Supplementary Files

Sup.1 Summary of the dataset

| Variable	Type	Mean (prob)	Description
age	continuous	60.2	unit in years
gender	binary	0.492	male encoded as 1
race	nominal	/	white, Asian, black or hispanic
smoking	ordinary	/	no/former/current smokers
height	continuous	170.1	unit in centimeters
weight	continuous	80.01	unit in kilograms
BMI	continuous	27.71	height/weight^2
hypertension	binary	0.502	yes encoded as 1
diabetes	binary	0.154	yes encoded as 1
SBP	continuous	130.4	Systolic blood pressure in mmHg
LDL	continuous	110.4	unit in mg/L
vaccine	binary	0.605	vaccinated encoded as 1
severity	binary	0.107	severe encoded as 1
study	nominal	/	A, B or C
recovery_time	continuous	42.91	unit in days
recovery_bin	binary	0.693	t:≥30 encoded as 1

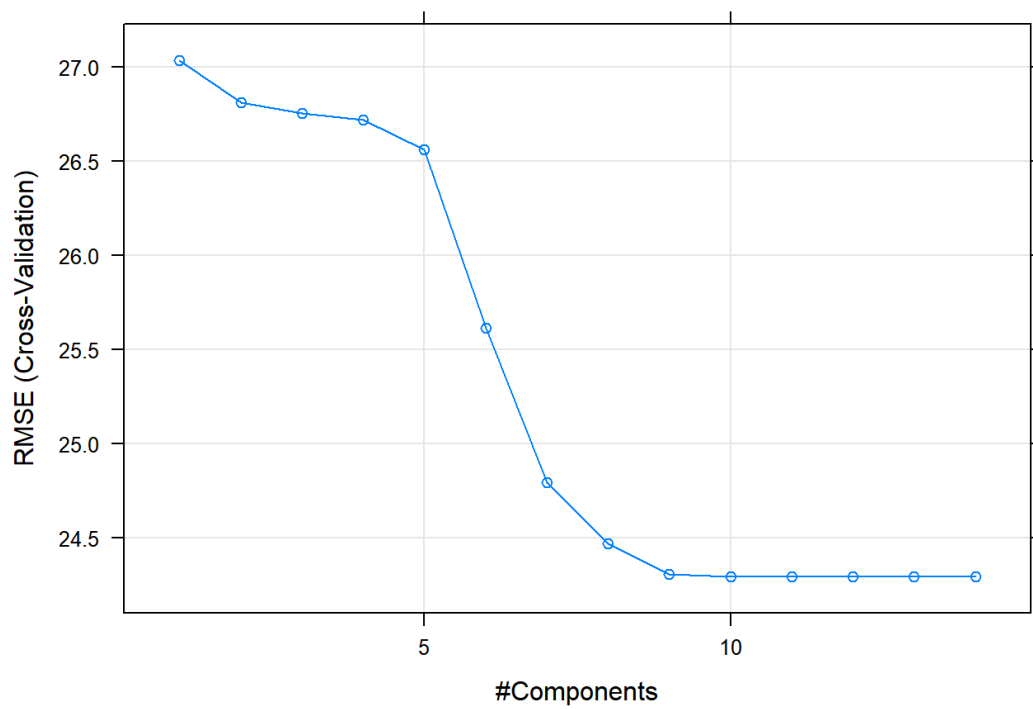### Sup.2 Correlation plot of continuous predictors
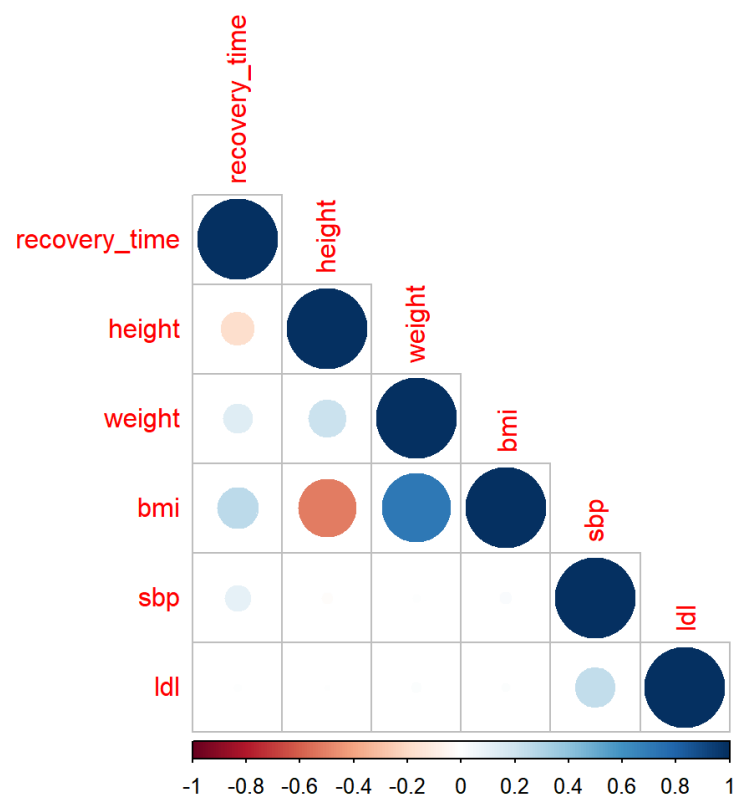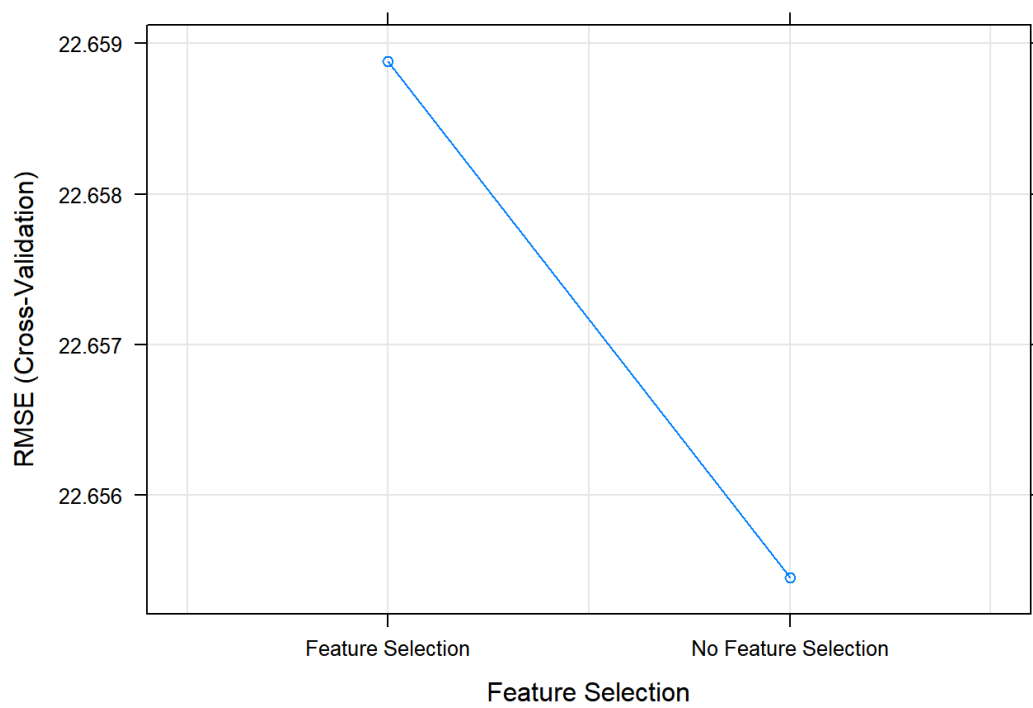
Sup.3 Linear model diagnosis plot
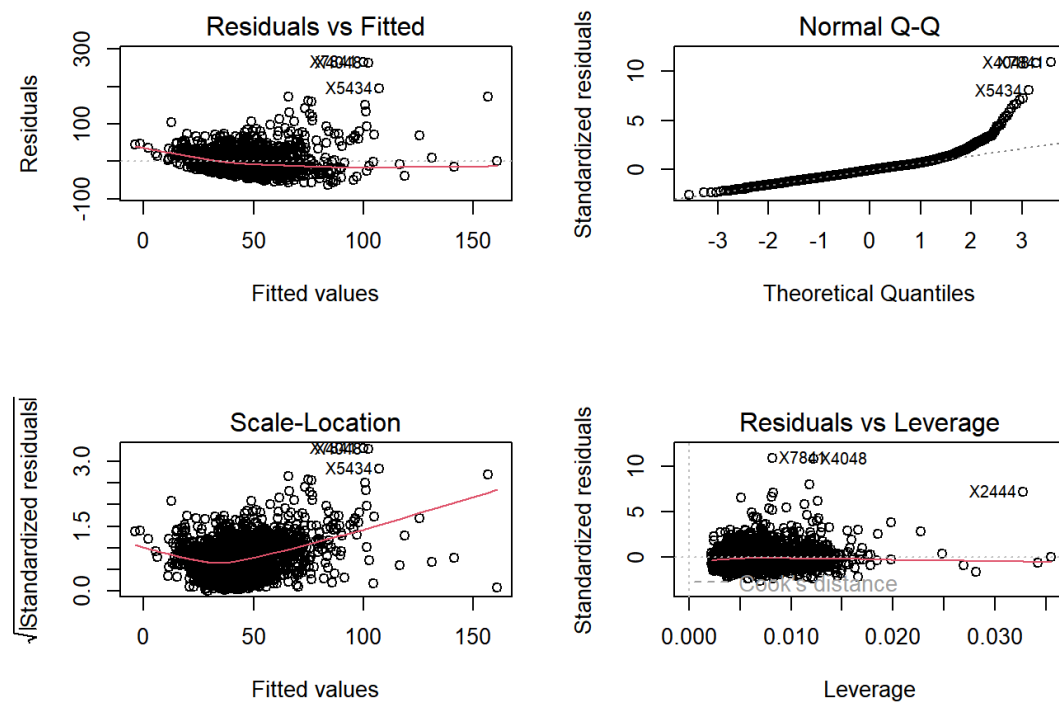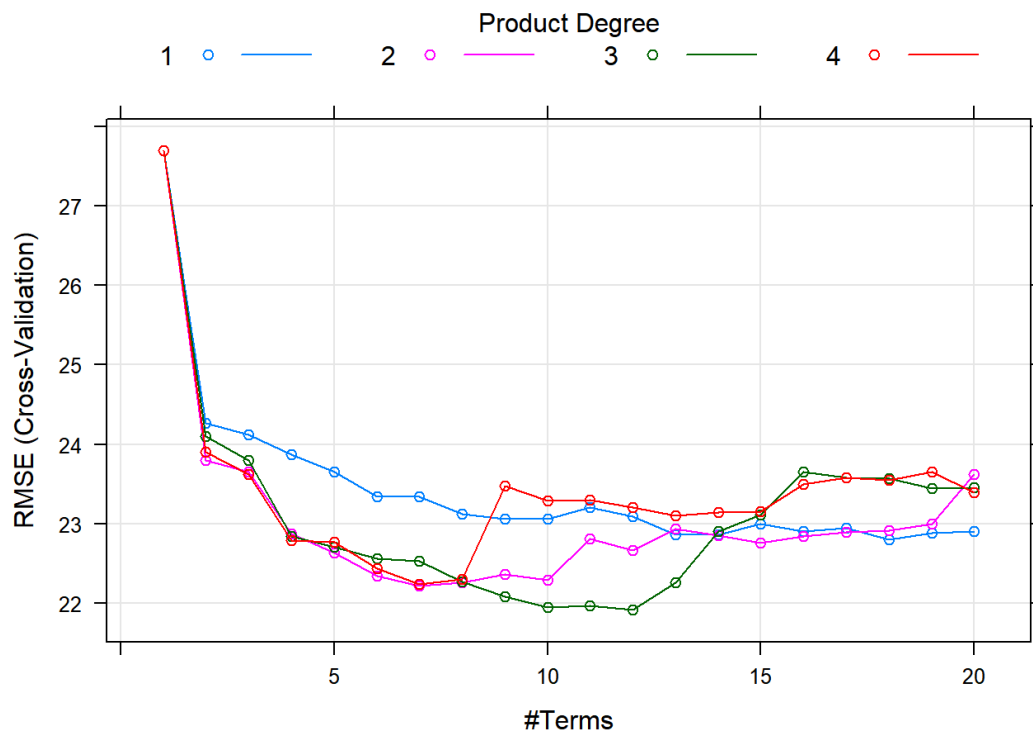

