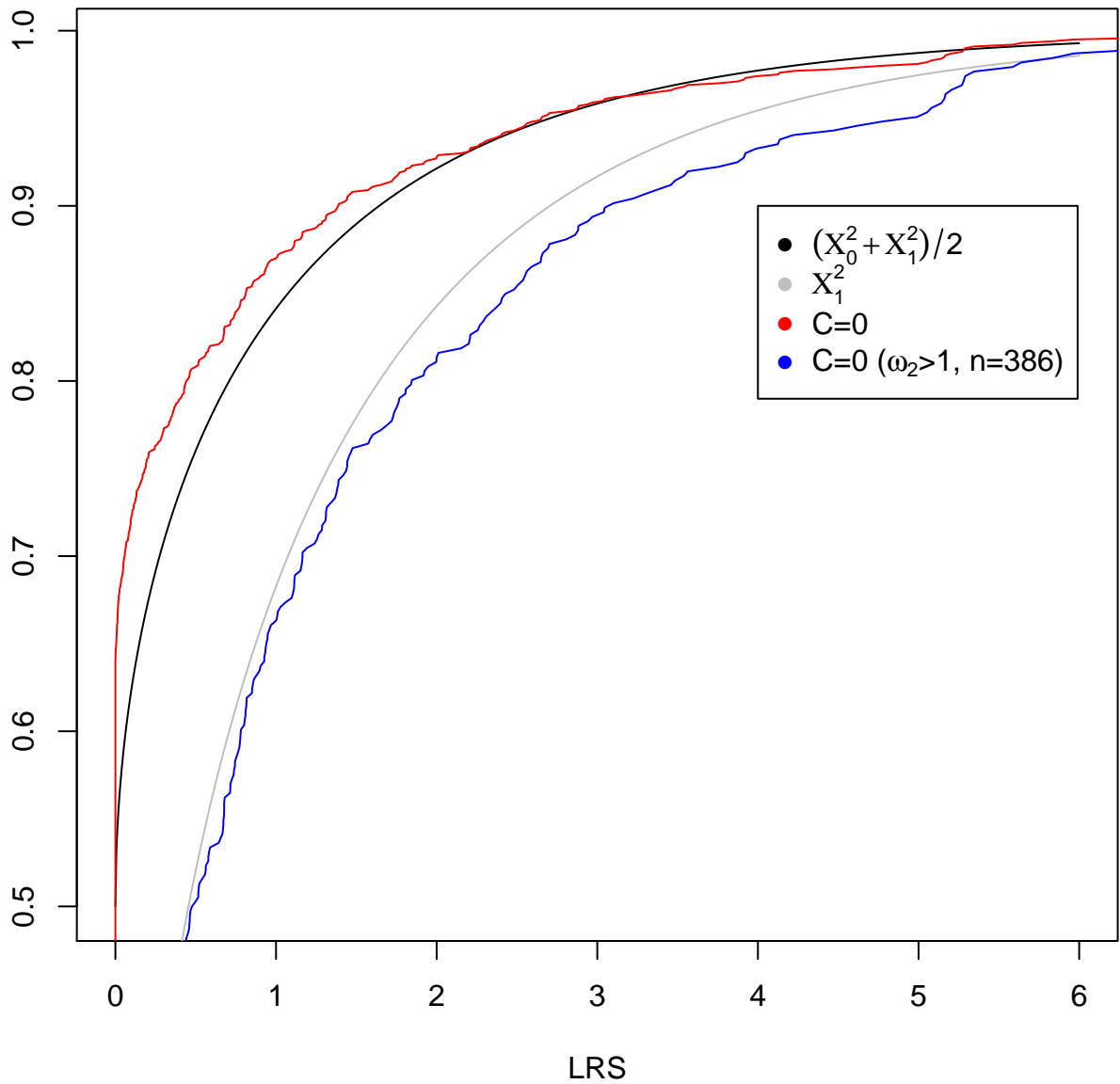
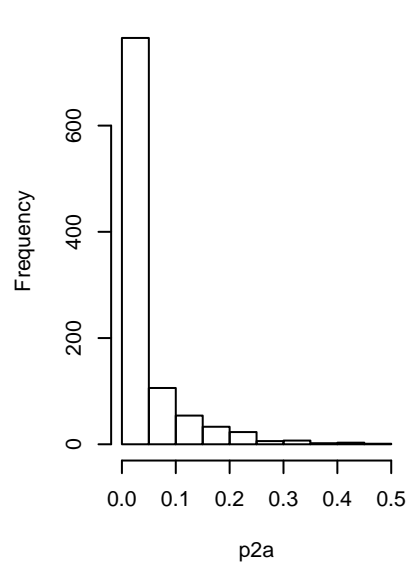
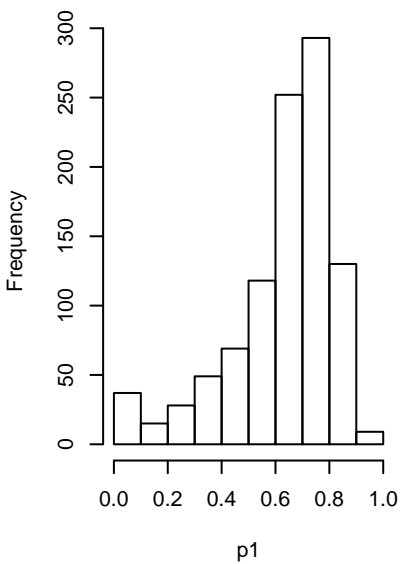
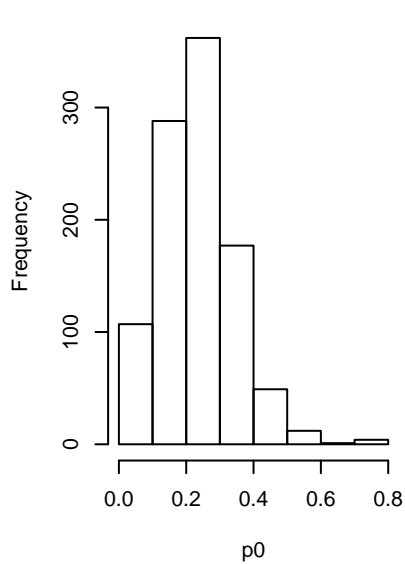
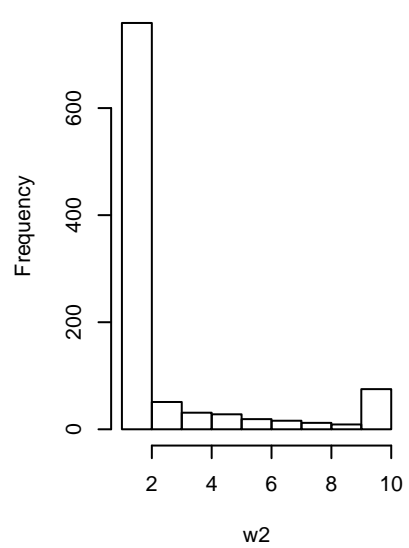
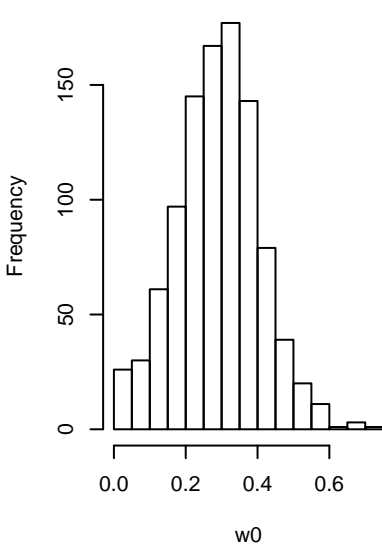
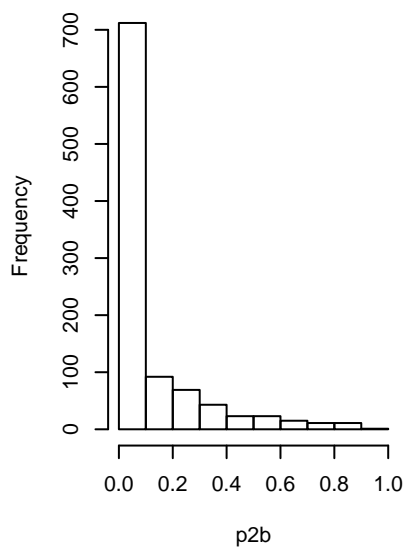


- Simulation under the null for branch-site model A
- Symmetric, 8-taxon tree with one foreground branch  
The total tree length is 3.  
tree: (((A#1:0.214286,B:0.214286):0.214286,(C:0.214286,D:0.214286):0.214286):0.214286,((E:0.214286,F:0.214286):0.214286,(G:0.214286,H:0.214286):0.214286):0.214286);
- $\kappa = 2.0$   $p_0 = 0.25$   $p_1 = 0.75$   $\omega_0 = 0.3$





71  $\omega_2 \geq 10$



It looks like trouble when p0+p1 is close to 1.

