

1. Record Nr.	UNINA9910300148403321
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Titolo	Topological Methods in the Study of Boundary Value Problems // by Pablo Amster
Pubbl/distr/stampa	New York, NY : , : Springer US : , : Imprint : Springer, , 2014
ISBN	1-4614-8893-1
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (238 p.)
Collana	Universitext, , 2191-6675
Disciplina	515.35
Soggetti	Mathematical analysis Differential equations Analysis Differential Equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Introduction -- Shooting type methods -- The Banach Fixed Point Theorem.- Schauder's Theorem and applications.- Topological degree: an introduction -- Applications.- Basic facts on metric and normed spaces -- Brief review of ODE's.- Hints and Solutions to Selected Exercises.
Sommario/riassunto	This textbook is devoted to the study of some simple but representative nonlinear boundary value problems by topological methods. The approach is elementary, with only a few model ordinary differential equations and applications, chosen in such a way that the student may avoid most of the technical difficulties and focus on the application of topological methods. Only basic knowledge of general analysis is needed, making the book understandable to non-specialists. The main topics in the study of boundary value problems are present in this text, so readers with some experience in functional analysis or differential equations may also find some elements that complement and enrich their tools for solving nonlinear problems. In comparison with other texts in the field, this one has the advantage of a concise and informal style, thus allowing graduate and undergraduate students to enjoy some of the beauties of this interesting branch of mathematics. Exercises and examples are included throughout the

book, providing motivation for the reader.
