International Workshop on Reduction Strategies in Rewriting and Programming (WRS 2001)

held in conjunction with RTA 2001

Utrecht, The Netherlands, May 26, 2001

Last Call for Papers and Participation – Extended Submission Deadline: March 12, 2001

Workshop Co-chairs

Bernhard Gramlich	TU Wien
Salvador Lucas	TU Valencia

Program Committee

María Alpuente	TU Valencia
Rachid Echahed	IMAG Grenoble
Bernhard Gramlich	TU Wien
Salvador Lucas	TU Valencia
Vincent van Oostrom	U Utrecht
Rinus Plasmeijer	KU Nijmegen
Manfred Schmidt-Schauß	U Frankfurt a.M.
Yoshihito Toyama	U Tohoku

Local Organization

Vincent van Oostrom	U Utrecht

Invited Talks

Sergio Antoy (U Portland State):
Evaluation Strategies for Functional Logic Programming

Eelco Visser (U Utrecht):
A Survey of Strategies in Program Transformation Systems

Panel Discussion on
Hot Topics in Reduction Strategies with

Michael Hanus	U Kiel
Tetsuo Ida	U Tsukuba
Paul Klint	CWI & U Amsterdam

Important Dates

Submission:	**March 12, 2001 (ext.)**
Notification:	March 31, 2001
Final versions:	April 30, 2001
Workshop:	May 26, 2001

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 U Utrecht, 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) and be sent in postscript format to the PC co-chairs (`wrs01@logic.at`) by **March 12, 2001**. Selection of papers by the PC will be based on originality, significance, and correctness. Accepted papers will be included in the workshop proceedings that will be available at the workshop, and electronically on the web. Depending on the number and quality of submissions, formal publication of the proceedings is envisaged.

Researchers just interested in attending the workshop may send a corresponding email to `wrs01@logic.at` by **March 12, 2001**, preferably together with a brief position paper (up to two pages in postscript) describing their interest and/or work in the area. However, we will also consider late requests for attendance.

WRS 2001 Web Site: `http://www.logic.at/wrs01/`