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Nota di contenuto	Frontmatter -- Contents -- List of Figures -- Preface -- Introduction -- 1 The characterization of homotopy types -- 2 Some calculations of L-groups -- 3 Classical surgery theory -- 4 Topological surgery and surgery spaces -- 5 Applications of the assembly map -- 6 Beyond characteristic classes -- 7 Flat and almost flat manifolds -- 8 Other surgery theories -- Appendix A: Some background in algebraic topology -- Appendix B: Geometric preliminaries -- List of Symbols -- Bibliography -- Index
Sommario/riassunto	Surgery theory, a subfield of geometric topology, is the study of the classifications of manifolds. This book offers a modern look at this important mathematical discipline and some of its applications. In this book, Stanley Chang and Shmuel Weinberger explain some of the triumphs of surgery theory during the past three decades, from both an algebraic and geometric point of view. They also provide an extensive treatment of basic ideas, main theorems, active applications, and recent literature. The authors methodically cover all aspects of surgery theory, connecting it to other relevant areas of mathematics, including geometry, homotopy theory, analysis, and algebra. Later chapters are self-contained, so readers can study them directly based on topic interest.