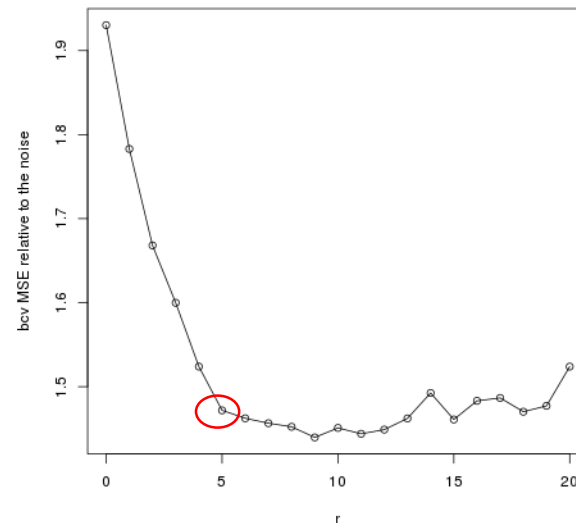


Challenge 2

In all the tests we used slightly modified covfefe function

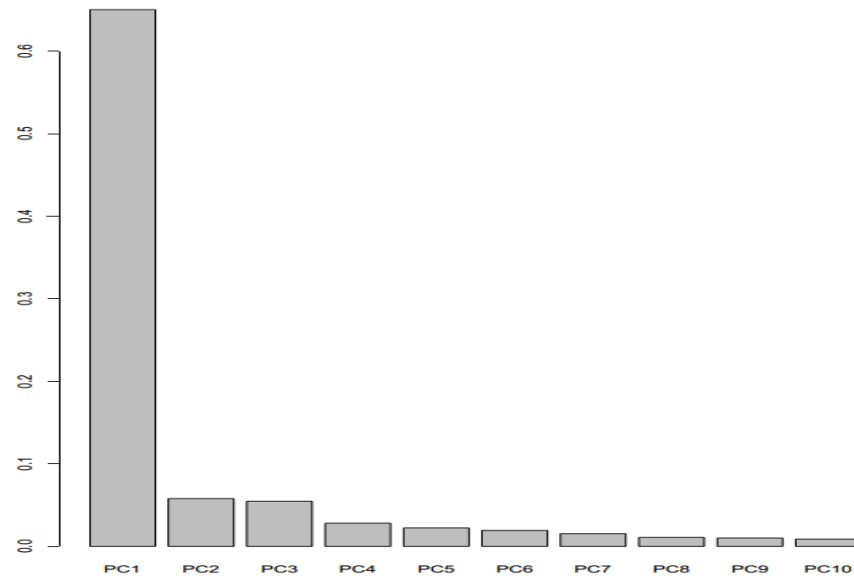
Searching for latent variables

- CATE
- 5 latent variables estimated by CATE function (est.confounder.num)
 - We chosed FDR = 0.04,
 - POWER = 0.74, FDR = 0.12, FSCORE = 0.80 // CpG number = 16



Searching for latent variables

- PCA
 - 2 PCs (Power = 0.68, FDR = 0.13, Fscore = 0.76 // Number of CpGs = 15)
 - 1 PCs (Power = 0.68, FDR = 0.07, Fscore = 0.79 // Number of CpGs = 14)



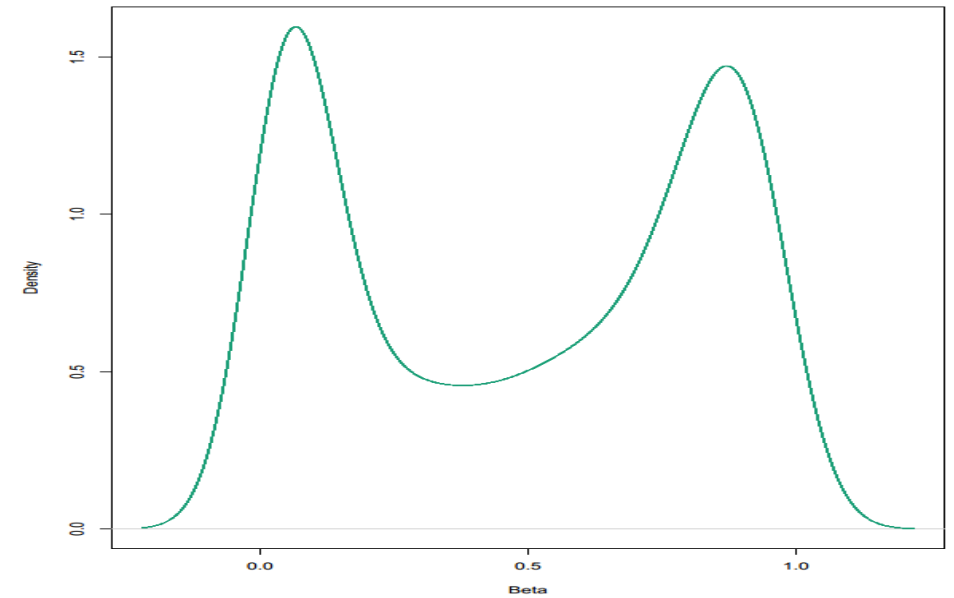
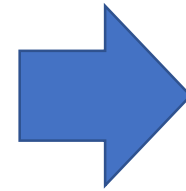
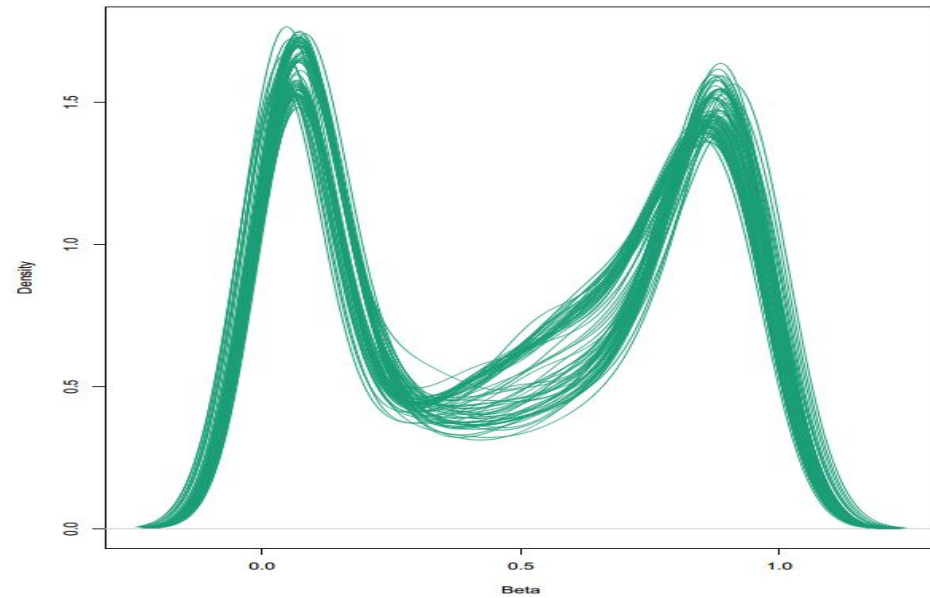
Searching for latent variables

- SVA (no covariables in the model)
 - 3 SVs (around 70 CpGs // around 17 were true positives)

The final results was obtained using the
intersection of CATE and PCA results
12 CpGs -> all true positives

Data normalization

- We used quantile normalization for methylation data



Thank you !