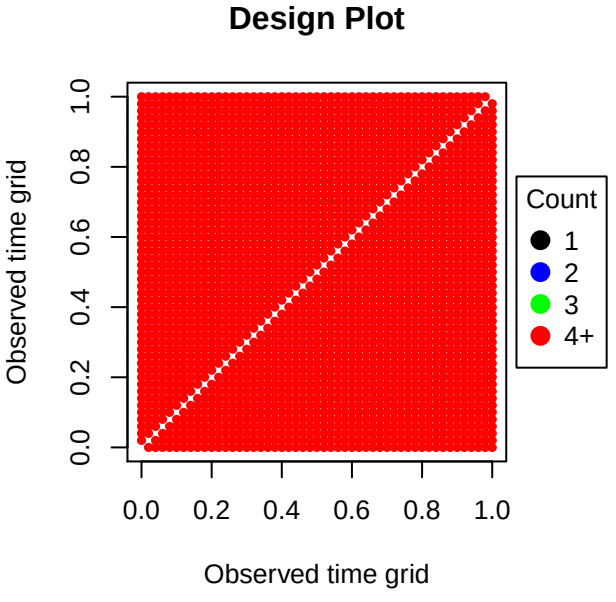
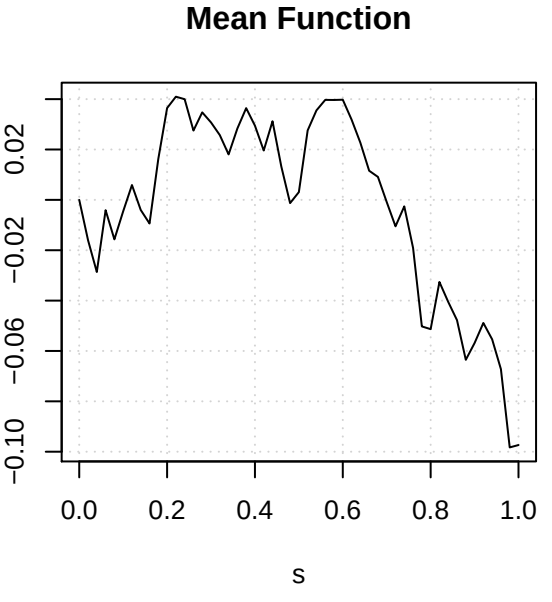
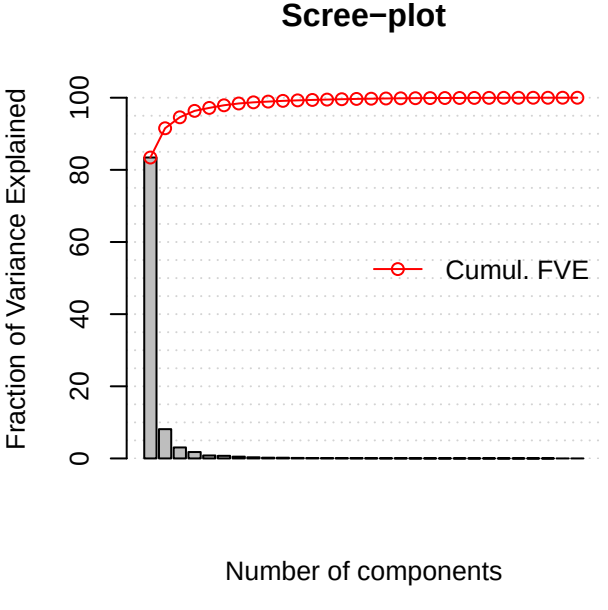
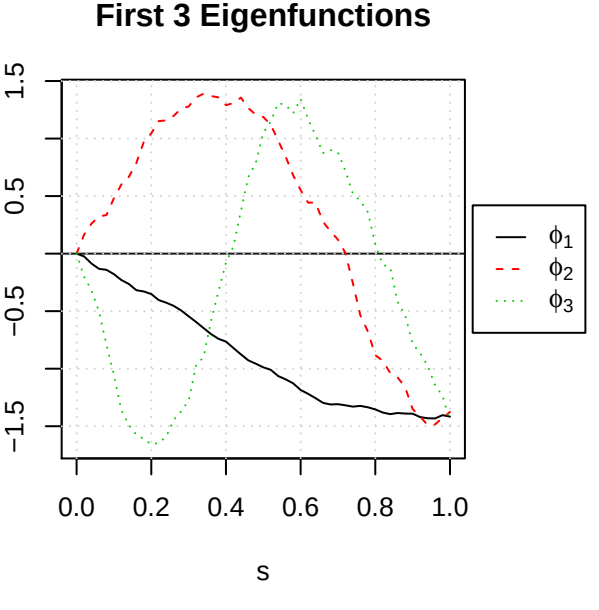
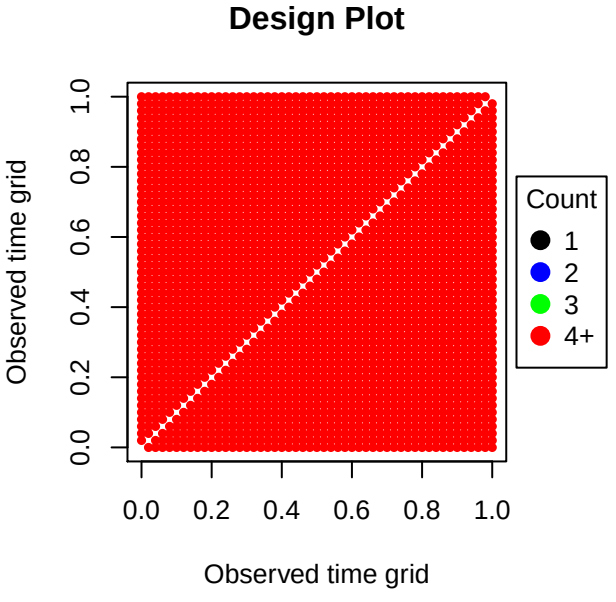
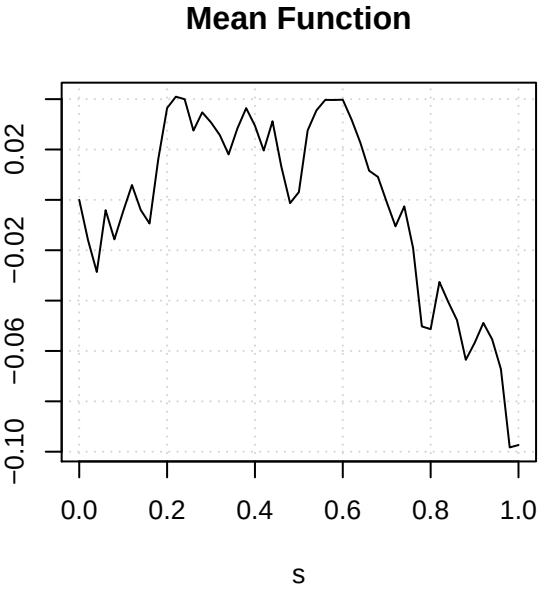

