INTERNATIONAL

INVITED SESSION SUMMARY

Title of Session:

ARHES - Agentic Reasoning for Human-centred and Ethical Systems

Name, Title and Affiliation of Chair:

Vincenzo Moscato, Full Professor, University of Naples Federico II
Valerio La Gatta, PhD, Northwestern University
Gian Marco Orlando, PhD Student, University of Naples Federico II
Diego Russo, PhD Student, University of Bergamo

Details of Session (including aim and scope):

The rapid rise of agentic and generative AI systems marks a turning point in how artificial intelligence interacts with humans and society. These systems, powered by Large Language Models (LLMs), memory-augmented reasoning, and multi-agent collaboration, are increasingly capable of autonomous cognition, adaptation, and social awareness. Yet, ensuring that such systems remain human-centred, trustworthy, and ethically aligned represents one of the most pressing challenges in AI research today.

This invited session explores the emerging field of Human-Centred Agentic AI, focusing on the design, evaluation, and deployment of intelligent agents capable of autonomous reasoning, collaboration, and value-aligned decision-making.

Recent advances in generative agents, multi-agent coordination, and LLM-driven interaction have opened new opportunities for systems that interact, reason, and adapt in human-centric environments, from digital assistants and educational platforms to collective decision-making systems and social media ecosystems.

The session aims to bring together contributions that address:

- Architectures for agentic and generative AI systems inspired by human cognition and social interaction;
- Human–AI collaboration, co-adaptation, and shared reasoning;
- Modeling of social behavior, information diffusion, and collective phenomena on social platforms;
- Ethical, explainable, and trustworthy behaviour in autonomous agents;
- Cognitive and affective modeling for value-aligned decision-making;
- Evaluation and benchmarking of agentic systems in real-world or simulated contexts;
- Cross-domain applications (healthcare, education, social media analysis, governance, etc.).

The overarching goal is to advance understanding of how human-centred principles can guide the development of agentic AI systems that are not only intelligent, but also socially aware, transparent, and beneficial to human users and society at large.

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Massimiliano Albanese, Full Professor, George Mason University
Ilaria Bartolini, Full Professor, University of Bologna
Fabio Mercorio, Full Professor, University of Milano-Bicocca
Mouzhi Ge, Professor, Deggendorf Institute of Technology
Fabio Persia, Associate Professor, University of L'Aquila
Luca Luceri, Assistant Professor, University of Southern California
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