

<<高等量子力学>>

图书基本信息

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内容概要

《高等量子力学(第4版)》讨论了非相对论多粒子系统、相对论波方程和相对论量子场论。

它的最大特点是数学知识背景讨论曲面、大量的应用案例和练习,帮助读者全面了解这个科目。

《高等量子力学(第4版)》的内容为更深层次学习固态物理学、核物理和基本粒子物理学奠定了基础。

《高等量子力学(第4版)》扩展和弥补了作者的《量子力学入门》,那本《量子力学入门》包括了非相对论量子力学,简短介绍了非相对论放射场量子化。

在这第四版中增加了不少新的材料并在内容上做了不少更新,在图表的陈列上也达到了格式统一,使得在理解上更加容易。

目次:(第一部分)非相对论多粒子系统:二次量子化;1/2旋转费米子;波色子;相关函数,散射和响应;(第二部分)相对论波方程:相对论波方程及其衍生;lorentz变换和dirac方程协方差;轨道角动量和旋转;colomb势能;foldy-wouthuysen变换和相对论修正;dirac方程解的物理解释;dirac方程的对称和更多性质;(第三部分)相对场:相对场的量子化;自由场;放射场的量子化;相互场,量子电动力学。

读者对象:物理专业的高年级研究生和更高层的科研人员。

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作者简介

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