Design Plot
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Count
1
2
3
4+
Observed time grid

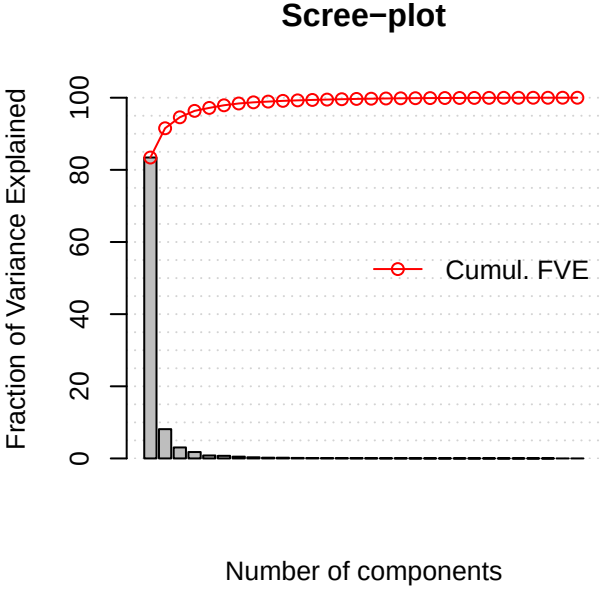

Mean Function
0.02
−0.02
−0.06
−0.10
0.0
0.2
0.4
0.6
0.8
1.0
s

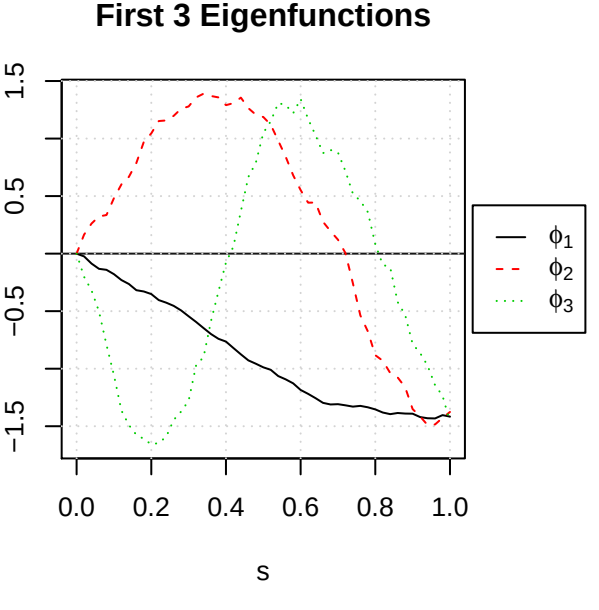

Scree−plot
Fraction of Variance Explained
0
20
40
60
80
100
Cumul. FVE
Number of components

