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Titolo	Fuzzy Statistical Decision-Making : Theory and Applications / / edited by Cengiz Kahraman, Özgür Kabak
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Descrizione fisica	1 online resource (XII, 356 p. 84 illus., 5 illus. in color.)
Collana	Studies in Fuzziness and Soft Computing, , 1434-9922 ; ; 343
Disciplina	003.56
Soggetti	Computational intelligence Statistics Operations research Decision making Computational Intelligence Statistical Theory and Methods Operations Research/Decision Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Preface -- Fuzzy Statistical Decision Making -- Fuzzy Probability Theory I: Discrete Case -- Fuzzy Probability Theory II: Continuous Case -- On Fuzzy Bayesian Inference -- Fuzzy Central Tendency Measures -- Fuzzy Dispersion Measures -- Sufficiency, Completeness, and Unbiasedness based on Fuzzy Sample Space -- Fuzzy Confidence Regions -- Fuzzy Extensions of Confidence Intervals: Estimation for μ, 2, and p -- Testing Fuzzy Hypotheses: A New p-value-based Approach -- Fuzzy Regression Analysis : An Actuarial Perspective -- Fuzzy Correlation and Fuzzy Non-Linear Regression Analysis -- Fuzzy Decision Trees -- Fuzzy Shewhart Control Charts -- Fuzzy EWMA and Fuzzy CUSUM Control Charts -- Linear Hypothesis Testing Based on Unbiased Fuzzy Estimators and Fuzzy Significance Level -- A Practical Application of Fuzzy Analysis of Variance in Agriculture -- A Survey of Fuzzy Data Mining Techniques.
Sommario/riassunto	This book offers a comprehensive reference guide to fuzzy statistics and fuzzy decision-making techniques. It provides readers with all the

necessary tools for making statistical inference in the case of incomplete information or insufficient data, where classical statistics cannot be applied. The respective chapters, written by prominent researchers, explain a wealth of both basic and advanced concepts including: fuzzy probability distributions, fuzzy frequency distributions, fuzzy Bayesian inference, fuzzy mean, mode and median, fuzzy dispersion, fuzzy p-value, and many others. To foster a better understanding, all the chapters include relevant numerical examples or case studies. Taken together, they form an excellent reference guide for researchers, lecturers and postgraduate students pursuing research on fuzzy statistics. Moreover, by extending all the main aspects of classical statistical decision-making to its fuzzy counterpart, the book presents a dynamic snapshot of the field that is expected to stimulate new directions, ideas and developments.