

CONTENTS

Preface	v
Quantum Versus Classical Phase in Optical Systems <i>G. S. Agarwal</i>	1
Generalised Coherent States and Nonlinear Field Theory <i>M. A. Agüero Granados and V. G. Makhankov</i>	15
Coherent States: How Far Can One Go? <i>J.-P. Antoine</i>	29
Coherent States Versus de Broglie-Wavelets <i>A. O. Barut</i>	51
Coherent States and Collective Phenomena in Condensed Matter Systems <i>J. L. Birman</i>	59
Coherent States and Open Quantum Systems: A Comment on the Stern-Gerlach Experiment and Schrödinger's Cat <i>H. J. Carmichael, P. Kochan, and L. Tian</i>	75
Quantum Field Theory of Coherent-State-Like Fields: New Quanta Bi-Modulons and New Symmetry Local-Quantum-Group <i>L.-L. Chau</i>	93
Orthonormal Bases of Coherent States: The Canonical Case and the $ax+b$ -Group <i>I. Daubechies</i>	103
Coherent States and Boson-Fermion Mapping <i>J. Dobaczewski, J. Dobs, H. B. Geyer, F. J. W. Hahne, P. Navrátil, and F. G. Scholtz</i>	119
On Coherent States and q -Deformed Algebras <i>D. Ellinas</i>	139

Recent Development of Dirac's Representation Theory <i>H.-Y. Fan</i>	153
Generalized Coherent State Analysis of Semi-Classical Quantum Chaos <i>R. F. Fox</i>	159
Dynamics of Coherent States as the Diffusion Process: Schrödinger's System, Bernstein Processes, and Quantum Evolution <i>P. Garbaczewski</i>	169
Some Reflections on Coherence and Ion Trapping <i>R. J. Glauber</i>	193
Collision Effects in the Quenching of Optical Pumping and Lasing Without Inversion: Theory and Experiment <i>M. Graf, M. O. Scully, D. Nikonov, S.-Y. Zhu, E. S. Fry, G. G. Padmabandu, and C. Su</i>	203
Coherent States, Chaos, and Information <i>E. J. Heller and S. Tomsovic</i>	217
Superposition of Coherent States, Quantum Interference, and One Dimensional Representations <i>J. Janszky, P. Adam, I. Földesi, and P. Domokos</i>	233
Supersymmetry, Coherent States, and Squeezed States for Rydberg Atoms <i>V. A. Kostelecký</i>	241
Physical Processes Initiated by Two Coherent Crossed Beams <i>M.-C. Li</i>	253
Coherent States as a Tool for Obtaining Rigorous Bounds <i>E. H. Lieb</i>	267
Gauge Fields in the Separation of Rotations and Internal Motions in the $(n + 1)$ -Body Problem <i>R. G. Littlejohn</i>	279

Rydberg Wave Packets: Fractional Revivals and Classical Orbits <i>M. Mallalieu and C. R. Stroud, Jr.</i>	301
Classical-Quantum Correspondence in Time-Dependent Perturbation Theory <i>S. M. McRae and E. R. Vrscaj</i>	315
Sub-Natural Linewidth and Other Curious Effects of Atomic Coherence <i>L. M. Narducci, C. H. Keitel, G. L. Oppo, and M. O. Scully</i>	331
Coherent Wave-Packets and Semiclassical Approximation in the Coulomb Potential <i>M. Nauenberg</i>	345
Asymptotic Coherence of Gluons and of q-Bosons <i>C. A. Nelson</i>	361
Generalized Squeezed States from Generalized Coherent States <i>M. M. Nieto</i>	381
Coherent States and g -Numbers <i>Y. Ohnuki and S. Kamefuchi</i>	393
Electron Nuclear Dynamics with Coherent States <i>Y. Öhrn and E. Deumens</i>	407
Coherent State Path Integral and Spin Vortex <i>H. Ono and H. Kuratsuji</i>	421
The Scarring of Eigenfunctions by Classical Periodic Orbits <i>D. Provost</i>	433
Squeezed Atomic States <i>R. R. Puri and G. S. Agarwal</i>	447
Vector Coherent State Representations <i>D. J. Rowe</i>	453
Coherent States: Some Applications in Quantum Field Theory and Particle Physics <i>B.-S. Skagerstam</i>	469

Quantum Coherent Operators <i>J. P. Solovej</i>	507
Coherence and Chaos <i>E. C. G. Sudarshan</i>	515
P Representations of Operators <i>B. Weiner</i>	525
Quantum-Mechanical Phase-Interference Effects in Low-Energy Collisions <i>Y. Yao, R. G. Albridge, J. L. Allen, A. V. Barnes, D. L. Harper, and N. H. Tolk</i>	543
Magnetic States on von Neumann Lattices <i>J. Zak</i>	553
Classicalization and Coherent States <i>W.-M. Zhang and D. H. Feng</i>	561
Post-Banquet Talk <i>A. S. Wightman</i>	581