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Process Algebra and Probabilistic Methods

Performance Modeling and Verification

Second Joint International Workshop PAPM-PROBMIV 2002
Copenhagen, Denmark, July 25-26, 2002
Proceedings

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Preface

This volume contains the proceedings of the second joint PAPM-PROBMIV Workshop, held at the University of Copenhagen, Denmark, July 25–26, 2002 as part of the *Federated Logic Conference* (FLoC 2002).

The PAPM-PROBMIV workshop results from the combination of two workshops: PAPM (Process Algebras and Performance Modeling) and PROBMIV (Probabilistic Methods in Verification). The aim of the joint workshop is to bring together the researchers working across the whole spectrum of techniques for the modeling, specification, analysis, and verification of probabilistic systems. Probability is widely used in the design and analysis of software and hardware systems, as a means to derive efficient algorithms (e.g. randomization), as a model for unreliable or unpredictable behavior (as in the study of fault-tolerant systems and computer networks), and as a tool to study performance and dependability properties. The topics of the workshop include specification, models, and semantics of probabilistic systems, analysis and verification techniques, probabilistic methods for the verification of non-probabilistic systems, and tools and case studies.

The first PAPM workshop was held in Edinburgh in 1993; the following ones were held in Regensberg (1994), Edinburgh (1995), Turin (1996), Enschede (1997), Nice (1998), Zaragoza (1999), and Geneva (2000). The first PROBMIV workshop was held in Indianapolis, Indiana (1998); the next one took place in Eindhoven (1999). In 2000, PROBMIV was replaced by a Dagstuhl seminar on Probabilistic Methods in Verification.

The first joint PAPM-PROBMIV was held as part of the *2001 Aachen Multiconference on Measurement, Modeling, and Evaluation of Computer-Communication Systems*. The proceedings were published in Springer's LNCS series as Volume 2165. Joining both research areas in a single workshop was considered very fruitful, and led to the second joint event, and to this volume.

Of the 19 regular papers submitted, the program committee accepted 10 for presentation at the workshop. They are included in the present volume as *selected papers*. The volume also contains four *short abstracts* which were selected on the basis of their innovative potential for the workshop. The workshop included two invited presentations, by David Sands (Chalmers University of Technology and Göteborg University), and André Schiper (Ecole Polytechnique Fédérale de Lausanne).

We thank all the members of the program committee, and their sub-referees, for selecting the papers to be presented. Our thanks go to the Centre for Telematics and Information Technology (CTIT) of the University of Twente for generously sponsoring the workshop, and to our FLoC sponsoring conference CAV. We also thank all the authors for their help in meeting the tight deadlines which we had to set.

May 2002 Holger Hermanns and Roberto Segala

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