

TABLE OF CONTENTS

L. Accardi, S. Olla On the polaron asymptotics at finite coupling constant	1
L. Accardi, K.R. Parthasarathy Stochastic calculus on local algebras	9
S. Albeverio, Ph. Blanchard, Ph. Combe, R. Rodriguez, M. Sirugue, M. Sirugue-Collin Trapping in stochastic mechanics and applications to covers of clouds and radiation belts	24
S. Albeverio, R. Høegh-Krohn A remark on dynamical semigroups in terms of diffusion processes	40
D. Applebaum Quasi-free stochastic evolutions	46
A. Barchielli, G. Lupieri Dilations of operation valued stochastic processes	57
C. Barnett, I.F. Wilde The Doob-Meyer decomposition for the square of Itô-Clifford L ² -martingales	67
J. Bertrand, B. Gaveau, G. Rideau Poisson processes and quantum field theory: a model	74
O. Besson The entropy of quantum Markov states	81
I. Bialynicki-Birula Entropic uncertainty relations in quantum mechanics	90
Ph. Blanchard, Ph. Combe, M. Sirugue, M. Sirugue-Collin Estimates of quantum deviations from classical mechanics using large deviation results	104
F. Casagrande, L.A. Lugiato, G. Strini Adiabatic elimination technique for quantum dissipative systems	112
G. Casati Limitations for chaotic motion in quantum mechanics	126
C. Cecchini Non commutative L ^p spaces and K.M.S. functions	136
C. D'Antoni Normal product states and nuclearity: new aspects of algebraic quantum field theory	143
R. Dümcke The low density limit for n-level systems	151
D.E. Evans The C*-algebras of the two-dimensional Ising model	162

M. Fannes, J. Quaegebeur Infinite divisibility and central limit theorems for completely positive mappings	177
G.W. Ford Temperature-dependent Lamb shift of a quantum oscillator	202
A. Frigerio Construction of stationary quantum Markov processes through quantum stochastic calculus	207
G.C. Ghirardi, A. Rimini, T. Weber A model for a unified quantum description of macroscopic and microscopic systems	223
S. Goldstein Conditional Expectations in L^P -spaces over von Neumann Algebras	234
V. Gorini, A. Frigerio, M. Verri Quantum Gibbs states and the zeroth law of thermodynamics	240
H. Grabert Dissipative quantum tunneling	248
F. Guerra Carlen processes: a new class of diffusions with singular drifts	259
F. Haake, M. Lewenstein, R. Reibold Adiabatic drag and initial slips for random processes with slow and fast variables	268
R.L. Hudson, J.M. Lindsay Uses of non-Fock quantum Brownian motion and a quantum martingale representation theorem	276
A. Klein Supersymmetry and a two-dimensional reduction in random phenomena	306
B. Kümmerer On the structure of Markov dilations on W^* -algebras	318
B. Kümmerer, W. Schröder A new construction of unitary dilations: singular coupling to white noise	332
G. Lindblad A new approach to quantum ergodicity and chaos	348
H. Maassen Quantum Markov processes on Fock space described by integral kernels	361
H. Nakazawa Quantization of Brownian motion processes in potential fields	375
W. Ochs Gleason measures and quantum comparative probability	388
M. Ohya State change and entropies in quantum dynamical systems	397

K.R. Parthasarathy	
Some remarks on the integration of Schrödinger equation using the quantum stochastic calculus	409
A. Paszkiewicz	
Convergence almost everywhere in W^* -algebras	420
D. Petz	
Properties of quantum entropy	428
G.A. Raggio, H.S. Zivi	
Semiclassical description of n-level systems interacting with radiation fields	442
S. Scarlatti, M. Spera	
The charge class of the vacuum state in a free massless Dirac field theory	453
G.L. Sewell	
Derivation of classical hydrodynamics of a quantum Coulomb system	463
M. Schürmann	
Positive and conditionally positive linear functionals on coalgebras	475
R.F. Streater	
The Itô-Clifford integral, Part II	493
A. Verbeure	
Detailed balance and equilibrium	504
W. von Waldenfels	
Spontaneous light emission described by a quantum stochastic differential equation	516