

mcmccheck

Moi Exposito-Alonso

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Simple run without sampling variance

```
a=0.05
b=0.05
p=0
mu=1
svar=0.1
ss=0
epi=1
replicates=5
ss=0
n=500
m=3
maf=mafsim(m)
X <- XsimLD(n,m,maf,r2=0.8) # different from Xsim

## Loading required package: MASS

##
## Attaching package: 'MASS'

## The following object is masked from 'package:dplyr':
##
##      select

cor(X)

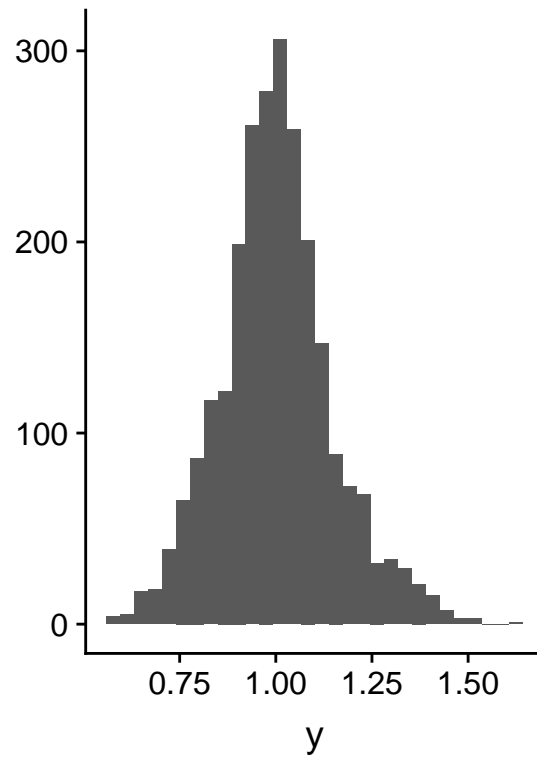
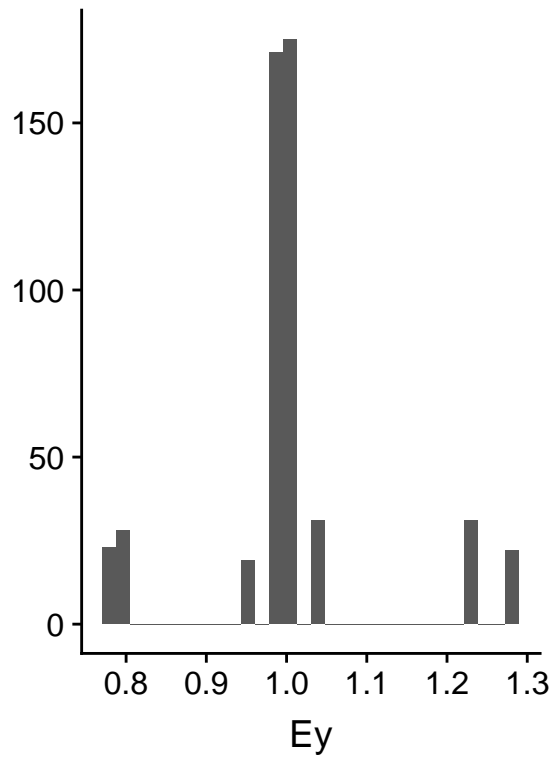
##           [,1]      [,2]      [,3]
## [1,] 1.0000000 0.5644634 0.5835990
## [2,] 0.5644634 1.0000000 0.6207102
## [3,] 0.5835990 0.6207102 1.0000000

s= ssim(m,svar)
Ey=wsim(X,s,mode=2)
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)
           )

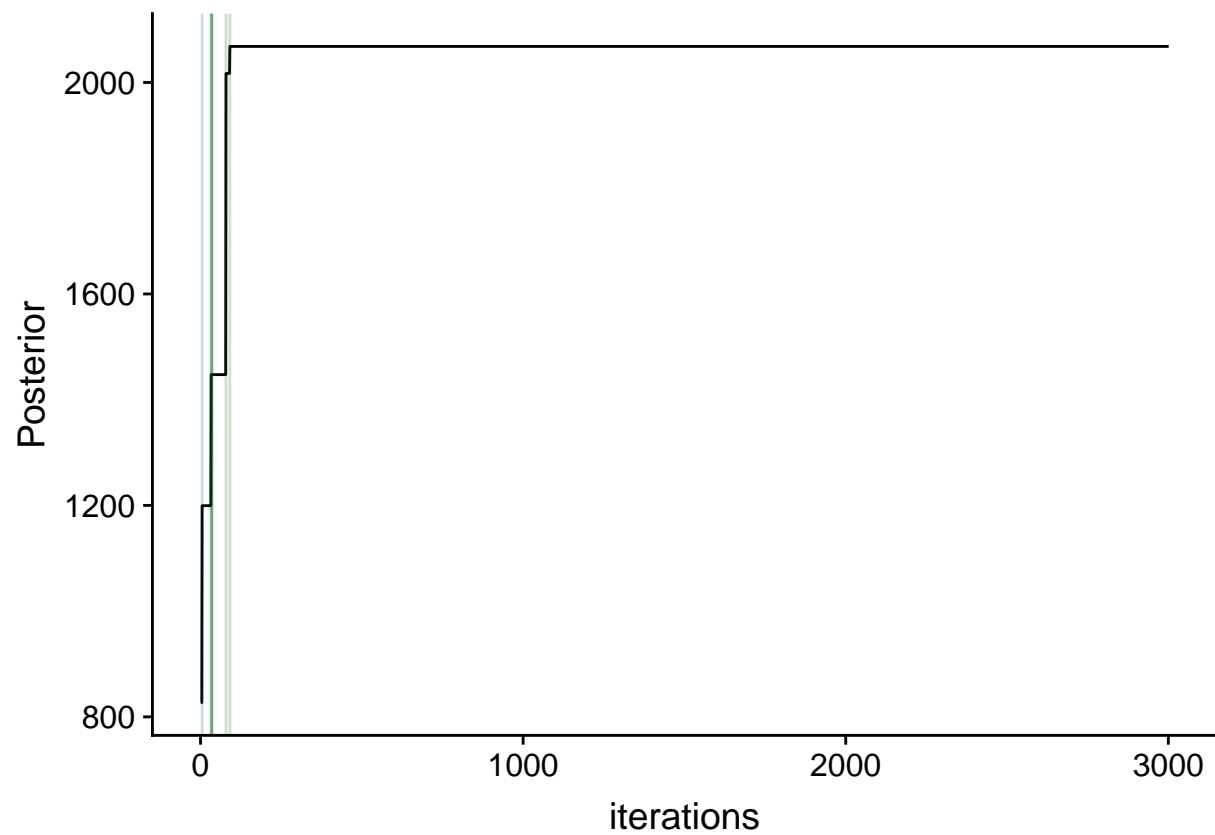
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

h2= 0.54



