

1. Record Nr.	UNISA996466096103316
Titolo	Computer Algebra in Scientific Computing [[electronic resource]] : 10th International Workshop, CASC 2007, Bonn, Germany, September 16-20, 2007, Proceedings // edited by V.G. Ganzha, E.W. Mayr, E.V. Vorozhtsov
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2007
ISBN	3-540-75187-4
Edizione	[1st ed. 2007.]
Descrizione fisica	1 online resource (XIII, 460 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4770
Disciplina	512.00285
Soggetti	Computer science—Mathematics Computer programming Discrete mathematics Algorithms Symbolic and Algebraic Manipulation Programming Techniques Discrete Mathematics in Computer Science Mathematical Applications in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Analytic Solutions of Linear Difference Equations, Formal Series, and Bottom Summation -- Computations in Modules over Commutative Domains -- Advances on the Continued Fractions Method Using Better Estimations of Positive Root Bounds -- An Efficient LLL Gram Using Buffered Transformations -- On the Computation of A ???-Maps -- Algebraic Visualization of Relations Using RelView -- Comprehensive Triangular Decomposition -- Stability Investigation of a Difference Scheme for Incompressible Navier-Stokes Equations -- A Symbolic-Numerical Algorithm for Solving the Eigenvalue Problem for a Hydrogen Atom in the Magnetic Field: Cylindrical Coordinates -- An Algorithm for Construction of Normal Forms -- Computer Algebra: A 'Classical' Path to Explore Decoherence and Entanglement Phenomena in Quantum Information Theory -- Deducing the Constraints in the Light-Cone SU

(3) Yang-Mills Mechanics Via Gröbner Bases -- On the Weight Spectra of Conway Matrices Related to the Non-transitive Head-or-Tail Game -- Properties of the Liapunov Stability Zones of the Lagrange Triangle -- Studying the Stability of the Second Order Non-autonomous Hamiltonian System -- On the Peculiar Properties of Families of Invariant Manifolds of Conservative Systems -- A Unified Algorithm for Multivariate Analytic Factorization -- On the Computation of the Defining Polynomial of the Algebraic Riccati Equation -- Symmetries and Dynamics of Discrete Systems -- Exact Solutions of Completely Integrable Systems and Linear ODE's Having Elliptic Function Coefficients -- Dynamics of Nonlinear Parabolic Equations with Cosymmetry -- Weak Integer Quantifier Elimination Beyond the Linear Case -- Polynomial Division Using Dynamic Arrays, Heaps, and Packed Exponent Vectors -- Ruppert Matrix as Subresultant Mapping -- Construction of Computer System for Microobjects Recognition Based on Neural Networks -- Analytical Solution for Transient Flow of a Generalized Bingham Fluid with Memory in a Movable Tube Using Computer Algebra -- Some Elimination Problems for Matrices -- A Full System of Invariants for Third-Order Linear Partial Differential Operators in General Form -- Automatic Stability Analysis for a Diffusion Equation with Memories Using Maple -- Bounds for Real Roots and Applications to Orthogonal Polynomials -- Distance Computation from an Ellipsoid to a Linear or a Quadric Surface in \mathbb{R}^n -- Robust Stability for Parametric Linear ODEs -- Symbolic and Algebraic Methods for Linear Partial Differential Operators -- A New Scheme for Deniable/Repudiable Authentication -- An Algebraic-Numeric Algorithm for the Model Selection in Kinetic Networks -- On the Representation of the Differential Operator in Bases of Periodic Coiflets and It's Application.
