Record Nr. UNISA996517752903316 Relational and Algebraic Methods in Computer Science [[electronic **Titolo** resource]]: 20th International Conference, RAMiCS 2023, Augsburg, Germany, April 3-6, 2023, Proceedings / / edited by Roland Glück, Luigi Santocanale, Michael Winter Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2023 **ISBN** 3-031-28083-0 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (309 pages) Lecture Notes in Computer Science, , 1611-3349; ; 13896 Collana Disciplina 004.0151 Soggetti Logic programming Database management Expert systems (Computer science) Computer science—Mathematics Artificial intelligence Data mining Logic in Al **Database Management System Knowledge Based Systems** Mathematics of Computing Artificial Intelligence Data Mining and Knowledge Discovery Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references. Nota di bibliografia Amalgamation Property for Some Varieties of BL-algebras Generated by Nota di contenuto one Finite Set of BL-chains with Finitely-many Components -- Comer Schemes, Relation Algebras, and the Flexible Atom Conjecture -- A General Method for Representing Sets of Relations by Vectors --Contextuality in Distributed Systems -- The Structure of Locally Integral Involutive Po-monoids and Semirings -- Compatibility of

Refining and Controlling Plant Automata with Bisimulation Quotients -- Dependences Between Domain Constructions in Heterogeneous

Relation Algebras -- Normal Forms for Elements of the *-Continuous Kleene Algebras K (x) C2' -- Representable and Diagonally rRpresentable Weakening Relation Algebras -- Completeness and the Finite Model Property for Kleene Algebra, Reconsidered -- What Else is Undecidable About Loops -- Implication Algebras and Implication Semigroups of Binary Relations -- On the Complexity of Kleene Algebra with Domain -- Enumerating, Cataloguing and Classifying all Quantales on up to Nine Elements -- Duoidally Enriched Freyd Categories -- Towards a Theory of Conversion Relations for Prefixed Units of Measure -- Relational Algebraic Approach to the Real Numbers - The Additive Group.

Sommario/riassunto

This book constitutes the proceedings of the 20th International Conference on Relational and Algebraic Methods in Computer Science, RAMiCS 2023, which took place in Augsburg, Germany, during April 3–6, 2023. The 17 papers presented in this book were carefully reviewed and selected from 26 submissions. They deal with the development and dissemination of relation algebras, Kleene algebras, and similar algebraic formalisms. Topics covered range from mathematical foundations to applications as conceptual and methodological tools in computer science and beyond. Apart from the submitted articles, this volume features the abstracts of the presentations of the three invited speakers.