```
x<-napMCMC(y,h,X,m=1:m,n=1:n,rnorm(m,0,0.1),
  test=F,
  verbose=F,
  iterations=1000 * m,
  FITmode = 2,
  PRImode = 2,
  Smode = 2,
  bmin=b,bmax=b,
  amin=b,amax=a,
  pmin=p,pmax=p,
  svarmin=svar,svarmax=svar,
  ssmin=ss,ssmax=ss,
  mumin=mu,mumax=mu)
```

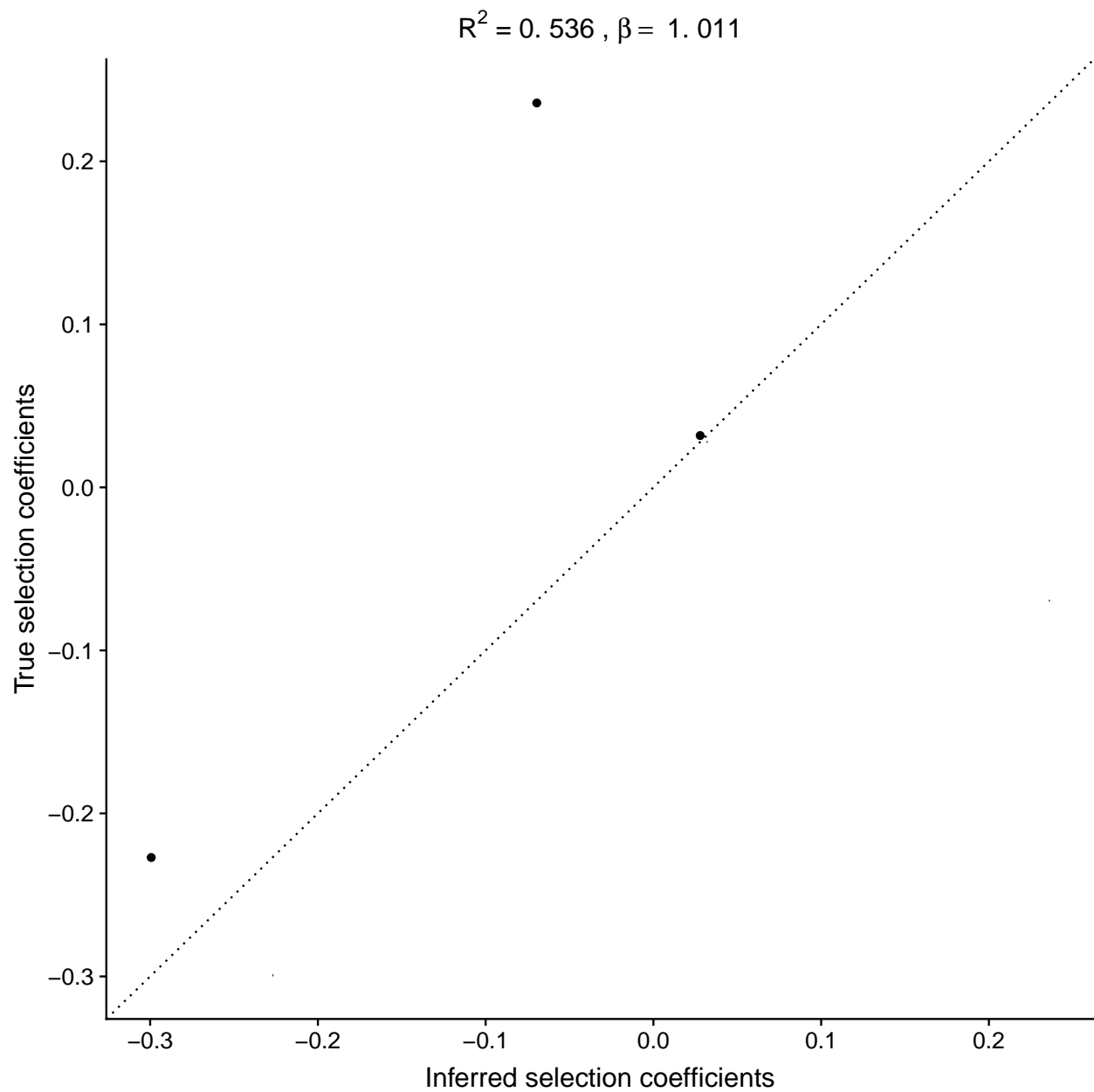
```
posteriorplot(x)
```



