

DETAILED PROGRAMME OF THE SAT 2012 CONFERENCE

SUNDAY 17

- [08.50-09.00] WELCOME, PRESENTATION OF THE SPEAKER
- [09.00-10.00] INVITED TALK
 - Aaron Bradley.
Understanding IC3.
- [10.00-11.00] SLS SAT SOLVING
 - Adrian Balint and Uwe Schöning.
Choosing Probability Distributions for Stochastic Local Search and the Role of Make versus Break
 - Alexandra Goultiaeva and Fahiem Bacchus.
Off the trail: re-examining the CDCL algorithm
- [11.00-11.30] COFFEE BREAK
- [11.30-13.00] THEORY
 - Maria Luisa Bonet and Sam Buss.
An Improved Separation of Regular Resolution from Pool Resolution and Clause Learning
 - Friedrich Slivovsky and Stefan Szeider.
Computing Resolution-Path Dependencies in Linear Time
 - Serge Gaspers and Stefan Szeider.
Strong Backdoors to Nested Satisfiability
- [13.00-14.30] LUNCH BREAK
- [14.30-16.30] QBF
 - Allen Van Gelder, Samuel Wood and Florian Lonsing.
Extended Failed-Literal Preprocessing for Quantified Boolean Formulas
 - Uwe Egly.
On sequent systems and resolution for quantified Boolean formulas
 - Mikolas Janota, William Klieber, Joao Marques-Silva and Edmund Clarke.
Solving QBF with Counterexample Guided Refinement
 - Valeriy Balabanov, Hui-Ju Katherine Chiang and Jie-Hong Roland Jiang.
Henkin Quantifiers and Boolean Formulae
- [16.30-17.00] COFFEE BREAK
- [17.00-18.45] TOOL PRESENTATIONS
 - Thomas Hugel.
SATLab: X-Raying Random k-SAT (Tool Presentation)
 - Aina Niemetz, Mathias Preiner, Florian Lonsing, Martina Seidl and Armin Biere.
Resolution-Based Certificate Extraction for QBF (Tool Presentation)
 - Norbert Manthey.
Coprocessor 2.0 – A flexible CNF Simplifier (Tool Presentation)
 - Florian Corzilius, Ulrich Loup, Erika Abraham and Sebastian Junges.
SMT-RAT: An SMT-Compliant Non-Linear Real Arithmetic Toolbox (Tool Presentation)
 - Michael Kaufmann, Stephan Kottler, Paul Seitz and Christian Zielke.
Exploring recurring patterns in conflict analysis of CDCL SAT-Solvers (Tool Presentation)
 - Tomoya Tanjo, Naoyuki Tamura and Mutsunori Banbara.
Azucar: A SAT-based CSP solver using the compact order encoding (Tool Presentation)

- Bard Bloom, David Grove, Benjamin Herta, Vijay Saraswat, Ashish Sabharwal and Horst Samulowitz.
SatX10: A Scalable Plug&Play Parallel SAT Framework (Tool Presentation)
- [19.30-22.00] WELCOME PARTY

MONDAY 18

- [09.00-11.00] APPLICATIONS
 - Vijay Ganesh, Charles W. O'Donnell, Armando Solar-Lezama, Srinivasa Devadas, Mate Soos and Martin Rinard.
Lynx: A Programmatic SAT Solver for the RNA-folding Problem
 - Nikolaj Björner and Krystof Hoder.
Generalized Property Directed Reachability
 - Stefano Ermon, Ronan Le Bras, Carla Gomes and Bart Selman.
SMT-Aided Combinatorial Material Discovery
 - Jian Zhang, Feifei Ma and Zhiqiang Zhang.
Faulty Interaction Identification via Constraint Solving and Optimization
- [11.00-11.30] COFFEE BREAK
- [11.30-13.00] PARALLEL & PORTFOLIO SAT SOLVING
 - Gilles Audemard, Benoît Hoessen, Said Jabbour, Jean-Marie Lagniez and Cédric Piette.
Revisiting Clause Exchange in Parallel SAT Solving
 - Antti Hyvärinen and Norbert Manthey.
Designing Scalable Parallel SAT Solvers
 - Lin Xu, Frank Hutter, Holger Hoos and Kevin Leyton-Brown.
Evaluating Component Solver Contributions in Portfolio-based Algorithm Selectors
- [13.00-14.30] LUNCH BREAK
- [14.30-15.30] CDCL SAT SOLVING
 - Alexander Nadel and Vadim Ryvchin.
Efficient SAT Solving under Assumptions
 - Alexander Nadel, Vadim Ryvchin and Ofer Strichman.
Preprocessing in Incremental SAT
- [15.30-16.30] POSTERS & DEMOS
 - Ashutosh Gupta.
Improved Single Pass Algorithms for Resolution Proof Reduction (Poster Presentation)
 - Sebastian Burg, Stephan Kottler and Michael Kaufmann.
Creating Industrial-Like SAT Instances by clustering and reconstruction (Poster Presentation)
 - Paolo Marin, Christian Miller and Bernd Becker.
Incremental QBF Preprocessing for Partial Design Verification (Poster Presentation)
 - Peter van der Tak, Marijn Heule and Armin Biere.
Concurrent Cube-and-Conquer (Poster Presentation)
 - Chu Min Li and Yu Li.
Satisfying versus falsifying in local search for satisfiability (Poster Presentation)
 - Chu-Min Li, Wanxia Wei and Yu Li.
Exploiting historical relationships of clauses and variables in local search for satisfiability (Poster Presentation)
 - Alejandro Arbelaez and Philippe Codognet.
Towards Massively Parallel Local Search for SAT (Poster Presentation)

