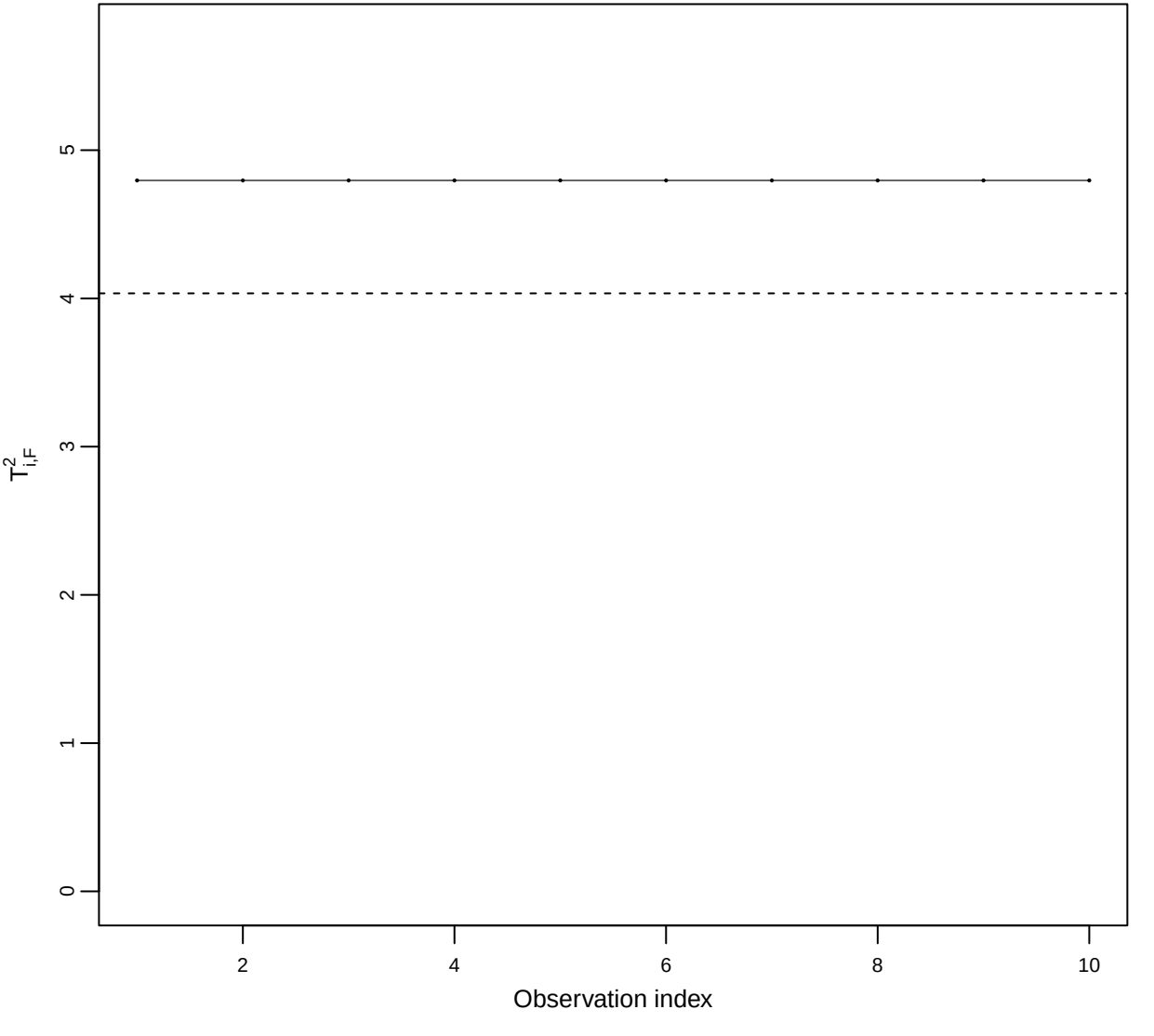
