

<<球垛格点和群>>

图书基本信息

书名：<<球垛格点和群>>

13位ISBN编号：9787506292153

10位ISBN编号：7506292157

出版时间：2008-11

出版时间：世界图书出版公司

作者：康韦

页数：703

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

前言

The main themes. This book is mainly concerned with the problem of packing spheres in Euclidean space of dimensions 1,2,3,4,5,... Given a large number of equal spheres, what is the most efficient (or densest) way to pack them together ?

We also study several closely related problems: the kissing number problem, which asks how many spheres can be arranged so that they all touch one central sphere of the same size; the covering problem, which asks for the least dense way to cover n-dimensional space with equal overlapping spheres; and the quantizing problem, important for applications to analog-to-digital conversion (or data compression) , which asks how to place points in space so that the average second moment of their Voronoi cells is as small as possible. Attacks on these problems usually arrange the spheres so their centers form a lattice. Lattices are described by quadratic forms, and we study the classification of quadratic forms. Most of the book is devoted to these five problems.

<<球垛格点和群>>

内容概要

本书为第三版，继前两版之后，接着探讨“如何最有效地将大量等球放入 n 维的欧氏空间中？”这一核心问题。

同时，作者仍在思考一些相关的问题，如：吻接数问题，覆盖问题，量子化问题以及格分类与二次型。

与前两版相同的是，第三版也描述了以上这些问题与数学或自然科学中其他一些领域的联系，这些领域包括：码理论，数字通信，数论，群论，模拟数字转换以及数据压缩与 n 维晶体。

值得特别注意的是，本书收录了一篇介绍本领域的最新的一些研究成果的报告，并补充了1988-1998年间出版的超过800项的参考书目，相信这些珍贵的资料一定能够引起读者特殊的兴趣。

本书适用于数学专业的高年级本科生或研究生以及需要相关知识的科研人员。

<<球垛格点和群>>

作者简介

作者：(英国)康韦 (Conway.J.H)

书籍目录

Preface to First Edition
Preface to Third Edition
List of Symbols
Chapter 1 Sphere Packings and Kissing Numbers
Chapter 2 Coverings, Lattices and Quantizers
Chapter 3 Codes, Designs and Groups
Chapter 4 Certain Important Lattices and Their Properties
Chapter 5 Sphere Packing and Error-Correcting Codes
Chapter 6 Laminated Lattices
Chapter 7 Further Connections Between Codes and Lattices
Chapter 8 Algebraic Constructions for Lattices
Chapter 9 Bounds for Codes and Sphere Packings
Chapter 10 Three Lectures on Exceptional Groups
Chapter 11 The Golay Codes and the Mathieu Groups
Chapter 12 A Characterization of the Leech Lattice
Chapter 13 Bounds on Kissing Numbers
Chapter 14 Uniqueness of Certain Spherical Codes
Chapter 15 On the Classification of Integral Quadratic Forms
Chapter 16 Enumeration of Unimodular Lattices
Chapter 17 The 24-Dimensional Odd Unimodular Lattices
Chapter 18 Even Unimodular 24-Dimensional Lattices
Chapter 19 Enumeration of Extremal Self-Dual Lattices
Chapter 20 Finding the Closest Lattice Point
Chapter 21 Voronoi Cells of Lattices and Quantization Errors
Chapter 22 A Bound for the Covering Radius of the Leech Lattice
Chapter 23 The Covering Radius of the Leech Lattice
Chapter 24 Twenty-Three Constructions for the Leech Lattice
Chapter 25 The Cellular Structure of the Leech Lattice
Chapter 26 Lorentzian Forms for the Leech Lattice
Chapter 27 The Automorphism Group of the 26-Dimensional Even Unimodular Lorentzian Lattice
Chapter 28 Leech Roots and Vinberg Groups
Chapter 29 The Monster Group and its 196884-Dimensional Space
Chapter 30 A Monster Lie Algebra
Bibliography
Supplementary Bibliography
Index

<<球垛格点和群>>

章节摘录

插图：

<<球垛格点和群>>

编辑推荐

《球垛格点和群(第3版)》由世界图书出版公司。

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>