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 |
| lognorm(0,2) | AUC | 0.5343 | 0.5473 | 0.8432 | 0.9558 |
| SD | 0.0144 | 0.0576 | 0.0115 | 0.0161 |
| 90% n(0,1) + 10% Cauchy(0,1) | AUC | 0.8221 | 0.9124 | 0.9222 | 0.9895 |
| SD | 0.0212 | 0.0410 | 0.0071 | 0.0024 |
| 80% n(0,1) + 20% Cauchy(0,1) | AUC | 0.7507 | 0.8431 | 0.9192 | 0.9904 |
| SD | 0.0217 | 0.0633 | 0.0059 | 0.0018 |

 

 



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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=1000, seq(0,1,by=0.01), rep=30

coefficients: (0.1, 0.5)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| error |  | BL | BLSS | LADBL | LADBLSS |
| n(0,1) | AUC | 0.9194 | 0.9912 | 0.9273 | 0.9898 |
| SD | 0.0069 | 0.0015 | 0.0074 | 0.0022 |
| t(2) | AUC | 0.8301 | 0.9492 | 0.8995 | 0.9842 |
| SD | 0.01294 | 0.0190 | 0.0078 | 0.0044 |
| lognorm(0,2) | AUC | 0.5407 | 0.5455 | 0.8436 | 0.9609 |
| SD | 0.0125 | 0.0666 | 0.0098 | 0.0138 |
| 90% n(0,1) + 10% Cauchy(0,1) | AUC | 0.8248 | 0.9202 | 0.9248 | 0.9899 |
| SD | 0.0158 | 0.0345 | 0.0055 | 0.0026 |
| 80% n(0,1) + 20% Cauchy(0,1) | AUC | 0.7538 | 0.8109 | 0.9201 | 0.9899 |
| SD | 0.0169 | 0.0905 | 0.0059 | 0.0024 |

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 |
| lognorm(0,2) | AUC | 0.5385 | 0.4917 | 0.7654 | 0.8001 |
| SD | 0.0123 | 0.0403 | 0.0127 | 0.0212 |
| 90% n(0,1) + 10% Cauchy(0,1) | AUC | 0.7620 | 0.7679 | 0.8263 | 0.8715 |
| SD | 0.0096 | 0.0635 | 0.0078 | 0.0141 |
| 80% n(0,1) + 20% Cauchy(0,1) | AUC | 0.7121 | 0.6995 | 0.8201 | 0.8675 |
| SD | 0.0167 | 0.0765 | 0.0088 | 0.0129 |

 

 



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=1000, seq(0,1,by=0.01), rep=30

coefficients: (0.1, 0.5)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| error |  | BL | BLSS | LADBL | LADBLSS |
| n(0,1) | AUC | 0.8422 | 0.9008 | 0.8280 | 0.8756 |
| SD | 0.0065 | 0.0235 | 0.0082 | 0.0121 |
| t(2) | AUC | 0.7726 | 0.8115 | 0.8065 | 0.8575 |
| SD | 0.0088 | 0.0349 | 0.0078 | 0.0126 |
| lognorm(0,2) | AUC | 0.5348 | 0.4941 | 0.7696 | 0.7973 |
| SD | 0.0134 | 0.0505 | 0.0098 | 0.0228 |
| 90% n(0,1) + 10% Cauchy(0,1) | AUC | 0.7661 | 0.7840 | 0.8275 | 0.8719 |
| SD | 0.0087 | 0.0385 | 0.0071 | 0.0094 |
| 80% n(0,1) + 20% Cauchy(0,1) | AUC | 0.7115 | 0.6952 | 0.8239 | 0.8714 |
| SD | 0.0145 | 0.0644 | 0.0081 | 0.0140 |