- Markus Iser, Mana Taghdiri and Carsten Sinz.
Optimizing MiniSAT Variable Orderings for the Relational Model Finder Kodkod (Poster presentation)
- Mark Liffiton and Jordyn Maglalang.
A Cardinality Solver: More Expressive Constraints for Free (Poster Presentation)
- Sam Bayless and Alan Hu.
Single-Solver Algorithms for 2QBF (Poster Presentation)
- Emir Demirović and Haris Gavranović.
An Efficient Method for Solving UNSAT 3-SAT and Similar Instances Via Static Decomposition (Poster Presentation)
- Said Jabbour, Jerry Lonlac and Lakhdar Sais.
Intensification Search in Modern SAT Solvers (Poster Presentation)
- Iago Abal, Alcino Cunha, Joe Hurd and Jorge Sousa Pinto.
Using Term Rewriting to Solve Bit-Vector Arithmetic Problems (Poster Presentation)
- George Katsirelos and Laurent Simon.
Learning Polynomials over $GF(2)$ in a SAT Solver (Poster Presentation)
- Ashish Sabharwal, Horst Samulowitz and Meinolf Sellmann.
Learning Back-Clauses in SAT (Poster Presentation)
- Arie Matsliah, Ashish Sabharwal and Horst Samulowitz.
Augmenting Clause Learning with Implied Literals (Poster Presentation)
- [16.30-17.00] COFFEE BREAK
- [17.00-19.00] PRESENTATION OF COMPETITIONS
 - Josep Argelich, Chu Min Li, Felip Manyà, Jordi Planes.
Max-SAT 2012 -- Seventh Max-SAT Evaluation
 - Vasco Manquinho, Olivier Roussel.
PB12 -- Pseudo-Boolean Competition 2012.
 - Massimo Narizzano.
QBF EVAL '12 -- QBF competition 2012.
 - Adrian Balint, Anton Belov, Matti Jarvisalo, Carsten Sinz.
SAT Challenge 2012

TUESDAY 19

- [09.00-10.00] REGISTRATION
- [10.00-10.15] Welcome, presentation of the speaker
- [10.15-11.15] INVITED TALK
 - Donald Knuth.
Satisfiability and The Art of Computer Programming
- [11.15-11.45] INTERVAL
- [11.45-12.45] QUESTION-ANSWERING WITH DONALD KNUTH
- [12.45-13.45] LUNCH BREAK
- [13.45-22.00] EXCURSION AND CONFERENCE DINNER

WEDNESDAY 20

- [09.00-11.00] MAXSAT, MUSES & INTERPOLANTS
 - Oliver Kullmann and Xishun Zhao.
On Davis-Putnam reductions for minimally unsatisfiable clause-sets

- Antonio Morgado, Federico Heras and Joao Marques-Silva.
Improvements to Core-Guided Binary Search for MaxSAT
- Anton Belov, Alexander Ivrii, Joao Marques-Silva and Arie Matsliah.
On Efficient Computation of Variable MUSes
- Georg Weissenbacher.
Interpolant Strength Revisited
- [11.00-11.30] COFFEE BREAK
- [11.30-13.00] COMPLEXITY
 - Dimitris Achlioptas and Ricardo Menchaca-Mendez.
Exponential Lower Bounds for DPLL Algorithms on Satisfiable Random 3-CNF Formulas
 - Nadia Creignou and Heribert Vollmer.
Parameterized Complexity of Weighted Satisfiability Problems
 - Anders Yeo, Venkatesh Raman, Gregory Gutin, Robert Crowston, Mark Jones and Saket Saurabh.
Fixed-parameter tractability of satisfying beyond the number of variables
- [13.00-14.30] LUNCH BREAK
- [14.30-16.30] CIRCUITS & ENCODINGS
 - Matti Järvisalo, Petteri Kaski, Mikko Koivisto and Janne Korhonen.
Finding Efficient Circuits for Ensemble Computation
 - Tero Laitinen, Tommi Junttila and Ilkka Niemelä.
Conflict-Driven XOR-Clause Learning
 - Yael Ben-Haim, Alexander Ivrii, Oded Margalit and Arie Matsliah.
Perfect Hashing and CNF Encodings of Cardinality Constraints
 - Carlos Ansótegui, Jesús Giráldez and Jordi Levy.
The Community Structure of SAT Formulas
- [16.30-17.00] COFFEE BREAK
- [17.00-18.30] BUSINESS MEETING & CLOSING