



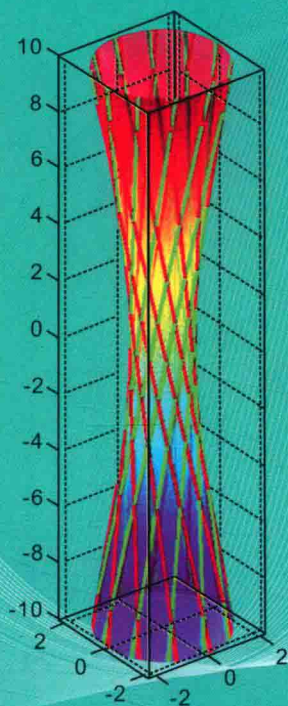
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MATLAB 可视化

高等数学 下册

主 编 马传秀

副主编 周群益 蔡孟秋 罗汉



湖南大学出版社

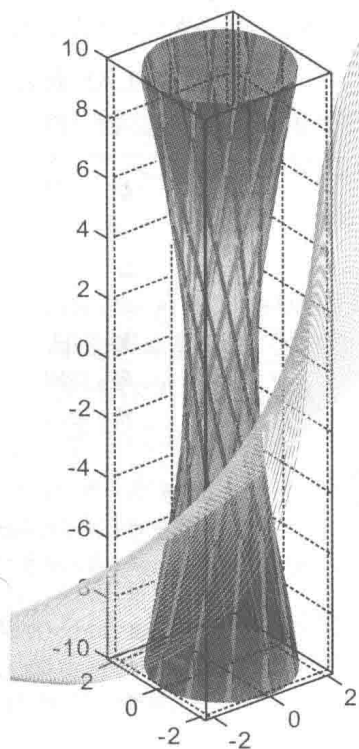


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内 容 简 介

本书是 MATLAB 与高等数学相结合的教材,分为上、下两册。MATLAB 是一种图形功能和计算功能都十分强大的计算机语言,全书的各章分为两大部分,第一部分是基本内容,第二部分是范例的解析,图示和算法以及程序(包括说明)。本书的基本内容涵盖了高等数学的基本知识,包括定义、定理等等。第二部分将高等数学的例题和习题分类,以范例的形式提出,然后解析,通过图像说明结果,提出算法,设计程序。书中每条指令都有简要说明,使读者易学易懂,为读者提供了许多解决问题的方法和技巧。为了减少篇幅,书中只列出了部分纸质版的程序,方便读者阅读和理解。本书的程序都在网站中,读者可以从网站下载,很容易装载和执行程序,观察结果。网址为: <http://www.hnupress.com> 或者 <http://www.yunjiaoshi.cn>。

本书适合大学各年级学生学习高等数学和 MATLAB 编程,也可以作为数学建模的参考资料。同时,本书还可以作为科研工作者设计 MATLAB 程序的参考书。

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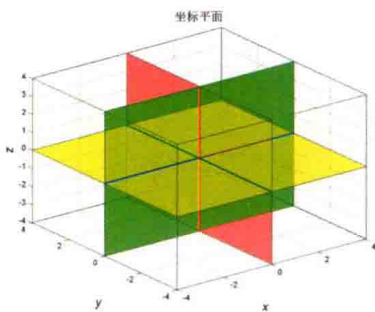
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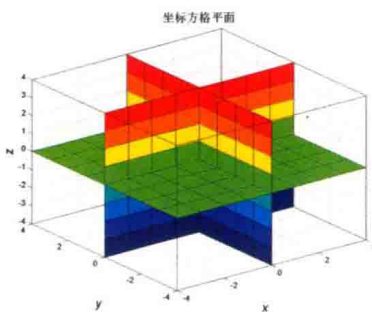
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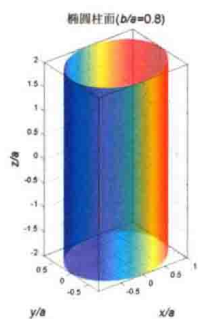
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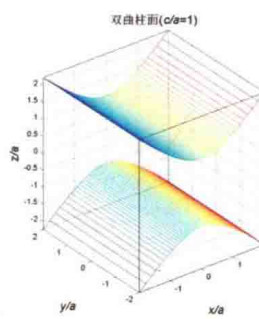
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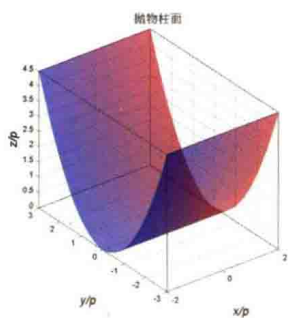
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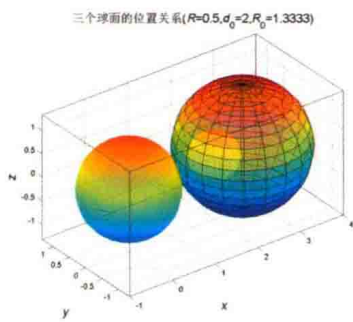
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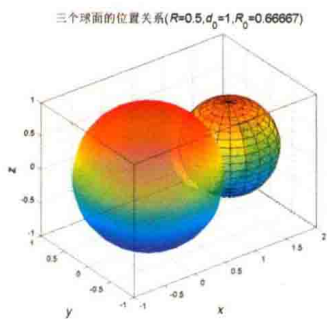
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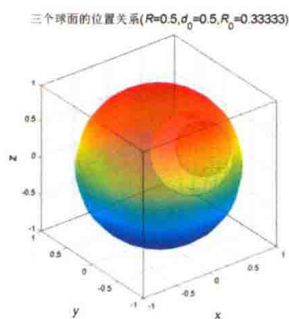
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P6-14-1a 图

