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Titolo	Methods of Nonlinear Analysis [[electronic resource]] : Applications to Differential Equations / / by Pavel Drabek, Jaroslav Milota
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Nota di bibliografia	Includes bibliographical references (pages 641-649) and index.
Nota di contenuto	Preface -- 1 Preliminaries -- 2 Properties of Linear and Nonlinear Operators -- 3 Abstract Integral and Differential Calculus -- 4 Local Properties of Differentiable Mappings -- 5 Topological and Monotonicity Methods -- 6 Variational Methods -- 7 Boundary Value Problems for Partial Differential Equations -- Summary of Methods -- Typical Applications -- Comparison of Bifurcation Results -- List of Symbols -- Index -- Bibliography.
Sommario/riassunto	In this book, fundamental methods of nonlinear analysis are introduced, discussed and illustrated in straightforward examples. Each method considered is motivated and explained in its general form, but presented in an abstract framework as comprehensively as possible. A large number of methods are applied to boundary value problems for both ordinary and partial differential equations. In this edition we have made minor revisions, added new material and organized the content

slightly differently. In particular, we included evolutionary equations and differential equations on manifolds. The applications to partial differential equations follow every abstract framework of the method in question. The text is structured in two levels: a self-contained basic level and an advanced level - organized in appendices - for the more experienced reader. The last chapter contains more involved material and can be skipped by those new to the field. This book serves as both a textbook for graduate-level courses and a reference book for mathematicians, engineers and applied scientists. .