rst help file: Codeml will also write to a supplementary results file. This file will always be called "rst". The rst file contains the posterior probability that each site in the alignment evolved under the different site classes in the model (note the posterior probabilities for a given site will sum to 1.0). The file contains results for NEB (and BEB for certain models). Results given below are from the actual dataset used in exercise 4.

Annotated <u>portion</u> of the "rst file" for codon model **M3** with k = 3 site classes:

```
Supplemental results for CODEML (seqf: seqfile.txt  treef: treefile_M3.txt)


dN/dS for site classes (K=3)


p:   0.47878  0.39172  0.12950
w:   0.03441  0.73592  2.50152


Naive Empirical Bayes (NEB) probabilities for 3 classes& postme
(amino acids refer to 1st sequence: AJ344371)

    1 M    0.99974 0.00026 0.00000 ( 1)   0.035   0.000
    2 G    0.99355 0.00645 0.00000 ( 1)   0.039   0.000
    3 A    0.99728 0.00272 0.00000 ( 1)   0.036   0.000
    4 S    0.99590 0.00410 0.00000 ( 1)   0.037   0.000
    5 G    0.99989 0.00011 0.00000 ( 1)   0.034   0.000
    6 S    0.92738 0.07255 0.00007 ( 1)   0.085   0.000
    7 K    0.99957 0.00043 0.00000 ( 1)   0.035   0.000
    8 R    0.00000 0.99987 0.00013 ( 2)   0.736   0.000
    9 R    0.00000 0.00454 0.99546 ( 3)   2.493   0.995
   10 S    0.92738 0.07255 0.00007 ( 1)   0.085   0.000
```

Annotations:

MLEs are also printed to the top of the rst file.

The first set of results will be for NEB method.

NOTE: For some models, BEB results also are printed to this file, after the NEB results.

PP that site 7 has $\omega > 1$

Posterior mean ω for site 8

Model site class with highest PP

Position in alignment

PP of site class 1

PP of site class 2

PP of site class 3

NOTE: "PP" will be used to indicate "posterior probability"