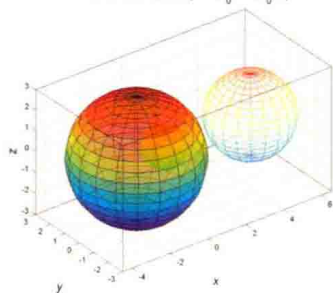


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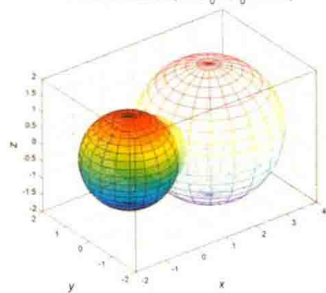
P6-14-1c 图

三个球面的位置关系($R=2, d_0=4.5, R_0=3$)



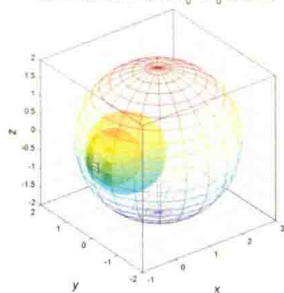
P6-14-1d 图

三个球面的位置关系($R=2, d_0=2, R_0=1.3333$)



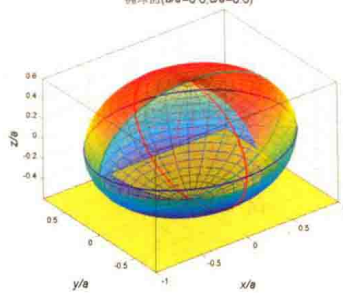
P6-14-1e 图

三个球面的位置关系($R=2, d_0=1, R_0=0.66667$)



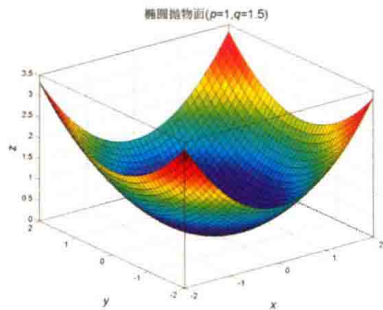
P6-14-1f 图

椭球面($b/a=0.8, c/a=0.6$)



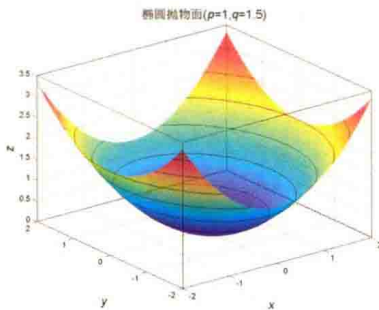
P6-14-2 图

椭圆抛物面($p=1, q=1.5$)



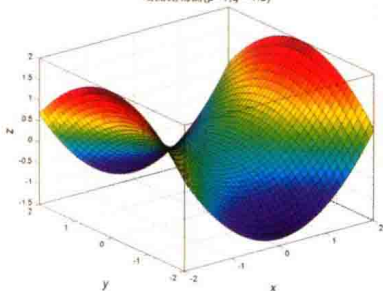
P6-15-1a 图

椭圆抛物面($p=1, q=1.5$)



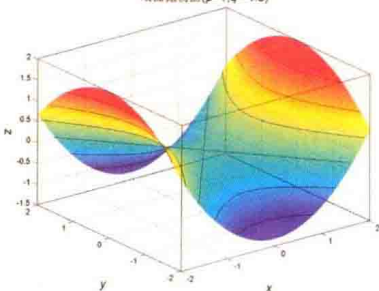
P6-15-1b 图

双曲抛物面($p=1, q=-1.5$)

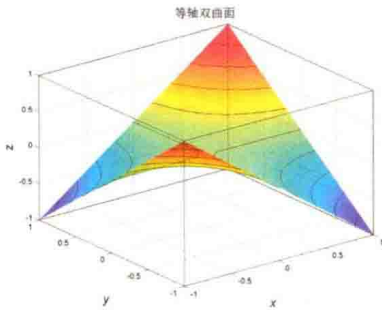


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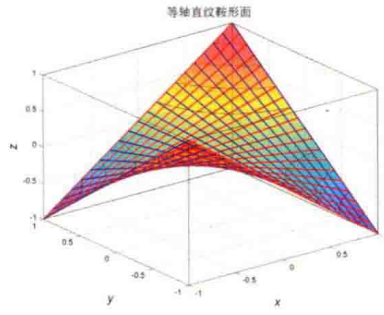
双曲抛物面($p=1, q=-1.5$)



