

CogRob 2018

11th Cognitive Robotics Workshop

Proceedings of the 11th Cognitive Robotics Workshop (CogRob-18)
held in conjunction with the 16th International Conference on Principles of
Knowledge Representation and Reasoning 2018 (KR-2018)

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Preface

The CogRob Workshop is already an instance in the AI community. As an bi-annual event, in 2016 it took place for the 10th time, bringing together researchers and practitioners interested in AI and robotics. Research in cognitive robotics is interested in the cognitive aspects of robots such as perception processing, attention allocation, anticipation, planning, complex motor coordination, reasoning about other agents and perhaps even about their own mental states. A central aspect is the behaviour modelling of intelligent agents. Here, a number of AI techniques such as agent architectures or high-level planning are traditionally used. Besides the theoretical interest in organizing complex decision making processes of intelligent robots the real implementation of such systems is in the focus.

The 2018 edition of the CogRob workshop aimed at connecting the CogRob community with recent advances in the field of machine learning and agent technologies in order to allow new insights how such techniques could be used beneficially for the behaviour modelling of intelligent agents. In particular we aimed at discussing the limitations of quite complementary approaches such as the successful and popular area of machine learning and classical AI and to investigate how a combination of approaches from different areas may overcome that limitations.

Previous workshops have been held at the following locations:

- First International Cognitive Robotics Workshop (Orlando, Florida); held as part of the AAAI Fall Symposium 1998
- Second International Cognitive Robotics Workshop (Berlin, Germany); held in conjunction with ECAI-2000
- Third International Cognitive Robotics Workshop (Edmonton, Canada); held in conjunction with AAAI-2002
- Fourth International Cognitive Robotics Workshop (Valencia, Spain); held in conjunction with ECAI-2004
- Fifth International Cognitive Robotics Workshop (Boston, Massachusetts); held in conjunction with AAAI-2006
- Sixth International Cognitive Robotics Workshop (Patras, Greece); held in conjunction with ECAI-2008
- Seventh International Cognitive Robotics Workshop (Schloss Dagstuhl, Germany)
- Eight International Cognitive Robotics Workshop (Toronto, Canada); held in conjunction with AAAI- 2012 <http://www.cse.unsw.edu.au/~cogrob/2012/> (<http://www.cse.unsw.edu.au/~cogrob/2012/>)
- Ninth International Workshop on Cognitive Robotics (Prague, Czech Republic); held in conjunction with ECAI-2014 (<http://www.ida.liu.se/conferences/cogrob2014/>)
- Tenth International Cognitive Robotics Workshop (Daejeon, Korea); held in conjunction with IROS-2016 <http://www.cse.unsw.edu.au/~cogrob/2016/>

This volume contains the papers presented at the 11th Cognitive Robotics Workshop 2018 held on October 27, 2018 in Tempe, Arizona, USA. There were 6 submissions. Each submission was reviewed by at least 2, and on the average 2.2, program committee members. The committee decided to accept 5 papers. The program also included 2 invited talks.

March 1, 2019
Aachen

Gerald Steinbauer, Alexander Ferrein

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Additional reviews have been provided by Megumi Fujita and Stefan Schiffer.