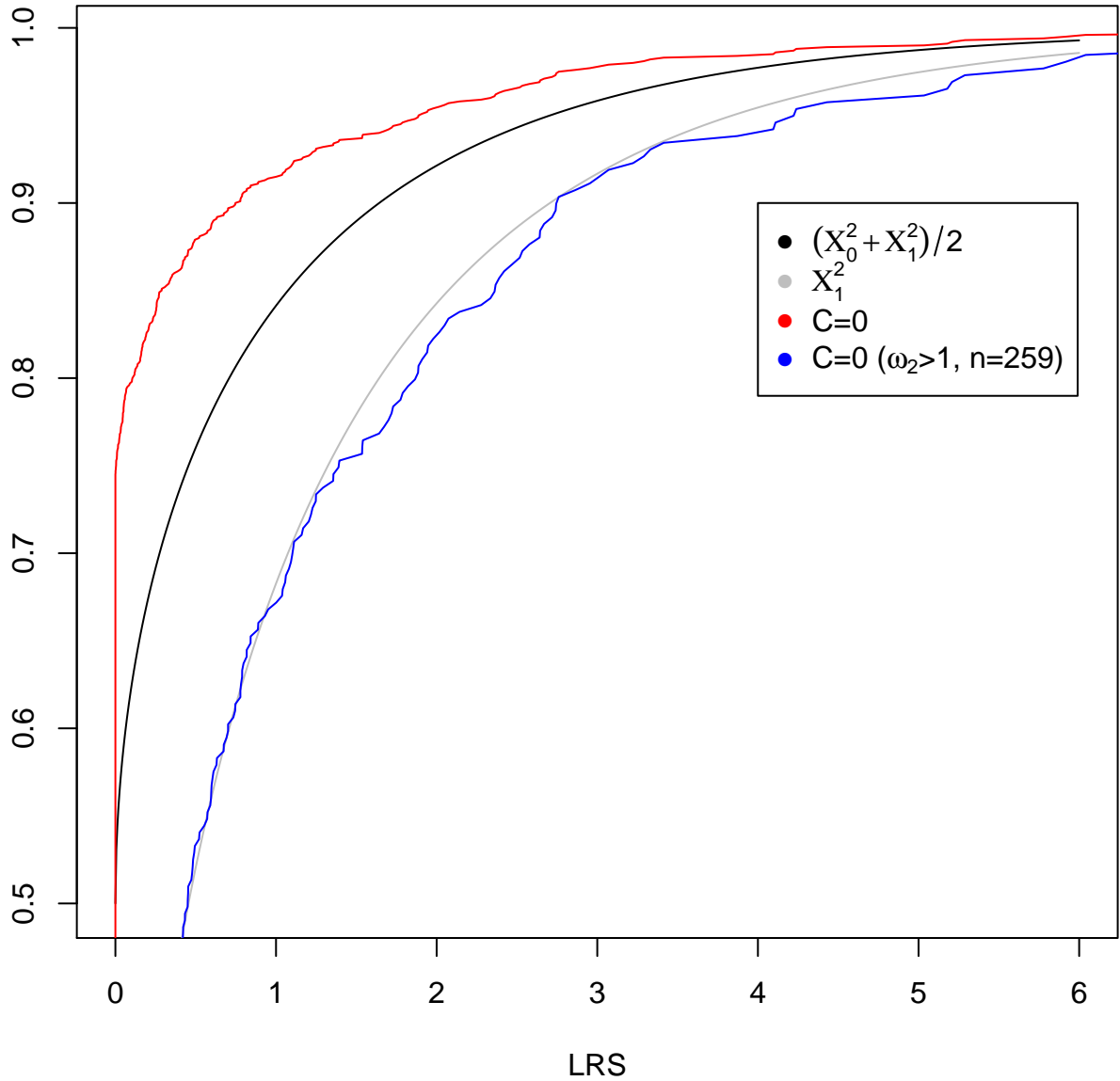
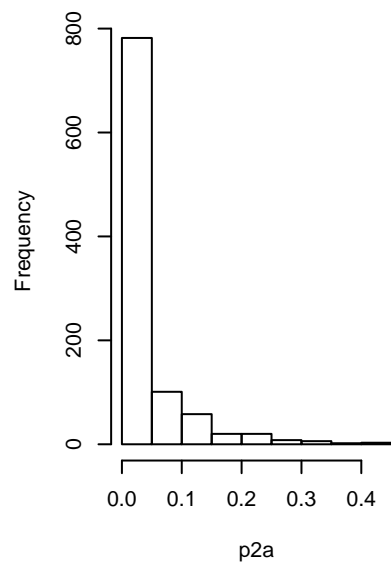
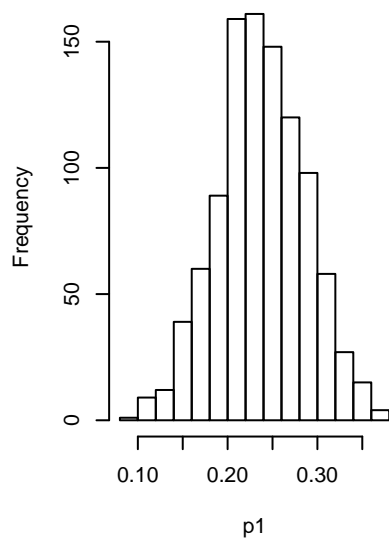
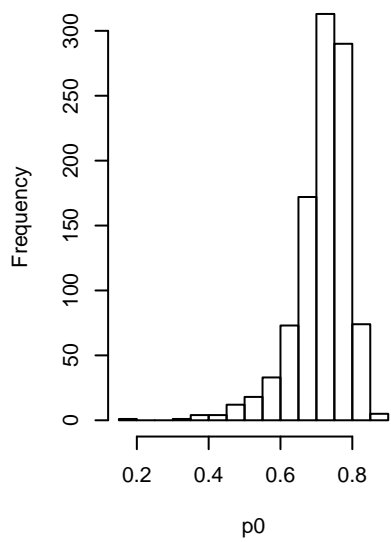
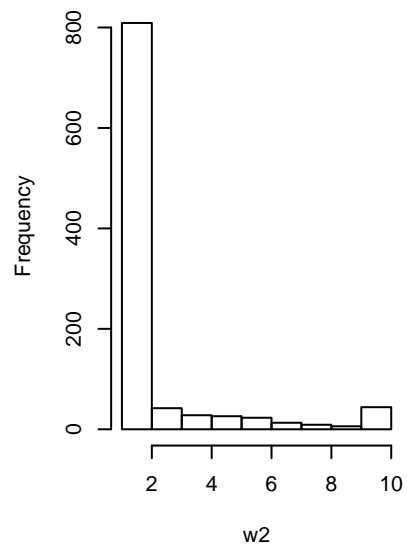
