



ARQNL-2014

Automated Reasoning in Quantified Non-Classical Logics



IJCAR-Workshop, 23 July 2014, Vienna, Austria

(part of the Federated Logic Conference and the Vienna Summer of Logic)

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. These 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. A particular emphasis of the first edition of the ARQNL workshop will be on quantified modal logics.

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, dynamic logic, fuzzy logic, paraconsistent logic, and relevance 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

Paper Submissions

Submissions are solicited in two categories:

- A. Full papers (up to 15 pages).
- B. Short papers, talk abstracts, system demonstrations (up to 5 pages).

System descriptions can be submitted in either category. Submissions will be refereed by the program committee, and evaluated with respect to relevance, originality, and correctness. Submission is electronic, through EasyChair and should be in standard-conforming PDF format (see the website for further details). Final 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 (NEW)

Submission deadline: May 26, 2014
Notification of acceptance: June 23, 2014
Final version of papers due: July 7, 2014
Workshop: July 23, 2014

Program Committee

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More Information

Website: <http://vsl2014.at/arqnl/>