# Preface

This volume contains the proceedings of the conference on *Computer-Aided Verification* (CAV 2001), held in Paris, Palais de la Mutualité, July 18–22, 2001. CAV 2001 was the 13th in a series of conferences dedicated to the advancement of the theory and practice of computer-assisted formal analysis methods for software and hardware systems. The CAV conference covers the spectrum from theoretical results to concrete applications, with an emphasis on practical verification tools and algorithms and techniques needed for their implementation.

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The program of CAV 2001 consisted of:

- 2 tutorials, respectively by David Basin on "Monadic Logics on Strings and Trees" and by Pascal Van Hentenryck on "Constraint Solving Techniques";
- 2 invited conference presentations by David Parnas on "Software Documentation and the Verification Process" and Xavier Leroy on "Java Bytecode Verification: An Overview":
- 33 regular paper presentations, which consitute the core of this volume. The accepted papers were selected from 106 regular paper submissions. Each submission received an average of 4 referee reviews.

• 13 tool presentations, whose descriptions can also be found in this volume. The tool presentations were selected among 27 submissions, and were reviewed in the same way as the regular papers. For each tool presentation, there was also a demo at the conference. The increasing number of tool submissions and presentations shows both the liveliness of the field and its applied flavor.

In addition, there were five satellite workshops on Inspection in Software Engineering, Logical Aspects of Cryptographic Protocol Verification, Runtime Verification, Software Model Checking, and Supervisory Control of Discrete Event Systems. The publication of these workshops proceedings was managed by their respective chair, independently of the present proceedings.

The CAV conference was colocated with the related *Static Analysis Symposium*, to enable participants to attend both.

We would like to thank here the numerous external reviewers who helped to set up a high quality program and whose names appear in the list below.

#### Referees

Parosh Abdulla Craig Damon Jim Grundy Luca de Alfaro Dennis Dams Anubhav Gupta Nina Amla Satvaki Das Garv Hachtel Laurent Arditi John Harrison Giorgio Delzanno Mohammad Awedh Jurgen Dingel John Havlicek Xiaoqun Du Nevin Heintze Ilan Beer Gerd Behrmann Surrendra Dudani Loïc Henry-Gérard Wendy Belluomni Jean Duprat H. Hermanns Shoham Ben-David Bruno Dutertre Yatin Hoskote Sergev Berezin Stephen Edwards Jin Hou Yves Bertot Cindy Eisner John Hughes Mark Bickford Kousha Etessami Marten van Hulst Eitan Farchi Michel Bidoit Hans Hüttel Bruno Blanchet Alan Fekete Anna Ingólfsdóttir Roderick Bloem Jean-Christophe Filliâtre S. Purushothaman Iver Ahmed Bouajjani D. Fink Jae-Young Jang Amar Bouali Bernd Finkbeiner Bertrand Jeannet Patricia Bouyer Dana Fisman Henrik Ejersbo Jensen Glenn Bruns Limor Fix HoonSang Jin Annette Bunker Robert Jones Emmanuel Fleury Doron Bustan Ranan Fraer Yan Jurski Gianpiero Cabodi Laurent Fribourg M. Kaltenbach Franck Cassez Pascale le Gall Gila Kamhi Pierre Casteran Danny Geist Sagi Katz Pankaj Chauhan Amit Goel Sharon Keidar Michael Colon Ganesh Gopalakrishnan Shinji Kimura Laurent Cosserat Jean Goubault-Larrecq Nils Klarlund Robert Damiano Susanne Graf Orna Kupferman

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We would like to thank the members of the organizing committee for their enormous amount of work in organizing CAV 2001. We appreciated their assistance in so many time-consuming tasks.

Ali Sezgin Subash Shankar

Kanna Shimizu

#### Organizing Committee

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Our special thanks are due to Patricia Bouyer, Nicolas Markey, and Philippe Schnoebelen who maintained the CAV 2001 web site and who installed the START software. We are also grateful to Laure Petrucci for her hard work in preparing the proceedings.

#### VIII Preface

### **Sponsors**

The conference was sponsored by several companies and academic institutions:

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