Sup.4 RMSE of Enet tuning grid
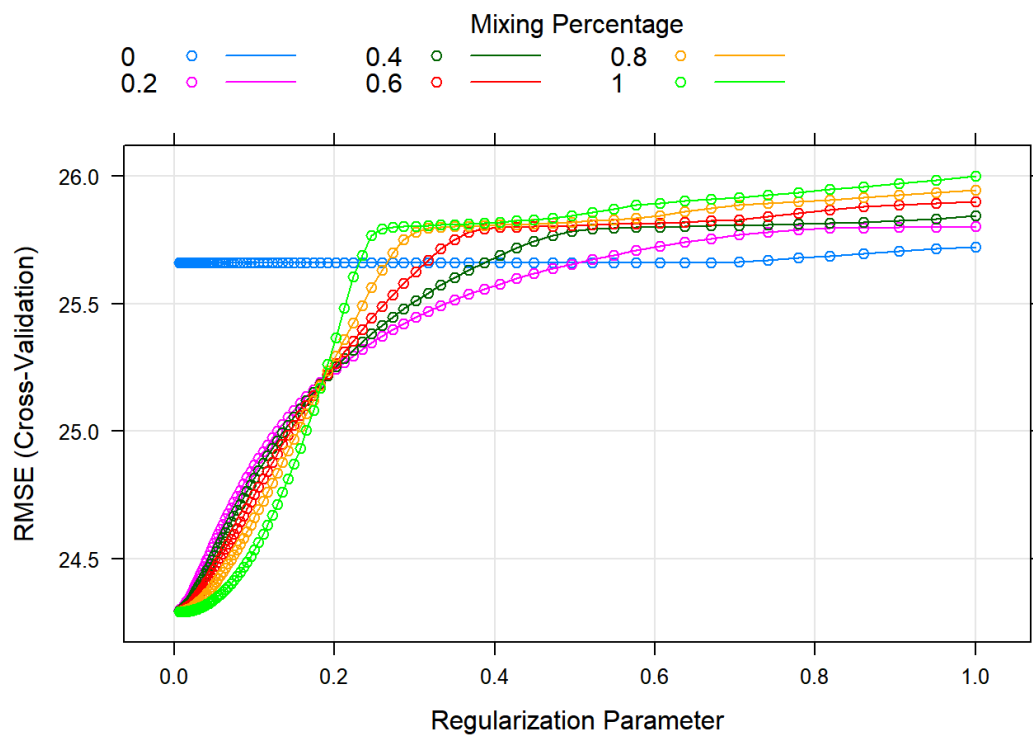
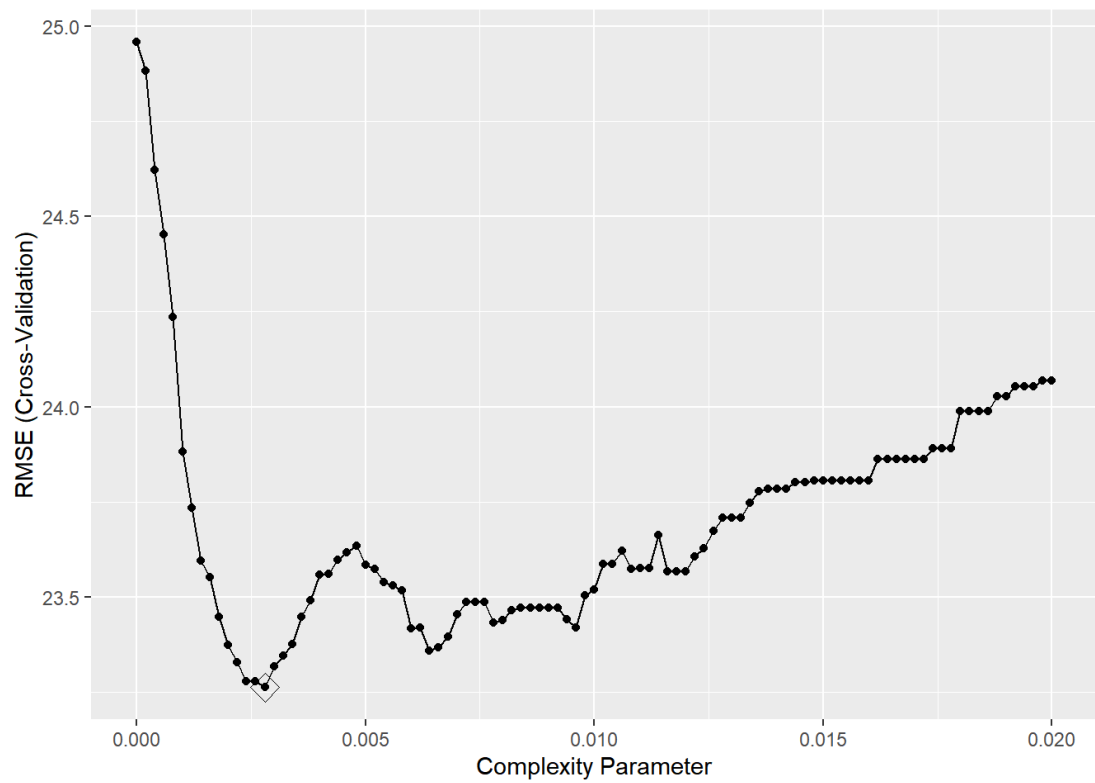## Sup.5 RMSE of PLS for different numbers of components