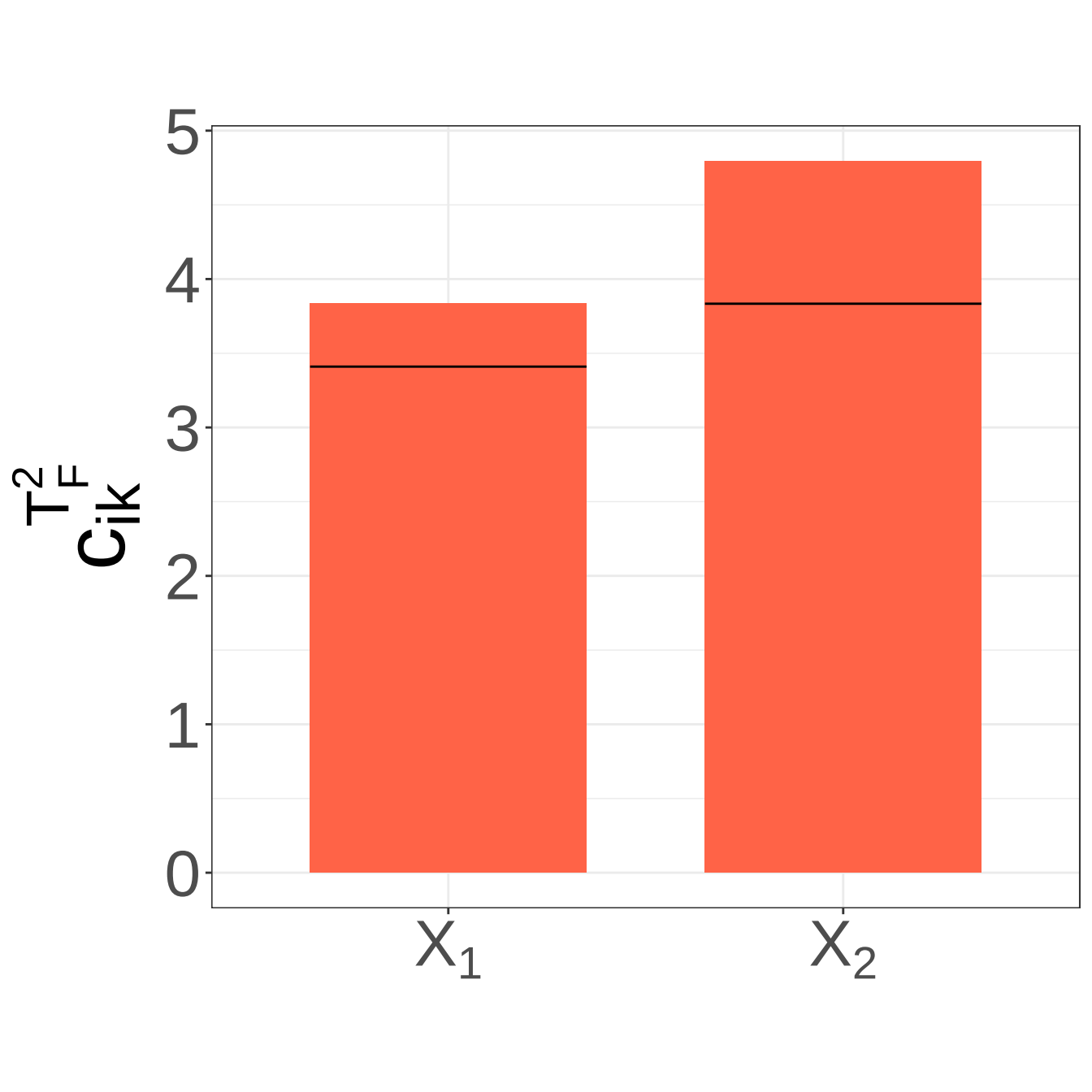
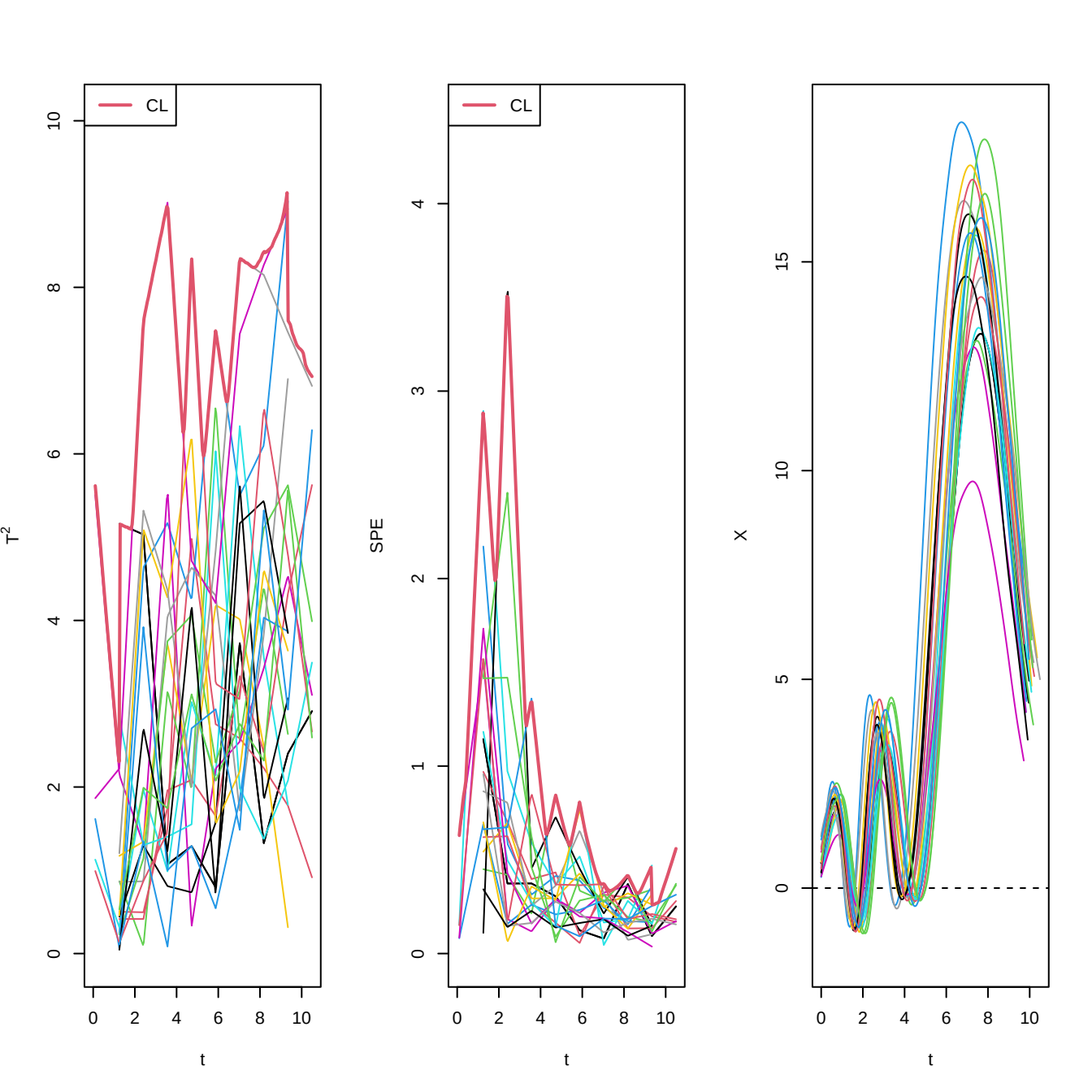
