

Sunday, 9 May 2004

19:00-21:00 Reception (food provided)
Registration

Monday, 10 May 2004

08:00-09:00 Breakfast (provided @ Foyer)
Registration

09:00-09:20 Opening

09:20-10:10 Session 1 [Hard instances]

- *A Random Constraint Satisfaction Problem That Seems Hard for DPLL*
Harold Connamacher
- *From Spin Glasses to Hard Satisfiable Formulas*
Haixia Jia, Cris Moore, and Bart Selman

10:10-10:50 Coffee Break

10:50-12:30 Session 2 [SAT Solvers]

- *Combining Component Caching and Clause Learning for Effective Model Counting*
Tian Sang et al.
- *Early Conflict Detection Based BCP for SAT Solving*
Matthew D.T. Lewis, Tobias Schubert, and Bernd W. Becker
- *UBCSAT: An Implementation and Experimentation Environment for SLS Algorithms for SAT & MAX-SAT*
Dave A.D. Tompkins and Holger H. Hoos
- *CirCUs: A Hybrid Satisfiability Solver*
HoonSang Jin and Fabio Somenzi

12:30-14:20 Lunch (provided @ Vistas 19th Floor)

14:20-15:20 Invited Talk
The Behavior of SAT Solvers in Model Checking Application
Ken McMillan, Cadence Berkeley Labs

15:20-15:50 Coffee Break (registration)

15:50-16:40 Session 3 [Algs. & Bounds I]

- *Approximation Algorithm for Random MAX-kSAT*
Yannet Interian
- *Algorithms for Satisfiability using Independent Sets of Variables*
Ravi Gummadri, N.S. Narayanaswamy, and R. Venkatakrishnan

16:40-18:00 SAT Solvers Competition &
QBF Solvers Evaluation

Tuesday, 11 May 2004

08:00-09:00 Breakfast (provided @ Foyer)
Registration

09:00-10:15 Session 3 [Algs. & Bounds II]

- *Derandomization of Schuler's Algorithm for SAT*
Evgeny Dantsin and Alexander Wolpert
- *Polynomial Time SAT Decision, Hypergraph Transversals and the Hermitian Rank*
Nicola Galesi and Oliver Kullmann
- *Computing Unsatisfiable k-SAT Instances with Few Occurrences per Variable*
Shlomo Hoory and Stefan Szeider

10:15-10:50 Coffee Break

10:50-12:30 Session 5
[Properties of Formulae / Non-Bool. Problems]

- *Detecting Backdoor Sets with Respect to Horn and Binary Clauses*
Naomi Nishimura, Prabhakar Ragde, and Stefan Szeider
- *A Note on Satisfying Truth-Value Assignments of Boolean Formulas*
Zbigniew Stachniak
- *Mapping Problems with Finite-Domain Variables into Problems with Boolean Variables*
Carlos Ansótegui and Felip Manyà
- *Using Lower-Bound Estimates in SAT-Based Pseudo-Boolean Optimization*
Vasco M. Manquinho and João Marques-Silva

12:30-14:20 Lunch (provided @ Vistas 19th Floor)

14:20-15:20 Poster Overview Session I

- *Worst Case Bounds for some NP-Complete Modified Horn-SAT Problems*
Stefan Porschen and Ewald Speckenmeyer
- *Satisfiability Threshold of the Skewed Random k-SAT*
Danila A. Sinopalnikov
- *Local Search for Very Large SAT Problems*
Steven Prestwich and Colin Quirke
- *Local Search with Bootstrapping*
Lengning Liu and Mirosław Truszczyński
- *Efficient Implementations of SAT Local Search*
Alex Fukunaga
- *Adding a New Conflict Based Branching Heuristic in two Evolved DPLL SAT Solvers*
Renato Bruni and Andrea Santori
- *Using Rewarding Mechanisms for Improving Branching Heuristics*
Elsa Carvalho and João Marques-Silva
- *On Computing Minimum Unsatisfiable Cores*
Ines Lynce and João Marques-Silva
- *Visualizing the Internal Structure of SAT Instances*
Carsten Sinz

15:20-16:20 Poster Session I (coffee provided)

16:20-18:00 Session 6 [Non-CNF SAT I]

- *Using DPLL for Efficient OBDD Construction*
Jinbo Huang and Adnan Darwiche
- *Search vs. Symbolic Techniques in Satisfiability Solving*
Guoqiang Pan and Moshe Y. Vardi
- *Solving Non-clausal Formulas with DPLL search*
Christian Thiffault, Fahiem Bacchus, and Toby Walsh
- *Automatic Extraction of Functional Dependencies*
Éric Grégoire et al.

