

6th International Workshop on Artificial Intelligence and Cognition (AIC2018)
<http://aic2018.pa.icar.cnr.it>

Call for Papers

MOTIVATION

The research in Artificial Intelligence (AI) has been based, from a historical standpoint, on a strong collaboration with Cognitive Science. This collaboration, has produced - along the years - mutual benefits. In AI this partnership has driven to the realization of intelligent systems based on plausible models of human cognition. In turn, in cognitive science, this partnership allowed the development of cognitive models and architectures providing greater understanding on human thinking.

In recent years, after a period of partial fragmentation of the research directions, the area of cognitively inspired artificial systems is progressively attracting a renewed attention both from academia and industry and the awareness about the need for additional research in this interdisciplinary field is gaining widespread acceptance.

AIC 2018 is the 6th appointment of the workshop series AIC (<http://dblp.uni-trier.de/db/conf/aic/index>), started in 2013 and stemming from the need of creating an international scientific forum for the discussion and the presentation of the theoretical and applied research developments in the field of cognitively inspired Artificial Intelligence. The previous AIC workshops have been held in Turin (2013 to 2015 editions), New York (2016), Larnaca (2017).

SPECIAL-TRACK "Conceptual Spaces at Work 2018": AIC 2018 will host a special track on the theoretical and applicative perspectives of the framework of Conceptual Spaces (CS), as introduced by Peter Gärdenfors (2000). Such framework provides a geometric model for the representation of human conceptual knowledge that bridges the symbolic and the sub-conceptual levels of representation. The model has already proven to have a broad range of applicability, not only within cognitive science but also across a number of AI fields (e.g. Computer vision, Knowledge representation and Reasoning, Computational linguistics etc.).

As for the previous editions, the AIC 2018 workshop aims at putting together researchers coming from different domains (e.g., artificial intelligence, cognitive science, computer science, engineering, philosophy, social sciences, etc.) working on the interdisciplinary field of cognitively inspired artificial systems.

Both papers spotlighting theoretical issues and experimental research in the field are welcome. The submission of papers regarding the presentation of realized or under-development cognitively inspired systems and/or applications is encouraged.

Submission Guidelines

All papers must present original and unpublished work that is not currently under review. Papers will be evaluated according to their significance, originality, technical content and relevance to the workshop by the PC. We welcome the following types of contributions:

- Full research papers (up to 8-14 pages)
- Short research papers (up to 4-7 pages)

All submissions must be written in English and must be formatted according to the information for LNCS Authors:

<http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0>.

Please submit your contributions electronically in PDF format to EasyChair:

<https://easychair.org/conferences/?conf=aic2018>

List of Topics

Knowledge Representation and Cognition (e.g. Neural Networks models, Conceptual Spaces, Ontologies etc.)

Cognitive Architectures (e.g. SOAR, ACT-R) and Cognitive modelling for Artificial Systems

B.I.C.A. (Biologically Inspired Cognitive Architectures) and systems

Cognitive Robotics

Human-Robot Interaction

Human-Computer Interaction

Evaluation of cognitively driven AI systems compared with other AI approaches

Cognition and Semantic Web

Cognitive Systems Design

Methodological open questions on AI and Cognition

Automated reasoning: deductive, probabilistic, diagnostic, causal and analogical inference

Historical and theoretical relation among Cognitive Science and Artificial Intelligence

Knowledge discovery and acquisition

Modelling of human learning and knowledge acquisition in complex domains

Computational Linguistics, Natural Language Processing & Understanding

Logic and Reasoning

Cognitively inspired Machine Learning

Computational Theories of Learning

Computational Models of Narrative for Artificial Systems (Visuo-Auditory Narrativity, Perception)

Cognition and Moving Image

Computational Creativity

Decision Support Systems

Program Committee

Agnese Augello, ICAR-CNR, Italy

Mehul Bhatt, University of Bremen, Germany

Lola Cañamero, University of Hertfordshire, UK

Angelo Cangelosi, University of Plymouth, UK

Amedeo Cesta, ISTC-CNR, Italy

Mark A. Finlayson, Florida International University, USA

Christian Freksa, University of Bremen, Germany

Marcello Frixione, University of Genoa, Italy

Salvatore Gaglio, University of Palermo and ICAR-CNR, Italy

Peter Gärdenfors, University of Lund, Sweden

Anna Jordanous, University of Kent, UK

Antonis Kakas, University of Cyprus, Cyprus
Kai-Uwe Kuehnberger, Osnabrück University, Germany
Othalia Larue, Wright State University, USA
Christian Lebiere, Carnegie Mellon University, USA
Alessandro Lenci, University of Pisa, Italy
Martha Lewis, University of Amsterdam, Holland
Umberto Maniscalco, ICAR-CNR, Italy
Loizos Michael, Open University of Cyprus, Cyprus
Vincent C. Müller, Anatolia College/ACT, Greece
Ana-Maria Olteteanu, Freie Universität Berlin, Germany
Alessandro Oltramari, Bosch Research and Technology Center, USA
Katerina Pastra, Cognitive Systems Research Institute, Greece
Giovanni Pilato, ICAR-CNR, Italy
Paul S. Rosenbloom, University of Southern California, USA
Giulio Sandini, IIT, Italy
Steven Schockaert, University of Cardiff, UK
Mary-Anne Williams, University of Technology of Sydney, Australia
Filippo Vella, ICAR-CNR, Italy
David Vernon, Carnegie Mellon University, Ruanda
Frank Zenker, University of Lund, Sweden

Organizing committee

Antonio Chella, University of Palermo and ICAR-CNR, Italy
Ignazio Infantino, ICAR-CNR, Italy
Antonio Lieto, University of Torino and ICAR-CNR, Italy

Invited Speakers

Angelo Cangelosi, University of Plymouth, UK
Alessandro Saffiotti, Örebro University, Sweden

Publication

Accepted papers will be included in the workshop proceedings published on-line by CEUR Workshop Proceedings (CEUR-WS.org), with ISSN. AIC proceedings are DBLP indexed: <http://dblp.uni-trier.de/db/conf/aic/index>

Contact

For any question regarding the workshop please contact ignazio.infantino@cnr.it