

Lecture Notes in Computer Science

Edited by G. Goos and J. Hartmanis

210

STACS 86

3rd Annual Symposium on Theoretical Aspects
of Computer Science
Orsay, France, January 16–18, 1986

FB Mathematik TUD



58331805

Edited by B. Monien and G. Vidal-Naquet



Fachbereich Mathematik
Technische Hochschule Darmstadt
Bibliothek

Inv.-Nr. 3 20712

Springer-Verlag
Berlin Heidelberg New York Tokyo

CONTRIBUTED PAPERS

F. NIELSON

Abstract Interpretation of Denotational Definitions..... 1

E.A. EMERSON, C.-L. LEI

Temporal Reasoning under Generalized Fairness Constraints..... 21

D. CAUCAL

Décidabilité de l'égalité des Langages Algébriques Infinitaires Simples..... 37

D. FRUTOS ESCRIG

Some Probabilistic Powerdomains in the Category SFP..... 49

M.A. NAIT ABDALLAH

Ions and Local Definitions in Logic Programming..... 60

P.G. SPIRAKIS

Input Sensitive, Optimal Parallel Randomized Algorithms for Addition and Identification..... 73

E.H.L. AARTS, F.M.J. de BONT, J.H.A. HABERS, P.J.M. van LAARHOVEN

A Parallel Statistical Cooling Algorithm..... 87

A. LINGAS

Subgraph Isomorphism for Biconnected Outerplanar Graphs in Cubic Time..... 98

J. HASTAD, B. HELFRICH, J. LAGARIAS, C.P. SCHNORR

Polynomial Time Algorithms for Finding Integer Relations Among Real Numbers.. 105

H.L. BODLAENDER, J. van LEEUWEN

New Upperbounds for Decentralized Extrema-Finding in a Ring of Processors.... 119

R. TAMASSIA, I.G. TOLLIS

Algorithms for Visibility Representations of Planar Graphs..... 130

F. MEYER auf der HEIDE

Speeding up Random Access Machines by Few Processors..... 142

T. LENGAUER	
Efficient Algorithms for Finding Minimum Spanning Forests of Hierarchically Defined Graphs.....	153
O.H. IBARRA, B. RAVIKUMAR	
On Sparseness, Ambiguity and other Decision Problems for Acceptors and Transducers.....	171
J.-P. PECUCHET	
Variétés de Semis Groupes et Mots Infinis.....	180
C. DUBOC	
Equations in Free Partially Commutative Monoids.....	192
Ph. DARONDEAU	
Separating and Testing.....	203
C. CHOFFRUT, M.P. SCHUTZENBERGER	
Décomposition de Fonctions Rationnelles.....	213
U. SCHMIDT	
Long Unavoidable Patterns.....	227
G. BERNOT, M. BIDOIT, C. CHOPPY	
Abstract Implementations and Correctness Proofs.....	236
U. KELTER	
Strictness and Serializability.....	252
B. GAMATIE	
Towards Specification and Proof of Asynchronous Systems.....	262
H.B. HUNT, R.E. STEARNS	
Monotone Boolean Formulas, Distributive Lattices, and the Complexities of Logics, Algebraic Structures, and Computation Structures.....	277
C.M.R. KINTALA, D. WOTSCHKE	
Concurrent Conciseness of Degree, Probabilistic, Nondeterministic and Deterministic Finite Automata.....	291

L.E. ROSIER, H.-C. YEN	
Logspace Hierarchies, Polynomial Time and the Complexity of Fairness Problems Concerning w -Machines.....	306
J. HARTMANIS, L. HEMACHANDRA	
On Sparse Oracles Separating Feasible Complexity Classes.....	321
J.L. BALCAZAR, R.V. BOOK	
On Generalized Kolmogorov Complexity.....	334
K. MEHLHORN, F.P. PREPARATA	
Area-Time Optimal Division for $T = \Omega((\log n)^{1+\epsilon})$	341
A. BORODIN, F. FICH, F. MEYER auf der HEIDE, E. UPFAL, A. WIGDERSON	
A Time-Space Tradeoff for Element Distinctness.....	353

INVITED LECTURES

K.R. REISCHUK	
Parallel Machines and their Communication Theoretical Limits.....	359
G. BERRY	
Synchronous Programming *	
R. CORI	
Partially Commutative Groups *	

* Contributions not submitted in time for publication