Wednesday, 12 May 2004

08:00-09:00 Breakfast (provided @ Foyer)

9:00-10:15 Invited Talk
From Satisfiability to Proof Complexity and Bounded Arithmetic
Stephen Cook, University of Toronto

10:15-10:50 Coffee Break

10:50-12:30 Session 7 [Non-CNF SAT II]

- *A SAT-based Decision Procedure for the Boolean Combination of Difference Constraints*
Alessandro Armando et al.
- *Aligning CNF- and Equivalence-reasoning*
Marijn Heule and Hans van Maaren
- *An Algebraic Approach to the Complexity of Generalized Conjunctive Queries*
Michael Bauland et al.
- *A SAT Based Scheduler for Tournament Schedules*
Hantao Zhang, Dapeng Li, and Haiyou Shen

12:30-14:00 Lunch (provided @ Vistas 19th Floor)

14:00-00:30 Excursion & Banquet

14:30 Group Leaves Hotel for Aquarium
(by foot – meet in Foyer)

17:30 Bus Leaves Aquarium for Banquet
17:30 Bus Leaves Hotel for Banquet

19:30 Banquet Starts (Grouse Mountain)

~23:15 Skyride Leaves Mountain Top
~23:45 Skyride Leaves Mountain Top

Thursday, 13 May 2004

08:00-09:00 Breakfast (provided @ Foyer)

09:00-10:15 Session 8
[Bounded Model Checking]

- *Encoding Global Unobservability for Efficient Translation to SAT*
Miroslav N. Velev
- *Incremental Compilation-to-SAT Procedures*
Marco Benedetti and Sara Bernardini
- *Analysis of Search Based Algorithms for Satisfiability of Quantified Boolean Formulas Arising from Circuit State Space Diameter Problems*
Daijue Tang et al.

10:15-10:50 Coffee Break

10:50-12:30 Session 9 [QBF]

- *Looking Algebraically at Tractable Quantified Boolean Formulas*
Hubie Chen and Víctor Dalmau
- *Equivalence Models for Quantified Boolean Formulas*
Hans Kleine Büning and Xishun Zhao
- *Resolve and Expand*
Armin Biere
- *QBF Reasoning on Real-World Instances*
Enrico Giunchiglia, Massimo Narizzano, and Armando Tacchella

12:30-14:20 Lunch (provided @ Vistas 19th Floor)

14:20-15:20 Poster Overview Session II

- *A Comparative Study of 2QBF Algorithms*
Darsh P. Ranjan, Daijue Tang, Sharad Malik
- *Dealing with Symmetries in Quantified Boolean Formulas*
Gilles Audemard, Bertrand Mazure and Lakhdar Saïs
- *Improving First-order Model Searching by Propositional Reasoning and Lemma Learning*
Zhuo Huang, Hantao Zhang and Jian Zhang
- *Boolean Ring Satisfiability*
Nachum Dershowitz, Jieh Hsiang, Guan-Shieng Huang, and Daher Kaiss
- *Game-SAT: A Preliminary Report*
Ling Zhao and Martin Müller
- *Verifying the On-Line Help System of SIEMENS Magnetic Resonance Tomographs*
Carsten Sinz and Wolfgang Küchlin
- *NiVER: Non Increasing Variable Elimination Resolution for Preprocessing SAT instances*
Sathiamoorthy Subbarayan and Dhiraj K Pradhan
- *The Optimality of a Fast CNF Conversion and its Use with SAT*
Daniel Sheridan
- *Full CNF Encoding: The Counting Constraints Case*
Olivier Bailleux and Yacine Boufkhad

15:20-16:20 Poster Session II (coffee provided)

SAT 2004

The Seventh International Conference on Theory and Applications of Satisfiability Testing

10-13 May 2004
Vancouver, BC, Canada

SPONSORS:

*Pacific Institute for the
Mathematical Sciences*

Intel Corporation

Intelligent Information Systems Institute

CoLogNet

Simon Fraser University

The University of British Columbia

**Renaissance Hotel Harbourside
133 West Hastings Street
Vancouver, BC
(604) 689-9211**