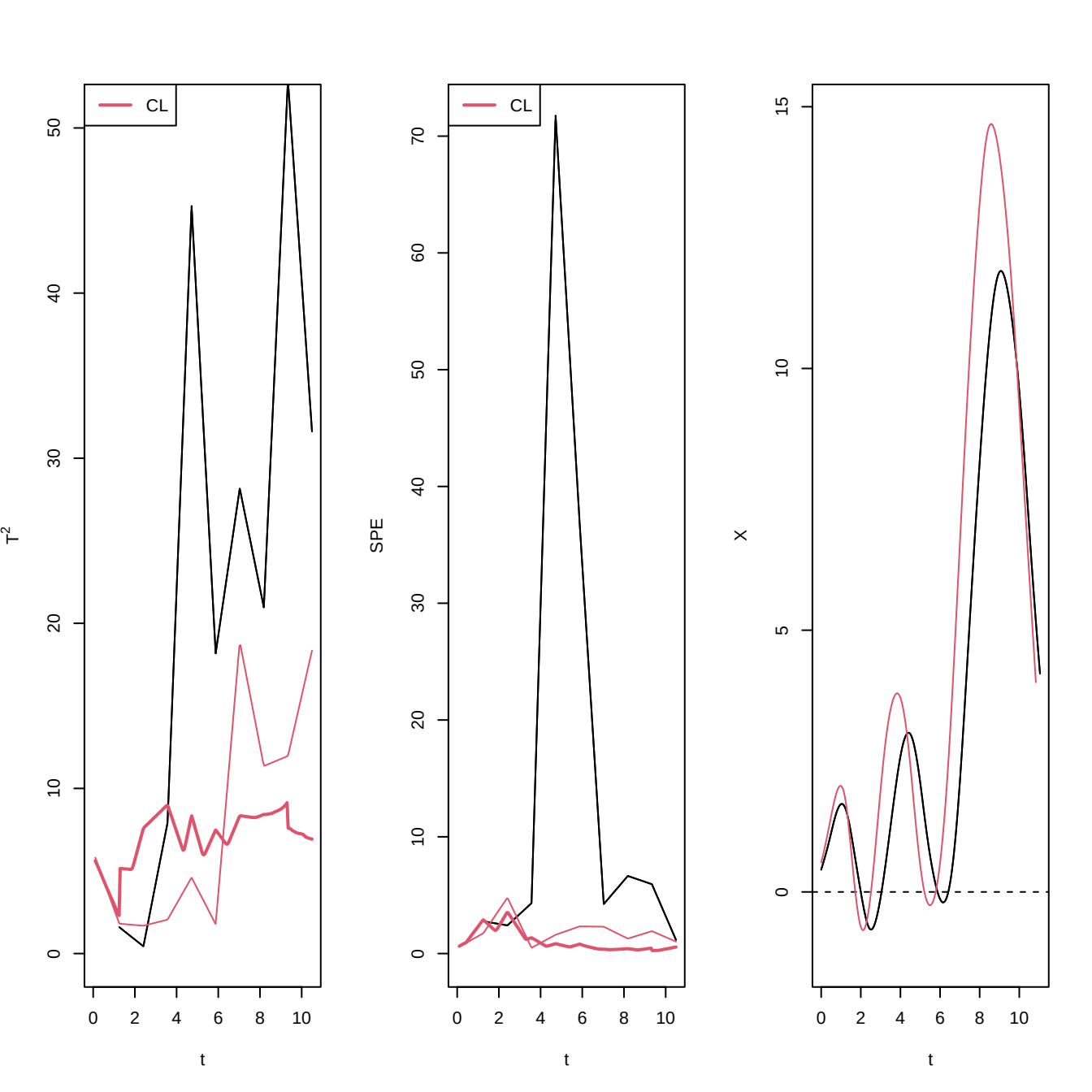
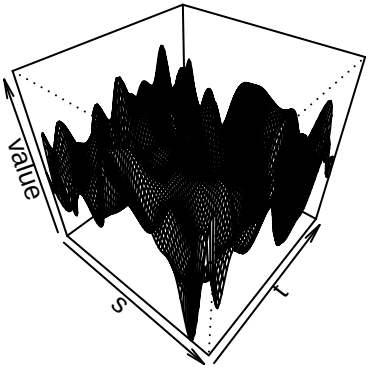

