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Autore	Khan Akhtar A
Titolo	Set-valued Optimization : An Introduction with Applications // by Akhtar A. Khan, Christiane Tammer, Constantin Zlinescu
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Collana	Vector Optimization, , 1867-8971
Disciplina	510 519 519.6 658.40301
Soggetti	Mathematical optimization Operations research Decision making Management science Game theory Optimization Operations Research/Decision Theory Continuous Optimization Operations Research, Management Science Game Theory, Economics, Social and Behav. Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Order Relations and Ordering Cones -- Continuity and Differentiability -- Tangent Cones and Tangent Sets -- Nonconvex Separation Theorems -- Hahn-Banach Type Theorems -- Hahn-Banach Type Theorems -- Conjugates and Subdifferentials -- Duality -- Existence Results for Minimal Points -- Ekeland Variational Principle -- Derivatives and Epiderivatives of Set-valued Maps -- Optimality Conditions in Set-valued Optimization -- Sensitivity Analysis in Set-valued Optimization and Vector Variational Inequalities -- Numerical Methods for Solving Set-valued Optimization Problems -- Applications.

Set-valued optimization is a vibrant and expanding branch of mathematics that deals with optimization problems where the objective map and/or the constraints maps are set-valued maps acting between certain spaces. Since set-valued maps subsumes single valued maps, set-valued optimization provides an important extension and unification of the scalar as well as the vector optimization problems. Therefore this relatively new discipline has justifiably attracted a great deal of attention in recent years. This book presents, in a unified framework, basic properties on ordering relations, solution concepts for set-valued optimization problems, a detailed description of convex set-valued maps, most recent developments in separation theorems, scalarization techniques, variational principles, tangent cones of first and higher order, sub-differential of set-valued maps, generalized derivatives of set-valued maps, sensitivity analysis, optimality conditions, duality, and applications in economics among other things.

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