

Preface

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The 4th World Conference on eXplainable Artificial Intelligence (xAI-2026) was held from Wednesday, 1st to Friday, 3rd of July 2026, in Fortaleza, Brazil. On the second and third day of the conference, we had the pleasure of hosting the Late-breaking work, Demos and the Doctoral Consortium tracks.

The Late-breaking work track offered a unique opportunity to share early-stage ideas, gather constructive feedback, and foster discussion and collaboration among colleagues. Late-breaking submissions comprised original, unpublished research-in-progress, including preliminary results, industry showcases, system prototypes, and recently launched projects or syntheses addressing the theory and practice of eXplainable Artificial Intelligence (XAI). In total, 23 Late-breaking manuscripts were accepted and presented as posters.

The Demos track showcased research prototypes and commercially available products. Submissions were required to be based on an implemented and tested XAI-based system pursuing one or more innovative ideas within the conference's interest areas. Demonstrations offered an effective way to present working XAI implementations and gather valuable feedback from the community. In total, 6 demos were presented, each with a dedicated stand at the conference.

The Doctoral Consortium (DC), organised as part of the conference, constituted a structured forum through which doctoral scholars could refine their research trajectories under the guidance of established scholars in the field of XAI. The consortium was conceived to integrate constructive critique with formative mentorship, thereby enabling PhD candidates to present and critically examine their research ideas within a rigorous yet supportive intellectual environment. The programme comprised three thematic sessions. The first consisted of research "elevator pitches," in which doctoral candidates were tasked with concisely yet effectively articulating the central research questions underpinning their respective projects, outlining their methodological approaches, and reporting preliminary findings or conceptual frameworks. Each presentation was followed by a brief and open question-and-answer session, during which mentors and peers offered critical feedback, posed clarifying questions, and

Late-breaking work, Demos and Doctoral Consortium, colocated with the 4th World Conference on eXplainable Artificial Intelligence: July 01–03, 2026, Fortaleza, Brazil

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proposed alternative research directions or potential collaborations. The second session took the form of a tutorial on the structured formulation of research hypotheses, intended to equip doctoral candidates with a formal methodological tool for constructing valid, predictive, and testable statements. The third session comprised a practical exercise in which each candidate was required to refine their initial research hypothesis and subsequently present it to their peers in a concise, persuasive, and formally structured manner. In total, 12 Doctoral Consortium proposals were accepted and discussed.

The Late-breaking Work chairs:
Caroline Petitjean,
Maria Riveiro

The Demos chair:
Luca Longo

The Doctoral Consortium chairs:
Tuwe Löfström-Cavallin,
Javier Del Ser,
Andreas Holzinger

Acknowledgments

The xAI-2026¹ organisation and the chairs express their gratitude to committee members of the Late-breaking Work, Demos and Doctoral Consortium tracks that helped review submissions to each of these under a single-blind peer-review process.

Late-breaking work and demos committee:

- Hanna Abi Akl — Data Science Tech Institute
- Julien Aligon — Université de Toulouse
- Juhee Bae — University of Skövde
- Hubert Baniecki — University of Warsaw
- Thales Bertaglia — Maastricht University
- Aditya Bhattacharya — KU Leuven
- Cristian Bosch — University College Dublin - CeADAR
- Evelin Cardoso Gomes — Universidade Federal do Pará
- Marta Caro-Martínez — Universidad Complutense de Madrid
- Giuseppe Casalicchio — Ludwig Maximilian University of Munich
- Luís Conceição — Polytechnic of Porto
- Arne Gevaert — Ghent University
- Rokas Gipiškis — Vilnius University
- Franco Giustozzi — INSA Strasbourg - ICube laboratory
- Anuradha Kar — Aivancity, La Grande École de l'Intelligence Artificielle et de la Data
- Senka Krivic — University of Sarajevo
- Phuong Quynh Le — University of Marburg
- Francisco Marcondes — University of Minho
- Hamid Nasiri — Lancaster University
- Eduardo Paluzo-Hidalgo — University of Sevilla
- Luca Puggini — Intesa Sanpaolo
- Eurico Ruivo — Universidade Presbiteriana Mackenzie

¹<https://xaiworldconference.com/2026/>

- Joaquim Santos — Instituto Superior de Engenharia do Porto
- Hiroshi Sato — National Defense Academy of Japan
- Stephan Scheele — OTH Regensburg
- Gesina Schwalbe — University of Lübeck
- Andrea Seveso — University of Milano-Bicocca
- Julian Siber — CISA Helmholtz Center for Information Security
- Niclas Ståhl — Jönköping University
- Vikram Sunkara — Zuse Institute Berlin
- Sule Tekkesinoglu — University of Oxford
- Alexandros Vassiliades — Aristotle University of Thessaloniki
- Noé Zufferey — ETH Zurich
- Adeel Ahmad — Université du Littoral Côte d'Opale
- Mateo Espinosa Zarlenga — Trinity College, Oxford
- Lilian G. Motti — University of Limerick
- Francesca Naretto — University of Pisa

Demos committee:

- Angela Lombardi — Politecnico di Bari
- Damiano Verda — Rulex Innovation Labs
- Lorenz Linhardt — TU Berlin
- Mehrdad Asadi — Vrije Universiteit Brussels
- Oleksandr Davydko — Technological University Dublin
- Yazan Mualla — Université de Technologie de Belfort-Montbéliard

Doctoral consortium committee:

- Tuwe Löfström-Cavallin — Jönköping University
- Jens Lundström — Halmstad University
- Ara Anderson — CIDACS/Fiocruz
- Luca Longo — University College Cork
- Helena Löfström — Jönköping International Business School
- Niclas Ståhl — Jönköping University
- Ulf Johansson — Jönköping University
- Björn-Hergen Laabs — Universität zu Lübeck
- Amr Alkhatib — Örebro University
- Nishat Mowla — RISE Research Institutes of Sweden