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| Nota di contenuto | Preface -- 1.Sobolev Spaces -- 2.Compact Operators and Operators of Monotone Type -- 3.Degree Theories -- 4.Partial Order, Fixed Point Theory, Variational Pronciples -- 5.Critical Point Theory -- 6.Morse Theory and Critical Groups -- References -- Index. |
| Sommario/riassunto | This book emphasizes those basic abstract methods and theories that are useful in the study of nonlinear boundary value problems. The content is developed over six chapters, providing a thorough introduction to the techniques used in the variational and topological analysis of nonlinear boundary value problems described by stationary differential operators. The authors give a systematic treatment of the |

basic mathematical theory and constructive methods for these classes of nonlinear equations as well as their applications to various processes arising in the applied sciences. They show how these diverse topics are connected to other important parts of mathematics, including topology, functional analysis, mathematical physics, and potential theory. Throughout the book a nice balance is maintained between rigorous mathematics and physical applications. The primary readership includes graduate students and researchers in pure and applied nonlinear analysis.