Call for Papers

Workshop on
MEchanized Reasoning
about
Languages with variable bINding
MERLIN 2001
Siena, Italy, June 18-19, 2001 in connection with IJCAR 2001
http://www.mcs.le.ac.uk/merlin

Keywords Induction and Coinduction, Logical Frameworks, Mechanization, Metaprogramming, Operational Semantics, Programming Languages, Theorem Proving, Variable Binding.

Justification Currently, there is considerable interest in the use of computers to encode (operational) semantic descriptions of programming languages. Such encodings are often done within the metalanguage of a theorem prover or related system. The encodings may require the use of variable binding constructs, inductive definitions, coinductive definitions, and associated schemes of (co)recursion. The broad aims are to run a short, but highly focused meeting, which will provide researchers with a forum to review state of the art results and techniques, and to present recent and new progress in the areas of:

- The automation of the metatheory of programming languages, particularly work which involves variable binding.
- Theoretical and practical problems of encoding variable binding, especially the representation of, and reasoning about, datatypes defined from binding signatures.

More specifically, contributions are solicited on all aspects of mechanized reasoning about languages with variable binding, including, but not limited to:

- Case studies of metaprogramming, and the mechanization of the metatheory, of operational descriptions of programming languages and calculi. Papers about the functional, imperative, object-oriented and concurrent methodologies are welcomed.
- Case studies of the mechanization of the metatheory of abstract machines, particularly machines for programming languages.
- The theory of induction & recursion and coinduction & corecursion on datatypes with variable binding.
- Novel implementations of induction & recursion and coinduction & corecursion on datatypes with variable binding, especially work related to programming languages.
- The theory and implementation of metalogical systems suitable for reasoning about programming languages.

Invited Talk Andrew Pitts, University of Cambridge, has agreed to give an invited talk on

A First Order Theory of Names and Binding
Submission  Submissions are encouraged in one of the following two categories:

**Category A** Detailed and technical accounts of new research, up to fifteen pages including appendices.

**Category B** Shorter accounts of work in progress and proposed further directions, including discussion papers, up to ten pages including appendices.

Papers must include the postal address, an email address if possible, and telephone number, for at least one contact author. Further, the category (either A or B) must be clearly indicated. Authors are encouraged to use LaTeX and the Springer Verlag LNCS guidelines. Papers should be submitted electronically as a PostScript file to the address merlin@mcs.le.ac.uk. If necessary, authors may submit three hard copies to the Local Organizer, Alberto Momigliano, by postal mail.

Workshop papers will be selected by the following Program Committee:

*Simon Ambler* (University of Leicester)  
*Roy Crole* (Chair; University of Leicester)  
*Amy Felty* (University of Ottawa)  
*Andrew Gordon* (Microsoft Research, Cambridge)  
*Furio Honsell* (University of Udine)  
*Tom Melham* (University of Glasgow)  
*Frank Pfenning* (Carnegie Mellon University)

Registration  For venue, registration and suggested accommodation see the IJCAR 2001 web page at http://www.dii.unisi.it/~ijcar

Important Dates:

**Friday March 30th** Deadline for paper submission.

**Friday April 20th** Notification of acceptance by email.

**Friday May 18th** Deadline for submission of Camera Ready Copy.

**Early registration** To be announced.

**Workshop dates** June 18-19 2001, exact date to be confirmed.

For further details about the Workshop, including questions concerning the relevance of submissions, please contact one of:

- **Roy L. Crole**, email: R.Crole@mcs.le.ac.uk
- **Simon J. Ambler**, email: S.Ambler@mcs.le.ac.uk
- **Alberto Momigliano** (Local Organizer), email: A.Momigliano@mcs.le.ac.uk

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