Record Nr. UNINA9910506385903321 Relational and Algebraic Methods in Computer Science: 19th **Titolo** International Conference, RAMiCS 2021, Marseille, France, November 2-5, 2021, Proceedings / / edited by Uli Fahrenberg, Mai Gehrke, Luigi Santocanale, Michael Winter Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2021 **ISBN** 3-030-88701-4 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (515 pages) Theoretical Computer Science and General Issues, , 2512-2029;; Collana 13027 Disciplina 004.0151 Soggetti Logic programming Computer science—Mathematics Computer science Mathematical logic Logic in Al Mathematics of Computing Theory of Computation Mathematical Logic and Foundations Lògica algebraica Informàtica Congressos Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Unary-determined distributive I-magmas and bunched implication Nota di contenuto algebras -- Effect Algebras, Girard Quantales and Complementation in Separation Logic -- Relational Computation of Sets of Relations --Experimental Investigation of Su cient Criteria for Relations to Have Kernels -- Ir-Multisemigroups, Modal Quantales and the Origin of Locality -- Abstract Strategies and Coherence -- Algorithmic correspondence for relevance logics, bunched implication logics, and

relation algebras via an implementation of the algorithm PEARL -- The

class of representable semilattice-ordered monoids is not a variety --Accretive Computation of Global Transformations -- Some modal and temporal translations of generalized basic logic -- Isolated Sublattices and their Application to Counting Closure Operators -- Second-Order Properties of Undirected Graphs -- Relation-algebraic Verification of Bor uvka's Minimum Spanning Tree Algorithm -- Deciding FOdefinability of Regular Languages -- Relational Models for the Lambek calculus with Intersection and Unit -- Free Modal Riesz Spaces are Archimedean: a Syntactic Proof -- Polyadic spaces and profinite monoids -- Time Warps, from Algebra to Algorithms -- On Algebra of Program Correctness and Incorrectness -- Computing Least and Greatest Fixed Points in Absorptive Semirings -- A Variety Theorem for Relational Universal Algebra. -On Tools for Completeness of Kleene Algebra with Hypotheses. -Skew metrics valued in Sugihara semigroups -- Computing Aggregated Knowledge as the Greatest Lower Bound of Knowledge -- Relational Sums and Splittings in Categories of L-fuzzy Relations -- Change of Base using Arrow Categories -- Automated Reasoning for Probabilistic Sequential Programs with Theorem Proving -- Domain Range Semigroups and Finite Representations.

Sommario/riassunto

This book constitutes the proceedings of the 19th International Conference on Relational and Algebraic Methods in Computer Science, RAMiCS 2021, which took place in Marseille, France, during November 2-5, 2021. The 29 papers presented in this book were carefully reviewed and selected from 35 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.