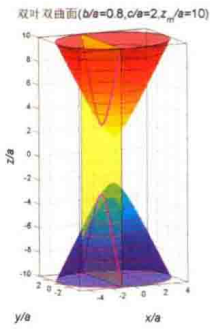
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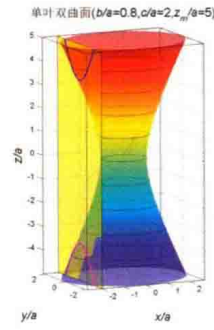
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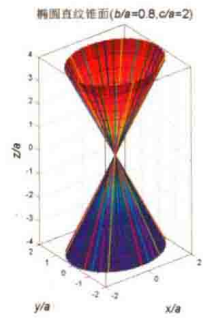
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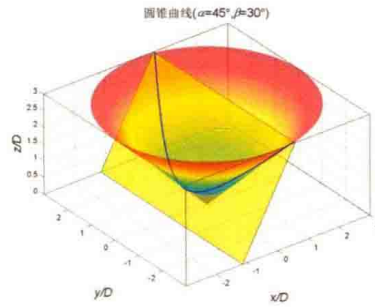
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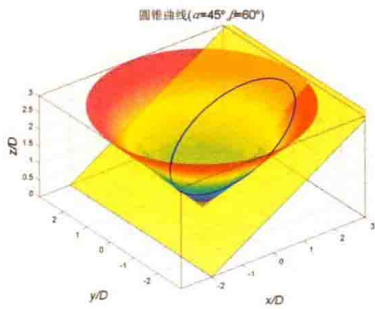
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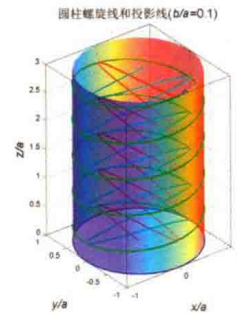
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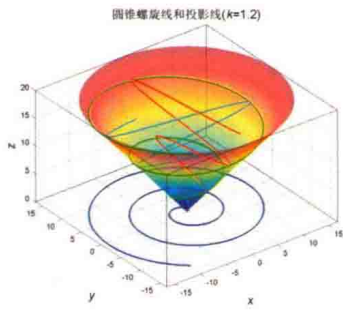
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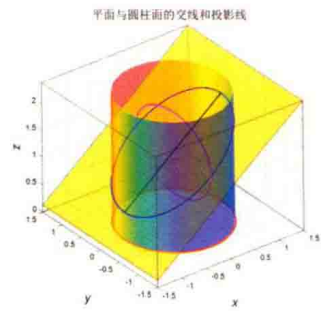
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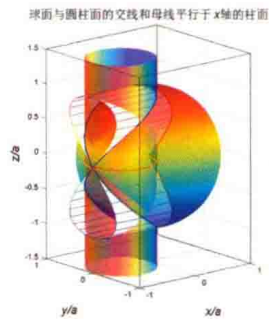
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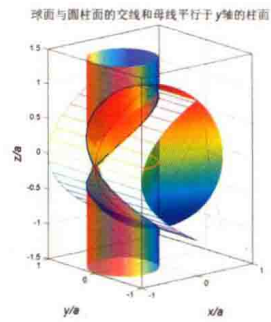
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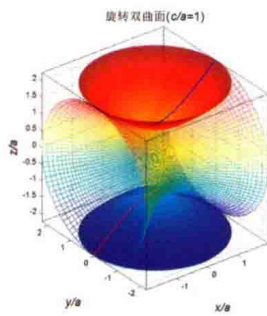
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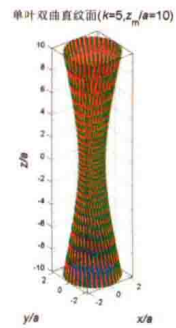
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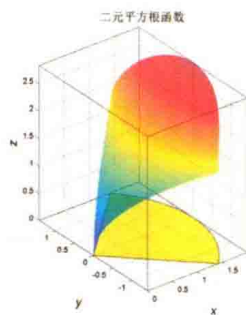
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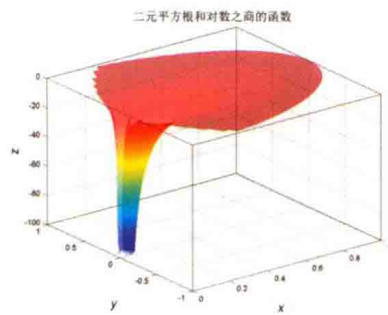
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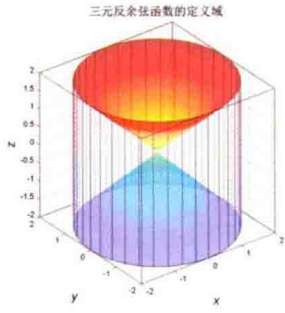
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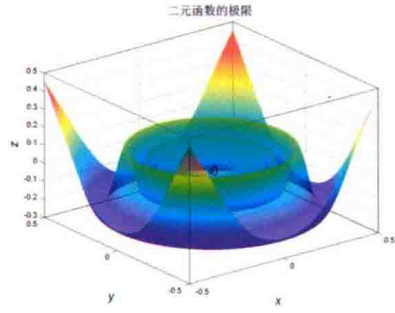
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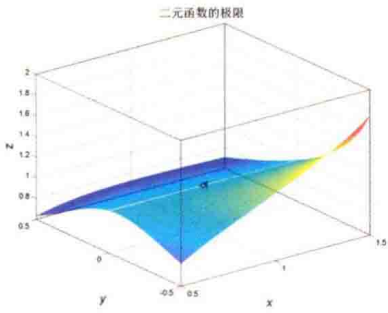
