1. Record Nr. UNISA996466662203316

Autore	Kolokoltsov Vassili N
Titolo	Semiclassical Analysis for Diffusions and Stochastic Processes [[electronic resource] /] / by Vassili N. Kolokoltsov
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2000
ISBN	3-540-46587-1
Edizione	[1st ed. 2000.]
Descrizione fisica	1 online resource (VIII, 356 p.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1724
Disciplina	519.23
Soggetti	Mathematical analysis Analysis (Mathematics) Probabilities Analysis Probability Theory and Stochastic Processes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Gaussian diffusions -- Boundary value problem for Hamiltonian systems -- Semiclassical approximation for regular diffusion -- Invariant degenerate diffusion on cotangent bundles -- Transition probability densities for stable jump-diffusions -- Semiclassical asymptotics for the localised Feller-Courrège processes -- Complex stochastic diffusion or stochastic Schrödinger equation -- Some topics in semiclassical spectral analysis -- Path integration for the Schrödinger, heat and complex diffusion equations.
Sommario/riassunto	The monograph is devoted mainly to the analytical study of the differential, pseudo-differential and stochastic evolution equations describing the transition probabilities of various Markov processes. These include (i) diffusions (in particular,degenerate diffusions), (ii) more general jump-diffusions, especially stable jump-diffusions driven by stable Lévy processes, (iii) complex stochastic Schrödinger equations which correspond to models of quantum open systems. The main results of the book concern the existence, two-sided estimates, path integral representation, and small time and semiclassical asymptotics for the Green functions (or fundamental solutions) of these equations,

		which represent the transition probability densities of the corresponding random process. The boundary value problem for Hamiltonian systems and some spectral asymptotics ar also discussed. Readers should have an elementary knowledge of probability, complex and functional analysis, and calculus. .
2.	Record Nr.	UNINA9910983303003321
	Autore	Kkol Jerzy
	Titolo	Descriptive Topology in Selected Topics of Functional Analysis : Updated and Expanded / / by Jerzy Kkol, Wiesaw Kubi, Manuel López-Pellicer, Damian Sobota
	Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
	ISBN	9783031760624 303176062X
	Edizione	[2nd ed. 2025.]
	Descrizione fisica	1 online resource (XV, 700 p. 12 illus.)
	Collana	Developments in Mathematics, , 2197-795X ; ; 24
	Disciplina	514
	Soggetti	Topology Functional analysis Functions, Special Functional Analysis Special Functions Topologia Anàlisi funcional Funcions especials Llibres electrònics
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	-- 1. Overview. -- 2. Elementary facts about Baire and Baire-type spaces. -- 3. K-analytic and quasi-Suslin Spaces. -- 4. Web-compact spaces and angelic theorems. -- 5. Strongly web-compact spaces and a closed graph theorem. -- 6. Weakly analytic spaces. -- 7. K-analytic Baire spaces. -- 8. A three-space property for analytic spaces. -- 9. K-analytic and analytic spaces Cp(X). -- 10. Precompact sets in (LM)-

Spaces and dual metric spaces. -- 11. Metrizability of compact sets in the class G. -- 12. Weakly realcompact locally convex spaces. -- 13. Corson's property (C) and tightness. -- 14. Fréchet-Urysohn spaces and groups. -- 15. Sequential properties in the class G. -- 16. Tightness and distinguished Fréchet spaces. -- 17. Distinguished spaces Cp(X) and Delta-spaces X. -- 18. Generalized metric spaces with G-bases. -- 19. The Grothendieck property for C(K)-Spaces. -- 20. The l1-Grothendieck property for C(K)-Spaces. -- 21. The Nikodym property of Boolean algebras. -- 22. Banach spaces with many projections. -- 23. Spaces of continuous functions over compact lines. -- 24. Compact spaces generated by retractions. -- 25. Complementably universal Banach spaces.

Sommario/riassunto

A large mathematical community throughout the world actively works in functional analysis and uses profound techniques from topology. Written by experts in the field, this book is a treasure trove for researchers and graduate students studying the interplay among the areas of point-set and descriptive topology, modern analysis, set theory, topological vector spaces, including Banach spaces, and continuous function spaces. This second edition continues in the same spirit of the acclaimed first edition, providing new insights into the connections between the topological properties of linear function spaces and their applications in functional analysis. It has been expanded by adding completely new Chapters 17–21, presenting results concerning, but not limited to, topological spaces and groups with G-bases, various concepts related to networks and their applications in topology and functional analysis, and those that develop topological and analytic methods related to Grothendieck Banach spaces and Boolean algebras with the Nikodym property. The book will continue to serve as a reference for present and future work done in this area and could serve as a valuable supplement to advanced graduate courses in functional analysis, set-theoretic topology, or the theory of function spaces.