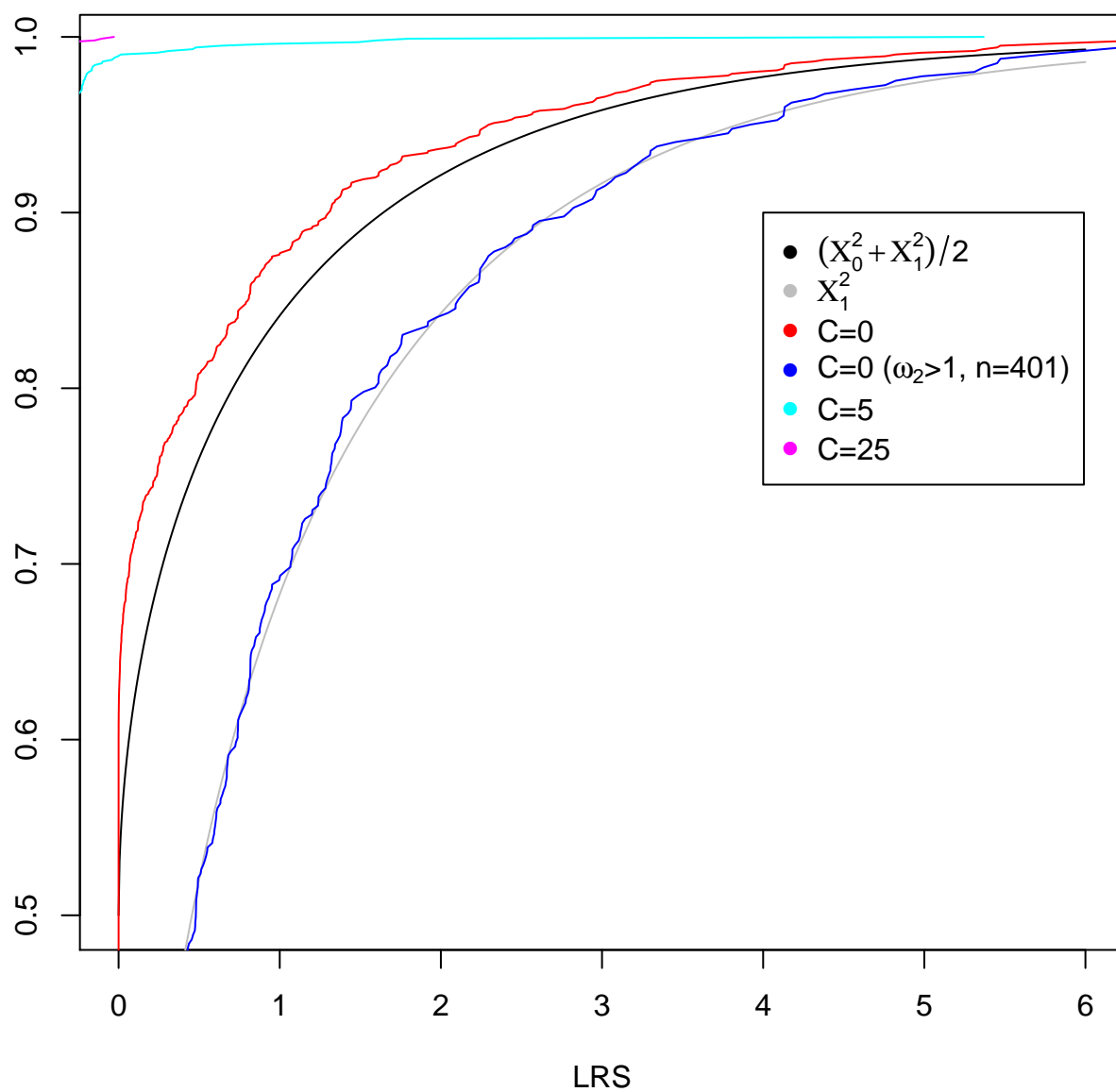
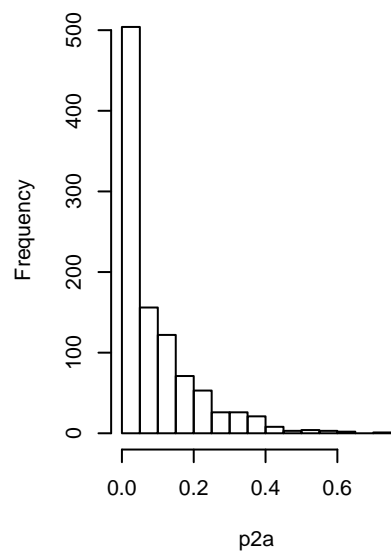
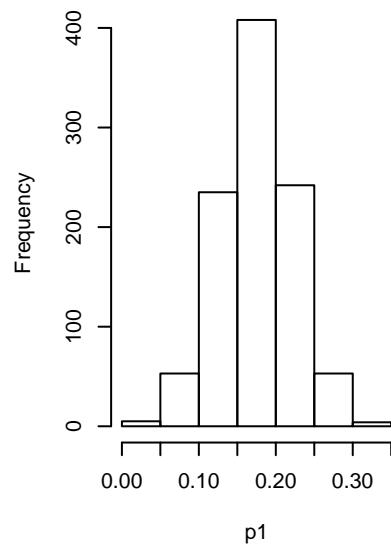
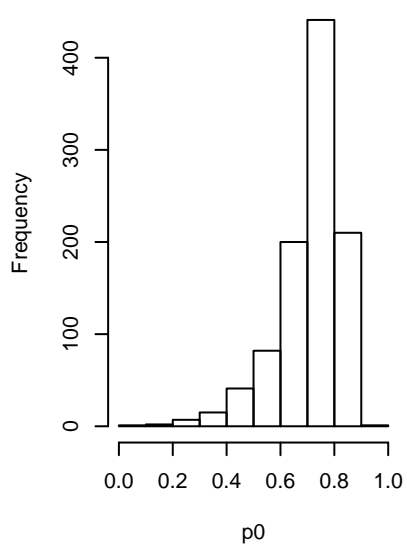
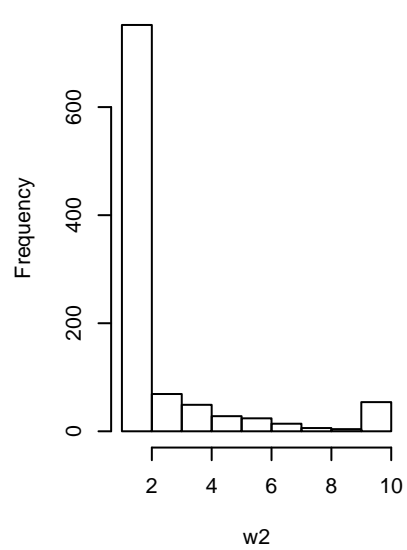
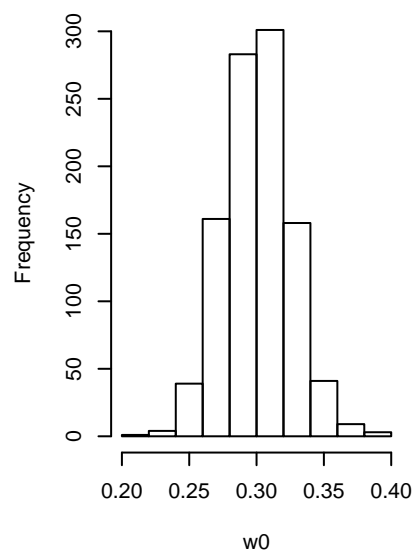
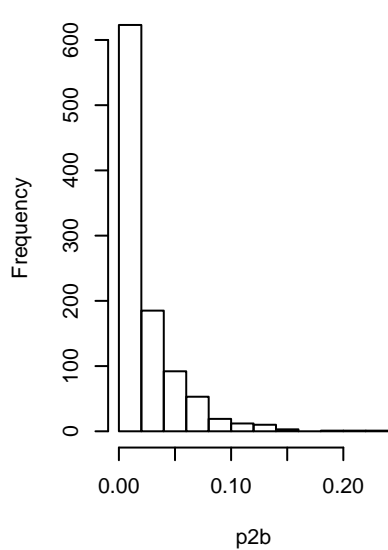


- Simulation under the null for branch-site model A
- Symmetric, 8-taxon tree with one foreground branch
The total tree length is 3.
tree: (((A#1:0.214286,B:0.214286):0.214286,(C:0.214286,D:0.214286):0.214286):0.214286,((E:0.214286,F:0.214286):0.214286):0.214286)
- $\kappa = 2.0$ $p_0 = 0.7$ $p_1 = 0.2$ $\omega_0 = 0.3$





49 $\omega_2 \geq 10$



It looks like trouble when p_0+p_1 is close to 1.