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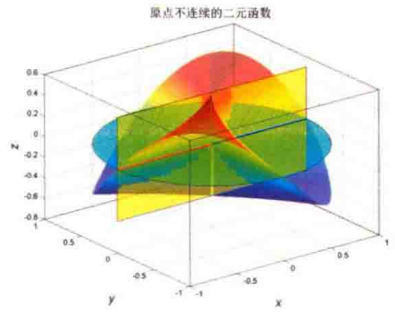
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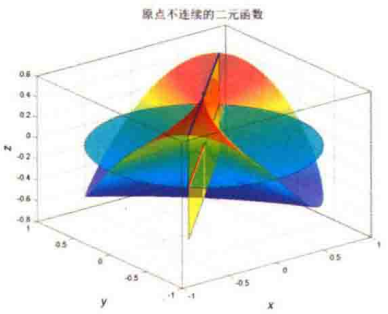
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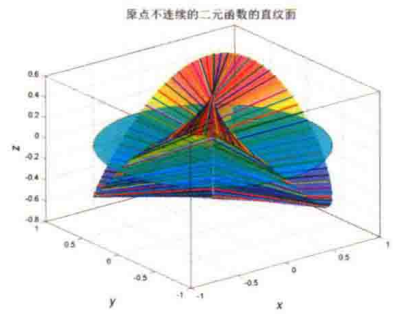
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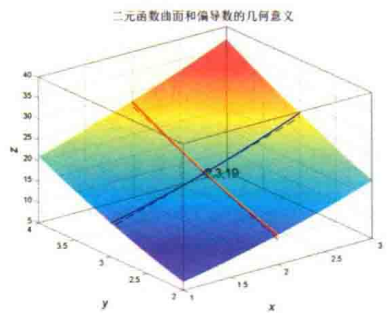
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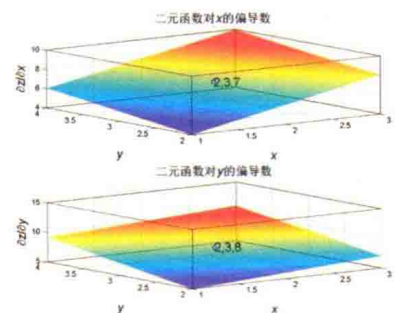
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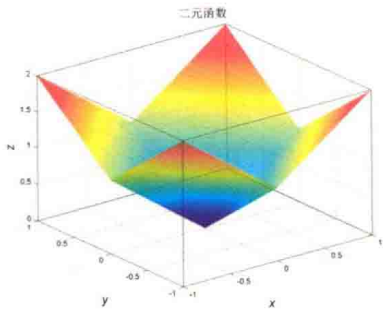
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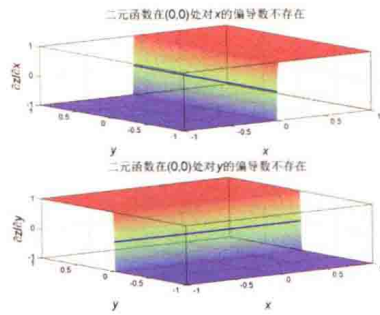
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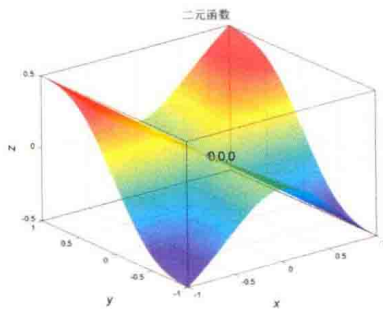
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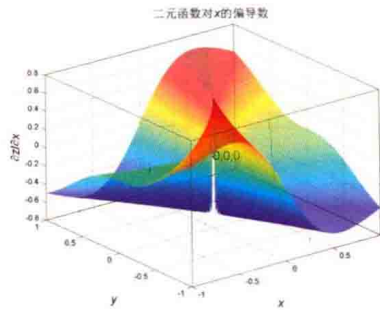
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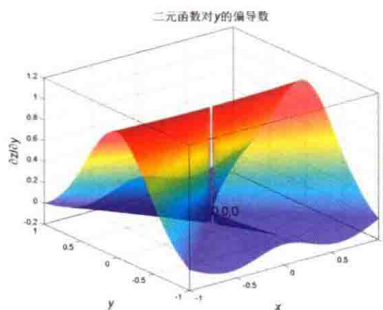
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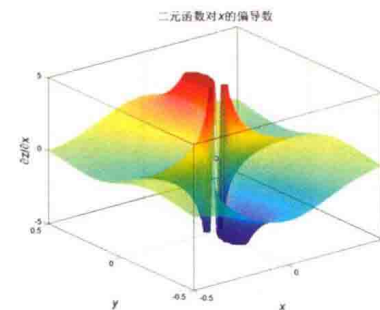
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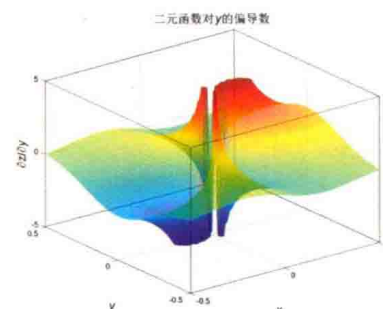
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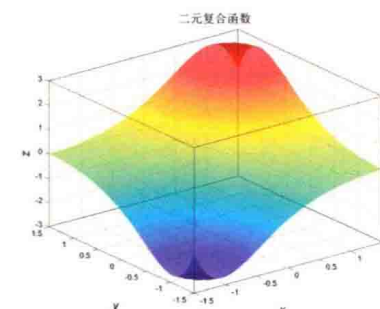
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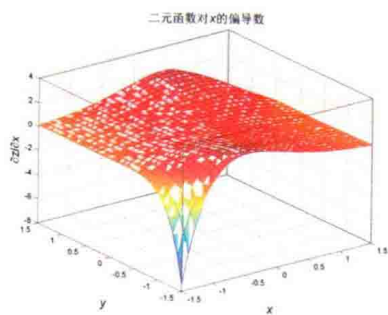
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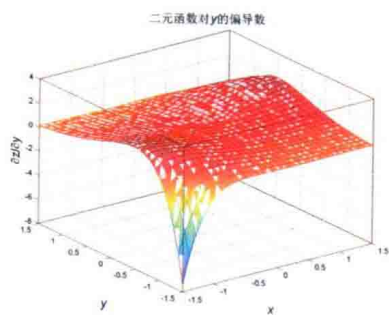
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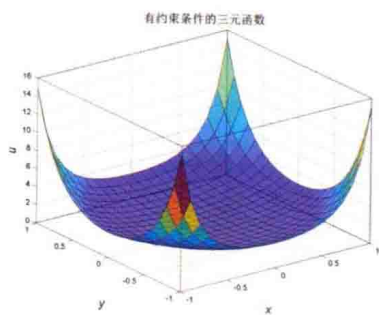
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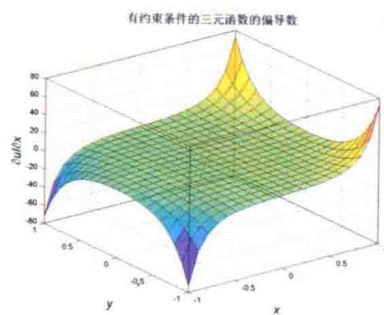