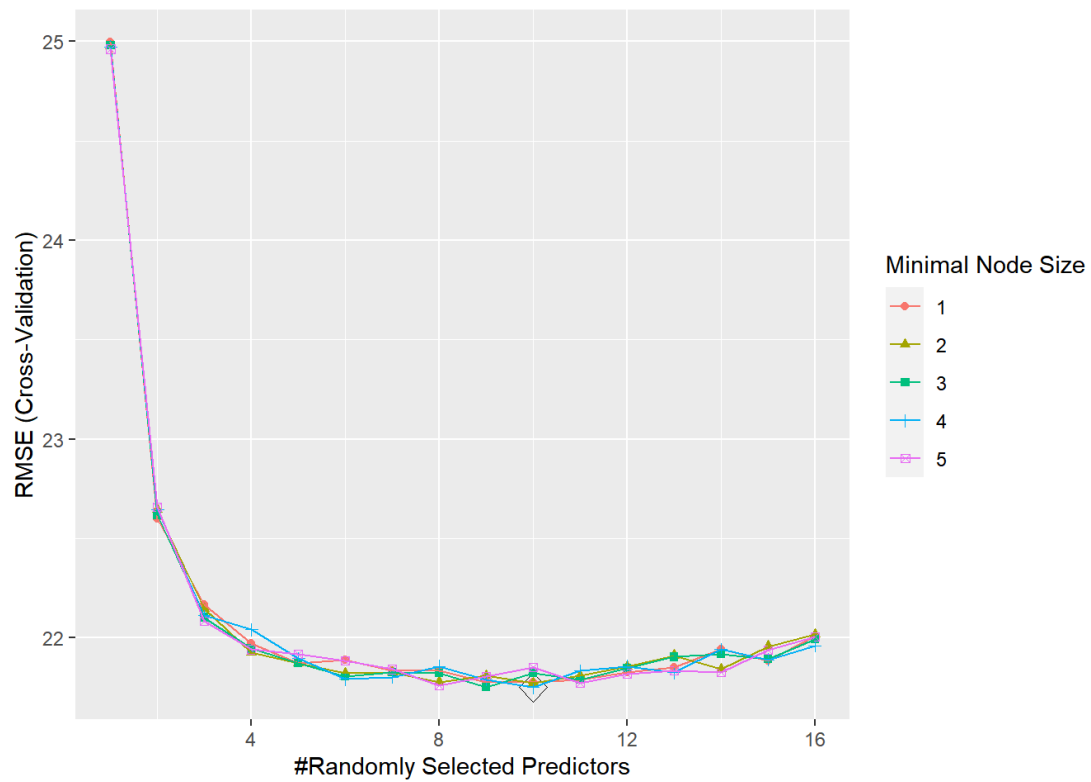## Sup.6 RMSE of GAM with/without feature selection
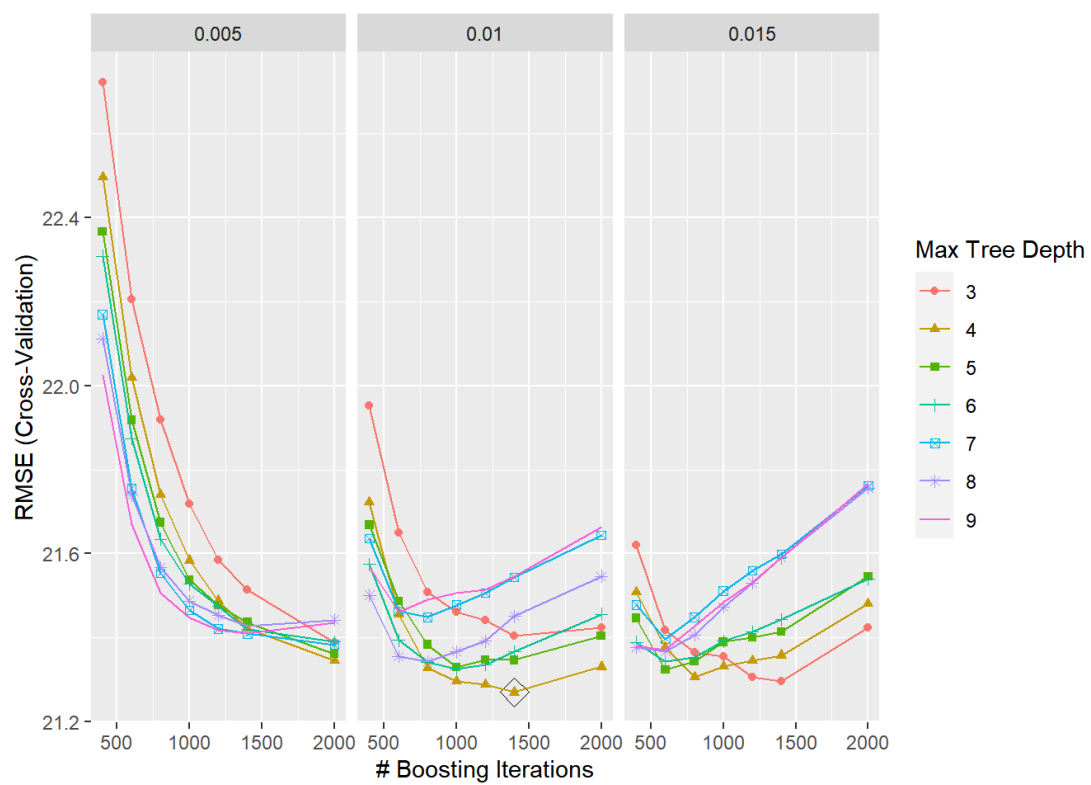
Sup.7 RMSE of MARS tuning grid

