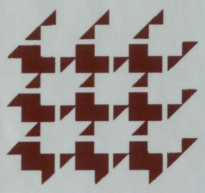


DIMACS

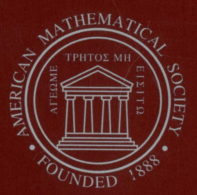
Series in Discrete Mathematics and Theoretical Computer Science

Volume 42

Advances in Switching Networks

DIMACS Workshop
July 7–9, 1997

Ding-Zhu Du
Frank K. Hwang
Editors



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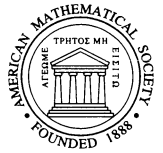

American Mathematical Society

This DIMACS volume contains papers from the DIMACS Workshop on Network Switching, which was part of the DIMACS Special Year on Networks. The Workshop was held on July 7–9, 1997.

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Contents

Foreword ix

Preface xi

Average-case bounds for the complexity of path-search
NICHOLAS PIPPENGER 1

Extended generalized shuffle networks: Sufficient conditions for strictly nonblocking operation
G. W. RICHARDS AND F. K. HWANG 15

Constructing nonblocking multicast switching networks with fanout reduction
CHUN-FAI CHAN AND CHIN-TAU LEA 49

Multirate broadcast switching networks nonblocking in a wide sense
DONGSOO S. KIM AND DING-ZHU DU 59

Repackable networks—The concept and applications
ANDRZEJ JAJSZCZYK AND MAREK KUBALE 75

Modeling the blocking behavior of Clos networks
YUANYUAN YANG AND NEIL H. KESSLER 85

Performance of a new decomposition algorithm for rearrangeable fault-tolerant Clos interconnection networks under sub-maximal and no-fault conditions
JOHN D. CARPINELLI AND CATHERINE B. WANG 103

Non-blocking multistage interconnection networks with limited depth
ITALO BUSI AND ACHILLE PATTAVINA 119

Isomorphism of classical rearrangeable networks
M. DOUGLAS MCILROY AND JOSEPH P. SAVICKI 147

Characterizing bit permutation networks
GERARD J. CHANG, FRANK K. HWANG, AND LI-DA TONG 157

Structure and density of sparse crossbar concentrators
EMRE GÜNDÜZHAN AND A. YAVUZ ORUÇ 169

Non-blocking routing properties of Clos networks
TONY T. LEE AND PHILIP P. TO 181

An algorithm for the construction of concentrators from 2×2 sorters
SHOU-YEN ROBERT LI, GAR MAN KOO, AND HUI LI 197

Strictly nonblocking conferencing meshes
YI DU AND GERALD M. MASSON 221

An $O(N^{1.695})$ permutation routing algorithm on augmented data manipulators
EHAB S. ELMALLAH AND CHIN-HUNG LAM 235

Preventing conflicts in input buffering baseline-based ATM switches
HASAN ÇAM 245

Routing strategy and performance evaluation of multiple-ring ShuffleNet topology for high speed wavelength-division multiplexed optical communications
DONGJIE HUANG AND KAMRAN KIASALEH 273

Multispace search for quorumcast routing
JUN GU, BIN DU, DANNY H. K. TSANG, AND WEI WANG 295

On 3-rate rearrangeability of Clos networks
GUO-HUI LIN, DING-ZHU DU, WEILI WU, AND KYEONGAH YOO 315

Foreword

The Workshop on Network Switching was held in July 1997 at Princeton University. We would like to express our appreciation to Ding-Zhu Du and Frank K. Hwang for their efforts to organize and plan this successful workshop.

The workshop was part of the broader Special Year on Networks. We extend our thanks to Stuart Haber, David Johnson and Mihalis Yannakakis for their work over many months as special year organizers.

The workshop focused on all aspects of network switching, including network environment, routing, network topology, switching components, nonblockingness and optimization.

DIMACS gratefully acknowledges the generous support that makes these programs possible. The National Science Foundation, through its Science and Technology Center program, the New Jersey Commission on Science and Technology, DIMACS partners at Rutgers, Princeton, AT&T Labs, Bell Labs and Bellcore generously supported the special year.

Fred S. Roberts
Director

Bernard Chazelle
Co-Director for Princeton

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Preface

The articles collected in this book were presented in the DIMACS Workshop on Network Switching, held on July 7–9, 1997 at Computer Science Department, Princeton University.

There are many worthwhile and interesting issues about switching networks. This collection focuses on connectivity properties, such as nonblockingness and routing. By nonblockingness, we mean that an intended connection does not fail.

We wish to thank Professors C. T. Lea, G. M. Masson, A. Y. Oruc, P. M. Pardalos, N. Pippenger, C. S. Raghavendra, S. Sahni, J. S. Turner, and A. C. Yao for their advice on the organization of the workshop. We wish to thank all who contributed their articles to this book. We also wish to thank the National Science Foundation for their sponsorship.

Ding-Zhu Du and Frank K. Hwang

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(*Continued from the front of this publication*)

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