

Call for Papers

Journal of Applied Non-Classical Logics

[**Extended Deadline: 27th July 2005**]

Special Issue editors: Boris Konev [Univ. Liverpool, UK]
Renate Schmidt [Univ. Manchester, UK]
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Scope of the Special Issue

Logic provides AI and computer science with a powerful formal way to express properties of complex systems at the natural level of abstraction as well as the abilities *to reason* about such properties and systems. It is common knowledge that naive approaches to automation of logical reasoning lead immediately to time and space explosions. Therefore, for an automated reasoning systems to be useful and effective, deep theoretical results and sophisticated implementation techniques have to be developed and utilised. This special issue of the *Journal of Applied and Non-Classical Logics* is devoted to all aspects of the implementation of logics.

We are looking for contributions describing implementation techniques for and implementations of automated reasoning programs, theorem provers for various logics (especially, but not limited to, *non-classical logics*), logic programming systems, and related technologies. Topics of interest include:

- Data structures and algorithms for the efficient representation of logical concepts
- Practical constraint handling
- Implementation of theorem provers for different logics
- Efficient model generation
- Issues of reliability, witness generation, and witness verification
- Propositional logic and decision procedures
- Implementation of higher order logics and lambda-calculus
- Proof search organisation and efficient heuristics for classical and inductive provers
- Experiences with new or unusual calculi
- Evaluation and benchmarking of provers and other logic-based systems

- Extended system descriptions

The Journal

The *Journal of Applied Non-Classical Logics* is an international tribune, published by *Editions Hermès-Lavoisier* which aims at promoting the advancement and development of non-classical logics in Computer Science, with contributions ranging from mathematical foundations of such logics to their applications in Computer Science. Non-classical logics cover a large variety of formalisms such as: modal logics, temporal logics, epistemic logics, conditional logics, intermediate logics, non-monotonic logics, logics of vagueness, logics of uncertainty, relevance logics, para-consistent logics, multi-valued logics, logics of programs, etc.

Important Dates

Submission deadline: 1st July 2005
Author notification: 1st November 2005
Revised papers due: 1st January 2006

Submission of Manuscripts

We are expecting full (typically, 20–40 pages) high-quality papers to describe original, previously unpublished research, be written in English, and not be simultaneously submitted for publication elsewhere (previous publication of partial results at workshops and conferences is acceptable). The normal reviewing process for journals will be used and papers should conform to the usual high standard of international journals.

Submissions consisting of the paper (preferably PDF or Postscript via email) including a plain text abstract in which the role of logic in the particular approach used is clarified, should be sent to Boris Konev (B.Konev@csc.liv.ac.uk) to arrive no later than 1st July 2005.

Authors should use the LaTeX standard article-style or the LaTeX style of the journal which can be obtained at the following address:

http://www.irit.fr/JANCL/home_fichiers/submission_process.html

Queries concerning this special issue should be directed to any of the special issue editors. Up-to-date information will also be available from

<http://www.csc.liv.ac.uk/~konev/JANCL>

Special Issue Editors (and organisers of IWIL-4 and IWIL-5)

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Useful Links

Journal website: <http://jancl.e-revues.com/>
IWIL-4 website: <http://www.csc.liv.ac.uk/~konev/wil2003/>
IWIL-5 website: <http://www.eprover.org/EVENTS/iwil-2004.html>