$T^2_{i,F}$
0
1
2
3
4
5
2
4
6
8
10
Observation index


$T^2_{F\,cik}$
5
4
3
2
1
0
X_1
X_2

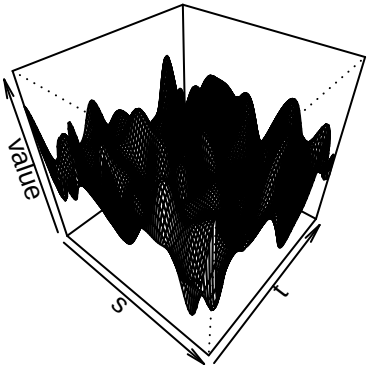

CL
T^2
t
CL
SPE
t
X
t


CL
T^2
0
10
20
30
40
50
0
2
4
6
8
10
t
CL
SPE
0
10
20
30
40
50
60
70
0
2
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6
8
10
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X
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5
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15
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2
4
6
8
10
t

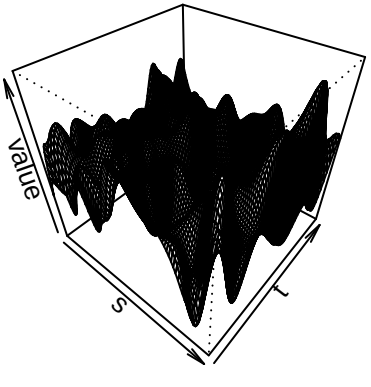
var1 vs var1



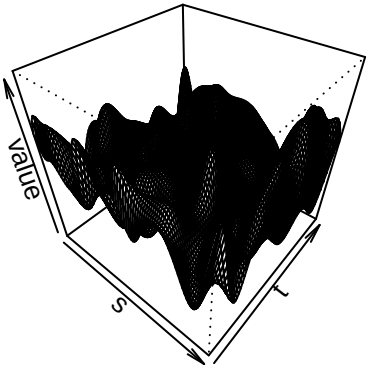
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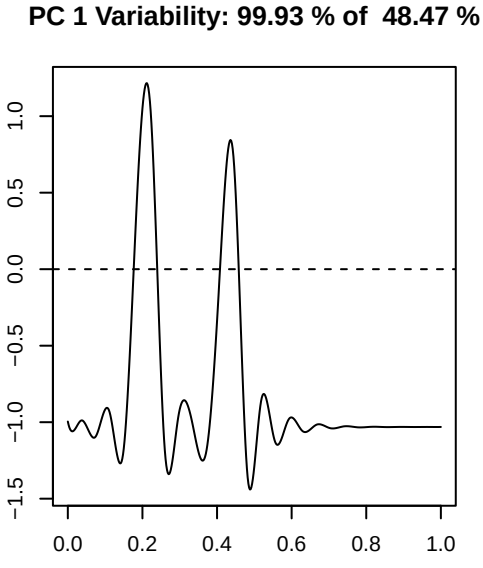