```
# LIKELIHOOD(y,h,wC(X,x$shat,3),b,a,p,mu,eps,verbose = TRUE)
# LIKELIHOOD(y,h,BMridge(X,My(y,h)),b,a,p,mu,eps,verbose = TRUE)
```

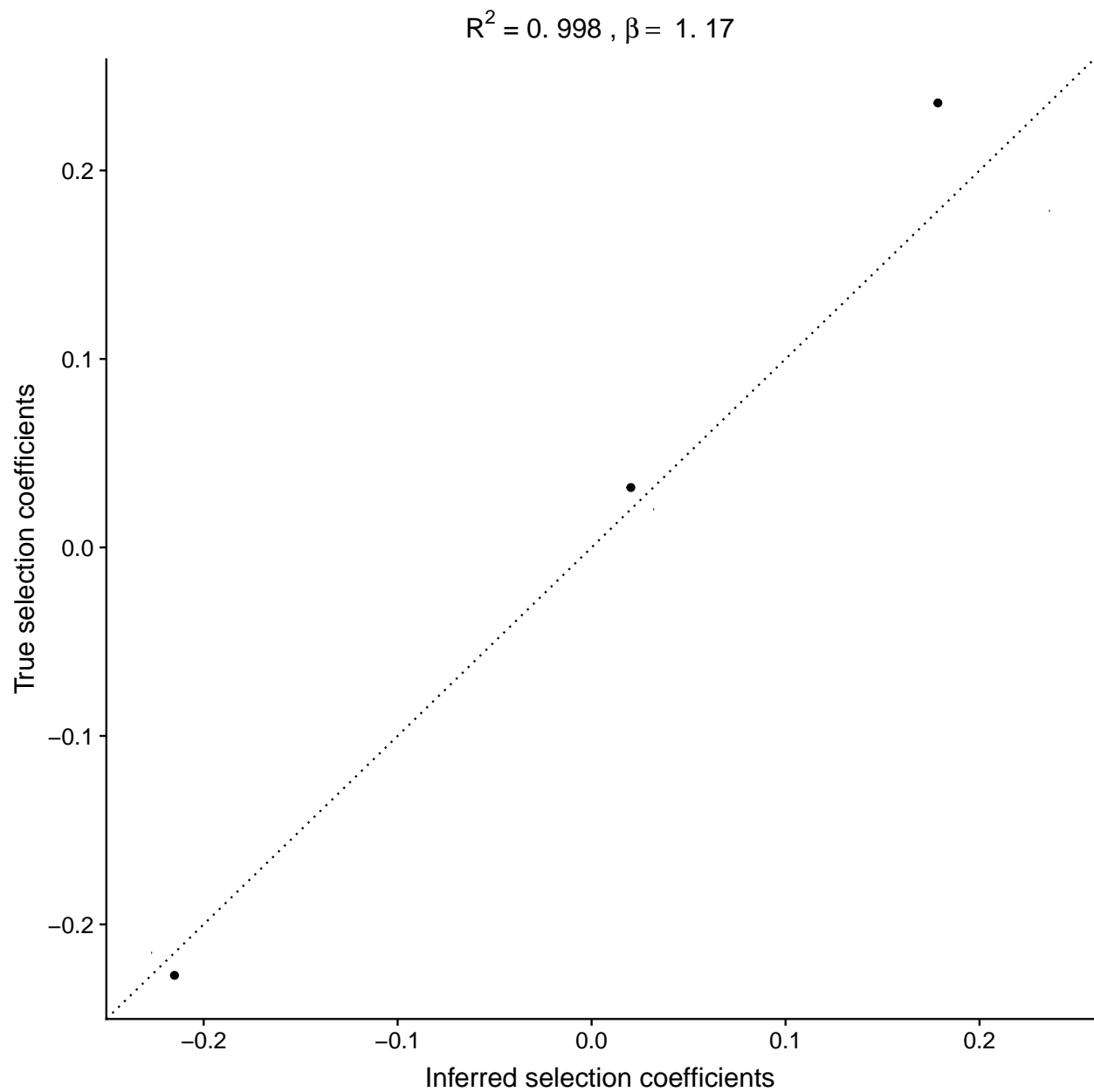
```
pnap<-scorplot(s,x$shat)
pnap
```

```
## $psel
```



```
##
## $accuracy
## [1] 0.536
##
## $bias
## [1] 1.011
pgwa<-scorplot(s,BMridge(X,My(y,h),lambda = 10)) # conditional
pgwa

## $psel
```



```
##
## $accuracy
## [1] 0.998
##
## $bias
## [1] 1.17
pfinal<-plot_grid(
  pnap$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)
```

