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| Autore                  | Beliakov Gleb   |
| Titolo                  | Discrete Fuzzy Measures : Computational Aspects // by Gleb Beliakov, Simon James, Jian-Zhang Wu   |
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| ISBN                    | 3-030-15305-3   |
| Edizione                | [1st ed. 2020.]   |
| Descrizione fisica      | 1 online resource (XIV, 245 p. 44 illus., 38 illus. in color.)  |
| Collana                 | Studies in Fuzziness and Soft Computing, , 1434-9922 ; ; 382  |
| Disciplina              | 515.42  |
| Soggetti                | Computational intelligence<br>Data mining<br>Operations research<br>Management science<br>Computational Intelligence<br>Data Mining and Knowledge Discovery<br>Operations Research, Management Science  |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Nota di bibliografia    | Includes bibliographical references and indexes.  |
| Nota di contenuto       | Introduction -- Types of Fuzzy Measures -- Value and Interaction Indices -- Representations -- Fuzzy Integrals -- Symmetric Fuzzy Measures: OWA -- k-order Fuzzy Measures and k-order Aggregation Functions -- Learning Fuzzy Measures -- Index.  |
| Sommario/riassunto      | This book addresses computer scientists, IT specialists, mathematicians, knowledge engineers and programmers, who are engaged in research and practice of multicriteria decision making. Fuzzy measures, also known as capacities, allow one to combine degrees of preferences, support or fuzzy memberships into one representative value, taking into account interactions between the inputs. The notions of mutual reinforcement or redundancy are modeled explicitly through coefficients of fuzzy measures, and fuzzy integrals, such as the Choquet and Sugeno integrals combine the inputs. Building on previous monographs published by the authors and dealing with different aspects of aggregation, this book especially focuses on the Choquet and Sugeno integrals. It presents a number of |

new findings concerning computation of fuzzy measures, learning them from data and modeling interactions. The book does not require substantial mathematical background, as all the relevant notions are explained. It is intended as concise, timely and self-contained guide to the use of fuzzy measures in the field of multicriteria decision making.

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