

mcmccheck

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2019-04-05

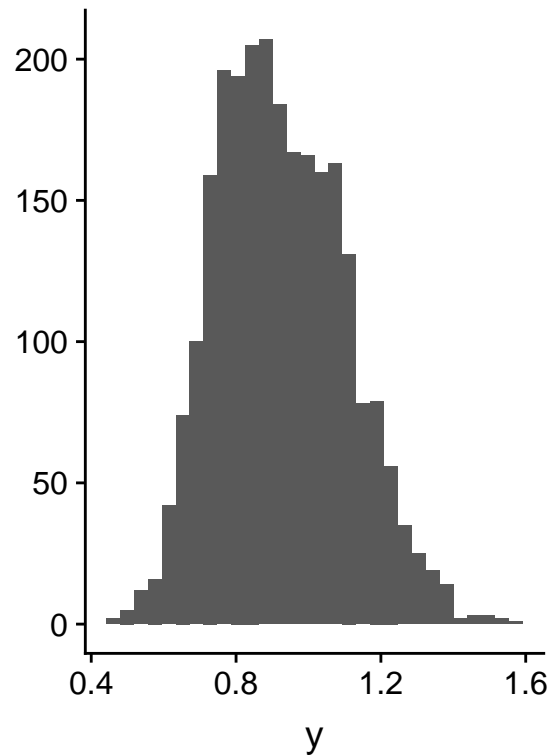
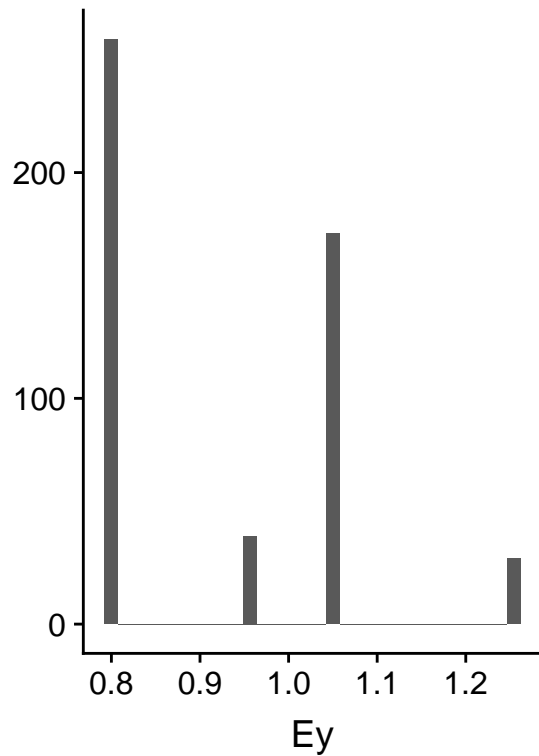
Simple run without sampling variance

```
a=0.1
b=0.01
p=0
mu=1
svar=0.1
ss=0
epi=1
replicates=5
ss=0
n=500
m=3
FITmode=3

maf=mafsim(m)
X <- Xsim(n,m,maf)
s= ssim(m,svar)
Ey=wsim(X,s,mode=3)
y=sampleW(Ey,a,b,p,rep = replicates)
h=sort(rep.int(1:n,replicates))
title <- ggdraw() + draw_label(paste("h2= ",format(var(Ey) / var(y),digits=2)),fontface = 'bold')
plot_grid(title,
  plot_grid(qplot(Ey),qplot(y)),
  ncol = 1, rel_heights = c(0.1, 1)
)

## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

h2= 0.63



```
x<-napMCMCwrap()

## Inferred starting hyperparameters are better than proposed start
## rGWA start for vector s is better than proposed start ;)
## The starting likelihood is: 1421.60218635761
## Calling napMCMC C++ function
## Inferred starting hyperparameters are better than proposed start
## rGWA start for vector s is better than proposed start ;)
## The starting likelihood is: 1421.60218635761
## Calling napMCMC C++ function
## Inferred starting hyperparameters are better than proposed start
## Proposed start is better than rGWA inferred ;)
## The starting likelihood is: 1421.60218635761
## Calling napMCMC C++ function
LIKELIHOOD(y,h-1,wC(X,BMridge(X,My(y,h)),FITmode),b,a,p,mu,epi,verbose = F)

## [1] 1996.211
LIKELIHOOD(y,h-1,wC(X,x$shat,FITmode,x$par["epi"],x$par["mu"],),
             x$par["b"],x$par["a"],x$par["p"],x$par["mu"],x$par["epi"],verbose = F)

## [1] 1421.602
```

```
LIKELIHOOD(y,h-1,wC(X,s,FITmode),b,a,p,mu,epi,verbose = F)
```

```
## [1] 1998.754
```

```
cbind(x$par, c(b,a,p,mu,epi,svar,ss))
```

```
##      [,1] [,2]  
## b      0.1 0.01  
## a      0.1 0.10  
## p      0.0 0.00  
## mu     1.0 1.00  
## epi    1.0 1.00  
## svar   0.1 0.10  
## ss     0.0 0.00
```

```
pnap<-scorplot(s,x$shat)
```

```
pgwa<-scorplot(s,BMridge(X,My(y,h)))
```

```
pfinal<-plot_grid(  
  pnap$psel,  
  pgwa$psel,  
  labels=c("NAP","mGWA")  
)
```

```
# print(pfinal)
```

```
inap<-indplot(y,h,x$w)
```

```
igwa<-indplot(y,h,X %*% BMridge(X,My(y,h))+mu)
```

```
pfin2<-plot_grid(  
  inap,  
  igwa,  
  labels=c("NAP","mGWA")  
)
```

```
## Warning: Removed 1 rows containing missing values (geom_hline).
```

```
## Warning: Removed 1 rows containing missing values (geom_vline).
```

```
## Warning: Removed 1 rows containing missing values (geom_hline).
```

```
## Warning: Removed 1 rows containing missing values (geom_vline).
```

```
# print(pfin2)
```

```
p<-plot_grid(pfinal,pfin2,ncol=1)
```

```
print(p)
```

