

1. Record Nr.	UNINA9910465411903321
Titolo	Quantum probability and related topics [[electronic resource]] : proceedings of the 32nd conference, Levico Terme, Italy, 29 May - 2 June 2011 // edited by Luigi Accardi (University of Rome II, Tor Vergata, Italy) & Franco Fagnola (Politecnico di Milano, Italy)
Pubbl/distr/stampa	Singapore ; ; Hackensack, NJ, : World Scientific, c2013
ISBN	1-299-28115-X 981-4447-54-4
Descrizione fisica	1 online resource (280 p.)
Collana	QP-PQ, quantum probability and white noise analysis ; ; vol. 29
Altri autori (Persone)	AccardiL <1947-> (Luigi) FagnolaFranco
Disciplina	530.1201/5192
Soggetti	Probabilities Quantum theory Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	CONTENTS; Preface; Central Extension of Virasoro Type Subalgebras of the Zamolodchikov-w1 Lie Algebra L. Accardi and A. Boukas; 1. Introduction; 2. Closed subalgebras of w; 3. Abelian sub-algebras of w; 4. Basic facts on central extensions of Lie algebras; 5. Central extensions of wN; References; Entanglement Protection and Generation Under Continuous Monitoring A. Barchielli and M. Gregoratti; 1. Introduction; 1.1. Two qubits; 1.2. Concurrence; 2. Global evolution and continuous measurements; 2.1. HP evolutions; 2.2. From the HP-equation to the SSE 2.3. Interacting and non-interacting subsystems3. No direct or indirect interaction; 3.1. The a posteriori concurrence; 3.2. Only local detection operators; 3.2.1. Diffusive case; 3.2.2. Jump case; 3.3. An example with general detection operators; 3.3.1. Concurrence of the a priori state; 3.3.2. Local detection operators; 3.3.3. Non local detection operators; 4. An example with indirect interaction; References; Completely Positive Transformations of Quantum Operations G. Chiribella, A. Toigo and V. Umanita; 1. Introduction; 2. Notations and preliminary results

2.1. Increasing sequences of normal CP maps; 2.2. Tensor product of weak*-continuous CB maps; 3. Quantum supermaps; 4. Dilation of deterministic and probabilistic supermaps; 4.1. Sketch of the proof of Theorem 4.1; 5. An application of Theorem 4.1: Transforming a quantum measurement into a quantum channel; 6. Superinstruments; 7. Application of Theorem 6.1: Measuring a measurement; 7.1. Outcome statistics for a measurement on a measuring device; 7.2. Transformations of measuring devices induced by a higher-order measurement; Acknowledgements; References

Invariant Operators in Schrödinger Setting V.K. Dobrev; 1. Introduction; 2. Preliminaries; 3. Choice of bulk and boundary; 4. Boundary-to-bulk correspondence; 5. Singular vectors and invariant differential equations; 5.1. Singular vectors; 5.2. Generalized Schrödinger equations from a vector-field realization of the Schrödinger algebra; 5.3. Generalized Schrödinger equations in the bulk; Acknowledgments; References; Generation of Semigroups by Degenerate Elliptic Operators Arising in Open Quantum Systems F. Fagnola and L. Pantaleo; 1. Introduction; 2. Open quantum system models; 3. G_1 generates a semigroup; 4. G generates a semigroup; References; Quantum Observables on a Completely Simple Semigroup Ph. Feinsilver; 1. Introduction; 1.1. Notations; 2. Probability measures on finite semigroups; 2.1. Invariant measures on the kernel; 3. Graphs, semigroups, and dynamical systems; 4. Tensor hierarchy; 4.1. The degree 2 component of V ; 4.2. Basic Identities; 4.3. Trace Identities; 4.4. Convergence to tensor hierarchy; 5. The principal observables: M and N operators; 5.1. Graph-theoretic context; 5.2. Level 2 of the tensor hierarchy; 5.2.1. M and N operators; 5.2.2. Diagonal of $N \times N$

Sommario/riassunto

This volume contains the current research in quantum probability, infinite dimensional analysis and related topics. Contributions by experts in these fields highlight the latest developments and interdisciplinary connections with classical probability, stochastic analysis, white noise analysis, functional analysis and quantum information theory. This diversity shows how research in quantum probability and infinite dimensional analysis is very active and strongly involved in the modern mathematical developments and applications. Tools and techniques presented here will be of great value to research
