图书基本信息

- 书名: <<亚纯函数值分布理论>>
- 13位ISBN编号:9787302223290
- 10位ISBN编号:7302223297
- 出版时间:2010-6
- 出版时间:清华大学出版社
- 作者:郑建华
- 页数:308
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前言

This book is devoted to the study of value distribution of functions which are mero-morphic on the complex plane or in an angular domain with vertex at the origin. Wecharacterize such meromorphic functions in terms of distribution of some of theirvalue points. The study, together with certain related topics, is known as theory of value distribution of meromorphic functions. The theory is too vast to be justified within a single work. Therefore we selected and organized the content based on their significant importance to our understanding and interests in this book. I gladly ac-knowledge my indebtedness in particular to the books of M. Tsuji, A. A. Goldbergand I. V. Ostrovskii, Yang L. and the papers of A. Eremenko. An outline of the book is provided below. The introduction of the Nevanlinnacharacteristic to the study of meromorphic functions is a new starting symbol of the theory of value distribution. The Nevanlinna characteristic and Tsuji characteristic for an angular domain. And from geometricpoint of view, namely the Ahlfors theory of covering surfaces, the Ahlfors-Shimizucharacteristic have also been introduced. These characteristics are real-valued func-tions defined on the positive real axis. Therefore, in the first chapter, we collect thebasic results about positive real functions that are often used in the study of mero-morphic function theory. Some of these results are distributed in other books, somein published papers, and some have been newly established in order to serve ourspecific objectives in the book.

内容概要

本书共7章,研究在复平面上或在以原点为顶点的角域上亚纯的函数的值分布,即通过某些值点来刻 画亚纯函数。

前两章研究各类特征函数及这样的实函数的性质。

第3、4章放在新引入的奇异方向——T方向,包括存在性、分布,与其他方向的关系上,T方向与分布 值和亏值总数的关系。

射线分布值确定亚纯函数的增长性的问题在第5章详细研究。

第6章研究亚纯函数对应的Riemann曲面,逆函数的奇异性及其与不动点的关系。

最后一章介绍具有重要地位的ENevanlinna猜想的Eremenko应用位势论的证明。



作者简介

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编辑推荐

《亚纯函数值分布理论》: Value Distribution of Meromorphic Functions focuses on functionsmeromorphic in an angle or on the complex plane, T directions, deficientvalues, singular values, potential theory in value distribution and theproof of the celebrated Nevanlinna conjecture. The book introducesvarious characteristics of meromorphic functions and their connections, several aspects of new singular directions, new results on estimates of thenumber of deficient values, new results on singular values and behaviours of subharmonic functions which are the foundation for further discussion the proof of the Nevanlinna conjecture. The independent significance of normality of subharmonic function family is emphasized. This book is designed for scientists, engineers and post graduated students engaged inComplex Analysis and Meromorphic Functions.



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