

Call for Papers *Verification and Computational Logic*

Special Issue of *Theory and Practice of Logic Programming*

Submission deadline: January 10, 2002

The past decade has seen dramatic growth in the application of model checking techniques to the validation and verification of correctness properties of hardware, and more recently software systems. One of the methods is to model a hardware or software system as a finite, labelled transition system which is then exhaustively explored to decide whether a given temporal specification holds. Recently, there has been increasing interest in applying logic programming techniques to model checking in particular and verification in general. For example, table-based logic programming can be used as an efficient means of performing explicit model checking. Other research has successfully exploited set-based logic program analysis, constraint logic programming, and logic program transformation techniques.

The aim of this special issue is to attract high-quality research papers on the interplay between verification techniques (e.g. model checking, reduction and abstraction) and logic programming techniques (e.g. constraints, abstract interpretation, program transformation).

Topics

In particular, we strongly solicit papers on the following topics, but other topics related both to verification and computational logic will also be considered:

- Techniques
 - abstraction techniques for verification of infinite-state systems
 - constraint representations and constraint processing algorithms for verification
 - logic programming approaches to model checking
 - program analysis/abstract interpretation approaches to verification
 - program transformation/specialization approaches to verification
 - state-space reduction techniques for model checking
 - applying model checking techniques to logic programming
- Tools
- Case studies.

Paper submission

Revised and enhanced versions of papers published in conferences that have not appeared in archival journals are eligible for submission. Papers describing important past research in this area which have not been published in archival journal papers are also solicited. Finally, surveys and comparison of state-of-the-art techniques are also solicited.

Papers should be written in English, and formatted using the L^AT_EX style files (t1p.bst and t1p.cls) developed by Cambridge University Press for *Theory and Practice of Logic Programming*. These files can be downloaded from:

`ftp://ftp.cup.cam.ac.uk/pub/texarchive/journals/latex/t1p-cls`

The submission deadline is 10 January 2002. Please either send six copies of your paper, or (preferably) email a PostScript or PDF file, to:

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Authors are also requested to email a title and a four or five line abstract in plain text as early as possible to `mal@ecs.soton.ac.uk` to facilitate organization.

Guest Editors:

Michael Leuschel, Andreas Podelski, C. R. Ramakrishnan, Ulrich Ultes-Nitsche
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