Preface

This volume constitutes the proceedings of the *doctoral consortium of the 23rd International Conference on Principles of Knowledge Representation and Reasoning*. The doctoral consortium took place as part of the 23rd International Conference on Principles of Knowledge Representation and Reasoning (KR 2026) in Lisbon, Portugal, on July 20-23, 2026.

The Doctoral Consortium (DC) is a student mentoring program bringing together PhD students and senior researchers from the area of KR. The aims of the consortium are:

- to provide a forum for students to present their current research, and receive feedback from other students and senior researchers;
- to promote contacts among PhD students working in similar areas;
- to support students with information and advice on academic, research, and industrial careers.

The DC is primarily intended for PhD students who have a concrete research proposal and preliminary results, but still have sufficient time before completing their dissertations to benefit from the feedback and mentoring provided by the consortium. This year's Doctoral Consortium featured twelve selected PhD students presenting research proposals spanning a wide range of KR topics, including ontologies, non-monotonic reasoning, explainability, and knowledge bases. Each student was paired with a senior researcher acting as a mentor, providing individual feedback and engaging in discussions during and after the session. Notably, students whose submissions were not formally included in the proceedings were also able to participate in the consortium and receive valuable feedback from mentors.

All submissions in this volume received three reviews by members of the KR community, who provided valuable comments and feedback. The papers included in this volume are:

1. *ASP Encodings for the Multi Batching Problem in Logistics Networks*, Racquel Dennison
2. *Graphical representations of KLM-style defeasible justifications for propositional logic*, Jane Imrie
3. *Toward a Defeasible Semantics for Symbolic Classifiers*, Ruvarashe Madzime
4. *Integrating and Reasoning with Data-Induced Information: Knowledge Bases of Axioms and Learned Models*, Laura Papi
5. *Predictive Control of BDD Growth: Reinforcement Learning for Dynamic Variable Reordering*, Luke Slater

6. *Generalization in Reinforcement Learning from Logical Specifications*, Vignesh Subramanian
7. *A framework for Counterfactual Explainability in Graph Neural Networks*, Maria Myrto Villia
8. *Practical Methods for Concept Interpolation in Realistic Ontologies*, Xiaoshuang Yang

We sincerely thank all mentors and reviewers for their thoughtful feedback and dedication to supporting the next generation of KR researchers. We also thank the KR 2026 organizers and the Local Arrangement Chair for their help in making the Doctoral Consortium possible.

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