Foreword

Dear Reader,

Welcome to the Proceedings of the 23rd ACM Symposium on Operating Systems Principles (SOSP 2011), held in Cascais, Portugal. This year's program includes 28 papers, and touches on a wide range of computer systems topics, from data center computing, storage systems and geo-replication to operating system architecture, virtualization, concurrency, security, and mobile platforms. The program committee made every effort to identify and include some of the most creative and thought-provoking ideas in computer systems today. Each accepted paper was shepherded by a program committee member to make sure the papers are as readable and complete as possible. We hope you will enjoy the program as much as we did in selecting it.

This year's proceedings are, for the first time, published digitally on a USB key with no paper copy distributed at the conference. The cost to the environment of so many reams of printed paper, plus the difficulty of shipping printed material to the conference site, made this an easy decision. The workshop proceedings appear on the conference USB key as well. You will find two copies of each of this year's SOSP papers: a traditional 2-column version designed for printing, and a one-column version intended for reading on a computer. In addition, the USB key contains a copy of every SOSP paper from each of the previous 22 instances of the conference, starting in 1967. The very nature of publishing is changing as we speak. We look forward to your feedback about the appropriate form and format for future SOSP proceedings.

We are most grateful to the authors of the 157 papers who chose to submit their work to SOSP (five papers were subsequently withdrawn by the authors). Their ideas and efforts are the basis of the conference's success. Selecting the program out of so many quality submissions was a difficult task. A program committee consisting of 28 leading scholars in the broad area of computer systems conducted a three-stage reviewing process and online discussion; final selections were made during a physical meeting in Boston, MA, which was attended by a core of 13 PC members. Each submission received at least three PC reviews, with a maximum of eight. All in all, 719 reviews were produced. The PC made every effort to provide detailed and constructive feedback, which should help authors to further improve their work. Author anonymity was maintained throughout the reviewing and selection process; PC members were removed from the deliberations of any paper with which they had a conflict of interest (co-author, same institution, recent collaborator, former student/adviser).

The organizing committee is pleased to be able to follow the informal tradition of locating every third SOSP in Europe. Doing so would not have been possible this year without the tireless efforts of Luís Rodrigues and João Leitão as well as the support of the Instituto de Engenharia de Sistemas e Computadores Investigação e Desenvolvimento em

Lisboa (INESC-ID) which is conference co-sponsor along with ACM SIGOPS. For the first time, SOSP is co-located with the ACM Symposium on Cloud Computing (SOCC), to take place on October 27th and 28th. SOCC, a conference now in its second year, is co-sponsored by SIGOPS, SIGMOD and INESC-ID, and it should provide an excellent counterpoint to SOSP in a very topical area of research.

Following the lead of SOSP 2009, this year's conference also offers a full slate of workshops on the Sunday before the main event. These workshops cover a range of topics related to operating systems: programming languages (PLOS), mobile handheld systems (MobiHeld), power-aware computing (HotPower), and the management of large scale systems through log analysis and machine learning (SLAML). We would like to thank the organizers and sponsors of all four workshops as well as Rama Kotla and Rodrigo Rodrigues, who served as workshop chairs. We welcome community feedback on ideas for future co-located workshops.

We are especially thankful this year for our generous corporate and governmental donors. These donors make it possible to host SOSP in an environment that is conducive to collegial interaction and, this year, they have provided funds for full travel grants to over 70 students from a wide range of countries and institutions. Special thanks go to Brett Fleisch who assembled our NSF grant application, and to the folks at UC Riverside for administering the resulting grant.

SOSP is a great conference mostly because it attracts so many high-quality submissions, and we would like to again thank all the authors who submitted. We also thank the PC members for the tremendous amount of work they did: reviewing the submissions, providing feedback, and shepherding the accepted submissions. We are grateful to the external reviewers who provided an additional perspective on a few papers. SOSP has always been organized by volunteer efforts from a host of people; we would like to thank all the following people who have dedicated so much of their time to the conference: Luís Rodrigues (local arrangements), João Leitão (registration), John MacCormick (treasurer), Chandu Thekkath, J.P. Martin, and Sape Mullender (sponsorships), David Lie, Nickolai Zeldovich, and Dilma Da Silva (scholarships), Nuno Carvalho (website), Paarijaat Aditya (submissions website), Rama Kotla and Rodrigo Rodrigues (workshops), Bryan Ford and George Candea (WIPs/Posters), and Junfeng Yang and Rodrigo Rodrigues (publicity).

Finally, we would like to especially thank Andrew Birrell who assembled the conference USB key and guided the production of "camera-ready" copy.

We hope that you will find the program interesting and inspiring, and trust that the symposium will provide you with a valuable opportunity to network and share ideas with researchers and practitioners from institutions around the world.

Ted Wobber	Peter Druschel
General Chair	Program Chair