

Preface

Since 1974, the European Conference on Artificial Intelligence (ECAI) has become the premier venue for presenting AI research in Europe. The conference provides an opportunity for researchers and practitioners to gather and discuss the latest trends and challenges across all subfields of Artificial Intelligence (AI), as well as to showcase innovative applications and advances in AI technology. Originally organised as a biennial event, ECAI is now held annually, and every four years it is co-organised with the International Joint Conference on Artificial Intelligence (IJCAI).

This volume presents the proceedings of the 28th European Conference on Artificial Intelligence, held in Bologna from 25 to 30 October 2025. ECAI-2025 was organised by the European Association for Artificial Intelligence (EurAI) and the Italian Association for Artificial Intelligence (AIxIA), and hosted by the University of Bologna. We look forward to welcoming the AI community of Europe and the world to Bologna, a city renowned for centuries as both a cultural destination and a meeting place.

The field of AI has grown enormously since the first edition of ECAI in 1974. For this year's main track, we received a total of 3,266 abstract submissions, of which 2,667 were followed by full papers (acceptance rate 23%), together with 81 submissions to the demo track (acceptance rate 33%). Both the number of abstracts and the number of papers represent all-time records for ECAI. These contributions covered the full breadth of AI, including planning, search, constraints, satisfiability, knowledge representation, uncertainty, data mining, machine learning, natural language processing, computer vision, multiagent systems, game theory, and robotics. Many submissions explored interdisciplinary themes, such as human-machine interaction, as well as issues relating to fairness, ethics, and trust.

Continuing a long-standing tradition, this edition of ECAI is held alongside the 14th Conference on Prestigious Applications of Intelligent Systems (PAIS), which received 82 submissions (acceptance rate 45%). PAIS offers an important forum for academic and industrial researchers and practitioners to share insights into the applicability, development, and deployment of intelligent systems.

This volume includes peer-reviewed papers accepted for presentation at both ECAI and PAIS, as well as eight invited papers on Frontiers in AI. These correspond to short invited talks given by members of the AI community whose work is particularly innovative and exciting, highlighting important new results, techniques, and trends. In addition, the volume contains abstracts of 15 papers recently published in *Artificial Intelligence (AIJ)* and the *Journal of Artificial Intelligence Research (JAIR)* not previously presented at a conference with archival proceedings.

We anticipate a rich scientific programme, stimulating discussion on recent progress and the future of the field. Beyond the accepted papers, the programme will include panels and special sessions on topics of broad interest. Plenary keynotes will be delivered by Mohit Bansal, Marco Dorigo, Edith Elkind, and Marta Kwiatkowska. The PAIS invited talk will be given by Grigoris Antoniou and Roni Stern, and the EurAI Dissertation Award talk will be given by Jannik Peters.

The main conference will be preceded by a vibrant pre-conference programme running over the weekend, including the Doctoral Consortium, which provides PhD students with the opportunity to engage closely with peers worldwide. A varied programme of satellite workshops and tutorials will also be offered; a full list is included in this volume.

ECAI is not only a leading scientific event, but also an occasion for exchange, networking, and cultural enrichment. This year's edition will allow participants to experience Bologna, the capital of Emilia-Romagna and home to the oldest continuously operating university in the world, founded in 1088.

Organising a conference of this scale is a collective endeavour, and we are profoundly grateful to everyone who contributed to making ECAI-2025 a reality. We extend our sincere thanks to the EurAI Board for their trust and unwavering support—especially to its current president, Holger Hoos, and his predecessor, Carles Sierra, whose insightful guidance was invaluable throughout the preparation process. We also wish to acknowledge Ulle Endriss for his detailed and thoughtful notes on the Guidelines for PC Chairs of ECAI, which proved immensely helpful.

More than 3,200 members of the international AI community contributed their time and expertise to the peer-review process, enabling us to select the very best work for presentation. Their names appear on the following pages. In addition, many senior colleagues kindly provided confidential advice on numerous occasions.

We are indebted to the many organisers who shaped the scientific programme: Anna Gautier and Bruno Lacerda (Demo Track Chairs); Natasha Alechina and Esra Erdem (Journal Track Chairs); Vida Groznik and Vadim Malvone (Workshop Chairs); and Tias Guns and Fernando Martinez (Tutorial Chairs). The proceedings were coordinated by Angelo Ferrando and Alessandro Gianola (Proceedings Chairs). The Doctoral Consortium is chaired by Ana Ozaki and H el ene Verhaeghe, while Shihan Wang and Vahid Yazdanpanah (Diversity and Inclusion Chairs) have been working to create opportunities for networking and collaboration in informal settings. Matteo Baldoni and Cristina Baroglio (Publicity Chairs) helped to publicise ECAI and its initiatives. Andrea Agiollo (Web Chair) ensured a smooth and accessible online presence, while Enkeleda Bardhi (Social Chair) managed the conference’s social networks and outreach. Workflow management was expertly handled by Andrei Ciortea and Sanja Lukumbuzya, who implemented tools that enabled the programme committee to scale effectively to the size of ECAI, and whose tireless support proved crucial to the success of ECAI-2025. Finally, we warmly thank the members of the local organising team in Bologna for their tireless efforts and crucial contributions.

ECAI-2025 has also been made possible thanks to the generous support of the City of Bologna, the Italian government, and the many companies and organisations that partnered with us as sponsors. We sincerely thank them all for their contributions.

Most importantly, we thank the members of the AI community who submitted their work to ECAI and PAIS and who will be joining us in Bologna. We look forward to an inspiring and memorable conference together.

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