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Nota di contenuto	Introduction -- The MCDM Rank Model -- Normalization and rank model MCDM -- Linear Methods for Multivariate Normalization -- Inversion of normalized values. ReS-algorithm -- Rank Reversal in MCDM Models. Contribution of the normalization -- Coordination of scales of normalized values. IZ-method MS-transformation of Z-Score -- Nonlinear multivariate normalization methods -- Normalization for the case “Nominal value the best” -- Comparative results of ranking of alternatives using different normalization methods. Computational experiment -- 12 Significant difference of the performance indicator of alternatives -- Conclusion.
Sommario/riassunto	This book presents a systematic review of multidimensional normalization methods and addresses problems frequently

encountered when using various methods and ways to eliminate them. The invariant properties of the linear normalization methods presented here can be used to eliminate simple problems and avoid obvious errors when choosing a normalization method. The book introduces valuable, novel techniques for the multistep normalization of multidimensional data. One of these methods involves inverting the normalized values of cost attributes into profit attributes based on the reverse sorting algorithm (ReS algorithm). Another approach presented is the IZ method, which addresses the issue of shift in normalized attribute values. Additionally, a new method for normalizing the decision matrix is proposed, called the MS method, which ensures the equalization of average values and variances of attributes. Featuring numerous illustrative examples throughout, the book helps readers to understand what difficulties can arise in multidimensional normalization, what to expect from such problems, and how to solve them. It is intended for academics and professionals in various areas of data science, computing in mathematics, and statistics, as well as decision-making and operations.