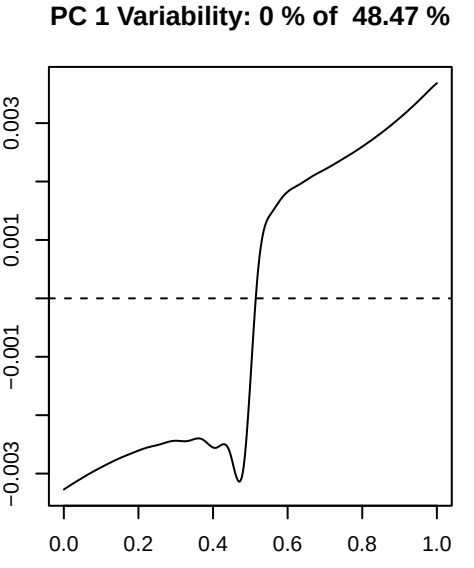
var1 vs var2

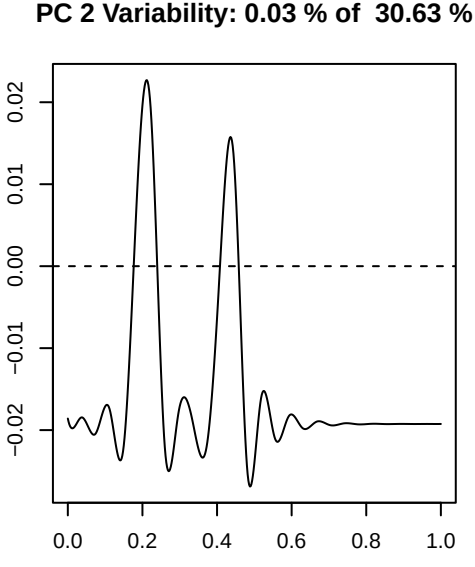


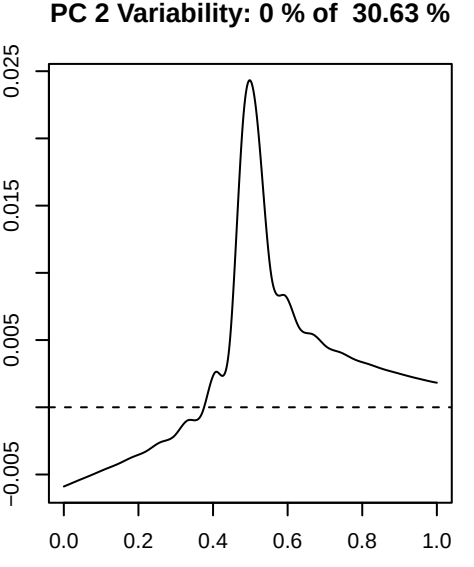
var2 vs var2

