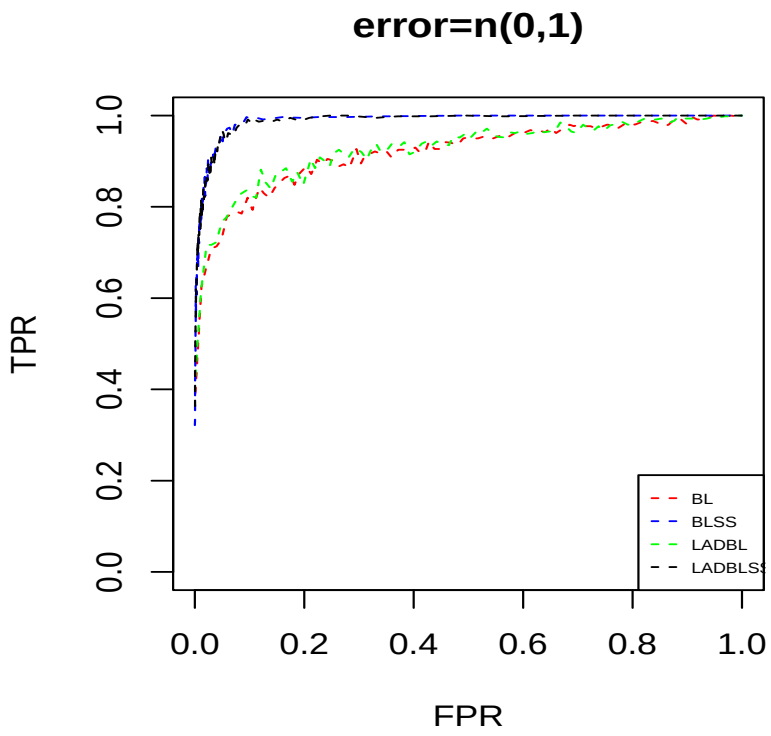
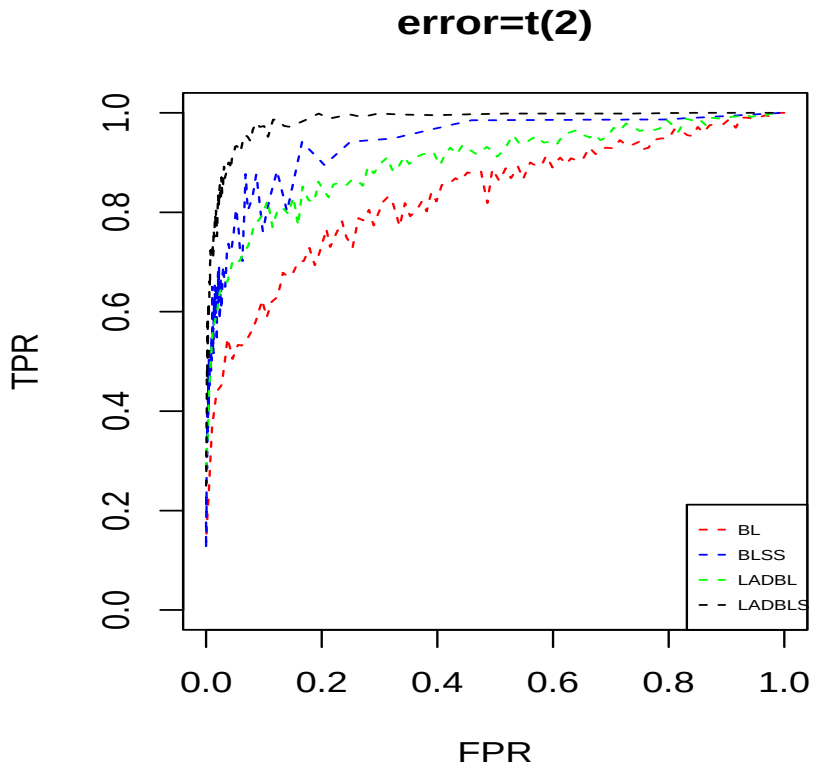
case1
data: E with 4 continuous variables
GxE: g[,1]*e[,1],g[,1]*e[,2],g[,1]*e[,3],g[,2]*e[,4],g[,3]*e[,1],g[,3]*e[,2],
g[,4]*e[,4],g[,5]*e[,1],g[,5]*e[,2],g[,6]*e[,4],g[,7]*e[,1],g[,7]*e[,2]