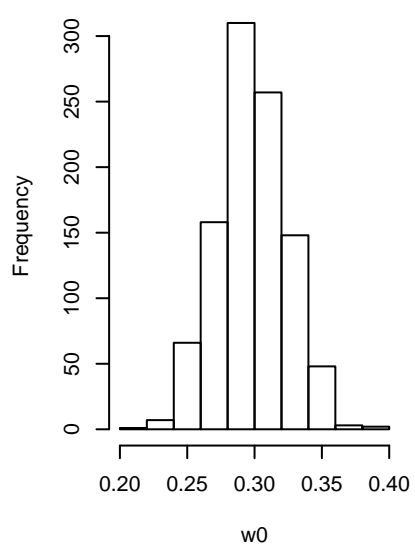
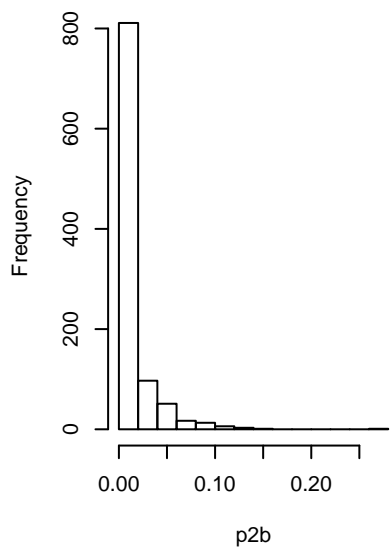


- Simulation under the null for branch-site model A
- Symmetric, 8-taxon tree with one foreground branch  
The total tree length is 3.  