```
> subset(params,w2>=10)
      p0      p1      p2a      p2b      w0      w2
0.30188 0.67760 0.00632 0.01420 0.46859 10.62116
0.37278 0.62306 0.00156 0.00260 0.44714 999.00000
0.38821 0.59210 0.00780 0.01190 0.34194 16.60354
0.41563 0.58058 0.00158 0.00221 0.46488 236.76372
0.38393 0.61041 0.00219 0.00348 0.35656 20.29449
0.36738 0.61907 0.00504 0.00850 0.37513 21.58949
0.13047 0.86586 0.00048 0.00319 0.22469 219.01515
0.32454 0.64823 0.00908 0.01814 0.27204 13.01056
0.18594 0.80811 0.00111 0.00484 0.28810 78.65652
0.14672 0.84390 0.00139 0.00799 0.13070 11.49255
0.31513 0.66886 0.00513 0.01088 0.27741 30.29583
0.24096 0.74203 0.00417 0.01284 0.26435 23.57573
0.26834 0.72205 0.00260 0.00701 0.27391 13.83916
0.25406 0.73507 0.00279 0.00808 0.20973 20.50823
0.37375 0.62153 0.00177 0.00295 0.33532 61.58306
0.36541 0.59700 0.01427 0.02331 0.39585 14.15037
0.27526 0.70584 0.00530 0.01360 0.32472 10.77420
0.30846 0.67768 0.00433 0.00952 0.35905 56.08216
0.25306 0.73607 0.00278 0.00809 0.31422 37.55759
0.24633 0.74584 0.00194 0.00588 0.30052 25.85882
0.24333 0.74774 0.00219 0.00674 0.20232 33.82114
0.34305 0.63044 0.00934 0.01717 0.31715 10.23738
0.28058 0.68818 0.00905 0.02219 0.35514 11.46421
0.22017 0.75562 0.00546 0.01875 0.23744 18.16154
0.28770 0.70126 0.00321 0.00783 0.38601 12.27975
0.25386 0.71679 0.00768 0.02167 0.27836 18.31089
0.20782 0.76447 0.00592 0.02178 0.27185 13.15104
0.14241 0.85525 0.00033 0.00201 0.37414 70.86753
0.44006 0.55136 0.00381 0.00477 0.48435 21.31864
0.28494 0.68491 0.00886 0.02129 0.31633 10.65598
0.11588 0.88114 0.00035 0.00264 0.11360 75.97987
0.27684 0.68236 0.01178 0.02902 0.30070 12.92072
0.21162 0.78253 0.00124 0.00460 0.22388 18.46036
0.19693 0.79436 0.00173 0.00698 0.35078 192.63631
0.40212 0.59341 0.00181 0.00267 0.47176 154.04901
0.31422 0.66222 0.00758 0.01597 0.30030 10.71660
0.34923 0.61038 0.01470 0.02569 0.34761 12.07670
0.16065 0.83698 0.00038 0.00199 0.16903 451.23035
0.23688 0.75424 0.00212 0.00676 0.26141 825.53471
0.21306 0.77496 0.00258 0.00940 0.28159 34.40875
0.10238 0.86511 0.00344 0.02907 0.00826 12.12208
0.24895 0.73858 0.00314 0.00932 0.36574 10.75480
0.38911 0.60782 0.00120 0.00187 0.35189 998.99984
0.27666 0.71906 0.00119 0.00309 0.25530 72.81209
0.11242 0.87843 0.00104 0.00811 0.15136 28.43205
0.49737 0.49656 0.00304 0.00303 0.47392 163.36893
0.28073 0.71455 0.00133 0.00339 0.32784 18.68247
0.47414 0.48277 0.02135 0.02174 0.40810 10.92064
```

0.17703	0.81366	0.00166	0.00765	0.19901	85.29903
0.14842	0.83514	0.00248	0.01396	0.20457	11.58724
0.33897	0.65709	0.00134	0.00260	0.49515	201.78540
0.20803	0.78479	0.00151	0.00568	0.23370	281.35902
0.40562	0.57721	0.00709	0.01009	0.34503	12.19623
0.27465	0.72535	0.00000	0.00000	0.24939	12.16055
0.26627	0.70962	0.00658	0.01753	0.32286	11.34912
0.29264	0.68938	0.00536	0.01262	0.29295	21.76654
0.22659	0.75241	0.00486	0.01614	0.23891	16.08245
0.28095	0.70422	0.00423	0.01060	0.29899	998.99954
0.32114	0.65382	0.00825	0.01680	0.29870	10.85800
0.31289	0.68315	0.00124	0.00272	0.38380	999.00000
0.29391	0.68983	0.00486	0.01141	0.35738	11.68232
0.18194	0.80759	0.00193	0.00855	0.21818	999.00000
0.17003	0.81626	0.00236	0.01135	0.17543	21.76413
0.17959	0.80666	0.00251	0.01125	0.31701	63.57962
0.70148	0.29107	0.00527	0.00219	0.65788	73.63285
0.23047	0.73004	0.00948	0.03001	0.19761	10.22197
0.40316	0.58799	0.00360	0.00525	0.52798	11.98952
0.34624	0.62330	0.01088	0.01958	0.40512	11.65468
0.27624	0.71848	0.00147	0.00381	0.32517	998.99995
0.27403	0.70663	0.00540	0.01393	0.25074	15.19904
0.23363	0.76099	0.00126	0.00411	0.43845	48.96210