Set-Valued Mappings and Enlargements of Monotone Operators (Springer Optimization and Its Applications)

By Regina S. Burachik; Alfredo N. Iusem

Springer, 2008. Hardcover. Book Condition: New. Set-valued analysis is an essential tool for the mathematical formulation of many real-life situations, e.g., equilibrium theory in mathematical economics. This work offers the first comprehensive treatment in book form of the fairly new subdiscipline of enlargements of maximal monotone operators, including several important new results in the field. In the last decades, with the development of nonsmooth optimization, effective algorithms have been developed to solve these kinds of problems, such as nonsmooth variational inequalities. Several of these methods, such as bundle methods for variational problems, are fully developed and analyzed in this book. The first chapters provide a self-contained review of the basic notions and fundamental results in set-valued analysis, including set convergence and continuity of set-valued mappings together with many important results in infinite-dimensional convex analysis, leading to the classical fixed point results due to Ekeland, Caristi and Kakutani. Next, an in-depth introduction to monotone operators is developed, emphasizing results related to maximality of subdifferentials and of sums of monotone operators. Building on this foundational material, the second part of the monograph contains new results (all of them established during the last decade) on the concept of enlargements of monotone operators, with...

READ ONLINE
[9.26 MB]

Reviews

The ideal publication i possibly go through. I was able to comprehended every thing out of this published e publication. I am delighted to explain how this is actually the finest pdf i have got read inside my personal existence and could be he very best ebook for possibly.
-- Roberto Friesen

This written book is excellent. It typically is not going to price a lot of. I found out this book from my dad and i encouraged this book to discover.
-- Darrin Abbott