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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Talks (received in text form) -- Deviation and Association Patterns for Subgroup Mining in Temporal, Spatial, and Textual Data Bases -- The Paradox of the Heap of Grains in Respect to Roughness, Fuzziness and Negligibility -- Rough Sets - What Are They About? -- Reasoning about Data — A Rough Set Perspective -- Information Granulation and its Centrality in Human and Machine Intelligence -- Communications -- Classification Strategies Using Certain and Possible Rules -- Well-Behaviored Operations for Approximate Sets -- Searching for Frequential Reducts in Decision Tables with Uncertain Objects -- A New Rough Set Approach to Multicriteria and Multiattribute Classification -- A Heuristic Method of Model Choice for Nonlinear Regression -- How a New Statistical Infrastructure Induced a New Computing Trend in Data Analysis -- Some Remarks on Networks of Parallel Language Processors -- Molecular Computation for Genetic Algorithms -- Marcus Contextual Languages and their Cut-and-Paste Properties -- Contextual Multilanguages: A Learning Method -- On Recognition of Words from Languages Generated by Linear Grammars with One Nonterminal Symbol -- Approximation Spaces and Definability for Incomplete Information Systems -- Intrinsic Co-Heyting Boundaries and Information Incompleteness in Rough Set Analysis -- Multifunctions as Approximation Operations in Generalized

Approximation Spaces -- Preimage Relations and Their Matrices -- Cellular Neural Networks for Navigation of a Mobile Robot -- The Takagi-Sugeno Fuzzy Model Identification Method of Parameter Varying Systems -- Sensing of Arc Length and Wire Extension Using Neural Network in Robotic Welding -- Traffic Signal Control Using Multi-layered Fuzzy Control -- Approximation Region-Based Decision Tables -- A Model of RSDM Implementation -- Handling Queries in Incomplete CKBS through Knowledge Discovery -- Learning Logical Descriptions for Document Understanding: A Rough Sets-Based Approach -- Integrating KDD Algorithms and RDBMS Code -- Fast Discovery of Representative Association Rules -- Rough Classifiers Sensitive to Costs Varying from Object to Object -- Soft Techniques to Data Mining -- Business Process Understanding: Mining Many Datasets -- A Genetic Algorithm for Switchbox Routing Problem -- On the Benefits of Random Memorizing in Local Evolutionary Search -- An Application of Genetic Algorithms to Floorplanning of VLSI -- Learning with Delayed Rewards in Ant Systems for the Job-Shop Scheduling Problem -- Fuzzy Extension of Rough Sets Theory -- Fuzzy Similarity Relation as a Basis for Rough Approximations -- Approximation Spaces in Extensions of Rough Set Theory -- On Generalizing Pawlak Approximation Operators -- Real-Time Real-World Visual Classification — Making Computational Intelligence Fly -- Fractal Operator Convergence by Analysis of Influence Graph -- Pattern Recognition by Invariant Reference Points -- An Analysis of Context Selection in Embedded Wavelet Coders -- Equivalent Characterization of a Class of Conditional Probabilistic Independencies -- A New Qualitative Rough-Set Approach to Modeling Belief Functions -- On Stability of Oja Algorithm -- Transform Vector Quantization of Images in One Dimension -- Daubechies Filters for 2D Wavelet Transforms -- Some Heuristics for Default Knowledge Discovery -- Fuzzy Partitions II: Belief Functions A Probabilistic View -- Frameworks for Mining Binary Relations in Data -- Handling Continuous Attributes in Discovery of Strong Decision Rules -- Covering with Reducts - A Fast Algorithm for Rule Generation -- Syntactical Content of Finite Approximations of Partial Algebras -- A New Approach to Linguistic Negation based upon Compatibility Level and Tolerance Threshold -- Some Issues on Nondeterministic Knowledge Bases with Incomplete and Selective Information -- The OI-Resolution of Operator Rough Logic -- Pedagogical Method for Extraction of Symbolic Knowledge -- Wavelets, Rough Sets and Artificial Neural Networks in EEG Analysis -- Parallel Computation of Reducts -- Rough Rules in Prolog -- Tuning the Perceptual Noise Reduction Algorithm Using Rough Sets -- Modelling Medical Diagnostic Rules Based on Rough Sets -- Discretization of Continuous Attributes on Decision System in Mitochondrial Encephalomyopathies -- Approximate Time Rough Control: Concepts and Application to Satellite Attitude Control -- Some Relationships between Decision Trees and Decision Rule Systems -- On Decision Trees with Minimal Average Depth -- On Diagnosis of Retaining Faults in Circuits -- On the Depth of Decision Trees for Diagnosing of Nonelementary Faults in Circuits -- Discovery of Decision Rules by Matching New Objects Against Data Tables -- Rule+Exception Modeling Based on Rough Set Theory -- On Finding Optimal Discretizations for Two Attributes -- Discretization Problem for Rough Sets Methods -- Rough Mereology for Industrial Design -- Optimal Stochastic Scaling of CAE Parallel Computations -- CBR for Complex Objects Represented in Hierarchical Information Systems -- Application of the Information Measures to Input Support Selection in Functional Decomposition -- Modelling Social Game Systems by Rule Complexes -- Analysis and Synthesis of Information

	Systems with Information Relationships and Measures -- Approximations in Data Mining -- Purchase Prediction in Database Marketing with the ProbRough System -- Rough Sets in Optical Character Recognition -- ROSE - Software Implementation of the Rough Set Theory -- Rough Sets and Bayesian Methods Applied to Cancer Detection -- Rough Sets and Neural Networks Application to Handwritten Character Recognition by Complex Zernike Moments.
Sommario/riassunto	This volume constitutes the refereed proceedings of the First International Conference on Rough Sets and Current Trends in Computing, RSCTC'98, held in Warsaw, Poland, in June 1998. The volume presents 82 revised papers carefully selected for inclusion in the proceedings; also included are five invited contributions. The volume is divided in topical sections on rough set methods, statistical inference, grammar systems and molecular computations, logic in rough sets, intelligent control, rough sets in knowledge discovery and data discovery, data mining, evolutionary computation, hybrid methods, etc.