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Titolo	Symbolic and quantitative approaches to reasoning with uncertainty : 10th European conference, ECSQARU 2009, Verona, Italy, July 1-3, 2009 ; proceedings // Claudio Sossai, Gaetano Chemello (eds.)
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Collana	Lecture notes in computer science ; ; 5590. Lecture notes in artificial intelligence
Classificazione	DAT 706f SS 4800
Altri autori (Persone)	SossaiClaudio ChemelloGaetano
Disciplina	006.3
Soggetti	Artificial intelligence Reasoning Uncertainty (Information theory)
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- Fuzzy and Bipolar Mathematical Morphology, Applications in Spatial Reasoning -- From (Deductive) Fuzzy Logic to (Logic-Based) Fuzzy Mathematics -- Conditionals and Independence in Many-Valued Logics -- Algorithms for Uncertain Inference -- Inference from Multinomial Data Based on a MLE-Dominance Criterion -- Local Computation Schemes with Partially Ordered Preferences -- Inference in Hybrid Bayesian Networks with Deterministic Variables -- Argumentation Systems -- Extracting the Core of a Persuasion Dialog to Evaluate Its Quality -- On Revising Argumentation-Based Decision Systems -- Encompassing Attacks to Attacks in Abstract Argumentation Frameworks -- Social Argument Justification: Some Mechanisms and Conditions for Their Coincidence -- Dynamics in Argumentation with Single Extensions: Abstraction Principles and the Grounded Extension -- An Algorithm for Generating Arguments in Classical Predicate Logic -- Modelling Argument Accrual in Possibilistic Defeasible Logic Programming -- Generalized Abstract Argumentation: Handling Arguments in FOL Fragments -- Bayesian Networks -- Probability Density Estimation by Perturbing and Combining Tree

Structured Markov Networks -- Integrating Ontological Knowledge for Iterative Causal Discovery and Visualization -- Binary Probability Trees for Bayesian Networks Inference -- Marginals of DAG-Isomorphic Independence Models -- The Probabilistic Interpretation of Model-Based Diagnosis -- Simplifying Learning in Non-repetitive Dynamic Bayesian Networks -- Surprise-Based Qualitative Probabilistic Networks -- Maximum Likelihood Learning of Conditional MTE Distributions -- Belief Functions -- A Generalization of the Pignistic Transform for Partial Bet -- Using Logic to Understand Relations between DSMT and Dempster-Shafer Theory -- Complexes of Outer Consonant Approximations -- The Intersection Probability and Its Properties -- Can the Minimum Rule of Possibility Theory Be Extended to Belief Functions? -- Capacity Refinements and Their Application to Qualitative Decision Evaluation -- Belief Functions and Cluster Ensembles -- Upper Probabilities Attainable by Distributions of Measurable Selections -- Belief Revision and Inconsistency Handling -- Merging Qualitative Constraints Networks Using Propositional Logic -- Distance-Based Semantics for C-Structure Belief Revision -- Merging Belief Bases Represented by Logic Programs -- Knowledge Base Stratification and Merging Based on Degree of Support -- Using Transfinite Ordinal Conditional Functions -- The Non-archimedean Polynomials and Merging of Stratified Knowledge Bases -- Encoding the Revision of Partially Preordered Information in Answer Set Programming -- A Distance-Based Operator to Revising Ontologies in DL -- Classification and Clustering -- An Experimental Study about Simple Decision Trees for Bagging Ensemble on Datasets with Classification Noise -- Incremental Maintenance of Frequent Itemsets in Evidential Databases -- A Bayesian Random Split to Build Ensembles of Classification Trees -- HODE: Hidden One-Dependence Estimator -- On the Effectiveness of Diversity When Training Multiple Classifier Systems -- On the Use of Clustering in Possibilistic Decision Tree Induction -- When in Doubt ... Be Indecisive -- Conditioning, Independence, Inference -- Acyclic Directed Graphs to Represent Conditional Independence Models -- Towards a Conscious Choice of a Similarity Measure: A Qualitative Point of View -- Integrated Likelihood in a Finitely Additive Setting -- Triangulation Heuristics for BN2O Networks -- Default Reasoning -- A Default Logic Patch for Default Logic -- A Note on Cumulative Stereotypical Reasoning -- Realizing Default Logic over Description Logic Knowledge Bases -- Dealing Automatically with Exceptions by Introducing Specificity in ASP -- Foundations of Reasoning and Decision Making under Uncertainty -- Generalised Label Semantics as a Model of Epistemic Vagueness -- Handling Analogical Proportions in Classical Logic and Fuzzy Logics Settings -- Qualitative Possibilities and Necessities -- Probabilistic Reasoning by SAT Solvers -- Fuzzy Sets and Fuzzy Logic -- Supporting Fuzzy Rough Sets in Fuzzy Description Logics -- Possibilistic Measures Taking Their Values in Spaces Given by Inclusion-Closed Fragments of Power-Sets -- Different Representations of Fuzzy Vectors -- Eliciting Sugeno Integrals: Methodology and a Case Study -- Implementation and Applications of Uncertain Systems -- Robust Gene Selection from Microarray Data with a Novel Markov Boundary Learning Method: Application to Diabetes Analysis -- Brain Tumor Segmentation Using Support Vector Machines -- Ensemble Learning for Multi-source Information Fusion -- Bayesian Belief Network for Tsunami Warning Decision Support -- Anti-division Queries with Ordinal Layered Preferences -- Predicting Stock and Portfolio Returns Using Mixtures of Truncated Exponentials -- Logics for Reasoning under Uncertainty -- Non-deterministic Distance Semantics for Handling Incomplete and Inconsistent Data -- A Simple

Modal Logic for Reasoning about Revealed Beliefs -- Complexity and Cautiousness Results for Reasoning from Partially Preordered Belief Bases -- A Logic for Complete Information Systems -- Markov Decision Processes -- An Uncertainty-Based Belief Selection Method for POMDP Value Iteration -- Optimal Threshold Policies for Multivariate Stopping-Time POMDPs -- An Evidential Measure of Risk in Evidential Markov Chains -- Mathematical Fuzzy Logic -- Algebras of Fuzzy Sets in Logics Based on Continuous Triangular Norms -- Soft Constraints Processing over Divisible Residuated Lattices -- On the Convergence with Fixed Regulator in Residuated Structures -- Open Partitions and Probability Assignments in Gödel Logic -- Exploring Extensions of Possibilistic Logic over Gödel Logic.

Sommario/riassunto

This book constitutes the refereed proceedings of the 10th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty, ECSQARU 2009, held in Verona, Italy, July 1-3, 2009. There are 76 revised full papers presented together with 3 invited lectures by three outstanding researchers in the area. All papers were carefully reviewed and selected from 118 submissions for inclusion in the book. The papers are organized in topical sections on algorithms for uncertain inference, argumentation systems, Bayesian networks, Belief functions, Belief revision and inconsistency handling, classification and clustering, conditioning, independence, inference, default reasoning, foundations of reasoning, decision making under uncertainty, Fuzzy sets and Fuzzy logic, implementation and application of uncertain systems, logics for reasoning under uncertainty, Markov decision process, and Mathematical Fuzzy Logic.
