

**Thursday, 11<sup>th</sup> January – morning** (Chair: David Pym)

9:30–10:30

9:30 - 9:45 Nathanaël Fijalkow

*Introduction*

9:45 - 10:30 Martin Grohe (Aachen)

*Learning Logically Defined Hypotheses*

10:30–11:00 Coffee break

11:00–12:30

11:00 - 11:45 Borja Balle (Amazon Cambridge)

*Learning Automata with Hankel Matrices*

11:45 - 12:30 Edward Grefenstette (DeepMind)

*Recurrent Neural Networks and Models of Computation*

12:30–14:00 Lunch

**Thursday, 11<sup>th</sup> January – afternoon** (Chair: Andrew Blake)

14:00–15:30

14:00 - 14:45 Luc De Raedt (Leuven)

*Probabilistic logic learning*

14:45 - 15:30 Aditya Nori (Microsoft Cambridge)

*Fairness and robustness in machine learning – a formal methods perspective*

15:30–16:00 Coffee break

16:00–16:45

16:00 - 16:45 Jane Hilston (Edinburgh)

*Integrating Inference with Stochastic Process Algebra Models*

**Friday, 12<sup>th</sup> January – morning** (Chair: Nathanaël Fijalkow)

9:00–10:30

9:00 - 9:45 Jan Křetínský (Technical University of Munich)

*Fast learning of small strategies*

9:45 - 10:30 Alessandro Abate (Oxford and Turing)

*Formal verification and learning of complex systems*

10:30–11:00 Coffee break

11:00–12:30

11:00 - 11:45 Joost-Pieter Katoen (Aachen)

*Bayesian Inference by Program Verification*

11:45 - 12:30 Sam Staton (Oxford)

*Denotational validation of higher-order Bayesian inference*

12:30–14:00 Lunch

**Friday, 12<sup>th</sup> January – afternoon** (Chair: Stephen H. Muggleton)

14:00–15:30

14:00 - 14:45 Richard Evans (DeepMind)

*Learning Explanatory Rules from Noisy Data*

14:45 - 15:30 Tim Rocktäschel (Oxford)

*End-to-End Differentiable Proving*

15:30–16:00 Coffee break

16:00–17:00 FINAL REMARKS AND PERSPECTIVES

16:00 - 16:30 Prakash Panangaden (McGill)

16:30 - 17:00 Marta Kwiatkowska (Oxford)