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

TCGA

coefficients: (0.1, 0.5)

| | | BL | | | BLSS | | | |
|------------------------------------|--------|------|-------------|-------|------|-------------|-------|--|
| error | | main | interaction | total | main | interaction | total | |
| n(0,1) | Top100 | 3.3 | 1.63 | 4.93 | 3.07 | 3.53 | 6.6 | |
| | SD | 0.88 | 1.19 | 1.34 | 1.23 | 1.89 | 2.55 | |
| t(2) | Top100 | 2.1 | 1 | 3.1 | 3.1 | 3.17 | 6.27 | |
| | SD | 1.21 | 1.05 | 1.60 | 1.94 | 2.59 | 4.05 | |
| lognorm(0,2) | Top100 | 0.27 | 0.33 | 0.6 | 0.6 | 0.7 | 1.3 | |
| | SD | 0.58 | 0.61 | 0.93 | 0.97 | 0.88 | 1.58 | |
| 90% n(0,1) + 10% Cauchy(0,1) | Top100 | 1.97 | 1.43 | 3.4 | 3.53 | 3.43 | 6.97 | |
| | SD | 1.63 | 1.30 | 2.59 | 1.63 | 2.28 | 3.44 | |
| 80% n(0,1) + 20% Cauchy(0,1) | Top100 | 2.03 | 1.13 | 3.17 | 2.9 | 2.6 | 5.5 | |
| | SD | 1.47 | 1.28 | 2.34 | 1.81 | 2.09 | 3.54 | |

top12, top22, top3, top4, top5

| | | LADBL | | | LADBLSS | | | |
|------------------------------------|--------|-------|-------------|-------|---------|-------------|-------|--|
| error | | main | interaction | total | main | interaction | total | |
| n(0,1) | Top100 | 3.5 | 2.27 | 5.77 | 4.7 | 5.9 | 10.6 | |
| | SD | 1.28 | 1.17 | 1.94 | 1.37 | 1.84 | 2.31 | |
| t(2) | Top100 | 2.93 | 1.67 | 4.6 | 4.5 | 6.13 | 10.63 | |
| | SD | 1.11 | 1.18 | 1.79 | 1.33 | 1.91 | 2.75 | |
| lognorm(0,2) | Top100 | 2.97 | 1 | 3.97 | 3.7 | 4.9 | 8.6 | |
| | SD | 1.25 | 0.74 | 1.33 | 1.56 | 2.25 | 3.16 | |
| 90% n(0,1) + 10% Cauchy(0,1) | Top100 | 3.5 | 2.6 | 6.1 | 4.7 | 6.03 | 10.73 | |
| | SD | 1.17 | 1.30 | 1.81 | 1.32 | 2.03 | 2.64 | |
| 80% n(0,1) + 20% Cauchy(0,1) | Top100 | 3.43 | 2.23 | 5.67 | 5.53 | 7 | 12.53 | |
| | SD | 1.41 | 1.07 | 1.47 | 1.50 | 2.07 | 3.09 | |