Foundations of Computing

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Corrections and modifications

This is to thank to all pointing out some errors, especially to Solofo Ramangalahy, Roland Vollmar, Thomas Worsch.

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Chapter 1

page 3, Figure 1.1d: Replace "n" by "m" and "$2n$" by "$\lceil \lg m \rceil$".

page 43, line -5 of the footnote 7: correct Gauss's data: "Carl Friedrich Johann Gauss (1777-1855)"

page 49, line +1 of the footnote 12: Replace "F. L. Gauss" by "C. F. Gauss".

page 53, line +10: Replace "F. L. Gauss" by "C. F. Gauss".

page 67, Table 1.4 In the last but one line replace "717" by "2^{717}" and in the line for "$n \lg n$" replace "11.2^{11}" by "$11 \cdot 2^{11}$".

page 75, line -2 Replace "Flayolet" by "Flajolet".

Chapter 4

page 247, line +1 , just under the figure. Replace "Figure 4.21.b" by "Figure 4.21.c".

page 247, Figure 4.21c (G. Buntrock): In the Strassen algorithm the statement "$i \leftarrow a_{11} - a_{12}$" replace by "$i \leftarrow a_{11} - a_{21}$ and the statement "$i \leftarrow b_{12} - b_{11}$" by the statement "$i \leftarrow b_{21} - b_{11}$".

page 257, line +9 (T. Worsch) Replace "1^n constructs in $\mathcal{O}(\mathrm{Size}(C_n) \lg(C_n))$" by "$1^n$ constructs in $\mathcal{O}(\mathrm{Size}(C_n) \lg \mathrm{Size}(C_n))$".

page 295, line 4 : Replace "Guttowitz" by "Gutowitz".

page 295, line 10 : Replace "Mazoyer (1977)" by "Mazoyer (1988)".

Chapter 5

page 304, footnote, line +2 Replace "$o(\lg n)$" by "$o(\lg\lg n)$"

page 337, line +15: Replace "$W(0,v)\ldots i>0$" by "$W(0,0)=0, W(0,v)=\infty$ if $v\neq 0$ and for all $i\geq 0$"

page 366, line -9 Replace "Montwani" by "Motwani".

page 373, line -5 [W. Slany] The inequalities should be:

$$\sum_{i=1}^{n} x_i^{(0)} v_i \geq \sum_{i=1}^{n} x_i^{(b)} v_i \geq \sum_{i=1}^{n} x_i^{(b)} v_i' \geq \sum_{i=1}^{n} x_i^{(0)} v_i' \geq \sum_{i=1}^{n} x_i^{(0)} (v_i - 2^k) \geq \sum_{i=1}^{n} x_i^{(0)} v_i - n2^b$$

page 386, footnote, line 1 Replace "Darf" by "Dart".

Chapter 6

page 399, line -2 Replace "x_0" by"x_k".

page 406, Theorem 6.3.35, line +3: Replace "if and only if" by "only if".

page 406, line -12: Replace "if and only if" by "only if".

Chapter 8

page 472, Exercise 8.2.3: In the exercice (b) replace "N" by "H" in the word "SENHGKIIAJ" and in the exercise (c) replace "E" by "D" in the word "AIAJDJEH".

page 474, line -10 : Replace "v^{12}" by "v^5".

page 483, Exercise 8.3.10: (c) should have the form: " Decrypt the following cryptotext obtained using X', m, u as defined above:

$(57656, 52034, 95872, 125825, 197827, 184967, 128354, 96720, 145325, 102850, 126768, 19721)$.

Chapter 9

page 508, line +2 Replace "M_P^*" by "M_{P^*}".

page 527, line +20 Replace "$\sum_{i=1}^{m}$" by "$\sum_{i=1}^{N}$".

page 531 , line -13 Replace "Montwani" by "Motwani".

Chapter 10

page 536, Exercise 10.1.2, line +2 : Replace "(a) t node ... $t+2$" by "d node disjoint paths of which t paths have length t and $d-t$ paths have length $t+2$."

page 546, Exercise 10.1.18: The exercise (a) should have the form: "(a) sorting 2^d numbers;"

page 553, Figure 10.10 Path from v_i to u_i has to have $2s$ nodes.

page 583, Example 10.6.4 Add as footnote: The fact that a slightly different model for layout was used in Example 1.1.1 and Fig. 1.1b,c, does not make any difference concerning the asymptotic estimation for the area complexity.

page 586, line +4 Replace "$l - d$" by "ld".

page 595 , line +8 Replace "Section 1.6" by "Section 1.9.1".

page 595, line +16 Replace "$\lceil \lg \lg w_n \rceil$" by "$2\lceil \lg n \lg n \rceil$".

Bibliography

page 642, line +9 Replace "Montwani" by "Motwani".

page 658, line +13 Add as second author: Jürgen Buntrock

page 659, line -12 Replaace "Montwani" by "Motwani".

page 664, line +12 Replace "Flayolet" by "Flajolet"

page 665, line -11 Add journal version of the paper: The method of forced enumeration for nondeterministic automata, Acta Informatica, V 26, 279-284, 1998.

page 665, line -10 Replace "Wolfgand" by "Wolfgang".

page 666, line -1 Replace "Wärden" by "Waerden".

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page 685 Replace "Flayolet" by "Flajolet". item[page 686:] Replace "Gauss, Karl F" by "Gauss, Carl F".

page 696 Replace "Montwani" by "Motwani".