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Nota di contenuto	Intro -- Preface -- Organization -- Abstracts of Invited Talks -- Weighted Automata Over Monotonic Strong Bimonoids: Decidability and Undecidability of Finite Image -- Constraints, Graphs, Algebra, Logic, and Complexity -- Contents -- Invited Papers -- Chaining Multiplications in Finite Fields with Chudnovsky-Type Algorithms and Tensor Rank of the k-Multiplication -- 1 Introduction -- 1.1 Context, Notation and Basic Results -- 1.2 New Results and Organisation -- 2 Theoretical Construction of a Multiplying Algorithm -- 2.1 Notations -- 2.2 Algorithm -- 3 On the Existence of These Algorithms -- 3.1 Strategy of Construction -- 3.2 Towers of Algebraic Function Fields -- 4 Uniform Upper Bounds -- References -- On Some Algebraic Ways to Calculate Zeros of the Riemann Zeta Function -- 1 The Riemann Hypothesis -- 2 The Riemann Hypothesis in the Arithmetical Hierarchy -- 3 Calculation of the Zeta Zeros by Solving Algebraic Equations -- 4 Calculation of Summands from Dirichlet Series for the Zeta Function at Its Zeros -- References -- Shuffle Product of Regular Languages: Results and Open Problems -- 1 Introduction -- 2 Shuffle and Recognition -- 2.1 Shuffle Product -- 2.2 Monoids and Ordered Monoids -- 2.3 Power Monoids and Lower Set Monoids -- 3 Classes of Languages Closed Under Shuffle -- 3.1 Varieties of Languages Closed Under Shuffle -- 3.2 Positive Varieties of Languages Closed Under Shuffle -- 3.3 Intermixed Languages -- 4 Sequential and Parallel

Decompositions -- 4.1 Definitions and Examples -- 4.2 Closure Properties -- 4.3 Schnoebelen's Problem -- 5 Conclusion -- References -- Contributed Papers -- Ordering the Boolean Cube Vectors by Their Weights and with Minimal Change -- 1 Introduction -- 2 Basic Notions and Preliminary Results -- 3 Ordering the Vectors of the Boolean Cube by Their Weights and with Minimal Change. 4 Algorithm for Generating the Vectors of the Boolean Cube Ordered by Weights and with Minimal Change -- 5 Conclusions -- References -- Designated-Verifier Linkable Ring Signatures with Unconditional Anonymity -- 1 Introduction -- 2 Preliminaries -- 2.1 Notation -- 2.2 Security Assumptions -- 3 UDVLRS Definition and Security Model -- 3.1 UDVLRS Definition -- 3.2 Correctness -- 3.3 Adversarial Capabilities -- 3.4 Unforgeability -- 3.5 Anonymity -- 3.6 Non-transferability -- 3.7 Linkability -- 3.8 Non-slanderability -- 4 Our Construction -- 5 Security Analysis -- 6 Conclusion and Future Work -- References -- Finding Points on Elliptic Curves with Coppersmith's Method -- 1 Introduction -- 2 Preliminaries -- 2.1 Some ECC Cryptosystems -- 2.2 Lattice Basis Reduction and Coppersmith's Method -- 3 Small Solutions of the Elliptic Curve Equation -- 4 A Numerical Example -- 5 Conclusion -- References -- Weighted Propositional Configuration Logic over De Morgan Algebras -- 1 Introduction -- 2 Related Work -- 3 Preliminaries -- 4 Unweighted PCL -- 5 Weighted PCL over De Morgan Algebras -- 6 Examples -- 7 Discussion -- 8 Conclusion -- References -- Weighted Two-Way Transducers -- 1 Introduction -- 2 Preliminaries -- 3 Weighted Two-Way Transducers -- 4 Relation to Unweighted Case -- 5 Closure Properties -- References -- A Formal Algebraic Approach for the Quantitative Modeling of Connectors in Architectures -- 1 Introduction -- 2 Related Work -- 3 Preliminaries -- 4 The Weighted Algebra of Interactions -- 5 The Weighted Algebra of Connectors -- 6 On Congruence Relation for Fusion-wAC(P) Connectors -- 7 Discussion -- 8 Conclusion -- References -- Watson-Crick Powers of a Word -- 1 Introduction -- 2 Preliminaries -- 3 A Binary Operation Generating Watson-Crick Powers -- 4 Watson-Crick Conjugate Equations -- 5 Conjugacy and Commutativity with Respect to. 6 -Primitive Words, and a Word's -Primitive Root Pair -- 7 Conclusions -- References -- A Normal Form for Matrix Multiplication Schemes -- 1 Introduction -- 2 Matrix Multiplication Schemes -- 3 The Symmetry Group -- 4 Minimal Orbit Elements -- 5 Minimizing the First Row -- 6 Timings and Analysis -- References -- Bideterministic Weighted Automata -- 1 Introduction -- 2 Preliminaries -- 3 Bideterministic Weighted Automata over a Semiring -- 4 The Minimality Property of Bideterministic Automata -- 4.1 Fields and Integral Domains -- 4.2 Other Commutative Rings -- 4.3 Positive Semirings -- 5 Decidability of Bideterminisability -- 5.1 Fields -- 5.2 Tropical Semirings -- References -- How to Decide Functionality of Compositions of Top-Down Tree Transducers -- 1 Introduction -- 2 Top-Down Tree Transducers -- 3 Functionality of Two-Fold Compositions -- 3.1 Construction of the LA-Transducer M -- 3.2 Correctness of the LA-Transducer M -- 3.3 Functionality of Arbitrary Compositions -- 4 Conclusion -- References -- Computation of Solutions to Certain Nonlinear Systems of Fuzzy Relation Inequations -- 1 Introduction -- 2 Preliminaries -- 3 Certain Types of Fuzzy Relation Inequations and Their Solutions -- References -- When Variable-Length Codes Meet the Field of Error Detection -- 1 Introduction -- 2 Preliminaries -- 3 Error Detection and the Prefix Metric -- 4 Error Detection and the Factor Metric -- 5 Error Detection in the Topologies Associated to (anti-) automorphisms -- 6 Concluding Remark -- References -- Author

