

## Join us in Stockholm

Context plays an increasingly important role in modern IT applications. Context sensitivity and awareness is becoming essential, not only for mobile systems, ambient computing and the internet of things, but also for a wide range of other areas, such as learning and teaching solutions, collaborative software, web engineering, mobility logistics and health care work-flow. Advancing the use and understanding of context beyond stimuli-response systems suggests a knowledge perspective on modelling and reasoning.

For autonomous systems, recognising contextual information is vital if the system is to exhibit behaviour that is appropriate for the situation at hand. At the same time, such systems might change contextual parameters that are relevant for human and non-human agents present. Therefore, it is important to be able to predict changes in context that are due to the actions of intelligent systems to avoid clashing with user needs and expectations.

In multi-agent systems, contextual information might not be shared between the different actors explicitly or upfront. Therefore, it is vital for intelligent agents to identify the different context configurations and adapt their own behaviour accordingly.

From a machine learning perspective, contextual information might have to be learned from data before a contextualised system is being implemented. In many cases, contextual configurations might change over time, and cannot fully be modelled in the design phase of a system, necessitating machine learning methods to be employed during runtime.

From a general AI perspective, one of the challenges is to integrate context with other types of knowledge as a major additional source for reasoning, decision-making, and adaptation and to form a coherent and versatile architecture. There is a common understanding that achieving desired behaviour from intelligent systems will depend on the ability to represent and manipulate information about a rich range of contextual factors.

## Agenda

The workshop will last one half day and will have three main types of interaction.

The first type will consist of short presentations of the accepted papers. The goal of these sessions is to introduce the work of all the participants.

The second type will consist of a panel discussion dedicated to one specific issue. The suggested issue is "Learning to recognise and change context in autonomous systems", but is subject to change dependent on the interests of the attendees and the nature of submissions. The goal of the panel is to discuss the various approaches to each of these basic issues and to identify the critical problems in need of attention and the most promising research directions.

The workshop will be concluded with the last type, an open, but guided discussion summarising the most important lessons learned.

Industry representatives are invited to display context related demonstrations during the workshop.

## Websites

More information and the paper submission system can be found on the workshop website at:

[mrc.kriwi.de](http://mrc.kriwi.de)

See the IJCAI-ECAI 2018 conference website for information about the location and registration process:

[ijcai-18.org](http://ijcai-18.org)

## Important Dates

Papers due	Friday May 18, 2018
Notification	Friday June 15, 2018
Camera-ready	Friday June 29, 2018
MRC Workshop	half day, tbd



# Tenth International Workshop Modelling and Reasoning in Context (MRC)

Held at FAIM 2018  
Stockholm, Sweden  
July 9-19, 2018

Paper Deadline: May 18, 2018



ICML | 2018

AAMAS 2018

**MRC 2018**  
Modelling | Reasoning | Context Stockholm | Sweden | July 9-19



[mrc.kriwi.de](http://mrc.kriwi.de)

## Workshop Objectives

MRC aims to bring together researchers and practitioners from different communities, both in industry and academia, to study, understand, and explore issues surrounding context and to share their problems, techniques and success stories across different areas. By considering modelling and reasoning approaches for contextualised systems from a broad range of areas, the workshop will facilitate the sharing of problems, techniques, and solutions. The workshop covers different understandings of what context is, different approaches to automatically learn about context from data and to modelling context, mechanisms for storage of contextual information, effective ways to retrieve it, and methods for enabling integration of context and application knowledge.

MRC invites papers on different aspects of context, on theory as well as on applications. We particularly invite contributions on topics of autonomy and context. We also explicitly invite contributions from other fields of study in order to further trans- and interdisciplinary approaches.

## Topics of Interest

Areas of interest include, but are not limited to:

- Context and autonomy
- Context and big data
- Context and smart data
- Machine learning of contextual parameters
- Generic and specific context models
- Retrieval of context and context information
- Explicit representations of context
- Representation of and reasoning with uncertainty
- Trans- and interdisciplinary issues of context
- Socio-technical issues
- Context in ethical AI
- Evaluation of contextualised applications
- Explanation and context
- Information ageing
- Context management
- Context awareness and context sensitivity

## Submissions

Original papers should be prepared according to the [JCAI-ECAI formatting guidelines, and using the LaTeX Styles or Word template for IJCAI-ECAI 2018](#). Long papers are allowed eight (8) pages. Short papers, not exceeding four (4) pages, may be submitted for short presentation. Two additional pages containing only references & acknowledgments are allowed. Papers formatted according to the author guidelines and styles for ICMIL 2018 or AAMAS 2018 may be submitted to MRC without reformatting to the IJCAI-ECAI style.

Submissions must be original, and should not have been formally published or accepted for publication elsewhere. We also invite longer versions of papers published in short form elsewhere.

Three members of the program committee will review each submission. A review form will direct committee members to evaluate submissions for appropriateness, technical strength, originality, presentation, and overall evaluation, as well as recording the reviewer's confidence in the topic.

The proceedings of the workshop will be published electronically and made freely available. Depending on the nature of submissions, the proceedings will be published through a suitable channel such as the [CEUR Workshop Proceedings](#). Authors of accepted papers might be invited to submit extended versions for inclusion in a special journal issue on contextualised systems, if justified by the quantity and quality of submissions.

The authors will be responsible for producing camera-ready copies of papers in PDF format, conforming to the formatting guidelines, for inclusion in the published proceedings. At least one author of each accepted paper is required to attend the workshop to present the contribution.

Paper submission as PDF only via [EasyChair](#) at:

[easychair.org/conferences/?conf=mrc2018](https://easychair.org/conferences/?conf=mrc2018)

## Chairs

**Jörg Cassens**  
IMAI, University of Hildesheim, Germany

**Rebekah Wegener**  
RWTH Aachen University, Germany

*and* Audaxi, Sydney, Australia

**Anders Kotod-Petersen**

Alexandra Institute, Copenhagen, Denmark  
*and* NTNU, Trondheim, Norway

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