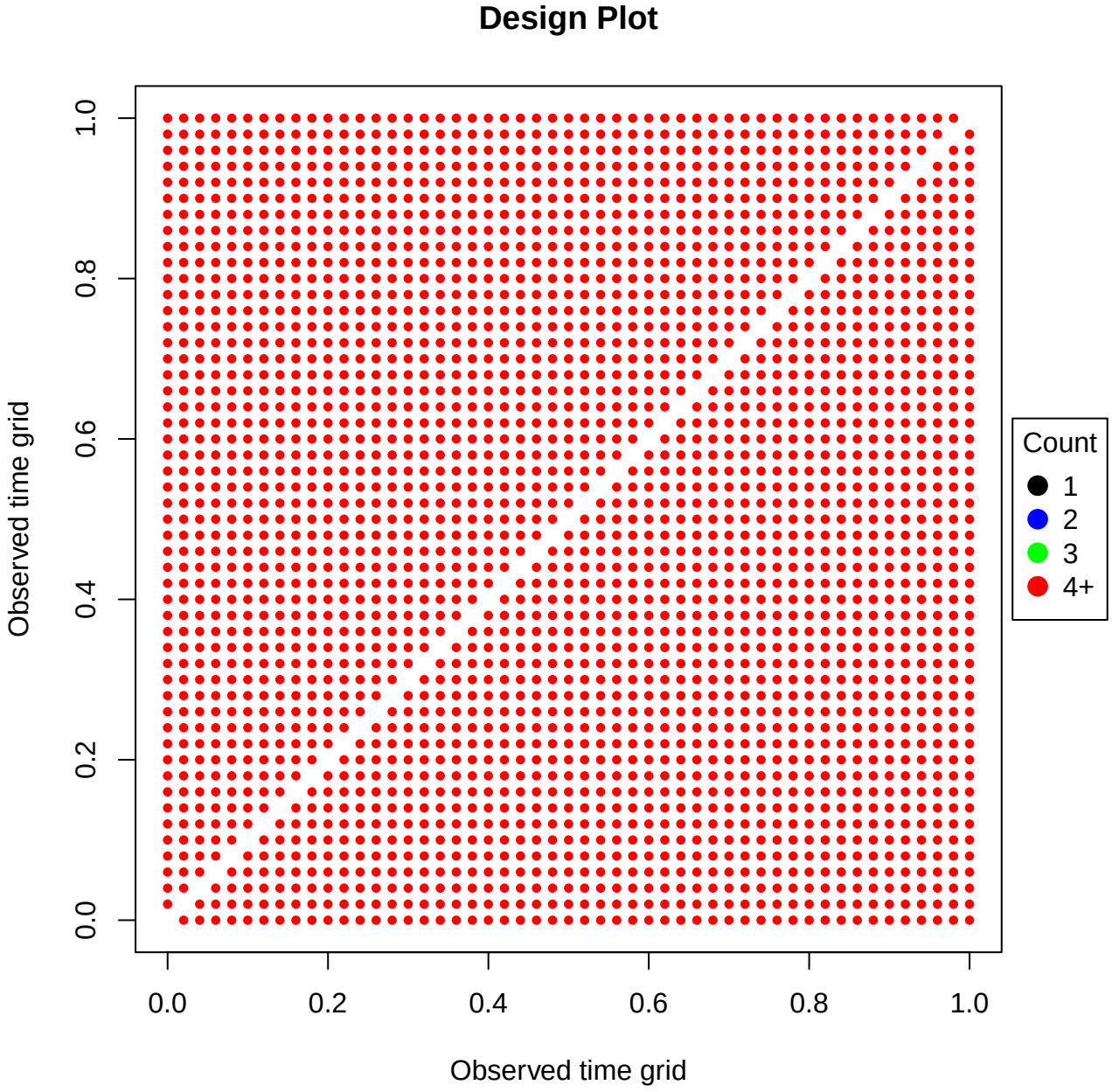

First 3 Eigenfunctions
1.5
0.5
−0.5
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
ϕ1
ϕ2
ϕ3
s

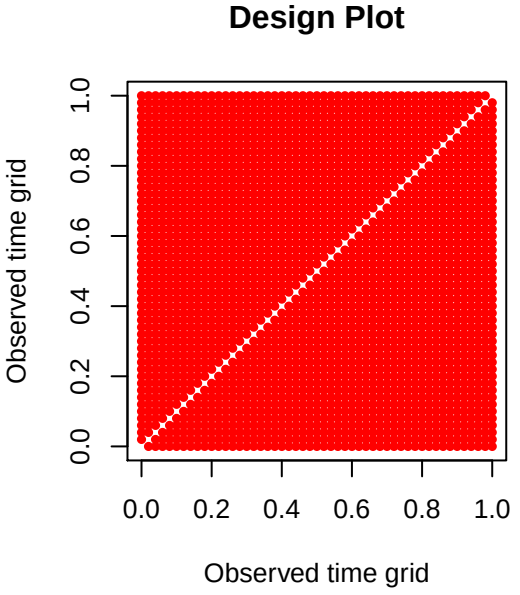

Design Plot