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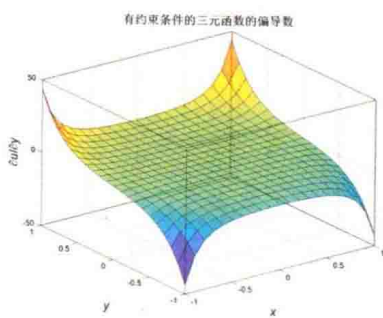
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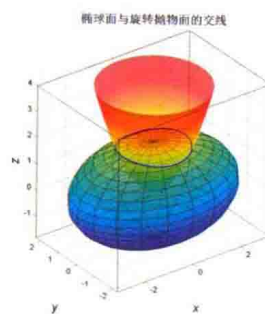
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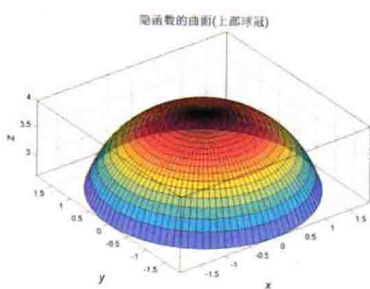
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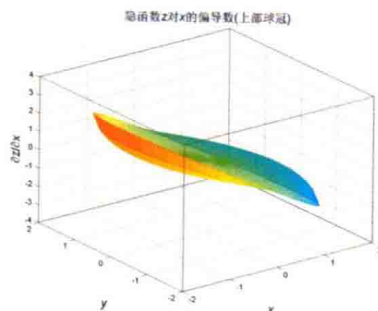
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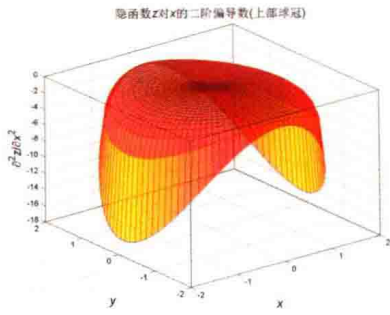
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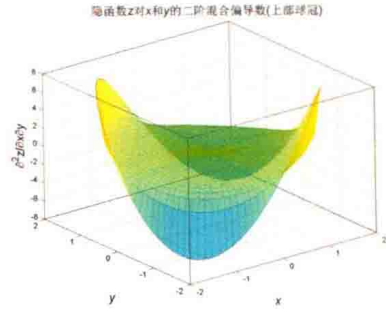
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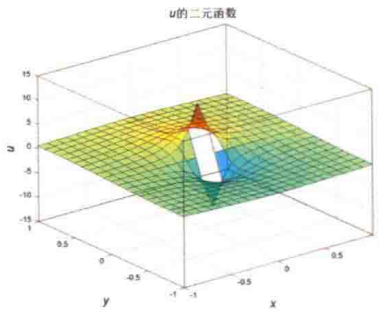
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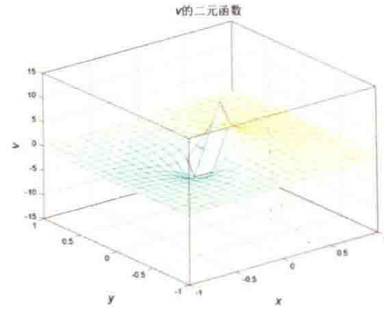
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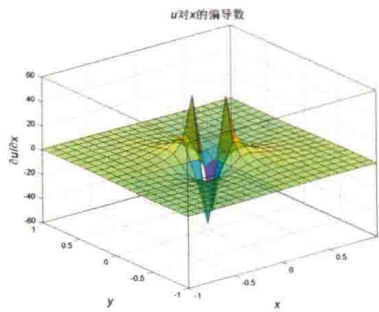
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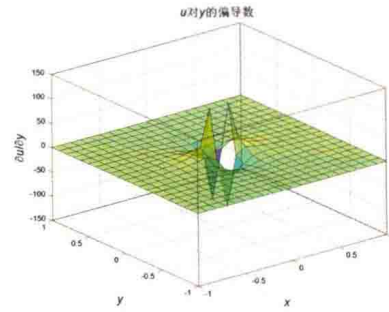
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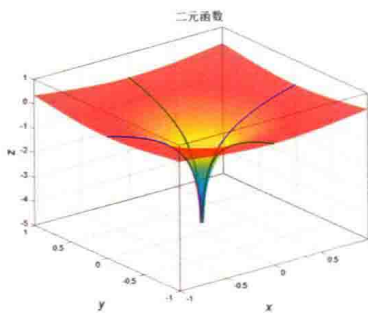
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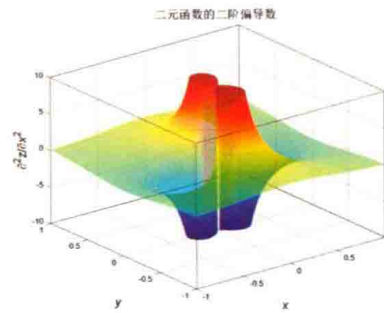
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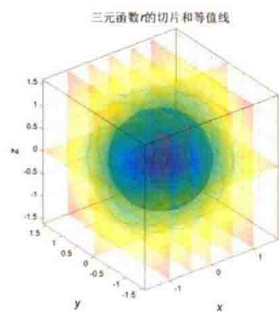
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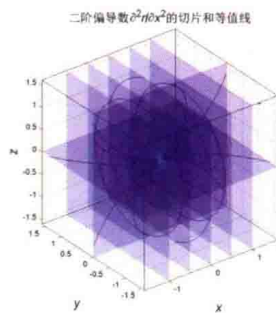
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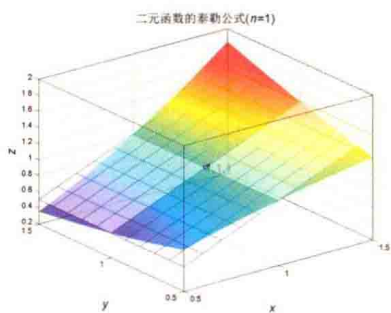
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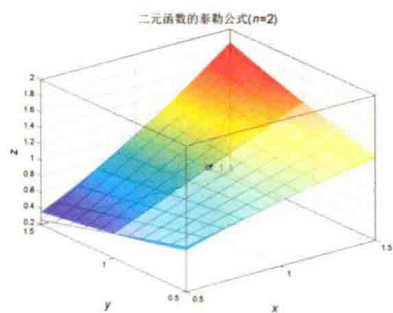
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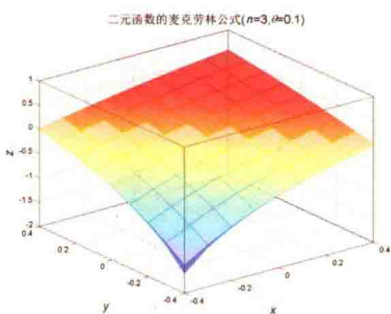
P7-9-2b 图



