Here we will provide further explanations.

Saturday, August 1

09:00-10:30  Workshops and Tutorials, Block 1
Workshop Bridging  (room: T9/006)
Workshop LFMTP  (room: T9/005)
Workshop LOCAS  (room: T9/049)
Tutorial Isabelle  (room: T9/053)
Tutorial Superposition  (room: T9/046)

10:30-11:00  Coffee break

11:00-12:30  Workshops and Tutorials, Block 2
Workshop Bridging  (room: T9/006)
Workshop LFMTP  (room: T9/005)
Workshop LOCAS  (room: T9/049)
Tutorial Isabelle  (room: T9/053)
Tutorial Superposition  (room: T9/046)

12:30-14:00  Lunch break

14:00-15:30  Workshops and Tutorials, Block 3
Workshop Bridging  (room: T9/006)
Workshop LFMTP  (room: T9/005)
Workshop LOCAS  (room: T9/049)
Tutorial Isabelle  (room: T9/053)
Tutorial Superposition  (room: T9/046)

15:30-16:00  Coffee break

16:00-17:30  Workshops and Tutorials, Block 4
Workshop Bridging  (room: T9/006)
Workshop LFMTP  (room: T9/005)
Workshop LOCAS  (room: T9/049)
Tutorial Isabelle  (room: T9/053)
Tutorial Superposition  (room: T9/046)
Sunday, August 2

09:00-10:30  Workshops and Tutorials, Block 5
Workshop IWC  (room: T9/006)
Workshop PxTP  (room: T9/049)
Workshop Vampire  (room: T9/046)
Workshop Deduktionstreffen  (room: A6/032)
Tutorial Abella  (room: T9/053)

10:30-11:00  Coffee break

11:00-12:30  Workshops and Tutorials, Block 6
Workshop IWC  (room: T9/006)
Workshop PxTP  (room: T9/049)
Workshop Vampire  (room: T9/046)
Workshop Deduktionstreffen  (room: A6/032)
Tutorial Abella  (room: T9/053)

12:30-14:00  Lunch break

14:00-15:30  Workshops and Tutorials, Block 7
Workshop IWC  (room: T9/006)
Workshop PxTP  (room: T9/049)
Workshop Vampire  (room: T9/046)
Workshop HOL4  (room: T9/005)
Workshop Deduktionstreffen  (room: A6/032)
Tutorial Beluga  (room: T9/053)

15:30-16:00  Coffee break

16:00-17:30  Workshops and Tutorials, Block 8
Workshop IWC  (room: T9/006)
Workshop PxTP  (room: T9/049)
Workshop Vampire  (room: T9/046)
Workshop HOL4  (room: T9/005)
Workshop Deduktionstreffen  (room: A6/032)
Tutorial Beluga  (room: T9/053)

18:30-21:00  CADE-25 Squash Tournament

Monday, August 3

09:00-10:30  Workshops and Tutorials, Block 9
Workshop HOL4  (room: T9/053)
Workshop PxTP  (room: T9/049)
Workshop QUANTIFY  (room: T9/005)
Workshop Deduktionstreffen  (room: A6/032)
Tutorial CPROVER  (room: T9/046)
Tutorial KeY  (room: T9/051)
Tutorial Lean  (room: T9/006)

10:30-11:00  Coffee break

11:00-12:30  Workshops and Tutorials, Block 10
Workshop HOL4  (room: T9/053)
Workshop PxTP  (room: T9/049)
Workshop QUANTIFY  (room: T9/005)
Workshop Deduktionstreffen  (room: A6/032)
Tutorial CPROVER  (room: T9/046)
Tutorial KeY  (room: T9/051)
Tutorial Lean  (room: T9/006)

12:30-14:00  Lunch break

14:00-15:30  Special Session Invited Talks: Past, Present and Future of Automated Deduction (chair: A. Middeldorp)
David Plaisted: History and Prospects for First-Order Automated Deduction  (45min)
Andrei Voronkov: tba  (45min)

15:30-16:00  Coffee break

16:00-17:30  Special Session Invited Talks: Past, Present and Future of Automated Deduction  (chair: Amy Felty)
Tuesday, August 4

09:00-10:00  **ECCAI Invited talk**  
**Ulrich Furbach**: Automated Reasoning in the Wild  
(*chair: Christoph Benzmüller*)

10:15  **Start of CASC-25**  
(*room: T9/055 and Foyer*)

10:30-12:30  **Session 1: Rewriting**  
**Sakai/Oyamaguchi/Ogawa**: Non-E-Overlapping, Weakly Shallow, and Non-Collapsing TRSs are Confluent  
(30min)  
**Shintani/Hirokawa**: CoLL: A Confluence Tool for Left-Linear Term Rewrite Systems  
(15min)  
**Jacquemard/Kojima/Sakai**: Term Rewriting with Prefix Context Constraints and Bottom-Up Strategies  
(30min)  
**Sato/Winkler**: Encoding Dependency Pair Techniques and Control Strategies for Maximal Completion  
(15min)  
**Iborra/Nishida/Vidal/Yamada**: Reducing Relative Termination to Dependency Pair Problems  
(30min)

12:30-14:00  **Lunch break**

14:00-15:30  **Session 2: Decision Procedures**  
**Passmore**: Decidability of Univariate Real Algebra with Predicates for Rational and Integer Powers  
(30min)  
**Reynolds/Blanchette**: A Decision Procedure for (Co)datatypes in SMT Solvers  
(30min)  
**David**: Deciding ATL* Satisfiability by Tableaux  
(30min)