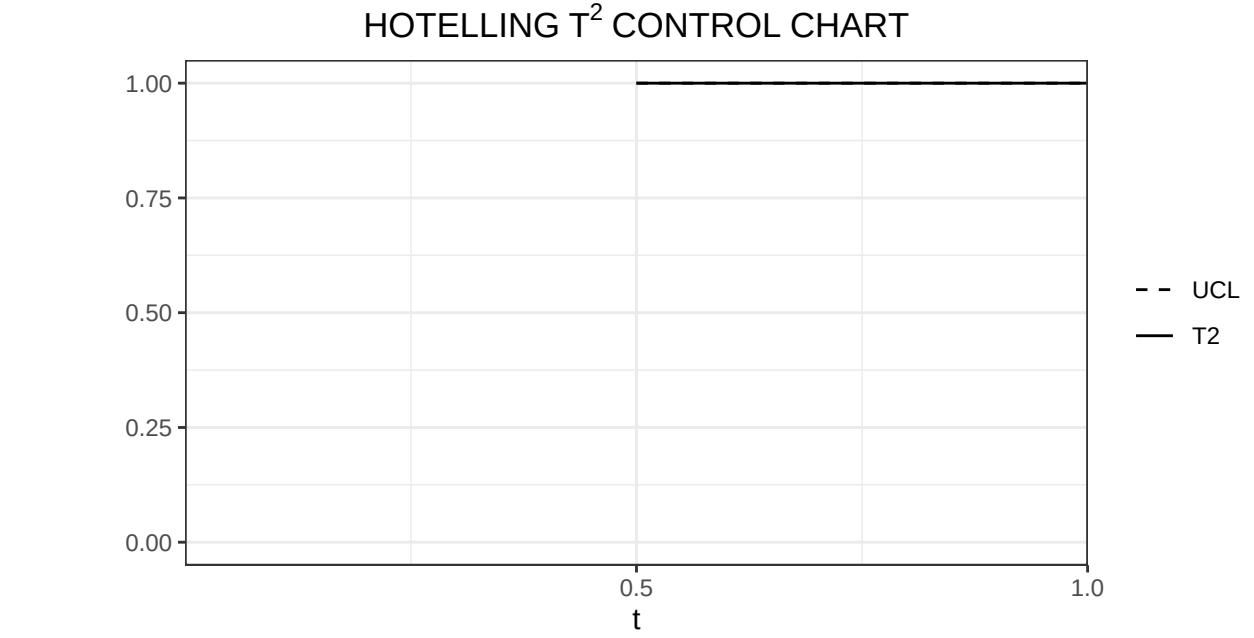


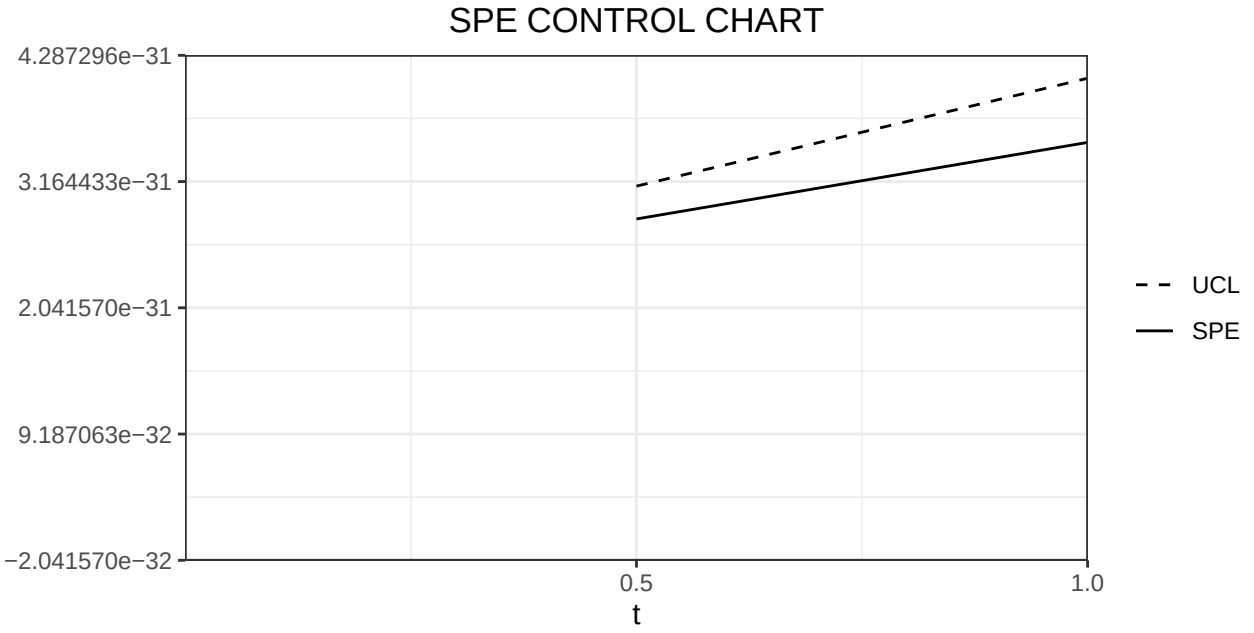

PC 1 Variability: 99.93 % of 48.47 %
1.0
0.5
0.0
−0.5
−1.0
−1.5
0.0
0.2
0.4
0.6
0.8
1.0