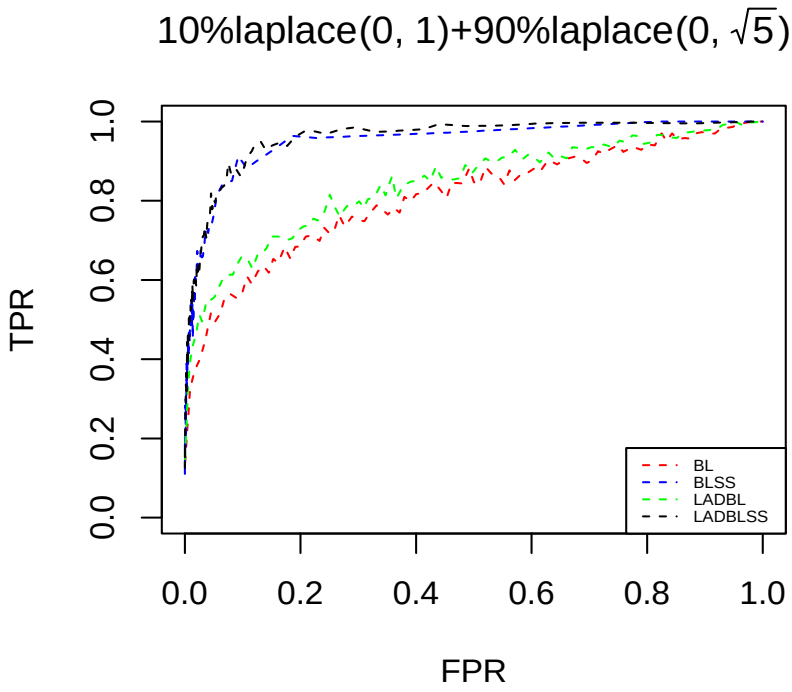
n=200, p=500, seq(0,1,by=0.01), rep=30

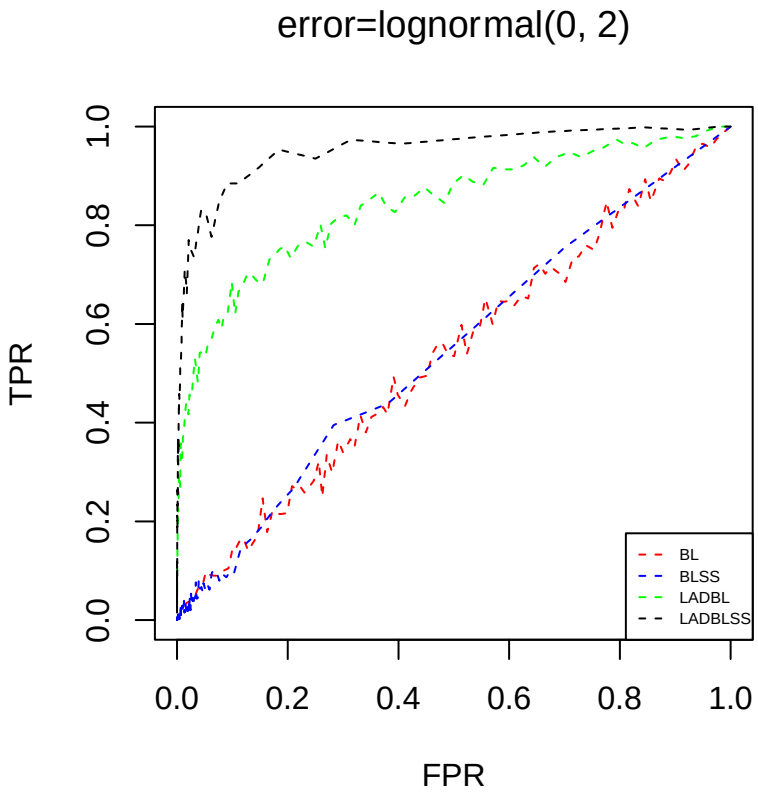
coefficients: (0.1, 0.5)

