

Computational Phylogenetics: An introduction to designing algorithms for
phylogeny estimation
Errata

1. The biosketch for Tandy Warnow (back cover and first page) has the wrong date for the election as Fellow of the Association for Computing Machinery (ACM). Instead of 2006, it should be 2015.
2. Page 74. Theorem 4.12 says that maximum compatibility is NP-hard, where the input is a set of binary characters. The theorem is correct but the proof is not – the reduction needs to be in the other direction – from maximum clique to maximum compatibility. There’s a simple modification to the proof that gives the reduction, left to the reader.
3. Page 112, under Section 6.2.4 Compatibility Trees, “Recall that a tree T refines another tree t if t can be obtained from T by collapsing some of the edges in t ”. The last word of this sentence should be “ T ” instead of “ t ”.
4. Page 119. Homework problem 8, the string representation for trees T_2 and T_3 have an extra closing parenthesis “)”; the last parenthesis in each string should be removed.
5. The equation on page 157 for $FPA(v,x)$ is incorrect. Instead of

$$FPA(v, x) = \sum_{a \in \Sigma} [Pr(v = x | w_1 = a) \times FPA(w_1, a)] \times \sum_{a \in \Sigma} [Pr(v = x | w_2 = a) \times FPA(w_2, a)].$$

it should read

$$FPA(v, x) = \sum_{a \in \Sigma} [Pr(w_1 = a | v = x) \times FPA(w_1, a)] \times \sum_{a \in \Sigma} [Pr(w_2 = a | v = x) \times FPA(w_2, a)].$$

6. Page 176, Chapter 8, Homework problem 18. There are $2n - 1$ nodes in a rooted binary tree with n leaves, and not $2n - 2$, as stated.
7. Page 193. Step 4 of the 2-approximation algorithm for generalized tree alignment says “for every vertex v in T that is not a leaf, we add a vertex v' that is adjacent to v and give it the same sequence label. Thus if T has n leaves and n' internal nodes, then T' has $n + 2n'$ leaves and n' internal nodes.” It should say instead “...then T' has $n + n'$ leaves and n' internal nodes.”
8. Page 355. The correct year for the reference by T.H. Jukes and C.R. Cantor (“Evolution of protein molecules”) is 1969 (not 1997 as stated).