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Disciplina	006.33
Soggetti	Artificial intelligence Computers Computer science—Mathematics Computer organization Optical data processing Artificial Intelligence Theory of Computation Mathematics of Computing Information Systems and Communication Service Computer Systems Organization and Communication Networks Computer Imaging, Vision, Pattern Recognition and Graphics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Homage to Enrique Ruspini -- Invited Talks -- Foundations and Mathematics -- Decision Making, Preferences and Votes -- Optimization and Uncertainty. --Games -- Real World Applications -- Knowledge Processing and Creation -- Machine Learning I -- Machine Learning II. -- XAI -- Image Processing -- Temporal Data Processing -- Text Analysis and Processing -- Fuzzy Interval Analysis -- Theoretical and Applied Aspects of Imprecise Probabilities -- Similarities in Artificial

Intelligence -- Belief Function Theory and its Applications -- Aggregation: Theory and Practice -- Aggregation: Pre-aggregation Functions and other Generalizations of Monotonicity -- Aggregation: Aggregation of Different Data Structures -- Fuzzy methods in Data Mining and Knowledge Discovery -- Computational Intelligence for Logistics and Transportation Problems -- Fuzzy Implication Functions -- Soft Methods in Statistics and Data Analysis -- Image Understanding and Explainable AI -- Fuzzy and Generalized Quantifier Theory -- Mathematical Methods Towards Dealing with Uncertainty in Applied Sciences -- Statistical Image Processing and Analysis, with Applications in Neuroimaging -- Interval Uncertainty -- Discrete Models and Computational Intelligence -- Current Techniques to Model, Process and Describe Time Series -- Mathematical Fuzzy Logic and Graded Reasoning Models -- Formal Concept Analysis, Rough Sets, General Operators and Related Topics -- Computational Intelligence Methods in Information Modelling, Representation and Processing.

Sommario/riassunto

This three volume set (CCIS 1237-1239) constitutes the proceedings of the 18th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2020, in June 2020. The conference was scheduled to take place in Lisbon, Portugal, at University of Lisbon, but due to COVID-19 pandemic it was held virtually. The 173 papers were carefully reviewed and selected from 213 submissions. The papers are organized in topical sections: homage to Enrique Ruspini; invited talks; foundations and mathematics; decision making, preferences and votes; optimization and uncertainty; games; real world applications; knowledge processing and creation; machine learning I; machine learning II; XAI; image processing; temporal data processing; text analysis and processing; fuzzy interval analysis; theoretical and applied aspects of imprecise probabilities; similarities in artificial intelligence; belief function theory and its applications; aggregation: theory and practice; aggregation: pre-aggregation functions and other generalizations of monotonicity; aggregation: aggregation of different data structures; fuzzy methods in data mining and knowledge discovery; computational intelligence for logistics and transportation problems; fuzzy implication functions; soft methods in statistics and data analysis; image understanding and explainable AI; fuzzy and generalized quantifier theory; mathematical methods towards dealing with uncertainty in applied sciences; statistical image processing and analysis, with applications in neuroimaging; interval uncertainty; discrete models and computational intelligence; current techniques to model, process and describe time series; mathematical fuzzy logic and graded reasoning models; formal concept analysis, rough sets, general operators and related topics; computational intelligence methods in information modelling, representation and processing.