Scripts for Bayesian Phylogenetic Analysis Workshop

File conversion: https://www.sing-group.org/ALTER/

Example of Bayes Block: Burning phase+ no of chains

```
begin mrbayes;
Log start filename=bayes.log;
Lset nst=6 rates=invgamma;
prset statefreqpr=dirichlet(1,1,1,1);
mcmc ngen=100000000 printfreq=100 samplefreq=100 burninfrac=0.25 nruns=2 nchains=4;
Log stop;
end;
```

Example of Bayes Block: For ITS MSA

```
begin mrbayes;
Log start filename=bayes.log;
Lset  nst=6  rates=propinv;
Prset statefreqpr=dirichlet(1,1,1,1);
mcmc ngen=10000000 printfreq=1000 samplefreq=1000 burninfrac=0.25 nruns=2 nchains=4
savebrlens=yes stoprule=yes stopval=0.01;
Log stop;
end;
```

Analysis with multiple data partitions

```
begin mrbayes;
Log start filename=bayes.log;
```

charset locus1 = 1-495;

charset locus2 = 496-943;

charset locus3 = 944-1902;

partition alldata = 3: locus1, locus2, locus3;

set partition = alldata;

Lset applyto= (1) nst=6 rates=propinv;

Lset applyto= (2) nst=2 rates=gamma;

Lset applyto= (3) nst=6 rates=gamma;

prset applyto= (all) statefreqpr=dirichlet(1,1,1,1);

unlink statefreq=(all) revmat=(all) shape=(all) pinvar=(all);

mcmc ngen= 100000000 relburnin=yes burninfrac=0.25 printfreq=1000 temp=0.15 samplefreq=1000 nchains=4 savebrlens=yes stoprule=yes stopval=0.01;

Log stop;

end;

MrModeltest2

ITS

```
BEGIN MRBAYES;
        Lset  nst=6  rates=propinv;
        Prset statefreqpr=dirichlet(1,1,1,1);
END;
```

Note: **Substitution model: General Time Reversible (GTR)**

BTUB

```
BEGIN MRBAYES;
        Lset  nst=2  rates=gamma;
        Prset statefreqpr=dirichlet(1,1,1,1);
END;
```

Note: **K80**

EF

```
BEGIN MRBAYES;
        Lset  nst=6  rates=gamma;
        Prset statefreqpr=dirichlet(1,1,1,1);
END;
```

Note: Substitution model: General Time Reversible (GTR)

COMBINE

```
BEGIN MRBAYES;
        Lset  nst=6  rates=invgamma;
        Prset statefreqpr=fixed(equal);
END;
```