tree: (((A#1:0.214286,B:0.214286):0.214286,(C:0.214286,D:0.214286):0.214286):0.214286,((E:0.214286,F:0.214286):0.214286,(G:0.214286,H:0.214286):0.214286):0.214286);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





39  $\omega_2 \geq 10$



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

```
> subset(params,w2>=10)
      p0      p1      p2a      p2b      w0      w2
0.66806 0.32417 0.00523 0.00254 0.29262 11.40713
0.74277 0.25290 0.00323 0.00110 0.29100 63.02795
0.83833 0.15722 0.00375 0.00070 0.34804 663.19371
0.71539 0.27553 0.00656 0.00253 0.28696 45.42719
0.76112 0.23217 0.00514 0.00157 0.29497 28.47234
0.78927 0.20013 0.00845 0.00214 0.32839 998.99965
0.72141 0.27009 0.00619 0.00232 0.28625 90.59841
0.75694 0.23114 0.00913 0.00279 0.32758 159.83998
0.69529 0.28448 0.01436 0.00587 0.30877 11.14156
0.75828 0.23864 0.00235 0.00074 0.32390 999.00000
0.77731 0.21691 0.00452 0.00126 0.30700 42.87754
0.68340 0.30325 0.00925 0.00410 0.27158 12.87590
0.68478 0.30585 0.00647 0.00289 0.27623 80.35478
0.76661 0.22596 0.00574 0.00169 0.27745 998.99969
0.67546 0.31922 0.00361 0.00171 0.27283 11.40887
0.79381 0.19562 0.00848 0.00209 0.31121 14.57206
0.71717 0.27323 0.00695 0.00265 0.24705 15.84686
0.77950 0.21497 0.00433 0.00119 0.33214 692.41967
0.77098 0.21896 0.00783 0.00222 0.30197 13.50125
0.79101 0.20304 0.00474 0.00122 0.29936 672.10568
0.77265 0.20377 0.01866 0.00492 0.31806 10.93935
0.71447 0.27844 0.00510 0.00199 0.29404 14.42786
0.69474 0.29347 0.00829 0.00350 0.27703 18.76982
0.74259 0.23647 0.01589 0.00506 0.30013 64.98670
0.73578 0.25558 0.00641 0.00223 0.29561 36.50829
0.66396 0.32715 0.00595 0.00293 0.28102 17.73306
0.80797 0.17788 0.01160 0.00255 0.31680 11.42403
0.83595 0.15437 0.00817 0.00151 0.31905 15.49704
0.77730 0.21161 0.00872 0.00237 0.29618 42.27299
0.73124 0.26019 0.00632 0.00225 0.31894 998.99969
0.71541 0.28216 0.00174 0.00069 0.29553 52.92020
0.67430 0.31836 0.00498 0.00235 0.25440 21.75579
0.81092 0.18177 0.00597 0.00134 0.32588 13.58634
0.72490 0.26573 0.00686 0.00251 0.28425 25.39505
0.72122 0.27454 0.00307 0.00117 0.25432 35.11208
0.71240 0.26782 0.01438 0.00541 0.29446 12.35679
0.69327 0.29980 0.00484 0.00209 0.29772 14.21954
0.69064 0.30322 0.00426 0.00187 0.25633 31.60063
0.71727 0.27603 0.00484 0.00186 0.25009 10.37322
```