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Autore	Bagarello Fabio <1964->
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Nota di contenuto	Intro -- QUANTUM DYNAMICS FOR CLASSICAL SYSTEMS -- CONTENTS -- PREFACE -- ACKNOWLEDGMENTS -- 1 WHY A QUANTUM TOOL IN CLASSICAL CONTEXTS? -- 1.1 A First View of (Anti-)Commutation Rules -- 1.2 Our Point of View -- 1.3 Do Not Worry About Heisenberg! -- 1.4 Other Appearances of Quantum Mechanics in Classical Problems -- 1.5 Organization of the Book -- 2 SOME PRELIMINARIES -- 2.1 The Bosonic Number Operator -- 2.2 The Fermionic Number Operator -- 2.3 Dynamics for a Quantum System -- 2.3.1 Schrödinger Representation -- 2.3.2 Heisenberg Representation -- 2.3.3 Interaction Representation -- 2.4 Heisenberg Uncertainty Principle -- 2.5 Some Perturbation Schemes in Quantum Mechanics -- 2.5.1 A Time-Dependent Point of View -- 2.5.2 Feynman Graphs -- 2.5.3 Dyson's Perturbation Theory -- 2.5.4 The Stochastic Limit -- 2.6 Few Words on States -- 2.7 Getting an Exponential Law from a Hamiltonian -- 2.7.1 Non-Self-Adjoint Hamiltonians for Damping -- 2.8 Green's Function -- I SYSTEMS WITH FEW ACTORS -- 3 LOVE AFFAIRS -- 3.1 Introduction and Preliminaries -- 3.2 The First Model -- 3.2.1 Numerical Results for M > 1 -- 3.3 A Love Triangle -- 3.3.1 Another Generalization -- 3.4 Damped Love

Sommario/riassunto

"With a focus on the relationship between quantum mechanics and social science, this book introduces the main ideas of number operators while avoiding excessive technicalities that aren't necessary in understanding the various mathematical applications. It discusses the use of mathematical tools related to quantum mechanics and features applications in finance, biology, and social science; systematically shows how to use creation and annihilation operators for classical problems; and addresses the recent increase in research and literature on the many applications of quantum tools in applied mathematics"--