

Sunday July 17:

3:00 pm - 7:00 pm - Arrive and settle in your rooms

6:00 pm - 7:30 pm - self-service buffet

Monday July 18: (NeuroSymbolic AI Day)

7:30 am - 8:45 am - Breakfast in the restaurant

9:00 am - 9:05 am - Welcome and seminar overview (Vijay Ganesh)

9:05 am - 10:05 am - NeuroSymbolic AI: The 3rd Wave (Artur d'Avila Garcez)

10:05 am - 10:30 am - Coffee

10:30 am - 11:00 am - Two birds with one stone? Successes and lessons in building
Neuro-Symbolic systems (Xujie Si)

11:00 am - 12:00 pm - Empower Deep Networks with Combinatorial Algorithms (Georg Martius)

12:00 pm - 12:15 pm - Short break

12:15 pm - 2:00 pm - Lunch

2:00 pm - 2:30 pm - CombOptNet: Fit the Right NP-Hard Problem
by Learning Integer Programming Constraints (Anselm Paulus)

2:30 pm - 3:00 pm - Learning Modulo Theories (Matt Fredrikson)

3:00 pm - 3:30 pm - Coffee

3:30 pm - 4:30 pm - Panel on NeuroSymbolic AI
(Artur d'Avila Garcez, Georg Martius, Matt Fredrikson) (Moderator: Xujie Si)

4:30 pm - 6:00 pm - Rest

6:00 pm - 7:30 pm - Dinner

Tuesday July 19: (ML for Logic Day)

7:30 am - 8:45 am - Breakfast in the restaurant

9:00 am - 10:00 am - Tutorial on ML for Solvers (Chuxiao Li)

10:00 am - 10:30 am - Machine Learning for Instance Selection in SMT Solving (Pascal Fontaine)

10:30 am - 11:00 am - Coffee

11:00 am - 11:30 am - CrystalBall: Gazing into the Future of SAT Solving (Kuldeep Meel)

11:30 am - 12:00 pm - The importance of memory for mathematical reasoning (Markus Rabe)

12:00 pm - 12:15 pm - Short break

12:15 pm - 2:00 pm - Lunch

2:00 pm - 2:30 pm - AlphaZero from Games to Mathematics (Alhussein Fawzi)

2:30 pm - 3:00 pm - PL vs. AI: The Case for Automated Code Deobfuscation (Sebastien Bardin)

3:00 pm - 3:30 pm - Coffee

3:30 pm - 4:00 pm - Machine Learning Algorithm Selection for Logic Solvers (Joseph Scott)

4:00 pm - 5:00 pm - Rest

5:00 pm - 6:00 pm - Panel on ML for solvers and theorem provers
(Markus Rabe, Kuldeep Meel, Alhussein Fawzi, Pascal Fontaine)
(Moderator: Sebastien Bardin)

6:00 pm - 7:30 pm - Dinner

Wednesday July 20: (Testing, Analysis, Verification of ML Systems - Day 1) (half day)

7:30 am - 8:45 am - Breakfast in the restaurant

9:00 am - 10:00 am - Tutorial on Temporal Logic for RL (Rajeev Alur)

10:00 am - 10:30 am - Safety Assurance, ML, and Logic - Some Lessons Learned
(Chih-Hong Cheng)

10:30 am - 11:00 am - Coffee

11:00 am - 12:00 pm - Perspectives on NeuroSymbolic AI (Luis C. Lamb) (remote talk)

12:00 pm - 12:15 pm - Short break

12:15 pm - 2:00 pm - Lunch

2:00 pm - 2:30 pm - The Foundations of Deep Learning Verification (Matthew Mirman)

2:30 pm - 3:00 pm - Data Usage across the Machine Learning Pipeline (Caterina Urban)

3:15 pm - 6:00 pm - trip (Trier - connect with Dagstuhl main office for details)

6:00 pm - 7:30 pm - Dinner

Thursday July 21: (Testing, Analysis, Verification, Security of ML Systems - Day 2)

7:30 am - 8:45 am - Breakfast in the restaurant

9:00 am - 10:00 am - Perspectives on Verified AI (Sanjit Seshia) (remote talk)

10:00 am - 10:30 am - There is Plenty of Room at the Bottom : Verification (and Repair) of
Small-scale Learning Models (Armando Tacchella)

10:30 am - 11:00 am - Coffee

11:00 am - 11:30 am - Automated Program Analysis: Revisiting Precondition Inference through
Constraint Acquisition (Grégoire Menguy)

11:30 am - 12:00 pm - Verification of DNN Controllers (Rajeev Alur)

12:00 pm - 12:15 pm - Short break

12:15 pm - 2:00 pm - Lunch

2:00 pm - 2:30 pm - The Necessity of Run-time Techniques for Safe ML (Ravi Mangal)

2:30 pm - 3:00 pm - Inductive Proofs for Probabilistic Verification and Opportunities in ML
(Sebastian Junges)

3:00 pm - 3:30 pm - Coffee

3:30 pm - 4:00 pm - CGDTest: Constraint-based Gradient Descent Fuzzer for DNNs (Vineel Nagisetty)

4:00 pm - 4:30 pm - Logic for Adversarial ML (Marc Fischer)

4:00 pm - 6:00 pm - Rest

6:00 pm - 7:30 pm - Dinner

Friday July 22: (Synthesis and ML Day)

7:30 am - 8:45 am - Breakfast in the restaurant

9:00 am - 10:00 am - Functional Synthesis via Combination of Learning and Reasoning (Kuldeep Meel)

10:00 am - 10:30 am - Synthesizing Pareto-Optimal Interpretations for Black-box Models (Hazem Torfah)

10:30 am - 11:00 am - Coffee

11:00 am - 12:00 pm - Panel on Testing, Analysis, Verification, Security, and Synthesis of AI
(Kuldeep Meel, Armando Tacchella, Rajeev Alur, Matt Frederikson)
(Moderator: Hazem Torfah)

12:00 pm - 12:15 pm - Short break

12:15 pm - 2:00 pm - Lunch

2:00 pm - Ta Ta, Bye Bye!!!