Michael Rawson

Academic Publications

M (+44) 07570804529
E michael@rawsons.uk
W rawsons.uk/michael

5th April 1996

Brief

I am a doctoral student in Computer Science working on adding machine-learned guidance to automatic theorem provers. More generally I am interested in formal methods and adapting AI techniques in support of these methods.

Education

BA Computer Science, *University of Cambridge*, 2.i. **2014–2017**

PhD Computer Science, *University of Manchester*. **2017–**

Publications and talks

[1] Michael Rawson, Dominic Mulligan, and Victor Gomes. Verified metatheory and type inference for a name-carrying simply-typed λ-calculus. *Archive of Formal Proofs*, July 2017. `http://isa-afp.org/entries/Name_Carrying_Type_Inference.html`.

[2] Michael Rawson and Giles Reger. Designing a proof calculus for the application of learned search heuristics. In *Proceedings of the 25th Automated Reasoning Workshop*, pages 42–43, 2018.

[3] Michael Rawson and Giles Reger. Dynamic strategy priority: Empower the strong and abandon the weak. In *6th Workshop on Practical Aspects of Automated Reasoning (PAAR)*, pages 58–71, 2018.

[4] Michael Rawson and Giles Reger. Testing ATP folklore: a statistical analysis of Vampire proofs. Vampire Workshop, 2018.

[5] Michael Rawson and Giles Reger. Towards an efficient architecture for intelligent theorem provers. In *Fourth Conference on Artificial Intelligence and Theorem Proving*, pages 59–60, 2019.

[6] Michael Rawson and Giles Reger. Reinforcement-learned input for saturation provers. In *Proceedings of the 26th Automated Reasoning Workshop*, pages 13–14, 2019.

[7] Michael Rawson and Giles Reger. A neurally-guided, parallel theorem prover. In *International Symposium on Frontiers of Combining Systems*, pages 40–56. Springer, 2019.

[8] Michael Rawson and Giles Reger. Old or heavy? Decaying gracefully with age/weight shapes. In *International Conference on Automated Deduction*, pages 462–476. Springer, 2019.

[9] Michael Rawson and Giles Reger. Directed graph networks for logical entailment. EasyChair Preprint no. 2185, EasyChair, 2020.