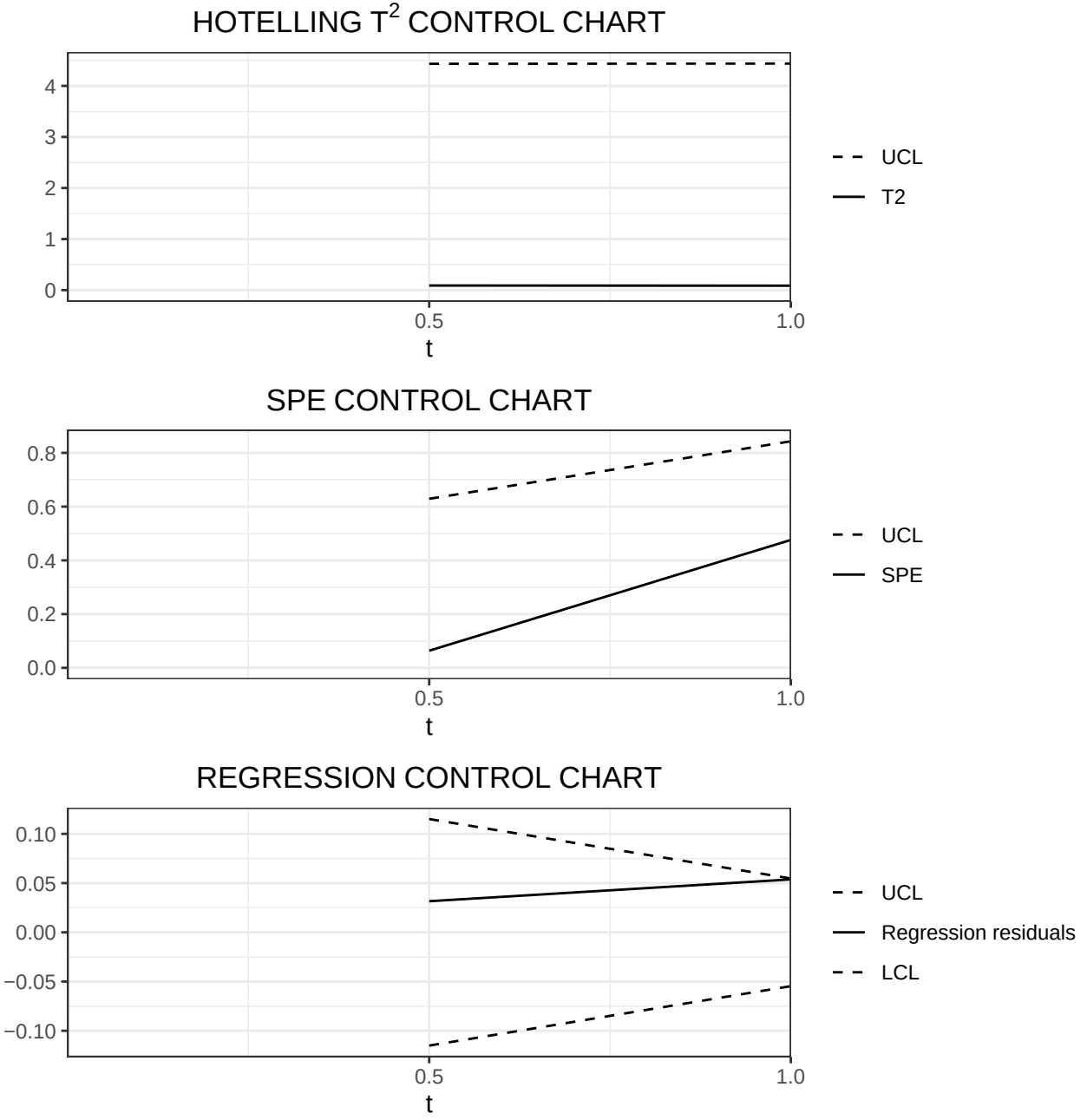

PC 1 Variability: 0 % of 48.47 %
0.003
0.001
−0.001
−0.003
0.0
0.2
0.4
0.6
0.8
1.0


PC 2 Variability: 0.03 % of 30.63 %
0.02
0.01
0.00
−0.01
−0.02
0.0
0.2
0.4
0.6
0.8
1.0


PC 2 Variability: 0 % of 30.63 %
0.025
0.015
0.005
−0.005
0.0
0.2
0.4
0.6
0.8
1.0


HOTELLING T2 CONTROL CHART
1.00
0.75
0.50
0.25
0.00
0.5
1.0
t
UCL
T2


SPE CONTROL CHART
4.287296e−31
3.164433e−31
2.041570e−31
9.187063e−32
−2.041570e−32
0.5
1.0
t
UCL
SPE


HOTELLING T2 CONTROL CHART
4
3
2
1
0
0.5
1.0
t
UCL
T2
SPE CONTROL CHART
0.8
0.6
0.4
0.2
0.0
0.5
1.0
t
UCL
SPE
REGRESSION CONTROL CHART
0.10
0.05
0.00
−0.05
−0.10
0.5
1.0
t
UCL
Regression residuals
LCL