

<<经典和量子动力学>>

图书基本信息

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内容概要

This volume is the result of the authors' lectures and seminars given at Tiibingcn University and elsewhere. It represents a summary of our learning process in non-linear Hamiltonian dynamics and path integral methods in nonrelativistic quantum mechanics. While large parts of the book are based on standard material, readers will find numerous worked examples which can rarely be found in the published literature. In fact, toward the end they will find themselves in the midst of mod- em topological methods which so far have not made their way into the textbook literature. One of the authors' (W.D.) interest in the subject was inspired by Prof. D. Judd (UC Berkeley), whose lectures on nonlinear dynamics familiarized him with Lich-tenberg and Lieberman's monograph, Regular and Stochastic Motion (Springer, 1983). For people working in plasma or accelerator physics, the chapter on non-linear physics should contain some familiar material. Another influential author has been Prof. J. Schwinger (UCLA); the knowledgeable reader will not be surprised to discover our appreciation of Schwinger's Action Principle in the introductory chapters. However, the major portion of the book is based on Feynman's path integral approach, which seems to be the proper language for handling topological aspects in quantum physics.

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书籍目录

Introduction 1. The Action Principles in Mechanics 2. Application of the Action Principles 3. Jacobi Fields , Conjugate Points 4. Canonical Transformations 5. The Hamilton-Jacobi Equation 6. Action-Angle Variables 7. The Adiabatic Invariance of the Action Variables 8. Tune-Independent Canonical Perturbation Theory 9. Canonical Perturbation Theory with Several Degrees of Freedom 10. Canonical Adiabatic Theory 11. Removal of Resonances 12. Superconvergent Perturbation Theory , KAM Theorem (Introduction) 13. Poincare Surface of Sections , Mappings 14. The KAM Theorem 15. Fundamental Principles of Quantum Mechanics 16. Examples for Calculating Path Integrals 17. Direct Evaluation of Path Integrals 18. Linear Oscillator with Time-Dependent Frequency 19. Propagators for Particles in an External Magnetic Field 20. Simple Applications of Propagator Functions 21. The WKB Approximation 22. Partition Function for the Harmonic Oscillator 23. Introduction to Homotopy Theory 24. Classical Chem-Simons Mechanics 25. Semicalssical Quantization 26. The "Maslov Anomaly and the Morse Index Theorem 27. Maslov Anomaly and the Morse Index Theorem 28. Berry's Phase 29. Classical Analoues to Berry's Phase 30. Berry Phase and Parametric Harmonic Oscillator 31. Topological Phases in Planar Electrodynamics References Subject Index

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