

6<sup>th</sup> International Symposium on the  
Theory and Applications of Satisfiability Testing  
S. Margherita Ligure - Portofino (Italy), May 5-8 2003  
<http://mrg.dist.unige.it/events/sat03/>

Call for Papers, SAT-QBF Benchmarks, SAT-QBF Solvers

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**SAT solvers competition**

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**History:** The conference follows the Workshops on Satisfiability held in Siena (1996), Paderborn (1998), and Renesse (2000), the Workshop on Theory and Applications of Satisfiability Testing held in Boston (2001) and the Symposium on Theory and Applications of Satisfiability Testing held in Cincinnati (2002). Attendance at the events has steadily increased from about 20 participants to about 90 participants last year.

**Rationale:** Great strides have been made in recent years in the theory and practice of propositional satisfiability (SAT) testing. Even more recently, we have seen a growing interest in the theory and practice of quantified Boolean formulas (QBFs) satisfiability testing, witnessed by analogous advancements both on the theoretical and on the practical side. As a result there is growing interest in using SAT and QBF solvers as the basis for practical tools for solving real-world problems, as well as using the insights gained from SAT and QBF research to create problem-specific solutions.

**Purpose:** The purpose of this workshop is to bring together researchers from different communities – including theoretical computer science, artificial intelligence, verification, mathematical theorem-proving, electrical engineering, and operations research – in order to share ideas and increase synergy between theoretical and empirical work.

**Topics:** Several aspects of propositional and QBF satisfiability testing will be explored including: proof systems, search techniques, probabilistic analysis of algorithms and their properties, problem encodings, industrial applications, specific tools, case studies and empirical results, and related topics.

**SAT Competition and QBF Comparative Evaluation:** The purpose of the SAT Competition is to identify new challenging benchmarks and to promote new SAT solvers. Last year 25 SAT solvers participated in the competition, and the results provided useful insights to both the authors of the solvers and the possible users of them. We strongly encourage people thinking about SAT-based techniques in their area (planning, hardware or software verification, etc.) to submit benchmarks to be used for the competition. Analogously, an experimental Comparative Evaluation of QBF solvers will be run along the same lines. The difference between the Competition and the Comparative Evaluation is that we expect the latter to be less formal, given that the field is relatively young.

**How to submit papers, benchmarks, solvers:** Authors should submit an extended abstract, which will be reviewed by two members of the program committee. Inclusion of talks in the program will be based on the results of the review process. After the conference, authors can submit the full length article corresponding to their extended abstract. Full length article submissions will be rigorously refereed and accepted articles will appear in the formal proceedings of the Symposium. The proceedings are to be published in the Lecture Notes series of Springer-Verlag.

**SAT solvers and benchmarks submissions:** SAT solvers should be submitted in source to be compiled on a Unix-like environment determined after submission. Machine-dependent submissions are not possible. The solvers are expected to read input files in the DIMACS format. For more information see the competition web page: <http://www.satlive.org/SATCompetition/>. New and challenging benchmarks can be submitted either as a generator or as a set of instances in the DIMACS format. Benchmarks generators and submissions composed of a range of similar instances scaling a problem are encouraged.

**QBF solvers and benchmarks submissions:** QBF solvers should be submitted along the same lines of SAT solvers. The solvers are expected to read input files in the Q-DIMACS format (see <http://www.qbflib.org/>) New benchmarks can be submitted either as a generator or as a set of instances in the Q-DIMACS format. For more information see the evaluation web page: <http://www.satlive.org/QBFEvaluation>.

**Important dates:** Dates are not final. Please check the web site for up-to-date information.

Papers:	Submission Feb 8, 2003 Notification: Mar 10, 2003 Final version due: March 21, 2003
Benchmarks Submission:	SAT Feb 14, 2003 QBF Feb 28, 2003
Solvers Submission:	SAT Feb 14, 2003 QBF Feb 28, 2003
Results:	SAT & QBF May 5-8, 2003