Sup.8 RMSE of regression trees with different complexity number

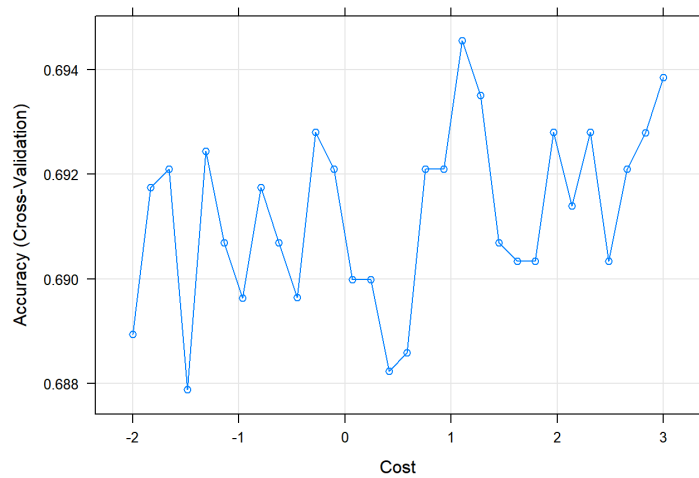## Sup.9 Random Forest tuning grid
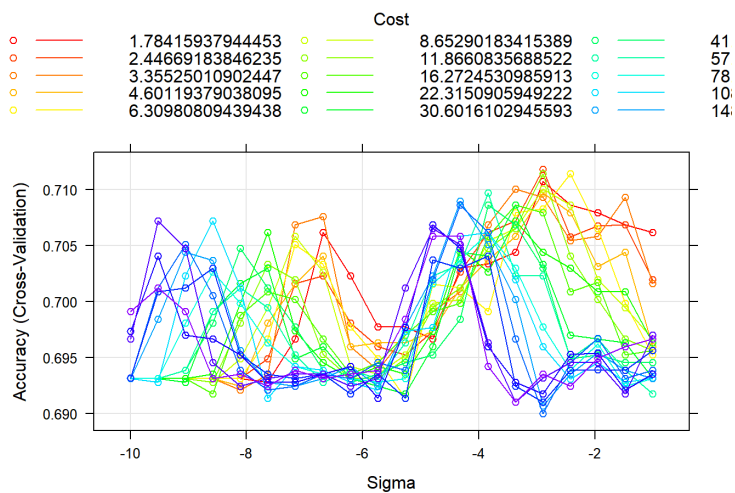

