

ICSE 2025 Program

Sun 27 Apr

Displayed time zone: **Eastern Time (US & Canada)**

09:00 - 10:30 Morning Session 1 at 202 **GI**
Chair(s): Aymeric Blot University of Rennes, IRISA / INRIA, **Justyna Petke** University College London

09:00 15m ☆ Welcome and Introductions
Day opening Aymeric Blot University of Rennes, IRISA / INRIA, Vesna Nowack Imperial College London, Oliver Krauss University of Applied Sciences Upper Austria, Penn Rainford University of York, UK

09:15 75m ☆ Put on Your Tester Hat: Improving programs for Automated Program Generation
Keynote Shin Hwei Tan Concordia University

11:00 - 12:30 Morning Session 2 at 202 **GI**
Chair(s): William Langdon University College London, **Vesna Nowack** Imperial College London

11:00 30m ☆ Large Language Model based Code Completion is an Effective Genetic Improvement Mutation
Talk Jingyuan Wang University College London, Carol Hanna University College London, Justyna Petke University College London

11:30 30m ☆ Enhancing Software Runtime with Reinforcement Learning-Driven Mutation Operator Selection in Genetic Improvement
Talk Damien Bose University College London, Carol Hanna University College London, Justyna Petke University College London

12:00 30m ☆ Empirical Comparison of Runtime Improvement Approaches: Genetic Improvement, Parameter Tuning, and Their Combination
Talk Thanatad Songpetchmongkol University College London, Aymeric Blot University of Rennes, IRISA / INRIA, Justyna Petke University College London

14:00 - 15:30 Afternoon Session 1 at 202 **GI**
Chair(s): Carol Hanna University College London, **Penn Rainford** University of York, UK

14:00 75m ☆ Automated Software Performance Improvement with Magpie
Tutorial Aymeric Blot University of Rennes, IRISA / INRIA

15:15 15m ☆ A Three-Stage Genetic Algorithm for Compiler Flag and Library Version Selection to Minimize Execution Time
Talk Chi Ho Chan Edinburgh Napier University, Spyro Nita EPCC, The University of Edinburgh

16:00 - 17:30 Afternoon Session 2 at 202 **GI**
Chair(s): Thanatad Songpetchmongkol University College London, **Oliver Krauss** University of Applied Sciences Upper Austria

16:00 30m ☆ The gem5 C++ glibc Heap Fitness Landscape
Talk William Langdon University College London, Bobby Bruce University of California at Davis, USA

16:30 30m ☆ LLM-Assisted Crossover in Genetic Improvement of Software
Talk Dimitrios Stamatios Bouras Peking University, Justyna Petke University College London, Sergey Mechtaev Peking University

17:00 25m ☆ Discussion
Meeting Aymeric Blot University of Rennes, IRISA / INRIA, Oliver Krauss University of Applied Sciences Upper Austria

17:25 5m ☆ Awards and Closing
Awards Aymeric Blot University of Rennes, IRISA / INRIA, Shin Hwei Tan Concordia University