Record Nr. UNISA996466646903316 Autore Mukhamedov Farrukh **Titolo** Quantum Quadratic Operators and Processes [[electronic resource] /] / by Farrukh Mukhamedov, Nasir Ganikhodjaev Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2015 **ISBN** 3-319-22837-4 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (XIV, 231 p. 1 illus.) Collana Lecture Notes in Mathematics, , 0075-8434; ; 2133 Disciplina 515.352 Soggetti **Dynamics** Ergodic theory Functional analysis Operator theory **Probabilities** Dynamical Systems and Ergodic Theory **Functional Analysis Operator Theory** Probability Theory and Stochastic Processes Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Includes bibliographical references and index. Nota di bibliografia Introduction -- Quadratic Stochastic Operators -- Quadratic Processes Nota di contenuto -- Analytic methods in the theory of quadratic stochastic processes --Quantum quadratic operators -- Quantum quadratic operators on M2 (C) -- Infinite-dimensional quadratic operators -- Quantum quadratic stochastic processes. Sommario/riassunto Covering both classical and quantum approaches, this unique and selfcontained book presents the most recent developments in the theory of quadratic stochastic operators and their Markov and related processes. The asymptotic behavior of dynamical systems generated by classical and quantum quadratic operators is investigated and various properties of quantum quadratic operators are studied, providing an insight into the construction of quantum channels. This book is suitable as a textbook for an advanced undergraduate/graduate level course or

summer school in quantum dynamical systems. It can also be used as a

reference book by researchers looking for interesting problems to work on, or useful techniques and discussions of particular problems. Since it includes the latest developments in the fields of quadratic dynamical systems, Markov processes and quantum stochastic processes, researchers at all levels are likely to find the book inspiring and useful.