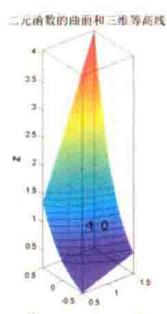
P7-10-1a 图



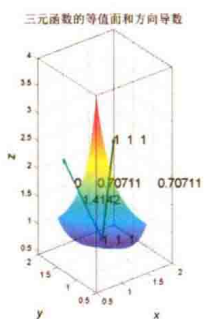
P7-10-1b 图



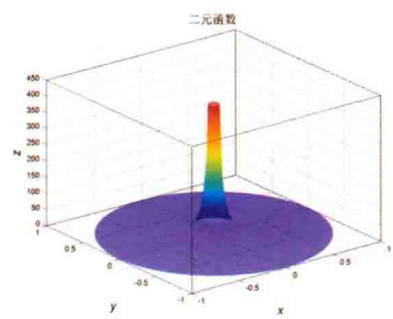
P7-10-2 图



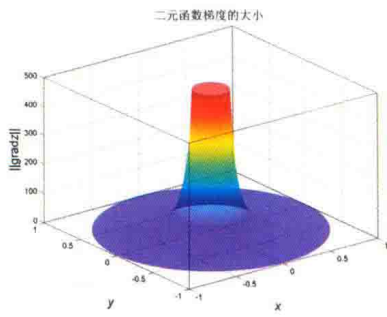
P7-11-1a 图



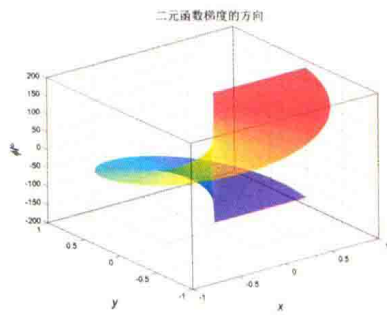
P7-11-2 图



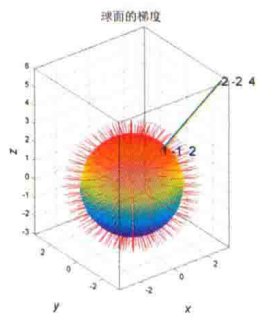
P7-12-1a 图



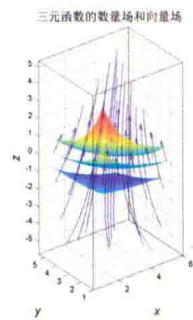
P7-12-1b 图



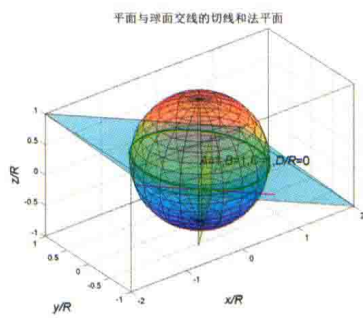
P7-12-1c 图



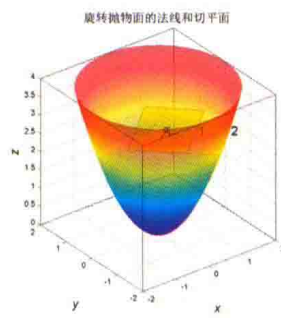
P7-12-2 图



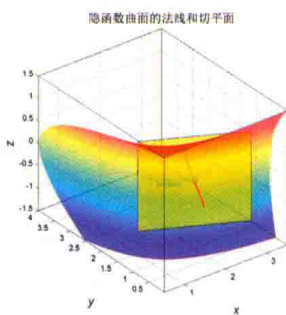
P7-13-2 图



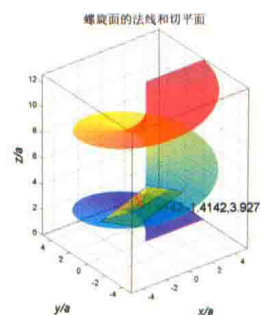
P7-14-2 图



P7-15-1 图

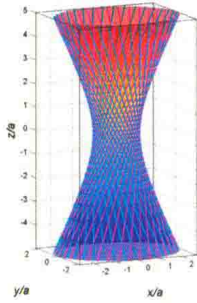


P7-15-2 图



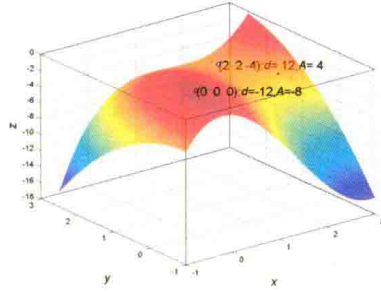
P7-15-3 图

单叶双曲直纹面($b/a=0.8, c/a=2, z_m/a=5$)



