

## CALL FOR PAPERS

A2HC @ PRIMA 2019

XII Workshop on Agents Applied in Health Care

co-located with PRIMA2019: <https://prima2019.di.unito.it>

October 28-31, 2019, Turin, Italy

Workshop Website: <https://web.fe.up.pt/~a2hc19/>

Submission website: <https://easychair.org/conferences/?conf=a2hc2019>

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### Aims and Scope

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Since 1998, PRIMA has become one of the most important forums of discussion regarding agents and multi-agent systems.

Intelligent agent-based systems constitute one of the most exciting research areas in Artificial Intelligence. Due to the growing interest in the application of agent-based systems in healthcare, a number of applications addressing clinical problems are already based on agent technology. Thus, it is unquestionable that a benefit is guaranteed if the specialists in the field can meet and report on the results achieved in this area, discuss the advantages that agent-based systems may bring to medical domains, and possibly the problems they encountered, and also provide a list of the research topics that should be tackled in the near future.

Core aspects of this workshop will be:

- Interdisciplinary research: special efforts will be devoted to attract the attention of healthcare and biomedical specialists, so that they attend the workshop and realize the potential benefits of agent technology;
- Applied research: the organizing committee will also pay special attention to papers describing applications which are not just academic, but that are already deployed and running in a real medical environment;
- Research devoted to integrate agents with other AI technologies, such as deep learning and machine learning, multi-agent reinforcement learning, distributed planning.

Research in this field can be grouped into ambient assisted living applications to assist patients and in-hospital applications to assist physicians' work.

Several methodological and technical problems have been discovered by the researchers that attempt to deploy agent-based systems in the medical area; just to name a few, the growing number of huge databases that need to be integrated (e.g. genetic data from next generation sequencing), the difficulty to integrate new agent-based systems with legacy software, the need to apply changing national and international laws and regulations concerning the privacy of medical data and the security of the transaction of patient information between agents.

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## Topics of Interest

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Submissions should concern the use of agents (virtual or physical) encompassed in the healthcare context - e.g. ranging from equipment and drug inventory management to patient clinical record and follow-up management, or even patient monitoring in either a hospital or home environment, and patient transportation scheduling.

- Mobile agents in hospital environments;
- Patient empowerment and chronic disease self-management through personalized agent-based systems and models;
- Agents that provide autonomous and remote care delivery;
- Clinical agent-based decision support systems, including recommender systems;
- Conversational agents and personal digital assistants for patient empowerment
- Agents that provide information about medical services;
- Agents for patient monitoring and diagnosis;
- Information agents that gather, compile and organize various medical data available on Internet;
- Legal and ethical issues related to the use of agents in health care;
- Surveys providing an up to date view of the state of the art in the area of agents in health care;
- Agent technology for preference learning as in the case of personal activity trainers
- Agent technology for resource planning and task allocation in hospital environment

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## Important Dates

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Submission Deadline: ~~September 8th, 2019~~ Extended deadline: September 15  
Notification of Acceptance: September 27th, 2019  
Camera-ready Deadline: October 15th, 2019  
Workshop: October 28th, 2019

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## Venue

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A2HC will be held in October 28th, 2019 in Turin, Italy, as a workshop of PRIMA 2019.

The conference will take place in the historical Rectory building of the University of Turin. Complete information regarding the venue can be found at the conference website at <https://prima2019.di.unito.it/venue>

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## Additional Information and Submission Details

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Submissions must be original and not published elsewhere. Authors are encouraged to submit papers up to 16 pages following the Springer LNCS format, as specified in the “Information for Authors” section in <https://prima2019.di.unito.it/calls/call-for-papers>. Authors should submit their articles in a single pdf file in the submission website (<https://easychair.org/conferences/?conf=a2hc2019>) no later than September 15th, 2019. Each submission will be reviewed by at least three Program Committee members. The reviewing process will be double-blind, so authors should omit their names and affiliations from the submitted papers, and take reasonable care to assure anonymity during the review process.

Notification of acceptance will be sent by September 27th, 2019 and the camera-ready version of the papers revised according to the reviewers’ comments should be submitted by October 15th, 2019.

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## Program Committee (under completion)

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Aldo Franco Dragoni - Università Politecnica delle Marche, Italy  
Ana Paula Rocha - University of Porto, Portugal  
Andrea Omicini - University of Bologna, Italy  
Andrew Koster - IIIA-CSIC, Universitat Autònoma de Barcelona, Spain  
Angelo Croatti - University of Bologna, Italy  
Beatriz López Ibáñez - University of Girona, Spain  
David Isern - Universitat Rovira i Virgili, Spain  
Diana Adamatti - Universidade Federal do Rio Grande, Brazil  
Eloisa Vargiu - Fundació Eurecat, Spain  
Fernando Koch - IBM, Brazil  
Franco Zambonelli - University of Modena and Reggio Emilia, Italy  
Juan Carlos Nieves - Universitat Ulmea, Sweden  
Lenka Lhotska - Czech Technical University in Prague, Czech Republic  
Szymon Wilk – Poznam University of Technology, Poland  
Viviana Mascardi – Università degli Studi di Genova, Italy

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## Organizing Committee

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Sara Montagna	University of Bologna, Italy
Daniel Castro Silva	University of Porto, Portugal
Pedro Henriques Abreu	University of Coimbra, Portugal
Stefano Mariani	University of Modena and Reggio Emilia, Italy
Michael Schumacher	Institute of Business Information Systems, University of Applied Sciences Western Switzerland, Sierre, Switzerland

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## Contacts

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