Record Nr. UNINA9910299285603321 **Titolo** Information Processing and Management of Uncertainty in Knowledge-Based Systems. Theory and Foundations: 17th International Conference, IPMU 2018, Cádiz, Spain, June 11-15, 2018, Proceedings, Part II / / edited by Jesús Medina, Manuel Ojeda-Aciego, José Luis Verdegay, David A. Pelta, Inma P. Cabrera, Bernadette Bouchon-Meunier, Ronald R. Yager Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 3-319-91476-6 **ISBN** [1st ed. 2018.] Edizione Descrizione fisica 1 online resource (XX, 766 p. 178 illus.) Communications in Computer and Information Science, , 1865-0929;; Collana 854 Disciplina 006.33 Soggetti Artificial intelligence Mathematical logic Data mining Algorithms Application software Artificial Intelligence Mathematical Logic and Formal Languages Data Mining and Knowledge Discovery Algorithm Analysis and Problem Complexity Computer Appl. in Administrative Data Processing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Advances on Explainable Artificial Intelligence -- Aggregation Nota di contenuto Operators, Fuzzy Metrics and Applications -- Belief Function Theory and its Applications -- Current Techniques to Model, Process and Describe Time Series -- Discrete Models and Computational Intelligence -- Formal Concept Analysis and Uncertainty -- Fuzzy Implication Functions -- Fuzzy Logic and Artificial Intelligence

Problems -- Fuzzy Mathematical Analysis and Applications -- Fuzzy

Methods in Data Mining and Knowledge Discovery -- Fuzzy

Transforms: Theory and Applications to Data Analysis and Image Processing -- Imprecise Probabilities: Foundations and Applications -- Mathematical Fuzzy Logic, Mathematical Morphology -- Measures of Comparison and Entropies for Fuzzy Sets and Their Extensions -- New Trends in Data Aggregation -- Pre-aggregation Functions and Generalized Forms of Monotonicity -- Rough and Fuzzy Similarity Modelling Tools -- Soft Computing for Decision Making in Uncertainty -- Soft Computing in Information Retrieval and Sentiment Analysis -- Tri-partitions and Uncertainty -- Decision Making Modeling and Applications -- Logical Methods in Mining Knowledge from Big Data -- Metaheuristics and Machine Learning -- Optimization Models for Modern Analytics -- Uncertainty in Medicine -- Uncertainty in Video/Image Processing (UVIP) -- General Track.

## Sommario/riassunto

This three volume set (CCIS 853-855) constitutes the proceedings of the 17th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2017. held in Cádiz, Spain, in June 2018. The 193 revised full papers were carefully reviewed and selected from 383 submissions. The papers are organized in topical sections on advances on explainable artificial intelligence: aggregation operators, fuzzy metrics and applications: belief function theory and its applications; current techniques to model, process and describe time series; discrete models and computational intelligence; formal concept analysis and uncertainty; fuzzy implication functions; fuzzy logic and artificial intelligence problems; fuzzy mathematical analysis and applications; fuzzy methods in data mining and knowledge discovery; fuzzy transforms: theory and applications to data analysis and image processing; imprecise probabilities: foundations and applications: mathematical fuzzy logic, mathematical morphology; measures of comparison and entropies for fuzzy sets and their extensions; new trends in data aggregation; pre-aggregation functions and generalized forms of monotonicity; rough and fuzzy similarity modelling tools; soft computing for decision making in uncertainty; soft computing in information retrieval and sentiment analysis; tri-partitions and uncertainty; decision making modeling and applications: logical methods in mining knowledge from big data: metaheuristics and machine learning; optimization models for modern analytics; uncertainty in medicine; uncertainty in Video/Image Processing (UVIP).