

1. Record Nr.	UNINA9910254092703321
Autore	Farenick Douglas
Titolo	Fundamentals of Functional Analysis / / by Douglas Farenick
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-45633-4
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XIV, 451 p. 2 illus.)
Collana	Universitext, , 0172-5939
Disciplina	515.7
Soggetti	Functional analysis Measure theory Operator theory Functional Analysis Measure and Integration Operator Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Preface -- Topological Spaces -- Topological Spaces with Special Properties -- Measure Theory -- Integration -- Banach Spaces -- Dual Spaces -- Convexity -- Banach Space Operators -- Spectral Theory in Banach Algebras -- Hilbert Space Operators -- Algebras of Hilbert Space Operators -- References -- Index.
Sommario/riassunto	This book provides a unique path for graduate or advanced undergraduate students to begin studying the rich subject of functional analysis with fewer prerequisites than is normally required. The text begins with a self-contained and highly efficient introduction to topology and measure theory, which focuses on the essential notions required for the study of functional analysis, and which are often buried within full-length overviews of the subjects. This is particularly useful for those in applied mathematics, engineering, or physics who need to have a firm grasp of functional analysis, but not necessarily some of the more abstruse aspects of topology and measure theory normally encountered. The reader is assumed to only have knowledge of basic real analysis, complex analysis, and algebra. The latter part of the text provides an outstanding treatment of Banach space theory and operator

theory, covering topics not usually found together in other books on functional analysis. Written in a clear, concise manner, and equipped with a rich array of interesting and important exercises and examples, this book can be read for an independent study, used as a text for a two-semester course, or as a self-contained reference for the researcher. .
