ARQNL 2016

Automated Reasoning in Quantified Non-Classical Logics

2nd International Workshop (associated with IJCAR 2016)
1 July 2016, Coimbra, Portugal

Motivation

Non-classical logics – such as modal logics, conditional logics, intuitionistic logic, description logics, temporal logics, linear logic, dynamic logic, fuzzy logic, paraconsistent logic, relevance logic – have many applications in AI, Computer Science, Philosophy, Linguistics, and Mathematics. Hence, the automation of proof search in these logics is a crucial task.

Aims and Scope

The ARQNL workshop aims at fostering the development of proof calculi, automated theorem proving systems and model finders for all sorts of quantified non-classical logics. The workshop will provide a forum for researchers to present and discuss recent developments in this area. The contributions may range from theory to system descriptions and implementations. Contributions may also outline relevant applications, describe problem formalizations, example problems, and benchmarks. We welcome contributions from computer scientists, linguists, philosophers, and mathematicians.

Topics of the ARQNL workshop will cover all aspects related to the mechanization and automation of quantified non-classical logics, including but not limited to:

- Proof theory, semantics, meta theory, and cut-elimination
- Proof search calculi, including sequent calculi, tableau calculi, connection calculi, resolution calculi, and instance-based calculi
- Modal logic, conditional logic, intuitionistic logic, description logic, temporal logic, linear logic, multivalued logic, dynamic logic, fuzzy logic, paraconsistent logic, relevance logic, free logic, and natural logic
- Techniques, strategies and heuristics to deal with first-order or higher-order quantification
- Implementation of theorem provers and experimental evaluations
- Problem libraries and benchmarking for theorem provers
- Applications, formalizations, and example problems
- User interfaces, proof representation, and syntax issues

ARQNL 2016 is associated with IJCAR 2016, the International Joint Conference on Automated Reasoning.

Paper Submissions

Submissions of papers are solicited in two categories:

A. Full papers (up to 15 pages)
B. Short papers, talk abstracts, system demonstrations (up to 6 pages)

System descriptions can be submitted in either category. Submissions will be refereed by the programme committee, and evaluated with respect to relevance, originality, and correctness. Submission is electronically, through EasyChair and should be in standard PDF format (see the ARQNL website for further details). Final paper versions will be required to be submitted in LaTeX using the EasyChair class file. Proceedings will be published in the EasyChair Proceedings in Computing (EPiC) series. Provided a good number of high quality submissions, we consider producing a special issue of a recognized journal on the topic of the workshop.

Important Dates

Abstract submission: 2 May 2016
Paper submission: 9 May 2016
Author notification: 30 May 2016
Final paper version: 13 June 2016
Workshop: 1 July 2016

Programme Committee

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Walter Carnielli
   (Centre for Logic, Epistemology
    and the History of Science - CLE)
Christian Fermüller
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Rajeev Goré
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More Information

Web: **http://iltp.de/ARQNL-2016/**