beauquier@lri.fr	Artur Czumaj Department of Computer Science, Centre for Discrete Mathematics and its Applications (DIMAP), University of Warwick, UK A.Czumaj@warwick.ac.uk
Ryan Berryhill University of Toronto, Canada ryan@eecg.utoronto.ca	Ajoy K. Datta University of Nevada Las Vegas, USA ajoy.datta@unlv.edu
Peva Blanchard LPD, EPFL, Switzerland peva.blanchard@epfl.ch	Peter Davies Department of Computer Science, Centre for Discrete Mathematics and its Applications (DIMAP), University of Warwick, UK P.W.Davies@warwick.ac.uk
Zohir Bouzid IRISA, Université de Rennes, France zohir.bouzid@irisa.fr	Faith Ellen University of Toronto, Canada faith@cs.toronto.edu
Janna Burman LRI, Paris-South University, France janna.burman@lri.fr	Antonio Fernández Anta IMDEA Networks Institute, Spain antonio.fernandez@imdea.org
Claire Capdevielle Université de Bordeaux, LaBRI, France claire.capdevielle@labri.fr	Juan Garay Yahoo Labs, USA garay@yahoo-inc.com
Yuval Cassuto Department of Electrical Engineering, Technion, Israel ycassuto@ee.technion.ac.il	Vijay K. Garg Department of Electrical and Computer Engineering University of Texas at Austin, USA garg@ece.utexas.edu
Armando Castañeda Instituto de Matemáticas, UNAM, Mexico armando.castaneda@im.unam.mx	Seth Gilbert Department of Computer Science, National University of Singapore, Singapore seth.gilbert@comp.nus.edu.sg
Yen-Jung Chang Department of Electrical and Computer Engineering University of Texas at Austin, USA cyenjung@ece.utexas.edu	



Abdolhamid Ghodselahi Department of Computer Science, University of Freiburg, Germany hghods@cs.uni-freiburg.de	Eleni Kanellou Foundation for Research and Technology – Hellas (FORTH) & Institute of Computer Science (ICS) & Université de Rennes 1, France kanellou@ics.forth.gr
Wojciech Golab University of Waterloo, Canada wgolab@uwaterloo.ca	Idit Keidar Department of Electrical Engineering, Technion, Israel idish@ee.technion.ac.il
Rachid Guerraoui LPD, EPFL, Switzerland rachid.guerraoui@epfl.ch	Barbara Keller ETH Zürich, Switzerland barbara.keller@tik.ee.ethz.ch
Magnús M. Halldórsson Reykjavík University, Iceland mmh@ru.is	Sven Köhler Bar-Ilan University, Israel sven.kohler@biu.ac.il
Colette Johnen Université de Bordeaux, LaBRI, France johnen@labri.fr	Fabian Kuhn Department of Computer Science, University of Freiburg, Germany kuhn@cs.uni-freiburg.de
Danny Hendler Ben-Gurion University, Israel hendler@cs.bgu.ac.il	Sandeep S. Kulkarni Michigan State University, USA sandeep@cse.msu.edu
Maurice Herlihy Department of Computer Science, Brown University, USA mph@cs.brown.edu	Petr Kuznetsov Télécom ParisTech, France petr.kuznetsov@telecom-paristech.fr
Stephan Holzer Massachusetts Institute of Technology (MIT), USA, holzer@mit.edu	Tobias Langner ETH Zürich, Switzerland tobias.langner@tik.ee.ethz.ch
Wei-Lun Hung University of Texas at Austin, USA wlhung@utexas.edu	Lawrence L. Larmore University of Nevada Las Vegas, USA lawrence.larmore@unlv.edu
Damien Imbs Department of Mathematics, University of Bremen, Germany imbs@math.uni-bremen.de	Dahlia Malkhi VMware, Palo Alto, USA dahliamalkhi@gmail.com
Hirotsugu Kakugawa Graduate School of Information Science and Technology, Osaka University, Japan kakugawa@ist.osaka-u.ac.jp	Toshimitsu Masuzawa Graduate School of Information Science and Technology, Osaka University, Japan masuzawa@ist.osaka-u.ac.jp
Nikolaos D. Kallimanis Foundation for Research and Technology – Hellas (FORTH) & Institute of Computer Science (ICS), Greece nkallima@ics.forth.gr	Alessia Milani Université de Bordeaux, LaBRI, France milani@labri.fr

Adam Morrison
Computer Science Department,
Technion—Israel Institute of Technology
mad@cs.technion.ac.il

Miguel A. Mosteiro
Department of Computer Science, Kean
University, USA
mmosteir@kean.edu

Calvin Newport
Department of Computer Science,
Georgetown University, USA
cnewport@cs.georgetown.edu

Nicolas Nicolaou
IMDEA Networks Institute, Spain
nicolas.nicolaou@imdea.org

Fukuhito Ooshita
Graduate School of Information Science,
Nara Institute of Science and Technology,
Japan
f-oosita@is.naist.jp

Nathan Pinsker
Massachusetts Institute of Technology
(MIT), USA
npinsker@mit.edu

Alexandru Popa
Department of Computer Science,
Nazarbayev University, Kazakhstan
alexandru.popa@nu.edu.kz

Anisur Rahaman Molla
Department of Computer Science, University
of Freiburg, Germany
armolla@cs.uni-freiburg.de

Dror Rawitz
Bar-Ilan University, Israel
dror.rawitz@biu.ac.il

Michel Raynal
IRISA, Université de Rennes & Institut
Universitaire de France, France
michel.raynal@irisa.fr

Noam Rinetzky
Blavatnik School of Computer Science, Tel
Aviv University
maon@cs.tau.ac.il

Mohammad Roohitavaf
Michigan State University, USA
roohitav@cse.msu.edu

Nicola Santoro
School of Computer Science, Carleton
University, Canada
santoro@scs.carleton.ca

Vikram Saraph
Department of Computer Science, Brown
University, USA
vsaraph@cs.brown.edu

Christian Scheideler
Paderborn University, Germany
scheideler@uni-paderborn.de

Alexander Setzer
Paderborn University, Germany
asetzer@mail.upb.de

Alexander Spiegelman
Department of Electrical Engineering,
Technion, Israel
sashas@tx.technion.ac.il

David Stoltz
ETH Zürich, Switzerland
stoltzda@ethz.ch

Thim Strothmann
Paderborn University, Germany
thim@mail.upb.de

Yuichi Sudo
NTT Secure Platform Laboratories &
Graduate School of Information Science and
Technology, Osaka University, Japan
sudo.yuichi@lab.ntt.co.jp

Pierre Sutra
University of Neuchâtel, Switzerland &
Télécom SudParis, CNRS, Université
Paris-Saclay, France
pierre.sutra@telecom-sudparis.eu

Edward Talmage
Parasol Laboratory, Texas A&M University,
College Station, USA
etalmage@tamu.edu

Orr Tamir
Blavatnik School of Computer Science, Tel
Aviv University
ortamir@post.tau.ac.il

Mahesh Tripunitara
University of Waterloo, Canada,
tripunit@uwaterloo.ca

Jara Uitto
ETH Zürich, Germany
jara.uitto@tik.ee.ethz.ch

Tonghe Wang
Department of Computer Science,
Georgetown University, USA
tw473@georgetown.edu

Roger Wattenhofer
ETH Zürich, Switzerland
wattenhofer@ethz.ch

Jennifer Welch
Parasol Laboratory, Texas A&M University,
College Station, USA
welch@cse.tamu.edu

Leqi Zhu
University of Toronto, Canada
lezhu@cs.toronto.edu