

<<理论物理中的Mathematica>>

图书基本信息

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内容概要

本书为国外物理名著系列之一，由鲍曼编著。

本书主要内容简介：Classical Mechanics and Nonlinear Dynamics Class-tested textbook that shows readers how to solve physical problems and deal with their underlying theoretical concepts while using Mathematica~ to derive numeric and symbolic solutions. Delivers dozens of fully interactive examples for learning and implementation, constants and formulae can readily be altered and adapted for the user's purposes. New edition offers enlarged two-volume format suitable to courses in mechanics and electrodynamics, while offering dozens of new examples and a more rewarding interactive learning environment.

<<理论物理中的Mathematica>>

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章节摘录

版权页：插图：The study of spectroscopic properties of single ions requires that one or two ions are trapped in a cavity. Nowadays, ions can be successfully separated and stored by means of ion traps. Two techniques are used for trapping ions. The first method uses a dynamic electric field, while the second method uses static electric and magnetic fields. The dynamic trap was originally invented by Paul [4.3]. The static trap is based on the work of Penning [4.4]. Both traps use a combination of electric and magnetic fields to confine ions in a certain volume in space. Two paraboloids connected to a dc-source determine the kind of electric field in which the ions are trapped. The form of the paraboloids in turn determines the field of the trap's interior, Since the motion of the ions in Paul's trap is very complicated, we restrict our study to the Penning trap.

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