| error | | BL | BLSS | LADBL | LADBLSS |
|---|---|---|---|---|---|
| n(0,1) | AUC | 0.9182 | 0.9901 | 0.9258 | 0.9887 |
| | SD | 0.0052 | 0.0021 | 0.0076 | 0.0026 |
| t(2) | AUC | 0.8332 | 0.9420 | 0.9004 | 0.9841 |
| | SD | 0.0107 | 0.0235 | 0.0078 | 0.0031 |
| 10%laplace(0,1) +90% laplace(0,sqrt(5)) | AUC | 0.8088 | 0.9507 | 0.8406 | 0.9599 |
| | SD | 0.0077 | 0.0161 | 0.0079 | 0.0060 |
| lognorm(0,2) | AUC | 0.5343 | 0.5473 | 0.8432 | 0.9558 |
| | SD | 0.0144 | 0.0576 | 0.0115 | 0.0161 |
| lognorm(0,1) | AUC | 0.8575 | 0.9561 | 0.9069 | 0.9713 |
| | SD | 0.0087 | 0.0154 | 0.0079 | 0.0042 |


error=n(0,1)
TPR
FPR
0.0
0.2
0.4
0.6
0.8
1.0
BL
BLSS
LADBL
LADBLSS


error=t(2)
TPR
FPR
0.0
0.2
0.4
0.6
0.8
1.0
BL
BLSS
LADBL
LADBLS


10%laplace(0, 1)+90%laplace(0, √5)
TPR
FPR
0.0
0.2
0.4
0.6
0.8
1.0
BL
BLSS
LADBL
LADBLSS

