Third International Workshop on Reduction Strategies in Rewriting and Programming (WRS 2003)

part of the Federated Conference on Rewriting, Deduction and Programming (RDP 2003)
Valencia, Spain, June 8, 2003

CALL FOR PAPERS AND PARTICIPATION

Workshop Co-chairs

Bernhard Gramlich	Wien (Austria)
Salvador Lucas	Valencia (Spain)

Program Committee

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Salvador Lucas	Valencia (Spain)
Aart Middeldorp	Tsukuba (Japan)
Ricardo Peña	Madrid (Spain)
Pierre Réty	Orléans (France)
Eelco Visser	Utrecht (The Netherlands)

Invited Speakers

To be announced

Important Dates

Abstracts:	**March 30, 2003**
Submission:	**April 3, 2003**
Notification:	April 25, 2003
Final versions:	May 11, 2003
Workshop:	June 8, 2003

Background and Aims: Reduction strategies in rewriting and programming have attracted an increasing attention within the last years. New types of reduction strategies have been invented and investigated, and new results on rewriting / computation under particular strategies have been obtained. Research in this field ranges from primarily theoretical questions about reduction strategies to very practical application and implementation issues. The need for a deeper understanding of reduction strategies in rewriting and programming, both in theory and practice, is obvious, since they bridge the gap between unrestricted general rewriting (computation) and (more deterministic) rewriting with particular strategies (programming). Moreover, reduction strategies provide a natural way to go from operational principles (e.g., graph and term rewriting, narrowing, lambda-calculus) and semantics (e.g., normalization, computation of values, infinitary normalization, head-normalization) to implementations of programming languages.
The workshop wants to provide a forum for the presentation and discussion of new ideas and results, recent developments, new research directions, as well as of surveys on existing knowledge in this area. Furthermore we aim at fostering interaction and exchange between researchers and students actively working on such topics. The workshop is (co-)organized by TU Valencia and TU Wien.

Topics of Interest include, but are not restricted to,

- theoretical foundations for the definition and semantic description of reduction strategies
- strategies in different frameworks (term rewriting, graph rewriting, infinitary rewriting, lambda calculi, higher order rewriting, conditional rewriting, rewriting with built-ins, narrowing, constraint solving, etc.) and their application in (equational, functional, functional-logic) programming (languages)
- properties of reduction strategies / computations under strategies (e.g., completeness, computability, decidability, complexity, optimality, (hyper-)normalization, cofinality, fairness, perpetuality, context-freeness, neededness, laziness, eagerness, strictness)
- interrelations, combinations and applications of reduction under different strategies (e.g., equivalence conditions for fundamental properties like termination and confluence, applications in modularity analysis, connections between strategies of different frameworks, etc.)
- program analysis and other semantics-based optimization techniques dealing with reduction strategies
- rewrite systems / tools / implementations with flexible / programmable strategies as essential concept / ingredient
- specification of reduction strategies in (real) languages
- data structures and implementation techniques for reduction strategies.

Submissions: We solicit papers on all aspects of reduction strategies in rewriting and programming. Submissions should describe unpublished work, except for survey papers which are explicitly welcome, too. Submissions should not exceed 10 pages (however, survey papers may be longer). Please, send a message containing the title, authors, and abstract of your submission before **March 30, 2003** to the PC co-chairs at `wrs03@logic.at`. The full version of your submission should be sent in postscript or PDF format before **April 3, 2003**. Submissions should include the title, authors' names, affiliations, addresses, and e-mail. Selection of papers by the PC will be based on originality, significance, and correctness. Final versions will be due by May 11, 2003.

Publication: Accepted papers will be included in the preliminary workshop proceedings that will be available at the workshop. The final workshop proceedings will be published in Elsevier's Electronic Notes in Theoretical Computer Science (ENTCS) series.

WRS 2003 Web Site: `http://www.dsic.upv.es/~rdp03/wrs`