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Nota di contenuto	Evidential Clustering A Distributional Approach for Soft Clustering Comparison and Evaluation -- Causal transfer evidential clustering -- Jiang A variational Bayesian clustering approach to acoustic emission interpretation including soft labels -- Evidential clustering by Competitive Agglomeration -- Imperfect Labels with Belief Functions for Active Learning -- Machine Learning and Pattern Recognition An Evidential Neural Network Model for Regression Based on Random Fuzzy Numbers -- Ordinal Classification using Single-model Evidential Extreme Learning Machine -- Reliability-based imbalanced data classification with Dempster-Shafer theory -- Evidential regression by synthesizing feature selection and parameters learning -- Algorithms and Evidential Operators Distributed EK-NN classification -- On improving a group of evidential sources with different contextual corrections -- Measure of Information Content of Basic Belief Assignments -- Belief functions on On Modelling and Solving the Shortest Path Problem with Evidential Weights -- Data and Information Fusion Heterogeneous Image Fusion for Target Recognition based on Evidence Reasoning -- Cluster Decomposition of the Body of Evidence

-- Evidential Trustworthiness Estimation for Cooperative Perception --
 An Intelligent System for Managing Uncertain Temporal Flood events --
 Statistical Inference - Graphical Models A practical strategy for valid
 partial prior-dependent possibilistic inference -- On Conditional Belief
 Functions in the Dempster-Shafer Theory -- Valid inferential models
 offer performance and probativeness assurances. Links with Other
 Uncertainty Theories A qualitative counterpart of belief functions with
 application to uncertainty propagation in safety cases -- The Extension
 of Dempster's Combination Rule Based on Generalized Credal Sets -- A
 Correspondence between Credal Partitions and Fuzzy Orthopartitions
 -- Toward updating belief functions over Belnap–Dunn logic --
 Applications Real bird dataset with imprecise and uncertain values --
 Addressing ambiguity in randomized reinsurance contracts using belief
 functions -- Evidential filtering and spatio-temporal gradient for
 micro-movements analysis in the context of bedsores prevention --
 Hybrid Artificial Immune Recognition System with improved belief
 classification process.

Sommario/riassunto

This book constitutes the refereed proceedings of the 7th International Conference on Belief Functions, BELIEF 2022, held in Paris, France, in October 2022. The theory of belief functions is now well established as a general framework for reasoning with uncertainty, and has well-understood connections to other frameworks such as probability, possibility, and imprecise probability theories. It has been applied in diverse areas such as machine learning, information fusion, and pattern recognition. The 29 full papers presented in this book were carefully selected and reviewed from 31 submissions. The papers cover a wide range on theoretical aspects on mathematical foundations, statistical inference as well as on applications in various areas including classification, clustering, data fusion, image processing, and much more.