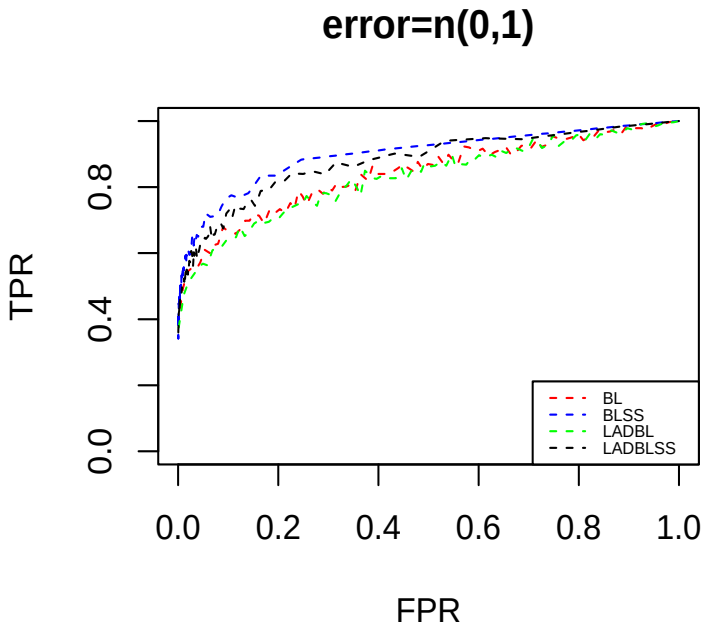

error=lognormal(0, 2)
TPR
FPR
0.0
0.2
0.4
0.6
0.8
1.0
BL
BLSS
LADBL
LADBLSS

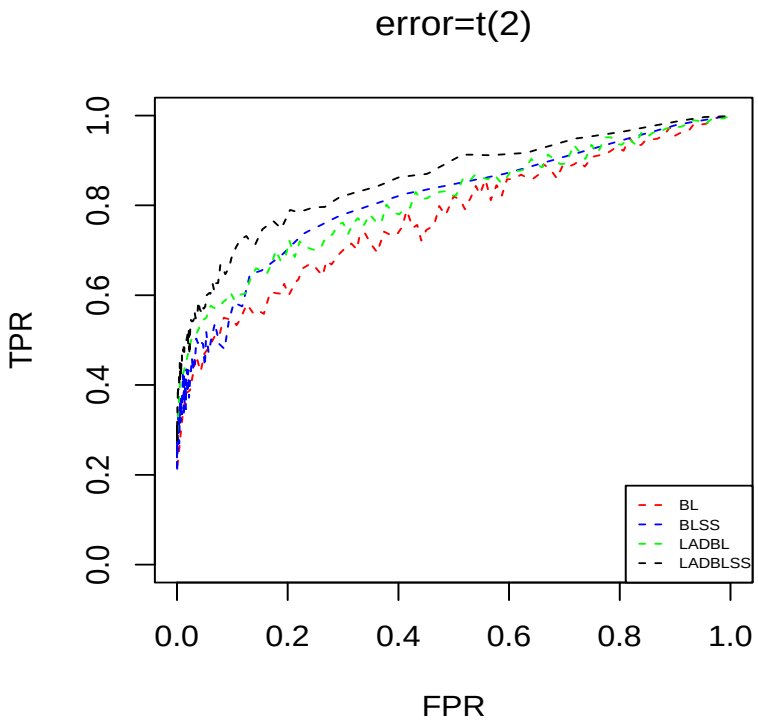
case2
data: E with 2 continuous variables and 2 discrete variables
GxE: g[,1]*e[,1],g[,3]*e[,2],g[,5]*e[,3],g[,8]*e[,4],g[,15]*e[,1],g[,18]*e[,2],
g[,24]*e[,4],g[,25]*e[,1],g[,35]*e[,2],g[,36]*e[,4],g[,40]*e[,1],g[,43]*e[,2]

