

## Preface

This book is devoted to the *6th International Conference on Theory and Applications of Satisfiability Testing (SAT 2003)* held in Santa Margherita Ligure (Genoa, Italy), during May 5–8, 2003. SAT 2003 followed the Workshops on Satisfiability held in Siena (1996), Paderborn (1998), and Renesse (2000), and the Workshop on Theory and Applications of Satisfiability Testing held in Boston (2001) and in Cincinnati (2002). As in the last edition, the SAT event hosted a SAT solvers competition, and, starting from the 2003 edition, also a Quantified Boolean Formulas (QBFs) solvers comparative evaluation.

There were 67 submissions of high quality, authored by researchers from all over the world. All the submissions were thoroughly evaluated, and as a result 42 were selected for oral presentations, and 16 for a poster presentation. The presentations covered the whole spectrum of research in propositional and QBF satisfiability testing, including proof systems, search techniques, probabilistic analysis of algorithms and their properties, problem encodings, industrial applications, specific tools, case studies and empirical results. Further, the program was enriched by three invited talks, given by Riccardo Zecchina (on “*Survey Propagation: from Analytic Results on Random  $k$ -SAT to a Message-Passing Algorithm for Satisfiability*”), Toby Walsh (on “*Challenges in SAT (and QBF)*”) and Wolfgang Kunz (on “*ATPG Versus SAT: Comparing Two Paradigms for Boolean Reasoning*”). SAT 2003 thus provided a unique forum for the presentation and discussion of research related to the theory and applications of propositional and QBF satisfiability testing.

The book includes 38 contributions. The first 33 are revised versions of some of the articles that were presented at the conference. The last 5 articles present the results of the SAT competition and of the QBF evaluation, solvers that won the SAT competition, and results on survey and belief propagation. All 38 papers were thoroughly reviewed.

We would like to thank the many people who contributed to the SAT 2003 organization (listed in the following pages), the SAT 2003 participants for the lively discussions, and the sponsors.

September 2003

Enrico Giunchiglia  
Armando Tacchella

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SAT 2003 was organized by DIST (Dipartimento di Informatica, Sistemistica e Telematica), Università di Genova.

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## Additional Referees

|                  |              |               |             |
|------------------|--------------|---------------|-------------|
| G. Audemard      | A. Kulikov   | S. Porschen   | D. Tang     |
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ISI, Intelligent Information Systems Institute at Cornell University

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MIUR, Ministero dell'Istruzione, dell'Università e della Ricerca

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