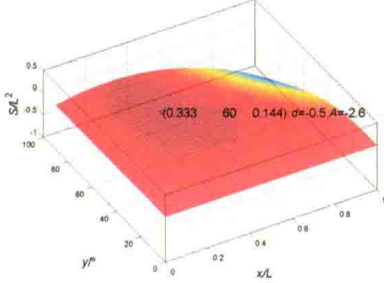
P7-16 图

二元函数的驻点和极值条件



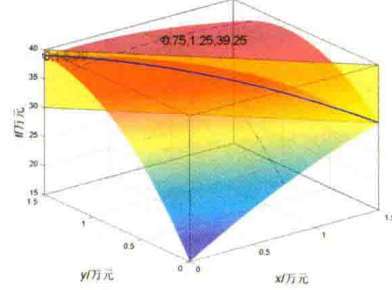
P7-17-1 图

水槽的横截面和最大面积



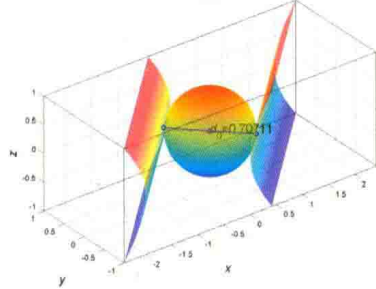
P7-17-2 图

利润和最大利润以及广告费用有限的最大利润



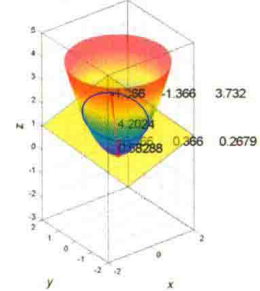
P7-18-1 图

原点到曲面的最短距离



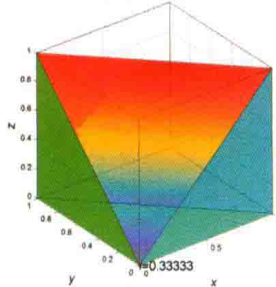
P7-18-2 图

旋转抛物面与平面的交线到原点的距离



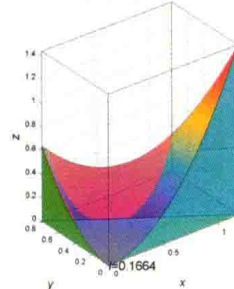
P7-18-3 图

三角积分域的二重积分值

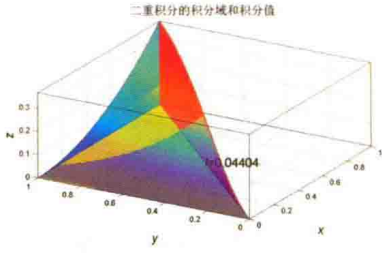


P8-1-1a 图

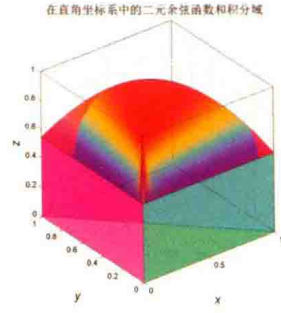
三角积分域的二重积分值



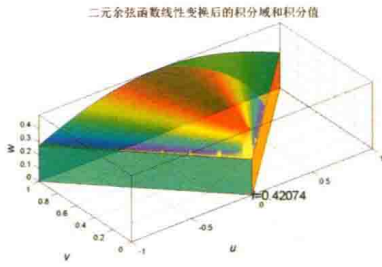
P8-1-1b 图



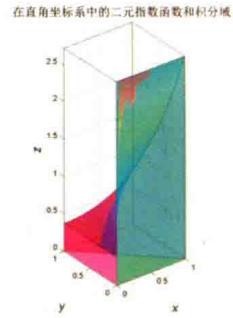
P8-1-2 图



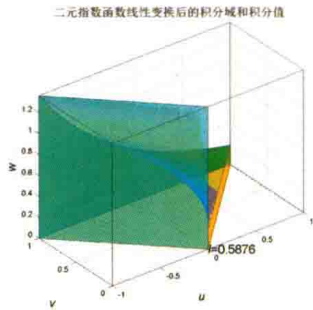
P8-2-1a 图



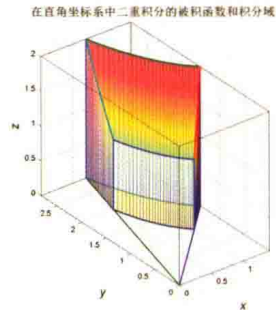
P8-2-1b 图



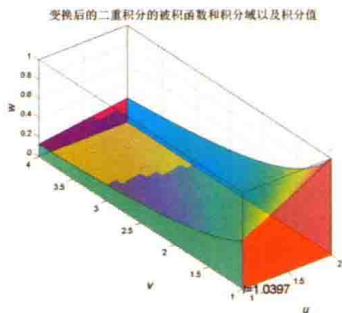
P8-2-1c 图



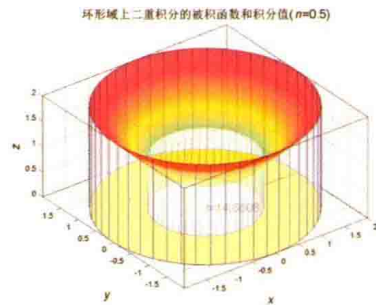
P8-2-1d 图



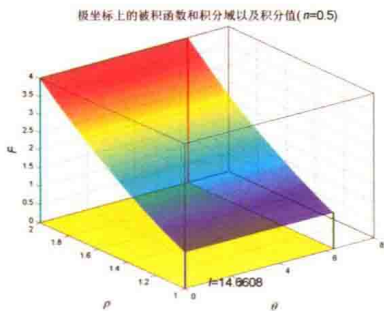
