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Edizione	[Second edition]
Descrizione fisica	1 online resource (XI, 627 p. 210 illus.)
Collana	Graduate Texts in Mathematics, , 0072-5285 ; ; 273
Disciplina	512.55
Soggetti	Topologia algebraica Àlgebra homològica Categories (Mathematics) Algebra, Homological K-theory Algebraic topology Category Theory, Homological Algebra K-Theory Algebraic Topology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Homotopy -- Homology -- Spectral Sequences of Fibations -- Cohomology Operations -- The Adams Spectral Sequence -- K-Theory and Other Extraordinary Cohomology Theories.
Sommario/riassunto	This classic text of the renowned Moscow mathematical school equips the aspiring mathematician with a solid grounding in the core of topology, from a homotopical perspective. Its comprehensiveness and depth of treatment are unmatched among topology textbooks: in addition to covering the basics—the fundamental notions and constructions of homotopy theory, covering spaces and the fundamental group, CW complexes, homology and cohomology, homological algebra—the book treats essential advanced topics, such as obstruction theory, characteristic classes, Steenrod squares, K-theory and cobordism theory, and, with distinctive thoroughness and lucidity, spectral sequences. The organization of the material around

the major achievements of the golden era of topology—the Adams conjecture, Bott periodicity, the Hirzebruch–Riemann–Roch theorem, the Atiyah–Singer index theorem, to name a few—paints a clear picture of the canon of the subject. Grassmannians, loop spaces, and classical groups play a central role in mathematics, and therefore in the presentation of this book, as well. A judicious focus on the key ideas, at an appropriate magnification of detail, enables the reader to navigate the breadth of material, confidently, without the disorientation of algebraic minutiae. Many exercises are integrated throughout the text to build up the reader’s mastery of concepts and techniques. Numerous technical illustrations elucidate geometric constructions and the mechanics of spectral sequences and other sophisticated methods. Over fifty hauntingly captivating images by A. T. Fomenko artistically render the wondrous beauty, and mystery, of the subject.

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