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Titolo	A First Course in Category Theory // Ana Agore
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ISBN	3-031-42899-4
Edizione	[First edition.]
Descrizione fisica	1 online resource (XIV, 284 p.)
Collana	Universitext Series
Disciplina	512.55
Soggetti	Categories (Mathematics)
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Categories and Functors -- 2 -- Limits and Colimits -- 3 Adjoint Functors -- 4 Solutions to Selected Exercises. .
Sommario/riassunto	This textbook provides a first introduction to category theory, a powerful framework and tool for understanding mathematical structures. Designed for students with no previous knowledge of the subject, this book offers a gentle approach to mastering its fundamental principles. Unlike traditional category theory books, which can often be overwhelming for beginners, this book has been carefully crafted to offer a clear and concise introduction to the subject. It covers all the essential topics, including categories, functors, natural transformations, duality, equivalence, (co)limits, and adjunctions. Abundant fully-worked examples guide readers in understanding the core concepts, while complete proofs and instructive exercises reinforce comprehension and promote self-study. The author also provides background material and references, making the book suitable for those with a basic understanding of groups, rings, modules, topological spaces, and set theory. Based on the author's course at the Vrije Universiteit Brussel, the book is perfectly suited for classroom use in a first introductory course in category theory. Its clear and concise style, coupled with its detailed coverage of key concepts, makes it equally suited for self-study.