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 Waltzenlogel 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 Nivelle (Conference Chair)

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 Muñiz 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 Noshinski, Fabian Emmes and Jürgen Giesl

16:15 *Backward Trace Slicing for Rewriting Logic Theories*  
Maria 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*
- *Speech by Herbrand Award Winner*
- *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)**

(10:15 start of CASC 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

**Lunch (12:00–13:30)**

**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

**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 Woltenologel Paleo

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

**Break (17:45–18:15)**

17:45 *Walk to 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**

**Thursday, August 4**

**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 Cristodorescu 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.)

**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 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)**

**Session 12: Description Logics II (13:30–15:30)**

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Laura Kovács, Georg Moser and Andrei Voronkov

15:00 *CSI — A Confluence Tool*  
Harald Zankl, Bertram Felgenhauer and Aart Middeldorp

15:30 *AC Completion with Termination Tools*  
Sarah Winkler and Aart Middeldorp

16:00 *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 11: Security (16:00–17:30)**

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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*