

Friday, August 5

Session 12: Invited Talk (09:00–10:00)

09:00 *The Anatomy of Equinox — An Extensible Automated Reasoning Tool for First-Order Logic and Beyond*
Koen Claessen

Coffee Break (10:00–10:30)

Session 13: Description Logics II (10:30–12:00)

10:30 *Reasoning in the OWL 2 Full Ontology Language using First-Order Automated Theorem Proving*
Michael Schneider and Geoff Sutcliffe

11:00 *Optimized Query Rewriting in OWL 2 QL*
Alexandros Chortaras, Despoina Trivela and Giorgos Stamou

11:30 *Automated Reasoning in ALCQ via SMT*
Volker Haarslev, Roberto Sebastiani and Michele Vescovi

Lunch (12:00–13:30)

Session 14: Theorem Proving II (13:30–15:30)

13:30 *Blocked Clause Elimination for QBF*
Armin Biere, Florian Lonsing and Martina Seidl

14:00 *Sort it Out with Monotonicity: Translating between Many-Sorted and Unsorted First-Order Logic*
Koen Claessen, Ann Lillieström and Nicholas Smallbone

14:30 *Compression of Propositional Resolution Proofs via Partial Regularization*
Pascal Fontaine, Stephan Merz and Bruno Woltzenlogel Paleo

15:00 *A Connection-Based Characterization of Bi-intuitionistic Validity*
Didier Galmiche and Daniel Méry

Coffee Break (15:30–16:00)

Session 15: Linear Arithmetic (16:00–17:00)

16:00 *Cutting to the Chase: Solving Linear Integer Arithmetic*
Dejan Jovanović and Leonardo de Moura

16:30 *Solving Systems of Linear Inequalities by Bound Propagation*
Konstantin Korovin and Andrei Voronkov

Session 16: CASC (17:00–18:00)

17:00 *Presentation of CASC results*
Geoff Sutcliffe + Winners

End of Conference (18:00–18:05)

18:00 Hans de Nivelte (*Conference Chair*)

The logo for the 23rd International Conference on Automated Deduction (CADE 23). It features the acronym 'CADE' in a stylized white font and the number '23' in a bold yellow font, both set against a dark blue background.

The 23rd International Conference
on Automated Deduction
Scientific Programme

Wrocław, Poland, 2–5 August 2011

Institute of Computer Science
University of Wrocław
Wybrzeże Joliot-Curie 15
Wrocław, Poland

Great Eastern Lecture Hall (Room 25)

Tuesday, August 2

Welcome (08:55–09:00)

08:55 Hans de Nivelle (*Conference Chair*)

Session 1: Invited Talk (09:00–10:00)

09:00 *Proving that systems eventually do something good*
Byron Cook

Coffee Break (10:00–10:30)

Session 2: Verification I (10:30–12:00)

10:30 *Heaps and Data Structures: A Challenge for Automated Provers*
Sascha Böhme and Michał Moskal

11:00 *Automated Cyclic Entailment Proofs in Separation Logic*
James Brotherston, Dino Distefano and Rasmus Lerchedahl Petersen

11:30 *An Efficient Decision Procedure for Imperative Tree Data Structures*
Thomas Wies, Marco Muñoz and Viktor Kuncak

Lunch (12:00–13:30)

Session 3: Theorem Proving I (13:30–15:15)

13:30 *Predicate Completion for Non-Horn Clause Sets*
Matthias Horbach

14:00 *Sine Qua Non for Large Theory Reasoning*
Krystof Hoder and Andrei Voronkov

14:30 *Experimenting with Deduction Modulo*
Guillaume Burel

15:00 *System Description: SPASS-FD*
Matthias Horbach

Coffee Break (15:15–15:45)

Session 4: Rewriting and Termination (15:45–17:45)

15:45 *A Dependency Pair Framework for Innermost Complexity Analysis of Term Rewrite Systems*
Lars Noschinski, Fabian Emmes and Jürgen Giesl

