1. Record Nr. UNINA9910299767603321 Autore Cannarsa Piermarco Titolo Introduction to Measure Theory and Functional Analysis / / by Piermarco Cannarsa, Teresa D'Aprile Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-17019-8 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (XIV, 314 p. 8 illus., 1 illus. in color.) Collana La Matematica per il 3+2, , 2038-5722 ; ; 89 Disciplina 510 Soggetti Measure theory Functional analysis **Probabilities** Economics, Mathematical Mathematical physics **Physics** Measure and Integration **Functional Analysis** Probability Theory and Stochastic Processes Quantitative Finance Mathematical Applications in the Physical Sciences Mathematical Methods in Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto 1 Part I Measure and Integration -- 2 Part II Functional Analysis -- 3 Part III Selected Topics -- 4 Appendices -- 5 Index. This book introduces readers to theories that play a crucial role in Sommario/riassunto modern mathematics, such as integration and functional analysis, employing a unifying approach that views these two subjects as being deeply intertwined. This feature is particularly evident in the broad range of problems examined, the solutions of which are often supported by generous hints. If the material is split into two courses, it can be supplemented by additional topics from the third part of the

book, such as functions of bounded variation, absolutely continuous

functions, and signed measures. This textbook addresses the needs of graduate students in mathematics, who will find the basic material they will need in their future careers, as well as those of researchers, who will appreciate the self-contained exposition which requires no other preliminaries than basic calculus and linear algebra.