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Nota di contenuto	Front matter -- Preface -- Contents -- Chapter 1. Introduction -- Part I. Topology and Multivalued Maps -- Chapter 2. Multivalued Maps -- Chapter 3. Metric Spaces -- Chapter 4. Spaces Defined by Extensions, Retractions, or Homotopies -- Chapter 5. Advanced Topological Tools -- Part II. Coincidence Degree for Fredholm Maps -- Chapter 6. Some Functional Analysis -- Chapter 7. Orientation of Families of Linear Fredholm Operators -- Chapter 8. Some Nonlinear Analysis -- Chapter 9. The Brouwer Degree -- Chapter 10. The Benederi-Furi Degrees -- Part III. Degree Theory for Function Triples -- Chapter 11. Function Triples -- Chapter 12. The Degree for Finite-Dimensional Fredholm Triples -- Chapter 13. The Degree for Compact Fredholm Triples -- Chapter 14. The Degree for Noncompact Fredholm Triples -- Bibliography -- Index of Symbols -- Index
Sommario/riassunto	This monograph aims to give a self-contained introduction into the whole field of topological analysis: Requiring essentially only basic knowledge of elementary calculus and linear algebra, it provides all required background from topology, analysis, linear and nonlinear

functional analysis, and multivalued maps, containing even basic topics like separation axioms, inverse and implicit function theorems, the Hahn-Banach theorem, Banach manifolds, or the most important concepts of continuity of multivalued maps. Thus, it can be used as additional material in basic courses on such topics. The main intention, however, is to provide also additional information on some fine points which are usually not discussed in such introductory courses. The selection of the topics is mainly motivated by the requirements for degree theory which is presented in various variants, starting from the elementary Brouwer degree (in Euclidean spaces and on manifolds) with several of its famous classical consequences, up to a general degree theory for function triples which applies for a large class of problems in a natural manner. Although it has been known to specialists that, in principle, such a general degree theory must exist, this is the first monograph in which the corresponding theory is developed in detail.
