

## Preface

This volume contains the proceedings of the Second International Conference on *Formal Methods in Computer-Aided Design (FMCAD'98)*, organized November 4-6, in Palo Alto, California, USA. The first event of this series was organized by Mandayam Srivas and Albert Camilleri in 1996 in Palo Alto. FMCAD, which evolved from the series *Theorem Provers in Circuit Design (TPCD)*, strives to be a premier forum for disseminating research in Formal Verification (FV) methods for digital circuits and systems, including processors, custom VLSI circuits, microcode, and reactive software. In addition to significant case-studies and verification approaches, FMCAD also endeavors to represent advances in the driving technologies for verification, including binary decision diagrams, model checking, symbolic reasoning (theorem proving), symbolic simulation, and abstraction methods.

The conference included four invited lectures. The invited lectures were given by Kenneth McMillan (Cadence Berkeley Labs) on *Minimalist proof assistants: interactions of technology and methodology in formal system level verification*, by Carl-Johan Seger on *Formal methods in CAD from an industrial perspective*, by Randal E. Bryant and Bwolen Yang on *A performance study of BDD-based model checking*, and by Amir Pnueli on *Verification of data-insensitive circuits: an in-order-retirement case study*. Of the 55 regular paper submissions received, 27 were selected by the technical program committee for presentation at the conference. All four tools papers received were also selected.

We gratefully acknowledge the services of the technical program committee of FMCAD'98, which consisted of Adnan Aziz (Univ. of Texas at Austin, USA), Alan Hu (Univ. of British Columbia, Canada), Albert Camilleri (Hewlett-Packard, USA), Carl Pixley (Motorola, USA), Carlos Delgado Kloos (Univ. Carlos III de Madrid, Spain), Ching-Tsun Chou (Intel, USA), Eduard Cerny (Univ. of Montreal, Canada), Francisco Corella (Hewlett-Packard, USA), Jens (Stanford University, USA), Jerry Burch (Cadence Labs, USA), John van Tassel (Texas Instruments, USA), Limor Fix (Intel, Israel), Mandayam Srivas (SRI International, USA), Mark Aagaard (Intel, USA), Mary Sheeran (Chalmers University, Sweden), Masahiro Fujita (Fujitsu, USA), Ramin Hojati (HDAC, and UC Berkeley, USA), Randy Bryant (Carnegie-Mellon, USA), Ranga Vemuri (Univ. of Cincinnati, USA), Shiu-kai Chin (Syracuse Univ., USA), Steven German (IBM, USA), Steven Johnson (Indiana Univ., USA), Thomas Kropf (Univ. Karlsruhe, Germany), Tim Leonard (Compaq, USA), Tom Henzinger (UC Berkeley, USA), Tom Melham (Univ. of Glasgow, UK), Tom Shiple (Synopsys, USA), and Warren Hunt (IBM, USA).

The following researchers also helped in the evaluation of the submissions, and we are grateful for their efforts: Abdel Mokkedem, Mike Jones, and Rajnish Ghughal (University of Utah), Rob Shaw (Hewlett-Packard), Armin Biere, Bwolen Yang, and Yirng-An Chen (CMU), Andres Marin Lopez, Franz Josef

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