I am looking for PhD applicants in the following areas:

- Automated theorem proving: equational reasoning, ATP, SAT, SMT. Theory, implementation and applications.
- **2** Verification of hardware and software: bounded/unbounded model checking.
- 3 Optimization and Verification of systems represented using neural networks and machine learning models. Collaboration with Intel or real-life problems.
- 4 Non-linear constraint solving with trigonometric functions.
- 5 Neuro-symbolic reasoning. Machine learning guidance for theorem proving using reinforcement learning, graph neural networks, transformers.



For more details please email: konstantin.korovin@manchester.ac.uk