

图书基本信息

书名:<<绘图>>

13位ISBN编号: 9783540420620

10位ISBN编号:3540420622

出版时间:2001-12

出版时间: Springer Verlag

作者: Michael Kaufmann

页数:312

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



内容概要

Graph drawing comprises all aspects of visualizing structural relations between objects. The range of topics dealt with extends from graph theory, graph algorithms, geometry, and topology to visual languages, visual perception, and information visualization, and to computer-human interaction and graphics design. This monograph gives a systematic overview of graph drawing and introduces the reader gently to the state of the art in the area. The presentation concentrates on algorithmic aspects, with an emphasis on interesting visualization problems with elegant solutions. Much attention is paid to a uniform style of writing and presentation, consistent terminology, and complementary coverage of the relevant issues throughout the 10 chapters. This tutorial is ideally suited as an introduction for newcomers to graph drawing. Ambitioned practitioners and researchers active in the area will find it a valuable source of reference and information.



书籍目录

1. Graph Drawing and Its Applications Rudolf Fleischer and Colin Hirsch 1.1 Introduction 1.2 Some Applications 1.3 How to Draw a Graph 1.4 Algorithmic Approaches to Graph Drawing 1.5 Conclusion 2.Drawing Planar Graphs Ren 6 Weiskircher 2.1 Introduction 2.2 What Is a Planar Graph? 2.3 Planarity Testing 2.4 How to Make a Graph Planar 2.5 How to Make a Planar Graph 2-Connected Planar 2.6 Convex Representations 2.7 Methods Based on Canonical Orderings3. Drawing Trees, Series-Parallel Digraphs~ and Lattices Matthias Miller-Hannemann 3.1 Trees 3.2 Series-Parallel Digraphs 3.3 Lattices4. Drawing on Physical Analogies Ulrik Brandes 4.1 The Springs 4.2 Force-Directed Placement 4.3 Energy-Based Placement 4.4 Modeling with Forces and Energies5. Layered Drawings of Digraphs Oliver Bastert and Christian Matuszewski 5.1 Introduction 5.2 Cycle Removal 5.3 Layer Assignment 5.4 Crossing Reduction] 5.5 Horizontal Coordinates | 5.6 Positioning of Edges | 5.7 Related Approaches | 6.Orthogonal Graph Drawing Markus Eiglsperger, S~ndor P.Fekete, and Gunnar W.Klau 6.1 Introduction 6.2 Angles in Drawings 6.3 Orthogonal Drawings and Their Encoding 6.4 Heuristics 6.5 Flow-Based Methods 6.6 Compaction 6.7 Improving Other Aesthetic Criteria 6.8 Conclusions and Open Problems7.3D Graph Drawing Britta Landgraf 7.1 Introduction 7.2 Physical Simulation 7.3 Layering 7.4 3D Orthogonal Drawings of Graphs of Maximum Degree Six . 7.5 3D Orthogonal Drawings of Graphs of Arbitrary Degree 7.6 Viewpoints :8.Drawing Clusters and Hierarchies Ralf Brockenauer and Sabine Cornelsen 8.1 Definitions 8.2 Clustering Methods 8.3 Planar Drawings of Hierarchical Clustered Graphs 8.4 Hierarchical Representation of Compound Graphs 8.5 Force-Directed Methods for Clustered Graphs 8.6 Online Graph Drawing of Huge Graphs - A Case Study 8.7 Summary9. Dynamic Graph Drawing10. Map Labeling with Application to Greph Drewing Gabidel NaerA. Sofweva PechagesEibiiongrapbyIndex



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