15:30-16:00  **Coffee break**

16:00-17:00  **RuleML/CADE Invited talk**  
**Michael Genesereth**: The Herbrand Manifesto - Thinking Inside the Box  
(*chair: tba*)

17:00-17:15  **Short break**

17:15-18:45  **CADE-25 Awards Session**  
**Opening**  
(Bonacina, 5min)  
**Skolem Awards**  
(Kirchner or Bonacina, 10min)  
**Best Paper Award**  
(Felty, 5min)  
**Woody Bledsoe Awards**  
(Benzmüller, 5min)  
**Presentation of Herbrand Award to Andrei Voronkov**  
(Bonacina, 5min)  
**Herbrand Award Acceptance Speech**  
(*chair: Konstantin Korovin, Laura Kovács*)  
**Andrei Voronkov**: tba  
(45min)

Wednesday, August 5

09:00-10:30  **Session 3: Interactive/Automated Theorem Proving and Applications**  
**Paulson**: A Formalisation of Finite Automata using Hereditarily Finite Sets  
(30min)  
**Gransden/Walkinshaw/Raman**: SEPIA: Search for Proofs using Inferred Automata  
(15min)  
**Marić/Janičić/Maliković**: Proving Correctness of a KRK Chess Endgame Strategy by using Isabelle/HOL and Z3  
(30min)  
**Pientka/Cave**: Inductive Beluga: Programming Proofs  
(15min)

10:30-11:00  **Coffee break**

11:00-12:30  **Session 4: New Techniques for Automating and Sharing Proofs**  
**Ji**: CTL Model Checking in Deduction Modulo  
(15min)  
**Echenim/Peltier/Tourret**: Quantifier-Free Equational Logic and Prime Implicate Generation  
(30min)  
**Kissinger/Zamdzhiev**: Quantomatic: A Proof Assistant for Diagrammatic Reasoning  
(15min)

12:30-18:00  **Excursion**
19:30-23:00 Dinner (joint with RuleML): Restaurant Fischerhütte at Schlachtensee
Jörg Siekmann: Dinner Speech

Thursday, August 6

09:00-10:00 Invited talk (chair: Geoff Sutcliffe)
Edward Zalta: Automating Leibniz’s Theory of Concepts

10:00-10:30 Coffee break

10:30-12:30 Session 5: Automating First-Order Logic (chair: Jasmin Blanchette)
Reger/Tishkovsky/Voronkov: Cooperating Proof Attempts (30min)
Woltzenlogel-Paleo/Gorzny: Towards the Compression of First-Order Resolution Proofs by Lowering Unit Clauses (15min)
Baumgartner/Bax/Waldmann: Beagle - A Hierarchic Superposition Theorem Prover (15min)
de Moura/Kong/Avigad/van Doorn/van Raumer: The Lean Theorem Prover (15min)
Kaliszyk/Schulz/Urban/Vyskočil: System Description: E.T. 0.1 (15min)
Reger/Suda/Voronkov: Playing with AVATAR (30min)

12:30-14:00 Lunch break

14:00-15:30 Session 6: Combinations (chair: Alwen Tiu)
Chocron/Fontaine/Ringeissen: A Polite Non-Disjoint Combination Method: Theories with Bridging Functions Revisited (30min)
Saghafi/Danas/Dougherty: Exploring Theories with a Model-Finding Assistant (30min)
D’Silva/Urban: Abstract Interpretation as Automated Deduction (30min)

15:30-16:00 Coffee break

16:00-17:00 Session 7: Hybrid Systems and Program Synthesis (chair: Reiner Hähnle)
Platzer: A Uniform Substitution Calculus for Differential Dynamic Logic (30min)
Tiwari/Gascón/Dutertre: Program Synthesis using Dual Interpretation (30min)

17:00-18:00 CADE Business Meeting

Friday, August 7

09:00-10:30 Session 8: Logics and Systems for Program Verification (chair: Renate Schmidt)
Hou/Goré/Tiu: Automated Theorem Proving for Assertions in Separation Logic with all Connectives (30min)
Din/Bubel/Hähnle: KeY-ABS: A Deductive Verification Tool for the Concurrent Modelling Language ABS (15min)
Fulton/Mitsch/Quesel/Völpp/Platzer: KeYmaera X: An Axiomatic Tactical Theorem Prover for Hybrid Systems (15min)
Balbiani/Boudou: Tableaux Methods for Propositional Dynamic Logics with Separating Parallel Composition (30min)

10:30-11:00 Coffee break

11:00-11:30 Presentation of Competition Results (chair: Aart Middeldorp)

11:30-12:30 Session 9: Unification (chair: Stephan Schulz)
Libal: Regular Patterns in Second-order Unification (30min)
Backeman/Rümmer: Theorem Proving with Bounded Rigid $E$-Unification (30min)

12:30-14:00 Lunch break

14:00-15:30 Session 10: SAT/SMT (chair: Andrew Reynolds)
Heule/Hunt/Wetzler: Expressing Symmetry Breaking in DRAT Proofs (30min)
Zulkoski/Ganesh/Czarnecki: MathCheck: A Math Assistant based on a Combination of Computer Algebra Systems and SAT Solvers (30min)
Bromberger/Sturm/Weidenbach: Linear Integer Arithmetic Revisited (30min)

15:30-16:00 End of CADE-25