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Nota di contenuto	<p>""BOSE EINSTEIN CONDENSATES:THEORY, CHARACTERISTICSAND CURRENT RESEARCH""; ""PHYSICS RESEARCH AND TECHNOLOGY""; ""CONTENTS""; ""PREFACE""; ""NEW APPROACH TO SPINOR BOSE-EINSTEINCONDENSATES""; ""Abstract""; ""1. Introduction""; ""2. General Formalism for the Spin Dynamics""; ""2.1. Overview""; ""2.2. Spin Representations of a Quantum 2-States System""; ""2.3. The Canonical Variables""; ""2.4. A Consequence of the Ehrenfest Theorem""; ""3. Spin Dynamics of the 2-states Bose-Einstein Condensate""; ""3.1. Basic Equations""; ""3.2. The Zero-Temperature Case: Deterministic Behavior""</p> <p>""3.2.1. Constant Magnetic Field along an Axis Perpendicular to the z-Direction""""3.2.2. The Rotating Transverse Magnetic Field""; ""3.2.3. The Modulated Transverse Magnetic Field""; ""3.3. The Finite-Temperature Case: Stochastic Behavior""; ""3.3.1. The Fokker-Planck Equation""; ""3.3.2. Derivation of the Fokker-Planck Equation Using the Functional Integral Approach""; ""4. Spin Dynamics of aMulti-component Bose-Einstein Condensate:Tunneling Phenomena""; ""4.1. Basic Equations""; ""4.2. Tunneling Rate""; ""4.3. Specific Examples of Tunneling""; ""4.3.1. Model(I)""; ""4.3.2. Model(II)""</p> <p>""5. Conclusion""""Appendix A""; ""References""; ""QUANTUM INTERFERENCE IN THETIME-OF-FLIGHT DISTRIBUTION FOR ATOMICBOSE-EINSTEIN CONDENSATES""; ""Abstract""; ""1.</p>

Introduction"; "2. Interference in the Quantum Time-of-flight Distribution for Bose-Einstein Condensate"; "2.1. Vertical Setup"; "2.2. Horizontal Setup"; "3. Numerical Results and Discussions"; "4. Summary and Conclusion"; "Acknowledgments"; "References"; "ON THE DYNAMICS OF NONCONSERVATIVE BOSE-EINSTEIN CONDENSATES IN TRAPPED DILUTE GASES"; "Abstract"; "1. Nonconservative Bose-Einstein Condensates"; "2. The Mean-field Approach"; "3. Techniques for the Resolution of Nonlinear Schrödinger Equations"; "3.1. Time Independent Variational Approach"; "3.2. Time Dependent Variational Approach"; "3.3. Numerical Methods"; "4. Unharmonic Trapping Potentials"; "5. Nonlinear Phenomena in Bose-Einstein Condensates"; "5.1. Liquid-Gas Phase Transition in Nonconservative Bose-Einstein Condensates"; "5.2. Spatiotemporal Chaos in Bose-Einstein Condensates"; "5.3. Autosolitons in Bose-Einstein Condensates"; "5.4. Coherent Dimer Formation Near Feshbach Resonances in Bose-Einstein Condensates"; "6. Stability of Nonconservative Bose-Einstein Condensates"; "7. Final Remarks"; "References"; "ELLIPTIC VORTICES IN SELF-ATTRACTIVE BOSE-EINSTEIN CONDENSATES"; "Abstract"; "1. Introduction"; "2. The Model and Numerical Analysis for the Vortex Solitons"; "3. Conclusion"; "References"; "CLASSICAL ELECTRODYNAMICS ANALOGY OF TWO-DIMENSIONAL BOSE-EINSTEIN CONDENSATES"; "Abstract"; "1. Introduction"; "2. Two-dimensional BEC"; "3. Mapping onto Electrodynamics"; "4. Conservation of Energy"
