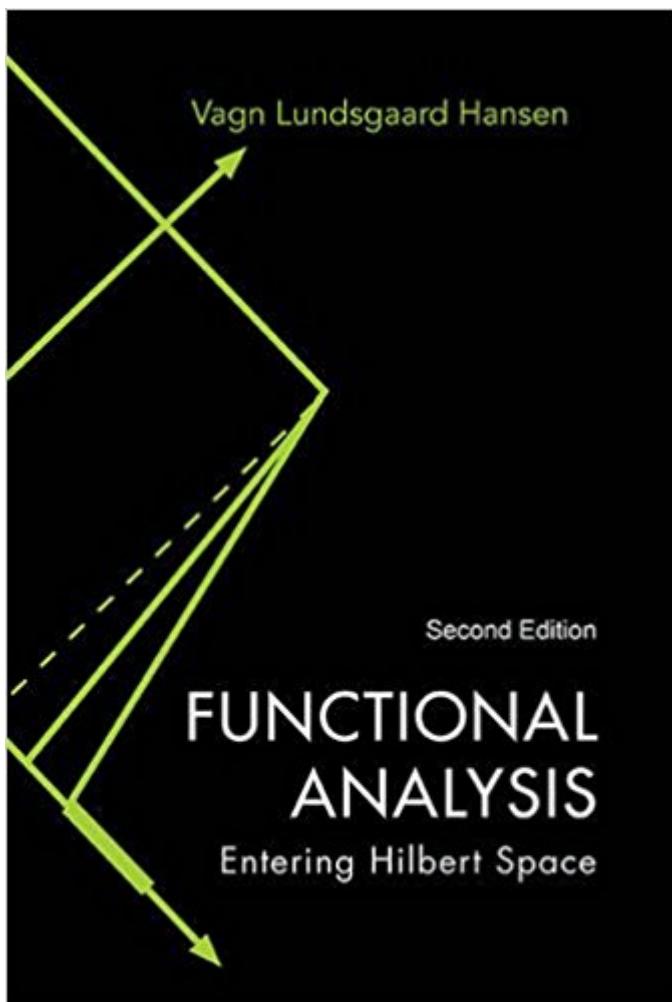


The book was found

Functional Analysis: Entering Hilbert Space: 2nd Edition



Synopsis

This book presents basic elements of the theory of Hilbert spaces and operators on Hilbert spaces, culminating in a proof of the spectral theorem for compact, self-adjoint operators on separable Hilbert spaces. It exhibits a construction of the space of p th power Lebesgue integrable functions by a completion procedure with respect to a suitable norm in a space of continuous functions, including proofs of the basic inequalities of Hölder and Minkowski. The L^p -spaces thereby emerges in direct analogy with a construction of the real numbers from the rational numbers. This allows grasping the main ideas more rapidly. Other important Banach spaces arising from function spaces and sequence spaces are also treated. In this second edition, I have expanded the material on normed vector spaces and their operators presented in Chapter 1 to include proofs of the Open Mapping Theorem, the Closed Graph Theorem and the Hahn Banach Theorem. The material on operators between normed vector spaces is further expanded in a new Chapter 6, which presents the basic elements of the theory of Fredholm operators on general Banach spaces, not only on Hilbert spaces. This requires that we develop the theory of dual operators between Banach spaces to replace the use of adjoint operators between Hilbert spaces. With the addition of the new material on normed vector spaces and their operators, the book can serve as a general introduction to functional analysis viewed as a theory of infinite dimensional linear spaces and linear operators acting on them.

Book Information

Hardcover: 192 pages

Publisher: World Scientific Publishing Co; 2 edition (February 2, 2016)

Language: English

ISBN-10: 981473392X

ISBN-13: 978-9814733922

Product Dimensions: 6.1 x 0.7 x 9.1 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #716,207 in Books (See Top 100 in Books) #21 in Books > Science & Math > Mathematics > Transformations #140 in Books > Science & Math > Mathematics > Pure Mathematics > Functional Analysis #601 in Books > Science & Math > Mathematics > Mathematical Analysis

Customer Reviews

This book presents basic elements of the theory of Hilbert spaces and operators on Hilbert spaces, culminating in a proof of the spectral theorem for compact, self-adjoint operators on separable Hilbert spaces. It exhibits a construction of the space of pth power Lebesgue integrable functions by a completion procedure with respect to a suitable norm in a space of continuous functions, including proofs of the basic inequalities of Hölder and Minkowski. The L^p -spaces thereby emerges in direct analogy with a construction of the real numbers from the rational numbers. This allows grasping the main ideas more rapidly. Other important Banach spaces arising from function spaces and sequence spaces are also treated. In this second edition, I have expanded the material on normed vector spaces and their operators presented in Chapter 1 to include proofs of the Open Mapping Theorem, the Closed Graph Theorem and the Hahn-Banach Theorem. The material on operators between normed vector spaces is further expanded in a new Chapter 6, which presents the basic elements of the theory of Fredholm operators on general Banach spaces, not only on Hilbert spaces. This requires that we develop the theory of dual operators between Banach spaces to replace the use of adjoint operators between Hilbert spaces. With the addition of the new material on normed vector spaces and their operators, the book can serve as a general introduction to functional analysis viewed as a theory of infinite dimensional linear spaces and linear operators acting on them.

[Download to continue reading...](#)

Functional Analysis: Entering Hilbert Space: 2nd Edition Real Analysis: Measure Theory, Integration, and Hilbert Spaces (Princeton Lectures in Analysis) (Bk. 3) Introduction to Hilbert Space and the Theory of Spectral Multiplicity: Second Edition (Dover Books on Mathematics) An Introduction to Hilbert Space (Cambridge Mathematical Textbooks) Theory of Linear Operators in Hilbert Space (Dover Books on Mathematics) An Introduction to Hilbert Space and Quantum Logic (Problem Books in Mathematics) A Hilbert Space Problem Book Linear Systems and Operators in Hilbert Space (Dover Books on Mathematics) Hilbert Space Methods in Partial Differential Equations (Dover Books on Mathematics) By Adel Afifi - Functional Neuroanatomy, 2nd (second) Edition: Text and Atlas: 2nd (second) Edition Wheater's Functional Histology: A Text and Colour Atlas, 6e (FUNCTIONAL HISTOLOGY (WHEATER'S)) Wheater's Functional Histology: A Text and Colour Atlas (Book with CD-ROM) (Functional Histology (Wheater's)) Patai's 1992 Guide to the Chemistry of Functional Groups (Patai's Chemistry of Functional Groups) The Chemistry of Double-Bonded Functional Groups, Supplement A3, 2 Part Set (Patai's Chemistry of Functional Groups) Functional Programming in JavaScript: How to improve your JavaScript programs using functional techniques Nolte's The Human Brain: An Introduction to its Functional Anatomy With

STUDENT CONSULT Online Access, 6e (Human Brain: An Introduction to Its Functional Anatomy
(Nolt) Textbook of Clinical Nutrition and Functional Medicine, Vol. 1: Essential Knowledge for Safe
Action and Effective Treatment (Inflammation Mastery & Functional Inflammology) Textbook of
Clinical Nutrition and Functional Medicine, Vol. 2: Protocols for Common Inflammatory Disorders
(Inflammation Mastery & Functional Inflammology) Launch Vehicles Pocket Space Guide: Heritage
of the Space Race (Pocket Space Guides) Hilbert

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)