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Formal Methods for Open Object-Based Distributed Systems

6th IFIP WG 6.1 International Conference, FMOODS 2003
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Proceedings

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Volume Editors

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Preface

This volume contains the proceedings of FMOODS 2003, the 6 th IFIP WG 6.1 International Conference on *Formal Methods for Open Object-Based Distributed Systems*. The conference was held in Paris, France on November 19–21, 2003. The event was the sixth meeting of this conference series, which is held roughly every year and a half, the earlier events having been held in Paris, Canterbury, Florence, Stanford, and Twente.

The goal of the FMOODS series of conferences is to bring together researchers whose work encompasses three important and related fields:

- formal methods;
- distributed systems;
- object-based technology.

Such a convergence is representative of recent advances in the field of distributed systems, and provides links between several scientific and technological communities, as represented by the conferences FORTE/PSTV, CONCUR, and ECOOP.

The objective of FMOODS is to provide an integrated forum for the presentation of research in the above-mentioned fields, and the exchange of ideas and experiences in the topics concerned with the formal methods support for open object-based distributed systems. For the call for papers, aspects of interest of the considered systems included, but were not limited to: formal models; formal techniques for specification, design or analysis; component-based design; verification, testing and validation; semantics of programming, coordination, or modeling languages; type systems for programming, coordination or modelling languages; behavioral typing; multiple viewpoint modelling and consistency between different models; transformations of models; integration of quality of service requirements into formal models; formal models for security; and applications and experience, carefully described. Work on these aspects of (official and de facto) standard notations and languages, e.g., the UML, and on component-based design, was explicitly welcome.

In total 78 abstracts and 63 papers were submitted to this year's conference, covering the full range of topics listed above. Out of the submissions, 18 research papers were selected by the program committee for presentation. We would like to express our deepest appreciation to the authors of all submitted papers and to the program committee members and external reviewers who did an outstanding job in selecting the best papers for presentation.

For the first time, the FMOODS conference was held as a joint event in federation with the 4th IFIP WG 6.1 International Conference on *Distributed Applications and Interoperable Systems* (DAIS 2003). The co-location of the 2003 vintages of the FMOODS and DAIS conferences provided an excellent opportunity to the participants for a wide and comprehensive exchange of ideas within the domain of distributed systems and applications. Both FMOODS and DAIS address this domain, the former with its emphasis on formal approaches, the latter on practical solutions. Their combination in a single event ensured that both theoretical foundations and practical issues were presented and discussed. Also due to the federation of the two conferences, the topics of reconfigurability and component-based design were particularly emphasized this year, along with the many open issues related to openness and interoperability of distributed systems and applications. To further the interaction between the two communities, participants to the federated event were offered a single registration procedure and were entitled to choose freely between DAIS and FMOODS sessions. Also, several invited speakers were explicitly scheduled as joint sessions. As another novelty, this year's conference included a two-day tutorial and workshop session, the latter again explicitly held as a joint event. Details can be found at the conference website: `http://fedconf.enst.fr/`.

Special thanks to Michel Riguidel, head of the Networks and Computer Science department of ENST. His support made this event happen. We would also like to thank Lynne Blair who chaired the workshop selection process, and Sylvie Vignes who chaired the tutorial selection process. We are grateful to David Chambliss, Andrew Herbert, Bart Jacobs, Bertrand Meyer, and Alan Cameron Wills for agreeing to present invited talks at the conference.

We thank Jennifer Tenzer for help with running the electronic submission and conference management system, and the Laboratory for Foundations of Computer Science at the University of Edinburgh for financially supporting this help. We used CyberChair (http://www.cyberchair.org); we thank Julian Bradfield for advice on adapting it for our particular needs. As of today, we have also received sponsorships from CNRS-ARP, GET, EDF, ENST, and INRIA. Other contributors are also expected. We extend our thanks to all of them.

We thank Laurent Pautet for acting as Local Arrangements Chair and John Derrick for his work as Publicity Chair. We would also like to thank the FMOODS Steering Committee members for their advice.

September 2003

Elie Najm
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