

<<数字信号处理>>

图书基本信息

书名：<<数字信号处理>>

13位ISBN编号：9787111382539

10位ISBN编号：7111382536

出版时间：2012-6

出版时间：机械工业出版社

作者：（巴西）迪尼兹 等著

页数：889

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>

## <<数字信号处理>>

### 内容概要

《经典原版书库·数字信号处理：系统分析与设计（英文版·第2版）》将理论与实际有机融合，涵盖了数字信号处理（DSP）分析和设计的所有重要内容，提供了数字信号处理这一前沿技术领域难得的设计理念和方法。

本书不仅可作为高等院校电子、通信等专业本科生或研究生教材，还可作为工程技术人员DSP设计方面的参考用书。

第2版在上一版的基础上，扩充了滤波器组和小波分析的内容，新增了随机信号处理、谱估计和求解差分方程的内容，数学推导中给出了易于读者理解的步骤。

第2版还提供了120个范例、20A1案例研究、约400道练习题。

此外，第2版还有一大新特点--每章末增加了一节“Do-it-Yourself”，使读者通过MATLAB实验获得解决实际信号处理问题的亲身体验。

## 作者简介

PauloS.R.Diniz,巴西里约热内卢联邦大学 (UFRJ) 电子与计算机工程系和COPPE/UFRJ研究生院教授,他还是IEEE会士。

EduardoA.B.daSilva,巴西里约热内卢联邦大学 (UFRJ) 电子与计算机工程系和COPPE/UFRJ研究生院副教授。

SergioL.Netto,巴西里约热内卢联邦大学 (UFRJ) 电子与计算机工程系和COPPE/UFRJ研究生院副教授。

## 书籍目录

- Preface
- Introduction
- 1 Discrete-time signals and systems
  - 1.1 Introduction
  - 1.2 Discrete-time signals
  - 1.3 Discrete-time systems
    - 1.3.1 Linearity
    - 1.3.2 Time invariance
    - 1.3.3 Causality
    - 1.3.4 Impulse response and convolution sums
    - 1.3.5 Stability
  - 1.4 Difference equations and time-domain response
    - 1.4.1 Recursive x no recursive systems
  - 1.5 Song difference equations
    - 1.5.1 Computing impulse responses
  - 1.6 Sampling of continuous-time signals
    - 1.6.1 Basic principles
    - 1.6.2 Sampling theorem
  - 1.7 Random signals
    - 1.7.1 Random variable
    - 1.7.2 Random processes
    - 1.7.3 Filtering a random signal
  - 1.8 Do-it-yourself: discrete-time signals and systems
  - 1.9 Discrete-time signals and systems with MA lab
  - 1.10 Summary
  - 1.11 Exercises
- 2 The z and Fourier transforms
  - 2.1 Introduction
  - 2.2 Definition of the z transforms
  - 2.3 Inverse z transform
    - 2.3.1 Computation based on residue theorem
    - 2.3.2 Computation based on partial-fraction expansions
    - 2.3.4 Computation based on series expansion
  - 2.4 Properties of the z transom
    - 2.4.1 Linearity
    - 2.4.2 Time reversal
    - 2.4.3 Time-stuff theorem
    - 2.4.4 Multiplication by an exponential
    - 2.4.5 Complex differentiation
    - 2.4.6 Complex conjugation
    - 2.4.7 Real and imaginary sequences
    - 2.4.8 Initial-value theorem
    - 2.4.9 Convolution theorem
    - 2.4.10 Product of two sequences
    - 2.4.11 Parsifal's theorem

## &lt;&lt;数字信号处理&gt;&gt;

- 2.4.12 Table of basic z transforms
- 2.5 Transfer functions
- 2.6 Stability in the z domain
- 2.7 Frequency response
- 2.8 Fourier transform
- 2.9 Properties of the Fourier transform
  - 2.9.1 Linearity
  - 2.9.2 Time reversal
  - 2.9.3 Time-shift theorem
  - 2.9.4 Multiplication by a complex exponential (frequency shift modulation)
  - 2.9.5 Complex differentiation
  - 2.9.6 Complex conjugation
  - 2.9.7 Real and imaginary sequences
  - 2.9.8 Symmetric and ant symmetric sequences
  - 2.9.9 Convolution theorem
  - 2.9.10 Product of two sequences
  - 2.9.11 Parsifal's theorem
- 2.10 Fourier transform for periodic sequences
- 2.11 Random signals in the transform domain
  - 2.11.1 Powerspectraldensity
  - 2.11.2 White noise
- 2.12 Do it-yourself: the z and Fourier transforms
- 2.13 The z and Fourier transforms with MATLAB
- 2.14 Summary
- 2.15 Exercises
- 3 Discrete transforms
  - 3.1 Introduction
  - 3.2 Discrete Fourier transform
  - 3.3 Properties of the DFT
- .....
- 4 Digital Filters
- 5 Fir Filter Approximations
- 6 IIR Filter Approximations
- 7 Spectral Estimation
- 8 Multirate Systems
- 9 Filter Banks
- 10 Wavelet Transforms
- 11 Finite Precision Digital Signal Processing
- 12 Efficient Fir Structures
- 13 Efficient IIR Structures

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>