Sup.10 Boosting on regression tree tuning grid
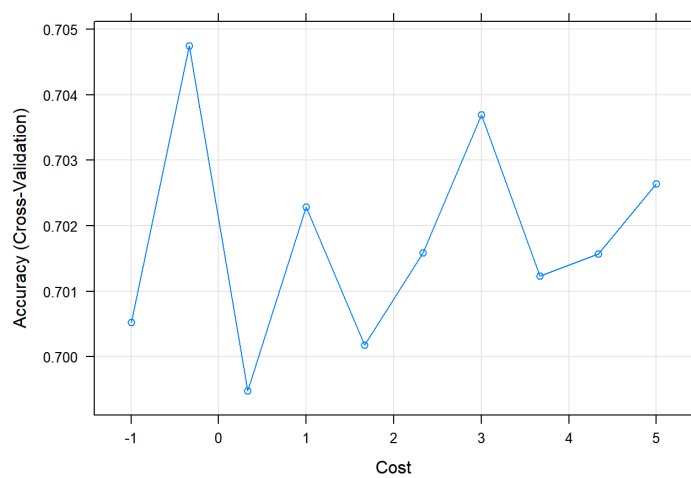
Sup.11 Comparison of SVM using different kernel

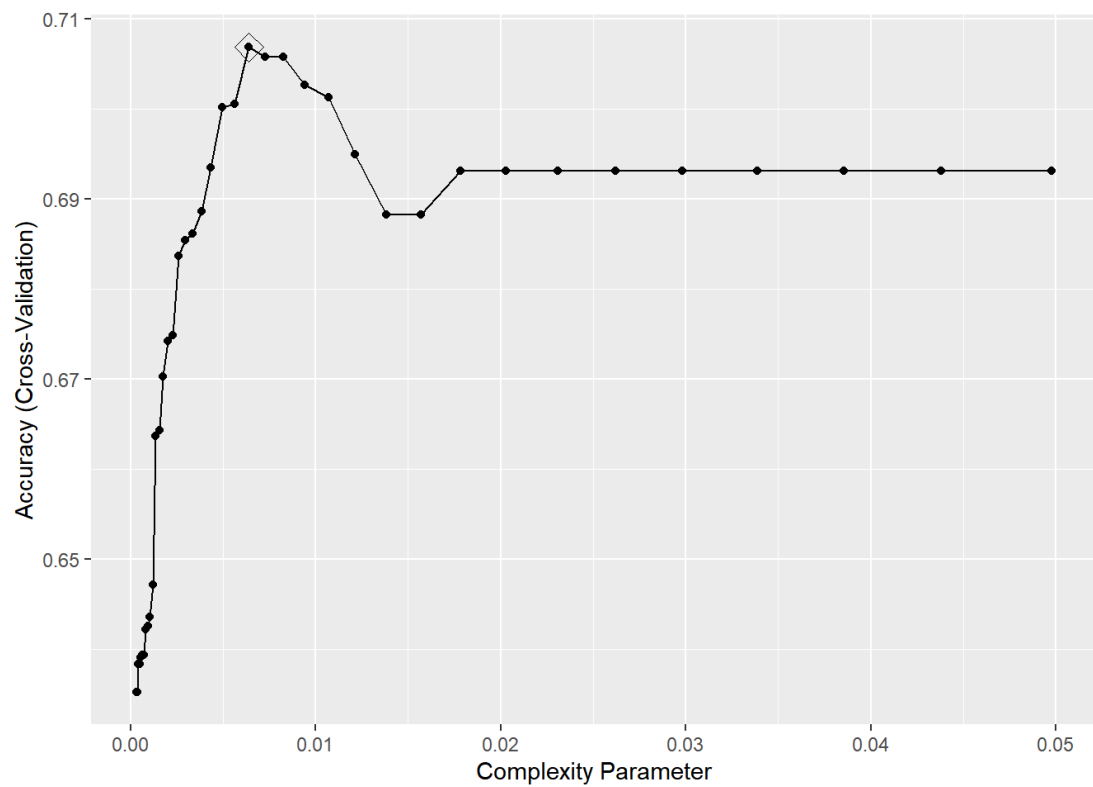## a. Linear kernel

b. Radial kernel

c. Quadratic kernel

Sup.12 Accuracy of classification trees with different complexity number

Sup.13 tuning grid of the boosted classification tree