```
> subset(params,w2>=10)
      p0      p1      p2a      p2b      w0      w2
0.81835 0.17505 0.00544 0.00116 0.28523 23.13062
0.76700 0.22240 0.00822 0.00238 0.30734 93.02138
0.88137 0.11114 0.00665 0.00084 0.31153 14.77213
0.77709 0.21406 0.00693 0.00191 0.25907 10.32459
0.76780 0.22695 0.00405 0.00120 0.31294 30.65330
0.75659 0.24005 0.00255 0.00081 0.26032 72.35850
0.86924 0.12939 0.00119 0.00018 0.34078 13.34368
0.88943 0.10169 0.00796 0.00091 0.35575 31.48847
0.80490 0.18590 0.00748 0.00173 0.30578 14.72235
0.84199 0.14896 0.00769 0.00136 0.31200 26.53156
0.86438 0.13360 0.00175 0.00027 0.34000 11.01535
0.83506 0.15924 0.00478 0.00091 0.31415 27.54533
0.83259 0.15657 0.00912 0.00172 0.32955 11.34695
0.77556 0.20307 0.01693 0.00443 0.34110 10.13749
0.79310 0.19151 0.01240 0.00299 0.26408 11.56291
0.81257 0.18001 0.00608 0.00135 0.29121 32.07342
0.80688 0.18181 0.00923 0.00208 0.30823 13.37337
0.89467 0.09958 0.00517 0.00058 0.34204 11.16014
0.81234 0.17908 0.00703 0.00155 0.31660 48.59562
0.77835 0.21631 0.00418 0.00116 0.31375 63.29933
0.80704 0.17654 0.01348 0.00295 0.30106 998.99714
0.76447 0.22855 0.00537 0.00161 0.27817 33.20885
0.77323 0.19863 0.02239 0.00575 0.37252 15.11797
0.78446 0.20641 0.00723 0.00190 0.34295 32.90619
0.88239 0.11111 0.00577 0.00073 0.33204 10.57666
0.76455 0.23017 0.00406 0.00122 0.32831 21.51810
0.79153 0.20242 0.00482 0.00123 0.25370 49.86961
0.78381 0.20451 0.00926 0.00242 0.30677 14.70206
0.86526 0.12550 0.00807 0.00117 0.32887 112.16901
0.80157 0.19535 0.00247 0.00060 0.28533 318.57920
0.76067 0.22647 0.00991 0.00295 0.28768 24.92604
0.82860 0.16522 0.00515 0.00103 0.30369 998.99975
0.83859 0.15704 0.00368 0.00069 0.30968 32.42859
0.85804 0.13550 0.00557 0.00088 0.30677 37.71321
0.78052 0.20578 0.01084 0.00286 0.33770 16.00260
0.75505 0.23869 0.00476 0.00150 0.31285 11.21459
0.78054 0.21395 0.00432 0.00118 0.29166 23.57525
0.83264 0.16141 0.00498 0.00097 0.31568 482.68724
0.75263 0.24125 0.00463 0.00148 0.31004 998.99984
0.79062 0.20332 0.00482 0.00124 0.29363 16.36648
0.81082 0.17865 0.00863 0.00190 0.29224 998.99977
0.74472 0.24610 0.00691 0.00228 0.26951 65.34070
0.83898 0.14801 0.01106 0.00195 0.33084 38.19227
0.83199 0.15943 0.00720 0.00138 0.29420 102.80490
0.80901 0.18322 0.00634 0.00144 0.35591 23.31654
0.78510 0.20616 0.00693 0.00182 0.33067 89.48316
0.74582 0.24915 0.00377 0.00126 0.28694 50.81805
0.81857 0.16105 0.01702 0.00335 0.30335 12.37413
```

0.83797 0.14609 0.01358 0.00237 0.32488 12.05585