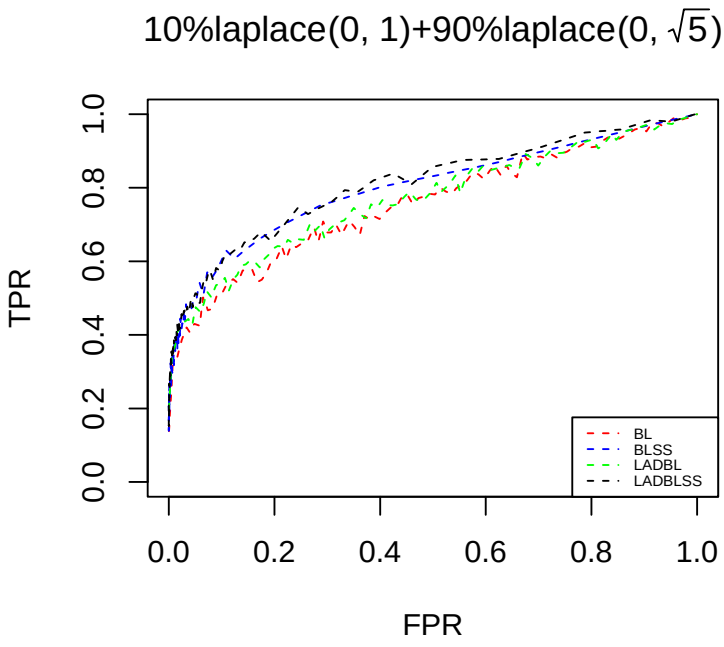
n=200, p=500, seq(0,1,by=0.01), rep=30

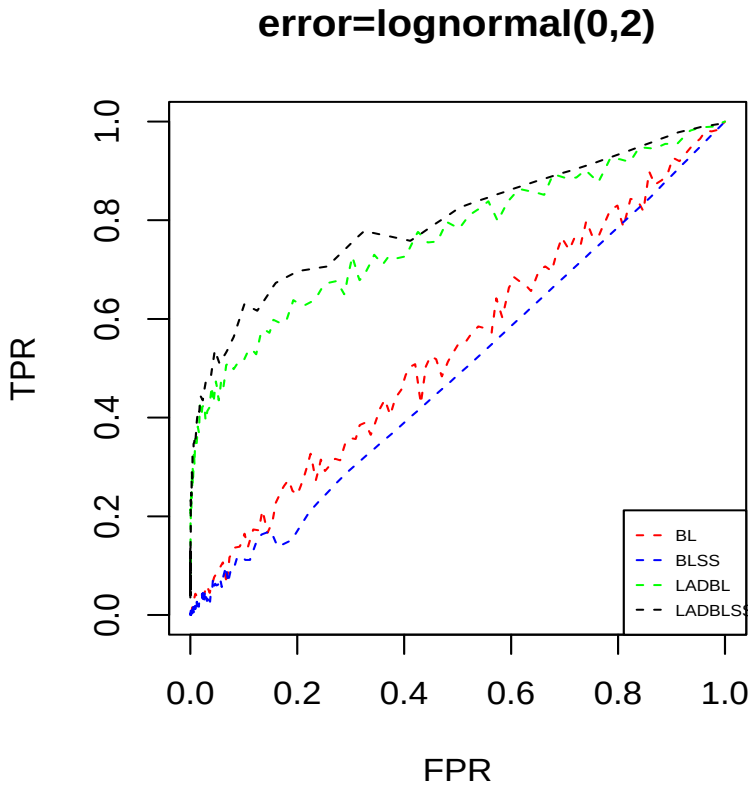
coefficients: (0.1, 0.5)

| error | | BL | BLSS | LADBL | LADBLSS |
|---|---|---|---|---|---|
| n(0,1) | AUC | 0.8413 | 0.8995 | 0.8294 | 0.8814 |
| | SD | 0.0066 | 0.0179 | 0.0096 | 0.0101 |
| t(2) | AUC | 0.7716 | 0.8138 | 0.8092 | 0.8598 |
| | SD | 0.0085 | 0.0288 | 0.0073 | 0.0123 |
| 10%laplace(0,1) +90% laplace(0,sqrt(5)) | AUC | 0.7570 | 0.8014 | 0.7712 | 0.8124 |
| | SD | 0.0089 | 0.0253 | 0.0087 | 0.0129 |
| lognorm(0,2) | AUC | 0.5385 | 0.4917 | 0.7654 | 0.8001 |
| | SD | 0.0123 | 0.0403 | 0.0127 | 0.0212 |
| lognorm(0,1) | AUC | 0.7863 | 0.8090 | 0.8080 | 0.8268 |
| | SD | 0.0063 | 0.0192 | 0.0079 | 0.0105 |


error=n(0,1)
TPR
FPR
0.0
0.4
0.8
0.0
0.2
0.4
0.6
0.8
1.0
BL
BLSS
LADBL
LADBLSS


error=t(2)
TPR
FPR
0.0
0.2
0.4
0.6
0.8
1.0
0.0
0.2
0.4
0.6
0.8
1.0
BL
BLSS
LADBL
LADBLSS


10%laplace(0, 1)+90%laplace(0, √5)
TPR
FPR
0.0
0.2
0.4
0.6
0.8
1.0
BL
BLSS
LADBL
LADBLSS


error=lognormal(0,2)
TPR
FPR
0.0
0.2
0.4
0.6
0.8
1.0
BL
BLSS
LADBL
LADBLSS