16:15 *Backward Trace Slicing for Rewriting Logic Theories*
María Alpuente, Demis Ballis, Javier Espert and Daniel Romero

16:45 *On Transfinite Knuth-Bendix Orders*
Laura Kovács, Georg Moser and Andrei Voronkov

17:15 *CSI — A Confluence Tool*
Harald Zankl, Bertram Felgenhauer and Aart Middeldorp

17:30 *AC Completion with Termination Tools*
Sarah Winkler and Aart Middeldorp

Break (17:45–18:15)

17:45 *Walk to Oratorium Marianum*

Herbrand Award Ceremony and Reception (18:15–21:00 in Oratorium Marianum)

- *Presentation of the Herbrand Award to Nachum Dershowitz*
Franz Baader (*President of CADE Inc.*)
- *Speech by Herbrand Award Winner*
Nachum Dershowitz
- *Reception and Access to University Museum*

Wednesday, August 3

Session 5: Invited Talk (09:00–10:00)

09:00 *Verified Compilers, Verified Static Analyzers, and Certified Decision Procedures*
Xavier Leroy

Coffee Break (10:00–10:30)

(with start of CASC at 10:15 in room 119)

Session 6: Higher-Order Theorem Proving (10:30–11:15)

10:30 *Reducing Higher-Order Theorem Proving to a Sequence of SAT Problems*
Chad E. Brown

11:00 *The Matita Interactive Theorem Prover*
Andrea Asperti, Wilmer Ricciotti, Claudio Sacerdoti Coen and Enrico Tassi

Session 7: Verification II (11:15–12:00)

11:15 *Stochastic Differential Dynamic Logic for Stochastic Hybrid Programs*
André Platzer

11:45 *Static Analysis of Android Programs*
Étienne Payet and Fausto Spoto

Lunch (12:00–13:30)

Session 8: SMT and Applications (13:30–15:30)

13:30 *Extending Sledgehammer with SMT Solvers*
Jasmin Christian Blanchette, Sascha Böhme and Lawrence C. Paulson

14:00 *Exploiting symmetry in SMT problems*
David Déharbe, Pascal Fontaine, Stephan Merz and Bruno Woltzenlogel Paleo

14:30 *Model Evolution with Equality Modulo Built-in Theories*
Peter Baumgartner and Cesare Tinelli

15:00 *Scala to the Power of Z3: Integrating SMT and Programming*

Ali Sinan Köksal, Viktor Kuncak and Philippe Suter

15:15 *ASASP: Automated Symbolic Analysis of Administrative Policies*

Francesco Alberti, Alessandro Armando and Silvio Ranise

Coffee Break (15:30–16:00)

Session 9: Security (16:00–17:30)

16:00 *Deciding security for protocols with recursive tests*
Mathilde Arnaud, Véronique Cortier and Stéphanie Delaune

16:30 *Dynamic Behavior Matching: A Complexity Analysis and New Approximation Algorithms*
Matthew Fredrikson, Mihai Christodorescu and Somesh Jha

17:00 *Efficient General Unification for XOR with Homomorphism*
Zhiqiang Liu and Christopher Lynch

In Memoriam Bill McCune (17:30–18:00)

Business Meeting (18:00–19:00)

18:00 Franz Baader (*President of CADE Inc.*)

Thursday, August 4

Session 10: Invited Talk (09:00–10:00)

09:00 *Translating between Language and Logic: What Is Easy and What Is Difficult*
Aarne Ranta

Coffee Break (10:00–10:30)

Session 11: Description Logics I (10:30–11:30)

10:30 *Unification in the Description Logic \mathcal{EL} without the Top Concept*

Franz Baader, Nguyen Thanh Binh, Stefan Borgwardt and Barbara Morawska

11:00 *A Hybrid Method for Probabilistic Satisfiability*
Pavel Klinov and Bijan Parsia

Lunch (11:30–12:30)

Excursion to Książ Castle (12:30–19:00)

Conference Banquet (19:30–24:00)

19:30 *Barbecue in Botanical Garden*