

1. Record Nr.	UNINA9910770276503321
Autore	Hytönen Tuomas
Titolo	Analysis in Banach Spaces : Volume III: Harmonic Analysis and Spectral Theory / / by Tuomas Hytönen, Jan van Neerven, Mark Veraar, Lutz Weis
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	9783031465987 3031465989
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (839 pages)
Collana	Ergebnisse der Mathematik und ihrer Grenzgebiete. 3. Folge / A Series of Modern Surveys in Mathematics, , 2197-5655 ; ; 76
Altri autori (Persone)	van NeervenJan VeraarMark WeisLutz
Disciplina	515.732
Soggetti	Functional analysis Fourier analysis Harmonic analysis Operator theory Mathematical analysis Functional Analysis Fourier Analysis Abstract Harmonic Analysis Operator Theory Analysis Anàlisi harmònica Teoria d'operadors Anàlisi de Fourier Anàlisi matemàtica Anàlisi funcional Espais de Banach Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

Nota di contenuto

11 Singular integral operators -- 12 Dyadic operators and the T (1) theorem -- 13 The Fourier transform and multipliers -- 14 Function spaces -- 15 Bounded imaginary powers -- 16 The H-functional calculus revisited -- 17 Maximal regularity -- 18 Nonlinear parabolic evolution equations in critical spaces -- Appendix Q: Questions -- Appendix K: Semigroup theory revisited -- Appendix L: The trace method for real interpolation theory.

Sommario/riassunto

This third volume of Analysis in Banach Spaces offers a systematic treatment of Banach space-valued singular integrals, Fourier transforms, and function spaces. It further develops and ramifies the theory of functional calculus from Volume II and describes applications of these new notions and tools to the problem of maximal regularity of evolution equations. The exposition provides a unified treatment of a large body of results, much of which has previously only been available in the form of research papers. Some of the more classical topics are presented in a novel way using modern techniques amenable to a vector-valued treatment. Thanks to its accessible style with complete and detailed proofs, this book will be an invaluable reference for researchers interested in functional analysis, harmonic analysis, and the operator-theoretic approach to deterministic and stochastic evolution equations.