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Principles of Distributed Systems

7th International Conference, OPODIS 2003

La Martinique, French West Indies, December 10-13, 2003

Revised Selected Papers



Springer

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Preface

The 7th International Conference on Principles of Distributed Systems (OPODIS 2003) was held during December 10–13, 2003 at La Martinique, French West Indies, and was co-organized by the Université des Antilles et de la Guyane, La Martinique, French West Indies and by Chalmers University of Technology, Sweden. It continued a tradition of successful conferences with friendly and pleasant atmospheres. The earlier organizations of OPODIS were held in Luzarches (1997), Amiens (1998), Hanoi (1999), Paris (2000), Mexico (2001) and Reims (2002).

OPODIS is an open forum for the exchange of state-of-the-art knowledge on distributed computing and systems among researchers from around the world. Following the tradition of the previous organizations, its program is composed of high-quality contributed and invited papers by experts of international caliber in this scientific area. The topics of interest are theory, specifications, design and implementation of distributed systems, including distributed and multiprocessor algorithms; communication and synchronization protocols; coordination and consistency protocols; stabilization, reliability and fault-tolerance of distributed systems; performance analysis of distributed algorithms and systems; specification and verification of distributed systems; security issues in distributed computing and systems; and applications of distributed computing, such as embedded distributed systems, real-time distributed systems, distributed collaborative environments, peer-to-peer systems, cluster and grid computing.

In response to the call for papers for OPODIS 2003, 61 papers in these areas were submitted. The Program Committee, following a peer-review process, selected 19 out of these for presentation at the conference. Each paper, reviewed by at least 4 reviewers, was judged according to scientific and presentation quality, originality and relevance to the conference topics. The distribution of the accepted (respectively, submitted) papers per geographic region was: Asia–Australia, 3 papers accepted (out of 14 submitted); Europe, 11 papers accepted (out of 34 submitted); Central and North America, 5 papers accepted (out of 13 submitted).

Besides the technical contributed papers, the program included invited keynote talks. We were happy that three distinguished experts accepted our invitation to share with us their views of various aspects of the field: Jo Ebergen (Sun Microsystems Laboratories), who gave the luncheon speech on circuits without clocks, Neil Gershenfeld (MIT Center for Bits and Atoms), who talked about physical error correction in building reliable systems out of unreliable components, and Maarten van Steen (Vrije Universiteit Amsterdam), who talked about very large, self-managing distributed systems. Abstracts of the contents of the keynote talks are included in this volume.

Apart from the technical program, OPODIS 2003 also offered a set of satellite events in the form of tutorials, with the themes: Self-stabilization, by

Joffroy Beauquier (Université de Paris 11); Distributed Computing and Information Security, by Roberto Gomez Cárdenas (ITESM-CEM); and Non-blocking Synchronization, by Philippas Tsigas (Chalmers University of Technology).

It is impossible to organize a successful program without the help of many individuals. We would like to express our appreciation to the authors of the submitted papers, and to the program committee members and external referees, who provided useful reviews. Furthermore, we would also like to thank the OPODIS steering committee members, who supervise and support the continuation of the event. We owe special thanks to Yi Zhang for his assistance with the electronic submissions and reviewing system. Finally, one more special thanks to all the other organizing committee members for their precious efforts that contributed to making OPODIS 2003 a successful conference.

Marina Papatriantafilou
Philippe Hunel
OPODIS 2003 Program Co-chairs

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During 2003 the Steering Committee of OPODIS consisted of:

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The conference was supported and sponsored by the Université des Antilles et de la Guyane, Chalmers University of Technology, Springer-Verlag (publication of this official, postconference proceedings volume), Canon Martinique (preliminary proceedings volume, available during the conference), the Research Ministry of France, the Research Council of Sweden, the French National Centre for Scientific Research (CNRS, GdR Architecture, Réseaux et

systèmes, Parallélisme), Microsoft Research, the Department of Tourism in Martinique (Office Départemental du Tourisme de la Martinique, ODTM), the Regional Agency for the Touristic Development of Martinique (Agence Régionale pour le Développement Touristique de la Martinique, ARDTM), the Municipality of Schoelcher, and the ACM French Chapter.

The electronic submission and reviewing system used for OPODIS 2003 was the CyberChair system, authored by Richard van de Stadt.



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