

[Blocked Gibbs Sampler] data generating

HaeHwan Lee

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```
rm(list=ls())
set.seed(1)

p <- 3
N <- 1000

X <- cbind(rep(1,N),matrix(rnorm((p-1)*N),ncol=2))
typeof(X)
```

```
## [1] "double"
```

```
beta <- c(1.0, 0.5, -0.5)
kappa <- 2

Y <- X%*%beta+rnorm(N,mean=0,sd=sqrt(kappa))

data <- data.frame(cbind(Y,X))
colnames(data) <- c('Y','intercept','X1','X2')
head(data)
```

```
##           Y intercept           X1           X2
## 1 -1.133914           1 -0.6264538  1.13496509
## 2 -2.182623           1  0.1836433  1.11193185
## 3  3.308177           1 -0.8356286 -0.87077763
## 4  2.426633           1  1.5952808  0.21073159
## 5  1.051072           1  0.3295078  0.06939565
## 6  2.405973           1 -0.8204684 -1.66264885
```

```
write.csv(data,'regression_data.csv', row.names = FALSE)
```