1. Record Nr. UNINA9910484851303321 Autore Bentkowska Urszula Titolo Interval-Valued Methods in Classifications and Decisions [[electronic resource] /] / by Urszula Bentkowska Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-12927-6 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XV, 163 p. 12 illus., 5 illus. in color.) Collana Studies in Fuzziness and Soft Computing, , 1434-9922; ; 378 Disciplina 511.322 Computational intelligence Soggetti **Bioinformatics Microarrays** Computer simulation Computational Intelligence Computational Biology/Bioinformatics Simulation and Modeling Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Fuzzy Sets and their Extensions -- Aggregation in Interval-valued Settings -- Decision Making using Interval-valued Aggregation --Optimization Problem of k-NN classier in DNA Microarray Methods --Interval-valued Methods in Medical Decision Support Systems. This book describes novel algorithms based on interval-valued fuzzy Sommario/riassunto methods that are expected to improve classification and decisionmaking processes under incomplete or imprecise information. At first, it introduces interval-valued fuzzy sets. It then discusses new methods for aggregation on interval-valued settings, and the most common properties of interval-valued aggregation operators. It then presents applications such as decision making using interval-valued aggregation, and classification in case of missing values. Interesting applications of the developed algorithms to DNA microarray analysis and in medical decision support systems are shown. The book is intended not only as a timely report for the community working on

fuzzy sets and their extensions but also for researchers and

practitioners dealing with the problems of uncertain or imperfect information. .