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Titolo	Introduction to functional analysis / / Christian Clason
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Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (X, 170 p. 1 illus.)
Collana	Compact textbooks in mathematics
Disciplina	515.7
Soggetti	Functional analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di contenuto	Topological basics -- Linear operators between normed spaces -- Dual spaces and weak convergence -- Compact operators between Banach spaces -- Hilbert spaces.
Sommario/riassunto	Functional analysis has become one of the essential foundations of modern applied mathematics in the last decades, from the theory and numerical solution of differential equations, from optimization and probability theory to medical imaging and mathematical image processing. This textbook offers a compact introduction to the theory and is designed to be used during one semester, fitting exactly 26 lectures of 90 minutes each. It ranges from the topological fundamentals recalled from basic lectures on real analysis to spectral theory in Hilbert spaces. Special attention is given to the central results on dual spaces and weak convergence.