

<<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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