

Theoretical Computer Science

Special Issue on
Number Theory, Combinatorics and Applications
to Computer Science

Selected Papers of the
10th "Journées Mathématiques-Informatique",
Marseille, October 14–16, 1991

Guest Editors

C. Mauduit and J.-L. Nicolas

*Université Claude Bernard Lyon I, Logique, Mathématiques Discrètes et Informatique,
43 blv. 11 novembre 1918, 69622 Villeurbanne Cedex, France*

Volume 123, Number 1 (1994)



Elsevier – Amsterdam • London • New York • Tokyo

Abstracted/Indexed in: ACM Computing Reviews, CompuScience, Computer Abstracts,
Current Contents: Engineering, Technology & Applied Science, Engineering Index/Com-
pendex, INSPEC Information Services, Mathematical Reviews, Zentralblatt für Mathematik

CONTENTS

<i>C. Mauduit and J.-L. Nicolas</i> Preface	1
<i>J.-P. Allouche</i> Note on the cyclic towers of Hanoi	3
<i>M.R. Assous, V. Bouchitté, C. Charretton and B. Rozoy</i> Finite labelling problem in event structures	9
<i>A. Bertrand</i> Sur une conjecture d'Yves Métivier	21
<i>C. Bertrand</i> A natural semantics of first-order type dependency	31
<i>F. Blanchard and S. Fabre</i> Quelques procédés engendrant des suites infinies	55
<i>J.-P. Borel</i> Symbolic representation of piecewise linear functions on the unit interval and application to discrepancy	61
<i>C. Chaunier and N. Lygerōs</i> Le nombre de posets à isomorphie près ayant 12 éléments	89
<i>H. Daudé and B. Vallée</i> An upper bound on the average number of iterations of the LLL algorithm	95
<i>D. Duval and P. Sénéchaud</i> Sketches and parametrization	117
<i>H. Faure</i> Méthodes quasi-Monte-Carlo multidimensionnelles	131
<i>Z.S. Kowalski</i> Multiple returns under a bounded number of iterations	139
<i>M. Mignotte</i> Sur l'équation de Catalan, II	145
<i>E. Remila</i> A linear algorithm to tile the trapezes with h_m and v_n	151
<i>X.D. Ye</i> Coexistence of uniquely ergodic subsystems of interval mappings	167

Preface

Since 1982, the yearly “Journées Mathématiques–Informatique” have been bringing together mathematicians and computer scientists working within the common part of these fields. They allow people who contribute to the development of fundamental mathematical notions useful to computer science to meet, exchange views and ask questions that may initiate new mathematical methods.

The tenth “Journées”, which took place at the CIRM in Luminy near Marseille from 14 to 16 October 1991, provided an interesting survey on recent results in number theory and combinatorics, as well as about some of their applications to computer science.

The present issue contains a selection of papers presented during these tenth “Journées Mathématiques–Informatique”, ranging from number theory to ergodic theory, through combinatorics and automata, including computational aspects.

We sincerely hope that this special issue of *Theoretical Computer Science* will help to keep the cooperation between mathematicians and computer scientists to a high level.

CHRISTIAN MAUDUIT and JEAN-LOUIS NICOLAS
Guest Editors