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   Titolo   Theory and Applications of Relational Structures as Knowledge Instruments II [[electronic resource]] : International Workshops of COST Action 274, TARSKI, 2002-2005, Selected Revised Papers / / edited by Harrie de Swart, Ewa Orlowska, Gunther Schmidt, Marc Roubens

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   Soggetti   Computers
   Artificial intelligence
   Computer science—Mathematics
   Mathematical logic
   Database management
   Theory of Computation
   Artificial Intelligence
   Symbolic and Algebraic Manipulation
   Mathematical Logic and Formal Languages
   Database Management

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   Nota di contenuto   Social Software for Coalition Formation -- Investigating Finite Models of Non-classical Logics with Relation Algebra and RelView -- On the Logic of Medical Decision Support -- Generalizing and Modifying the Hoede-Bakker Index -- An Environment for Specifying Properties of Dyadic Relations and Reasoning About Them II: Relational Presentation of Non-classical Logics -- Relational Approach to Order-of-Magnitude Reasoning -- Relational Logics and Their Applications -- Fuzzy Information Relations and Operators: An Algebraic Approach Based on Residuated Lattices -- Aggregation of Fuzzy Relations and Preservation of Transitivity -- Flexible Query Answering Using Distance-Based Fuzzy Relations -- General Representation Theorems for Fuzzy Weak Orders

-- Relational Representation Theorems for Lattices with Negations: A Survey -- Lattice-Based Relation Algebras II -- Some Aspects of Lattice and Generalized Prelattice Effect Algebras -- A Decision Procedure for Monotone Functions over Bounded and Complete Lattices -- The Dominance Relation on the Class of Continuous T-Norms from an Ordinal Sum Point of View -- Aggregation on Bipolar Scales.

Sommario/riassunto	This book is a follow-up of LNCS volume 2929 with the same title, and presents the major results of COST action 274 (2002-2005), TARSKI: Theory and - plications of Relational Structures as Knowledge Instruments. Relational structures abound in the daily environment: relational databases, data-mining, scaling procedures, preference relations, etc. Reasoning about, and with, relations has a long-standing European tradition, which may be divided into three broad areas: 1. Algebraic Logic: algebras of relations, relational semantics, and algebras and logics derived from information systems. 2. Computational Aspects of Automated Relational Reasoning: decidability and complexity of algorithms, network satisfaction. 3. Applications: social choice, AI, linguistics, psychology, economics, etc. The main objective of the ?rst TARSKI book (LNCS 2929) was to advance the understanding of relational structures and the use of relational methods in applicable object domains. There were the following sub-objectives: 1. Tostudythesemanticalandsyntacticalaspectsofrelationalstructuresarising from 'real world' situations 2. To investigateautomatedinference for relationalsystems, and, wherepossible or feasible, develop deductive systems which can be implemented into industrial applications, such as diagnostic systems 3. To develop non-invasive scaling methods for predicting relational data 4. To make software for dealing with relational systems commonly available We are con?dent that the present book will further the understanding of int- disciplinary issues involving relational reasoning. This book consists of papers which give a clear and self-contained overview of the results obtained by the TARSKI action, typically obtained by di?erent persons from di?erent work - eas.