# Algorithms: Sequential, Parallel, and Distributed <br> Kenneth A. Berman and Jerome L. Paul <br> UPDATES TO THE TEXT 12/20/04 <br> With additions from UiO (INF 4130). <br> Last updated 3. Sept. 2008 

p. 42 line 8 change 1 to 0
p. 56 Change "In Appendix D, we find an exact ... :" to "An exact ... is:"
p. 57 Exercise 2.8 first $n$ should be italic
p. 58 Exercise 2.14 [] should be [ ]
p. 66 After Proposition 3.1 should be
p. 105 Delete the sentence on line 6 that begins "In Appendix D ..."
pp. 106-107, O should b o in Exercises 3.13d,e, 3.15 and 3.16.
p. 125 In second line of section 4.2 .5 , change "...which is proved in Appendix D..."
to "...whose proof we omit ..."
p. 166 Exercise 4.41 change 4.12 to 4.25
p. 166 Exercise 4.42 change 4.13 to 4.26 and 4.18 to 4.41
p. 169 line 1 change 1 to 0
p. 171 After Theorem 5.1.1 $\square$ should be
p. 185 Exercise 5.8 should read "Show that BingoSort is not a stable sorting algorithm" (the word "not" was missing)
p. 186 Exercise 5.11 roman $m$ in $2^{\text {nd }}$ line should be italic
p. 204 Figure 6.2 Link in column $i=2$ should be changed from 4 to 7, and Link in column $i=3$ should be changed from 7 to 2
p. 205 line 3 of $3^{\text {rd }}$ paragraph, superscript $j-1$ should be $i-1$
p. 205 line 3 of $4^{\text {th }}$ paragraph, change "we assume" to "notice"
p. 205 line 5 of $4^{\text {th }}$ paragraph, superscript -1 should be $n-1$
p. 207 line 1 of $2^{\text {nd }}$ paragraph, change $n$ ] to $\left.n\right\}$
p. 279 Subtract one from all the table entries of $\operatorname{Root}[i, j]$ in the last three occurrences of this matrix. Also, change 4 to 3 in the first occurrence of this matrix.
p. 279 change 110 to 135 in its two occurrences for entry $A[1,3]$, and change 60 to 80 in its two occurrences for entry Sigma $[1,3]$.
p. 396 In Figure 13.1 arrow on edge 1,5 should be reversed
p. 400 In Figure 3.2 arrow on edge 1,5 should be reversed
p. 440/441:

- Step 2-7: The edge 4-7 should be reversed in all $\mathrm{N} f$-s.
- Step 1: The edge 4-7 in $\mathrm{N} f$ shall be dotted.
- Step 2: In the flow-graph the two inner edges should be removed
- Step 2: The edge 0-3 in $\mathrm{N} f$ shall be dotted
- Step 7: Node 5 in N should have a double circle around it, and an edge directed from 2 to 5 should be added.
p. 444 , figure 14.10: Remove the edge ( $\mathrm{x}_{1}, \mathrm{y}_{2}$ ) in the upper graph.
p. 612 In second figure at the top, node 12 should be B not R
p. 619 In the BellmanFordDistributed-program: Line 6 should be "forall v do". Line 16 updates v:Dist. A similar line updateing v:Parent should be added.
p. 638 Line 8 from bottom of "CreateNext" should be "j <- Next[j]"
p. 639 Second comment in procedure CreateShift should be "of $P[i]$ in $P[0: m-1]$ ".
p. 639 Lines 2 and 3from the bottom should be $\operatorname{Shift}(f)=9$

$$
\operatorname{Shift}(t)=2 .
$$

p. 646 Figure 20.7 The two "l"-nodes on level 2 of the tree should be merged into one.
p. 722 Around Theorem 23.3.1:

- 3 lines above the theorem: You must let that the search go on until the queue is empty, and not stop the first time a goal node is found (e.g. assume that 'a' is a goal node in Fig. 23.5).
- The paragraph below the theorem: When a node in the tree is corrected, it must also be re-queued (so that other nodes in the tree that are affected by the correction can also be corrected)
p. 724 Line 11 from bottom: "path in G" should be "path in D".

Line 3 from bottom contains " $h(v)+h(v)$ ". This should be replaced by: " $h(v)<=g(v)+h(v)$ ".
p. 744 Patashnik reference, change 43434 to $4 \times 4 \times 4$ in both occurrences p. 896 insert sentence "If $M$ is the matrix $A_{p}$ associated with a Markov chain then it can be shown that all the eigenvalues are less than or equal to 1 ." after the first sentence ending with "...its transpose $M^{\mathrm{T}}$." of the second paragraph.

