CONTENTS

Anticommutative Integration 1
P. Krée

Stationary Phase for the Feynman Integral and Trace Formula 23
S. Albeverio, Ph. Blanchard and R. Høegh-Krohn

White Noise Analysis and the Feynman Integral..... 43
L. Streit

Feynman Formula and Poisson Processes for Gentle Perturbations 53
Ph. Combe, R. Høegh-Krohn, R. Rodriguez, M. Sirugue and M. Sirugue-Collin

The Classical Limit of Quantum Mechanics in a Curved Space Background 65
D. Elworthy and A. Truman

Integration in Hilbert Space and Quantum Theory 89
A. Bach

Path Integrals for Affine Variables 101
J.R. Klauder

Path Integrals over Coherent States 121
E. Onofri

Path Integrals, Coherent States, and Geometric Quantization 125
H.P. Berg and J. Tarski

Translational Invariance in Feynman-Type Integrals 143
J. Tarski

Canonical Versus Functional Methods in Quantum Mechanics and Field Theory 151
A.C. Hirshfeld, H. Leschke and T. Suzuki

A Stochastic Description of Tunneling in Quantum Mechanics 163
E. Etim

Dependence of the Feynman Path Integral on Discretization: The Case of a Spinless Particle in an External Electromagnetic Field 175
W. Garczynski

Semiclassical Expansions on Riemannian Manifolds 191
F. Langouche, D. Roekaerts and E. Tirapegui

Quantization in Curved Spaces: Functional Integration and the Quantum Action Principle on Riemannian Geometries 207
H. Dekker

Intrinsic Path Integral Solution to the Fokker-Planck Equation 225
L. Garrido and J. Llosa

Path Integrals, Composite Operators and Mode Coupling..... 249
H. Horner

Onsager-Machlup Function of Nonlinear Non-Equilibrium Thermodynamics 263
R. Graham

The Onsager-Machlup Lagrangian and the Optimal Control for Diffusion Processes 281
K. Yasue

Feynman's Approach to the Polaron Problem Generalized to Arbitrary Quadratic Actions 291
J. Adamowski, B. Gerlach and H. Leschke

Nonlinear D.C.-Conductivity in Polar Semiconductors 303
F. Peeters and J.T. Devreese

The Uses of Instantons for Diffusion in Bistable Potentials 311
U. Weiss and W. Häffner

Metastable Phases and Perturbation Expansions..... 333
M. Calvo

Participants 351

Index 353