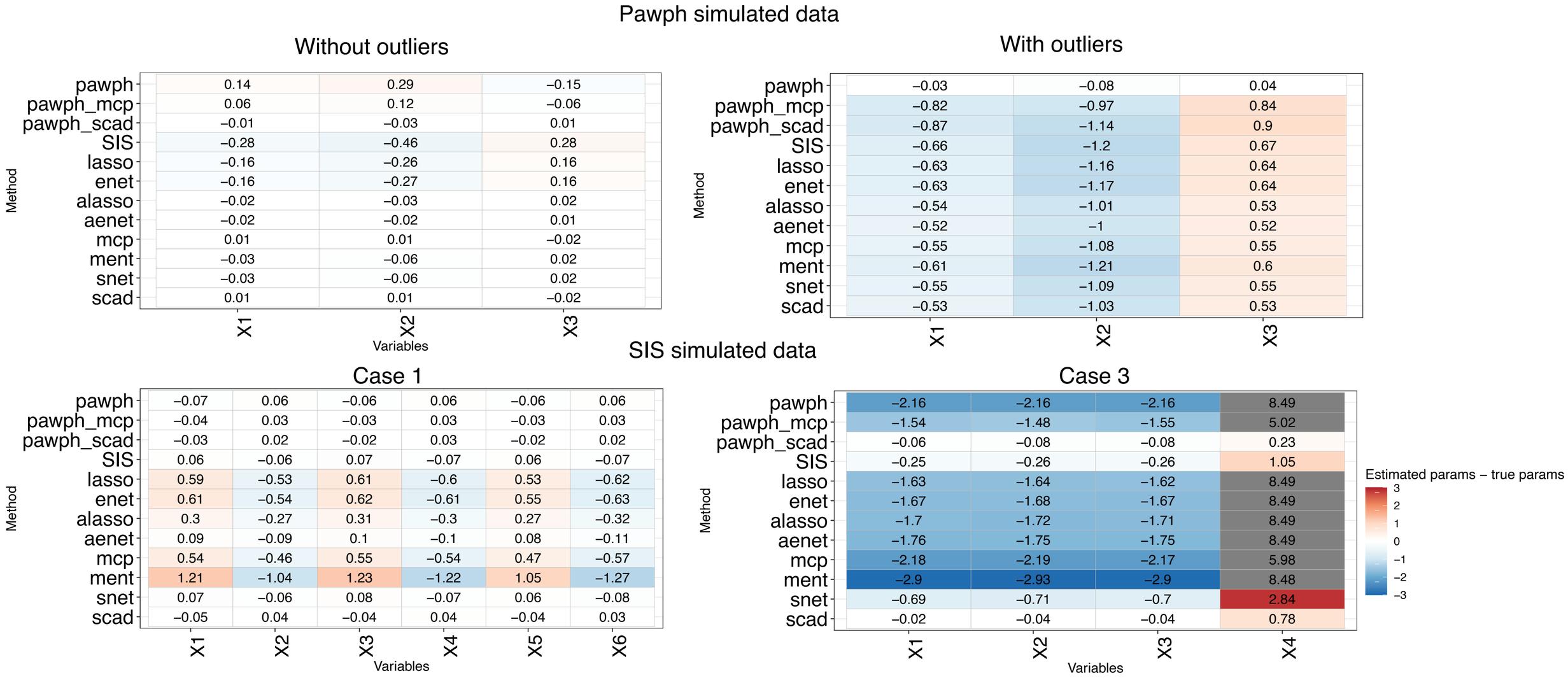
Pawph simulated data
Without outliers
pawph 0.14 0.29 −0.15
pawph_mcp 0.06 0.12 −0.06
pawph_scad −0.01 −0.03 0.01
SIS −0.28 −0.46 0.28
lasso −0.16 −0.26 0.16
enet −0.16 −0.27 0.16
alasso −0.02 −0.03 0.02
aenet −0.02 −0.02 0.01
mcp 0.01 0.01 −0.02
ment −0.03 −0.06 0.02
snet −0.03 −0.06 0.02
scad 0.01 0.01 −0.02
Method
X1 X2 X3
Variables
With outliers
pawph −0.03 −0.08 0.04
pawph_mcp −0.82 −0.97 0.84
pawph_scad −0.87 −1.14 0.9
SIS −0.66 −1.2 0.67
lasso −0.63 −1.16 0.64
enet −0.63 −1.17 0.64
alasso −0.54 −1.01 0.53
aenet −0.52 −1 0.52
mcp −0.55 −1.08 0.55
ment −0.61 −1.21 0.6
snet −0.55 −1.09 0.55
scad −0.53 −1.03 0.53
Method
X1 X2 X3
SIS simulated data
Case 1
pawph −0.07 0.06 −0.06 0.06 −0.06 0.06
pawph_mcp −0.04 0.03 −0.03 0.03 −0.03 0.03
pawph_scad −0.03 0.02 −0.02 0.03 −0.02 0.02
SIS 0.06 −0.06 0.07 −0.07 0.06 −0.07
lasso 0.59 −0.53 0.61 −0.6 0.53 −0.62
enet 0.61 −0.54 0.62 −0.61 0.55 −0.63
alasso 0.3 −0.27 0.31 −0.3 0.27 −0.32
aenet 0.09 −0.09 0.1 −0.1 0.08 −0.11
mcp 0.54 −0.46 0.55 −0.54 0.47 −0.57
ment 1.21 −1.04 1.23 −1.22 1.05 −1.27
snet 0.07 −0.06 0.08 −0.07 0.06 −0.08
scad −0.05 0.04 −0.04 0.04 −0.04 0.03
Method
X1 X2 X3 X4 X5 X6
Variables
Case 3
pawph −2.16 −2.16 −2.16 8.49
pawph_mcp −1.54 −1.48 −1.55 5.02
pawph_scad −0.06 −0.08 −0.08 0.23
SIS −0.25 −0.26 −0.26 1.05
lasso −1.63 −1.64 −1.62 8.49
enet −1.67 −1.68 −1.67 8.49
alasso −1.7 −1.72 −1.71 8.49
aenet −1.76 −1.75 −1.75 8.49
mcp −2.18 −2.19 −2.17 5.98
ment −2.9 −2.93 −2.9 8.48
snet −0.69 −0.71 −0.7 2.84
scad −0.02 −0.04 −0.04 0.78
Method
X1 X2 X3 X4
Variables
Estimated params − true params
3
2
1
0
−1
−2
−3