P8-2-2a 图



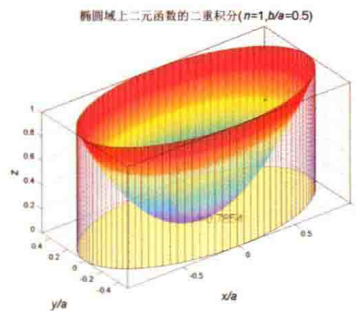
P8-2-2b 图



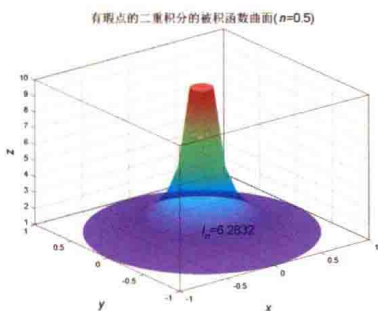
P8-3-1a 图



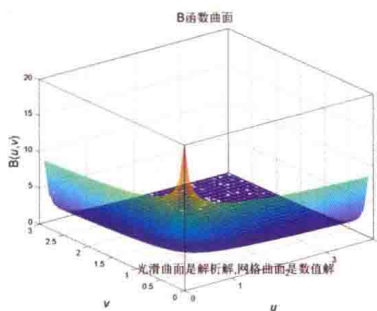
P8-3-1b 图



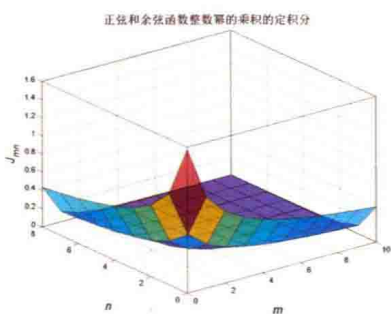
P8-3-2 图



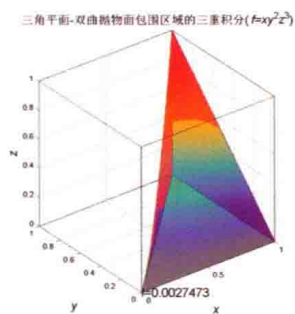
P8-4-2 图



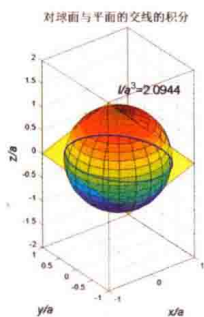
P8-6-1 图



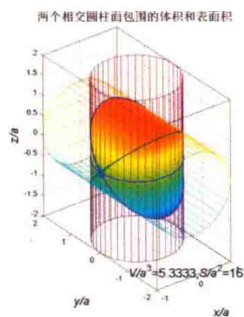
P8-6-2 图



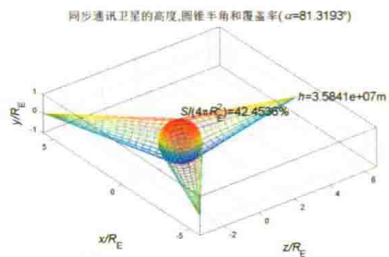
P8-8-2 图



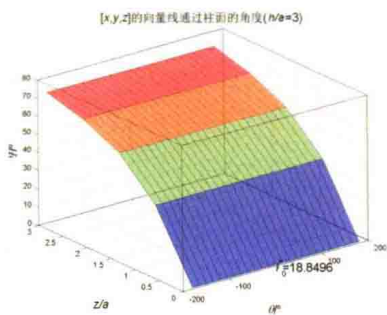
P8-11-3 图



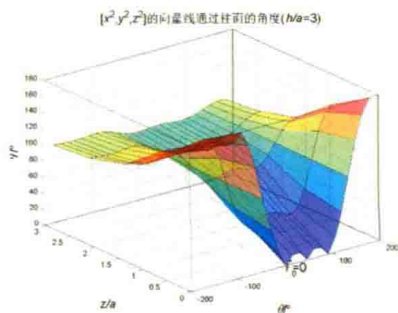
P8-17-1 图



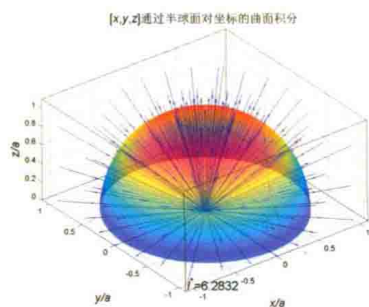
P8-17-2 图



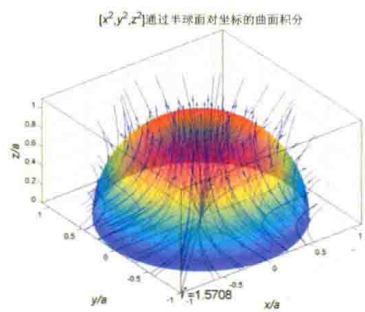
P8-19-1b 图



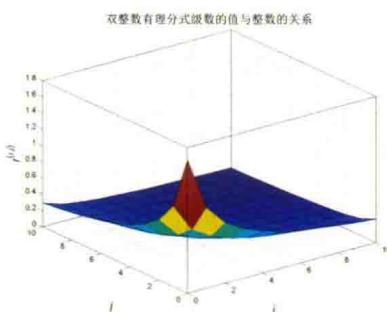
P8-19-1d 图



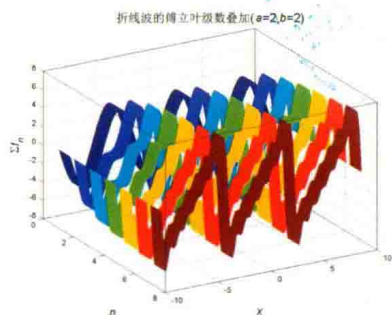
P8-19-2a 图



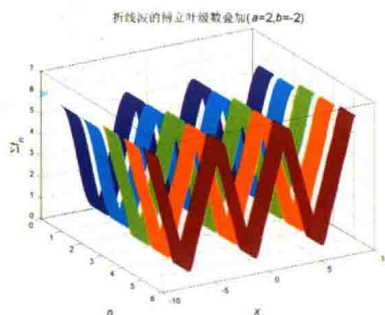
P8-19-2b 图



P9-8b 图



P9-19-1b 图



P9-19-1d 图