

<<量子力学简明教程>>

图书基本信息

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内容概要

This is based on the authors following two principles : (i) if a textbook were so perfectly arranged that leaves nothing to be desired, it would make the readers feel that the scientific discovery is so mystical that they lose passion of creativity.

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章节摘录

版权页：插图：You have captured the basic concepts and solved, as main applications, several quantum mechanical problems exactly in previous chapters. However, it happens often that an interesting and important physical problem is described by a Schrödinger equation that can not be solved exactly. It is therefore inevitable to develop various skills (strategies or methods). An important and powerful method is called perturbation theory that refers to any situation in which a solution to an equation is analyzed by using an existing nearby solution as a reference, or even possibly by solving a nearby equation rather than the original equation. In order for perturbation theory to be applicable, one or more of the following items should be true: (i) The desired initial data should be close to the reference initial data. (ii) The desired equation should be close to the reference equation. (iii) The time interval on which the analysis is performed should be small. In this chapter you are guided to learn a very useful method: time-independent perturbation theory for bound states.

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