

# Preface

Changing information transversely affects nearly any task and process that we aim to formalize computationally. Consequently, making sense of how to change information is a central aspect and precursor for further advancements in many domains. Naturally, approaches to describe changes, to deal with change, and to conduct changes have been developed in very different areas of artificial intelligence. These approaches generally consider changing from different angles and highlight diverse aspects that sometimes complement each other. For instance, in database theory, a lot of work has been devoted to transactions as the main representation of change and the study of how that affects the computational complexity of querying such databases. On the other hand, researchers in belief change investigated the axiomatic and semantics of different kinds of changes in formal theories. Recent advancements in Machine Learning pose new and exciting challenges in formal approaches to change, which seem conceptually different from classical approaches to change.

This volume constitutes the informal proceedings of the first workshop on *Foundations and Future of Change in Artificial Intelligence* (FCAI 2025). The aim of this workshop is to bring together researchers from different areas of AI and beyond who work on change in their respective areas and see potential in bridging approaches or for radically advanced existing approaches to change to be combined with new ideas and perspectives. The workshop was held on October 25, 2025, in Bologna, Italy, jointly together with the 28th European Conference on Artificial Intelligence (ECAI 2025). The workshop was structured by one invited talk and presentation of the accepted papers. Each FCAI 2025 submission was reviewed by at least three programme committee members. The committee decided to accept five papers. We are grateful to Martin Grohe for enriching the program with a very inspiring and deep talk on *Measuring Change and Similarity of Graphs*. The organizers of this workshop would like to thank the organizers of the ECAI 2025 conference in Bologna for their excellent support.

We thank the programme committee members for their help in selecting and improving the submitted papers and all workshop participants for their contributions. We also would like to thank the MCIN/AEI (CHIST-ERA) iTrust project PCI2022-135010-2, which supported this workshop. We hope that new inspirations and collaborations between the contributing disciplines will emerge from this workshop.

*FCAI 2025 Programme Chairs*

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