

AIC 25 / Artificial Intelligence and Cognition

AIC 25 Program – <https://codesign-lab.org/aic25>

Chairs: Mehul Bhatt (Örebro University, Sweden) – Antonio Lieto (University of Salerno, Italy)

ECAI 2025 – Bologna, Italy

Saturday, October 25 – Sunday, October 26, 2025

Coffee and Lunch Breaks

- **Coffee Breaks:** 10:40–11:00 & 15:40–16:00 (Saturday), 10:40–11:00 (Sunday)
- **Lunch Break:** 12:30–14:00 (Saturday)

Saturday, October 25 — Morning Session 1 (09:00–10:40)

1. **Scalable Reasoning and Learning in Ad Hoc Teamwork**
Hasra Dodampegama, Mohan Sridharan
2. **Cognitive Biases in Syllogistic Reasoning:
A Comparative Study of Humans and Large Language Models**
Stefanie Krause, Frieder Stolzenburg
3. **A Comparison of Embodied A-Learning and Proximal Policy Methods
Across a Series of Cognitively Inspired Tests**
Niall Donnelly, Edward Keedwell, Lucy Cheke
4. **Hybrid Society and Minds in Machine Age: Towards a Multi-Agent Ecosystem**
Andrea Monaldini, Stefania Costantini

Saturday, October 25 — Morning Session 2 (11:00–12:30)

1. **SSPictR: A Biologically-plausible Image Representation**
Anna Penzkofer, Karim Habashy, Chris Eliasmith, Andreas Bulling
2. **Deep Learning as a Computational Model of Polanyian Tacit Knowledge:
The impact on the quest for explainability**
Guido Boella
3. **A Context-Aware Approach for Emotionally Expressive Persona-Based Dialogue**
Ignazio Infantino, Giovanni Pilato, Gianpaolo Vitale, Filippo Vella
4. **Enhancing Metaphor Classifications of Large Language Models
with a Generative Symbolic Framework**
Antonio Lieto, Gian Luca Pozzato, Stefano Zoia

Saturday, October 25 — Afternoon Session 3 (14:00–15:40)

1. **The Knowledge Augmentation Effect in Bidirectional Active Learning**
Yujin Cha
2. **Action matters for object representation learning from sequences**
Mohamed Massamba Sene, Jean-Charles Quinton, Frédéric Armetta, Mathieu Lefort
3. **Exploring Structures of Inferential Mechanisms through Simplistic Digital Circuits**
Giovanni Sileno, Jean-Louis Dessalles
4. **Learning Analogical Proportions with a Lightweight Neural Network**
Van Duy Ngo, Emiliano Lorini, Stergos Afantenos

Saturday, October 25 — Afternoon Session 4 (16:00–17:30)

1. **Abstract Concept Modelling in Conceptual Spaces: A Study on Chess Strategies**
Hadi Banaee, Stephanie Lowry
2. **Meaning in Order, Order in Meaning: Semantic R-precision for Keyphrase Evaluation**
Shamira Venturini, Steffen Kinkel
3. **Human and Artificial Co-Creativity: A Field Experiment in Virtual Reality**
Aldo Gangemi, Chiara Lucifora, Stefano De Giorgis, Claudia Scorolli
4. **How Coherent Is the Model's Reasoning? Introducing GraviLogic for Cognitive Trajectories in Latent Space**
Viktoria Popova

Sunday, October 26 — Morning Session 5 (09:00–10:40)

1. **Enhancing LLMs through human feedback: a journey towards self-improvement**
Tatiana Pelc, Gila Kamhi, Asaf Avrahamy, Adi Fledel-Alon
2. **Network-Specific Models for Multimodal Brain Response Prediction**
Andrea Corsico, Giorgia Rigamonti, Simone Zini, Luigi Celona, Paolo Napoletano
3. **Ontology-Driven Personalization Using Knowledge Graphs**
Aurora Toma, Davide Lofrese, Giuseppe Palestra, Berardina Nadja De Carolis
4. **A Knowledge-Driven Explainability Architecture for Social Robots in Healthcare Applications**
Valeria Seidita, Rosario Bongiorno, Daniele Franco, Antonio Chella

Sunday, October 26 — Morning Session 6 (11:00–12:30)

1. **Operationalizing the Minimal Cognitive Grid: A Quantitative, Theory-Agnostic Evaluation Framework for AI Models**
Alessio Donvito, Antonio Lieto
2. **Modeling Concepts with Neural Network Parameters: Human Aligned Class Level Knowledge Representation**
Nazmus Sakib Ahmed, Naushin Nower
3. **Artificial Intelligence as Expected Intelligence**
Martina Bacaro, Francesco Bianchini
4. **A Human-Factors Guided Cognitive Model of Visuospatial Complexity in Embodied Active Vision**
Vasiliki Kondyli, Jakob Suchan, Mehul Bhatt