

# Lecture Notes in Computer Science

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Harrie C.M. de Swart (Ed.)

# Relational Methods in Computer Science

6th International Conference, RelMiCS 2001  
and 1st Workshop of COST Action 274 TARSKI  
Oisterwijk, The Netherlands, October 16-21, 2001  
Revised Papers



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# Preface

This volume contains the papers presented at **RelMiCS 2001**, the 6th International Conference on Relational Methods in Computer Science, and the First Workshop of COST Action 274 **TARSKI**, Theory and Application of Relational Structures as Knowledge Instruments. The conference was held in conference centre Boschoord, Oisterwijk near Tilburg, The Netherlands, from October 16 till October 21, 2001. The conference attracted interest from many parts of the world with contributions from many countries.

This conference was a continuation of international conferences/workshops on Relational Methods in Computer Science held in: Schloss Dagstuhl, Germany, January 1994; Parati near Rio de Janeiro, September 1995; Hammamet, Tunisia, January 1997; the Stefan Banach Center, Warsaw, September 1998; and Quebec, Canada, January 2000.

The purpose of these conferences/workshops is to bring together researchers from various subdisciplines of Computer Science, Mathematics, and Philosophy, all of whom use relational methods as a conceptual and methodological tool in their work. Topics include, but are not limited to: relational, cylindric, fork, and Kleene algebras; relational proof theory and decidability issues; relational representation theorems; relational semantics; applications to programming, databases, and analysis of language; and computer systems for relational knowledge representation. With respect to applications one can think of: relational specifications and modeling; relational software design and development techniques; programming with relations; and implementing relational algebra.

The RelMiCS'6 conference had three *invited lectures*, one of which has been included in these Proceedings. In addition, three *tutorials* were presented: Ivo Düntsch and Günther Gediga, Rough' Sets: tools for non-invasive data analysis; Wolfram Kahl and Eric Offermann, Programming with and in relational categories; Gheorghe Ştefănescu, An introduction to network algebra.

After a thorough refereeing process the Program Committee selected 21 papers for inclusion in these Proceedings. The papers have been classified into the different Work Areas (WAs) of Cost Action TARSKI: WA 1, Algebraic and logical foundations of "real-world" relations; WA 2, Mechanization of relational reasoning; WA 3, Relational scaling and preferences.

# Organization

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Chris Brink:	University of Wollongong (Australia)
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Michel Grabisch:	Université Pierre et Marie Curie (Paris)
Wendy MacCaul:	St. Francis Xavier University (Antigonish, Canada)
Wolfram Kahl:	Fakultät für Informatik (UniBw, München)

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Dutch Research School in Logic  
TUE-UvT Research Group on Logic and Information Systems

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