

<<非光滑分析和控制论>>

图书基本信息

书名：<<非光滑分析和控制论>>

13位ISBN编号：9787506292658

10位ISBN编号：7506292653

出版时间：2009-1

出版时间：世界图书出版公司

作者：（法）科拉克（Clarke,F.H） 著

页数：276

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

前言

Pardon me for writing such a long letter; I had not the time to write a short one. ——Lord Chesterfield

Nonsmooth analysis refers to differential analysis in the absence of differentiability. It can be regarded as a subfield of that vast subject known as nonlinear analysis. While nonsmooth analysis has classical roots (we claim to have traced its lineage back to Dini), it is only in the last decades that the subject has grown rapidly. To the point, in fact, that further development has sometimes appeared in danger of being stymied, due to the plethora of definitions and unclearly related theories. One reason for the growth of the subject has been, without a doubt, the recognition that nondifferentiable phenomena are more widespread, and play a more important role, than had been thought. Philosophically at least, this is in keeping with the coming to the fore of several other types of irregular and nonlinear behavior: catastrophes, fractals, and chaos. In recent years, nonsmooth analysis has come to play a role in functional analysis, optimization, optimal design, mechanics and plasticity, differential equations (as in the theory of viscosity solutions), control theory, and, increasingly, in analysis generally (critical point theory, inequalities, fixed point theory, variational methods...). In the long run, we expect its methods and basic constructs to be viewed as a natural part of differential analysis.

<<非光滑分析和控制论>>

内容概要

Nonsmooth analysis refers to differential analysis in the absence of differentiability. It can be regarded as a subfield of that vast subject known as nonlinear analysis. While nonsmooth analysis has classical roots (we claim to have traced its lineage back to Dini), it is only in the last decades that the subject has grown rapidly. To the point, in fact, that further development has sometimes appeared in danger of being stymied, due to the plethora of definitions and unclearly related theories.

<<非光滑分析和控制论>>

书籍目录

Preface
 List of Figures
 0 Introduction 1 Analysis Without Linearization 2 Flow-Invariant Sets 3 Optimization
 4 Control Theory 5 Notation
 1 Proximal Calculus in Hilbert Space 1 Closest Points and Proximal Normals
 2 Proximal Subgradients 3 The Density Theorem 4 Minimization Principles 5 Quadratic Inf-Convolutions
 6 The Distance Function 7 Lipschitz Functions 8 The Sum Rule 9 The Chain Rule 10 Limiting Calculus
 11 Problems on Chapter 12 Generalized Gradients in Banach Space 1 Definition and Basic Properties 2 Basic
 Calculus 3 Relation to Derivatives 4 Convex and Regular Functions 5 Tangents and Normals 6
 Relationship to Proximal Analysis 7 The Bouligand Tangent Cone and Regular Sets 8 The Gradient Formula in
 Finite Dimensions 9 Problems on Chapter 23 Special Topics 1 Constrained Optimization and Value Functions
 2 The Mean Value Inequality 3 Solving Equations 4 Derivate Calculus and Rademacher's Theorem 5 Sets
 in L^2 and Integral b-nctionals 6 Tangents and Interiors 7 Problems on Chapter 34 A Short Course in Control
 Theory 1 Trajectories of Differentiable Inclusions 2 Weak Invariance 3 Lipschitz Dependence and Strong
 Invariance 4 Equilibria 5 Lyapounov Theory and Stabilization 6 Monotonicity and Attainability 7 The
 Hamilton Jacobi Equation and Viscosity Solutions 8 Feedback Synthesis from Semisolutions 9 Necessary
 Conditions for Optimal Control 10 Normality and Controllability 11 Problems on Chapter 4
 Notes and Comments
 List of Notation
 Bibliography
 Index

<<非光滑分析和控制论>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>