

<<延时微分方程数值方法的稳定性>>

图书基本信息

书名：<<延时微分方程数值方法的稳定性>>

13位ISBN编号：9787030163172

10位ISBN编号：7030163176

出版时间：2005-1

出版时间：科学出版社

作者：科学出版社

页数：295

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>

## <<延时微分方程数值方法的稳定性>>

### 内容概要

《延时微分方程数值方法的稳定性》主要内容为常微分方程数值处理中的常用方法介绍；常复数线性延时微分方程数值方法如线性多步，Runge - Kutta方的P稳定性、GP稳定性、GPL - 稳定性，步长控制，步长与时间的矛盾；复系数延时微分方程的数值解及方法的稳定性；非线性延时微分奉承的数值处理；中立型微分方程数值方法的稳定性研究等等。

<<延时微分方程数值方法的稳定性>>

书籍目录

Preface Chapter 1 Linear Multistep Methods1.1 Introduction1.2 Consistency , Convergence and Stability1.3 The Highest Attainable Order1.4 A-StabilityChapter 2 Runge-Kutta Methods2.1 Order Condition2.2 Numerical Stability of Explicit RK Methods2.3 Numerical Stability of Implicit RK Methods2.4 Multistep Runge-Kutta Methods2.5 Suitability and D-Suitability of IRK MethodsChapter 3 BDF Methods and Block Methods3.1 Introduction3.2 BDF Methods and Its Modified Form3.3 Nordsieck Expression of BDF Methods3.4 Block Implicit One-Step Methods3.5 Non-equidistant Block Methods3.6 Block Methods with High Order Derivative3.7 Block -MethodsChapter 4 Stability of Methods for Linear DDEs4.1 Introduction4.2 GP-Stability of -Methods4.3 GPM-Stability of Linear Multistep Methods4.4 Asymptotic Stability of Runge-Kutta Methods4.5 P-Stability of Block -Methods4.6 DDEs with Variable Coefficients4.7 PL-Stability of Numerical Methods4.8 GPL-stability of Implicit RK Methods4.9 GPL-stability of Rosenbrock Methods4.10 Stepsize and Time Conflict4.11 Big PictureChapter 5 Linear Systems of DDEs5.1 A Sufficient Condition for Asymptotic Stability5.2 A Sufficient and Necessary Condition5.3 Linear Systems of DDEs with Multiple Delays5.4 Advanced Analysis of DDEs with Multiple Delays5.5 Asymptotic Stability of Rosenbrock Methods5.6 Big PictureChapter 6 Nonlinear Delay Differential Equations6.1 Properties of Analytical Solutions6.2 RN and GRN-stability6.3 Asymptotic Stability of -Methods6.4 Nonautonomous Linear Systems6.5 GPN and GRN-stability of RK Methods6.6 Big PictureChapter 7 Neutral Delay Differential Equations7.1 One-Parameter Methods7.2 Asymptotic Behaviour of Analytical Solutions7.3 NGP-Stability of One-Parameter Methods7.4 Numerical Stability of IRK Methods7.5 IRK Methods for Generalized Neutral Systems7.6 NGPG-Stability of Linear Multistep Methods7.7 The NPL-Stability of Numerical Methods7.8 Big PictureChapter 8 Delay Volterra Integral Equations8.1 Reducible Quadrature Rule8.2 Numerical Stability of the Quadrature Rule8.3 Numerical Stability of -methods8.4 Big PictureChapter 9 Equations with Variable DelaysAppendix A Systems with Bounded DelaysAppendix B Linear Systems of DDEsAppendix C StabilityBibliographySuggestion for Further ReadingIndex

## <<延时微分方程数值方法的稳定性>>

### 编辑推荐

《延时微分方程数值方法的稳定性》由科学出版社出版。

<<延时微分方程数值方法的稳定性>>

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>