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Count
1
2
3
4+
Observed time grid

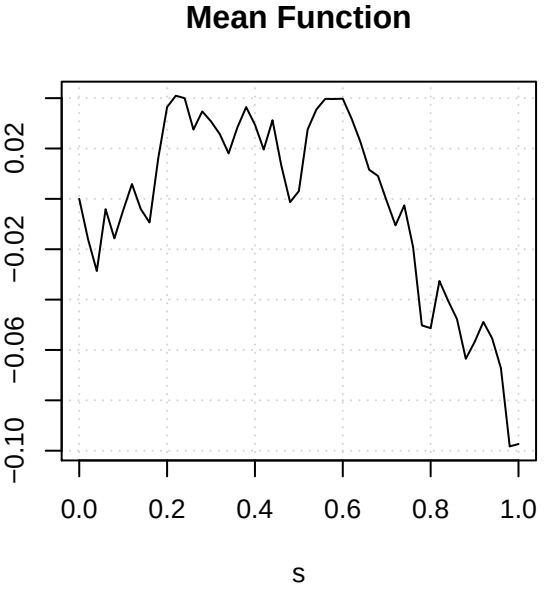

Mean Function
0.02
−0.02
−0.06
−0.10
0.0
0.2
0.4
0.6
0.8
1.0
s

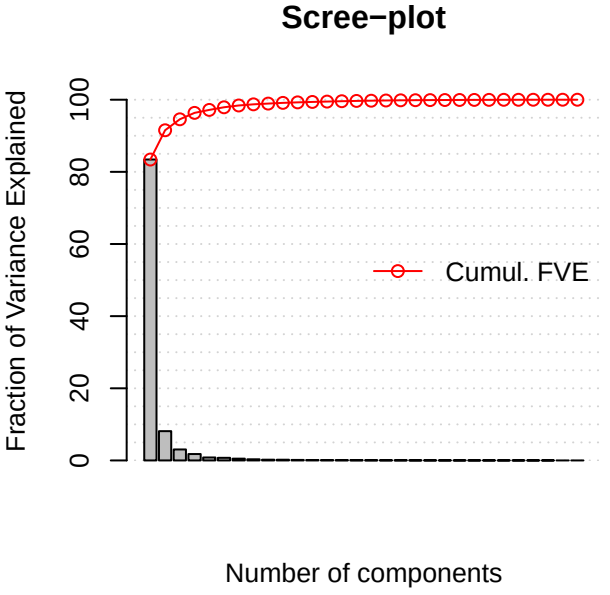

Scree−plot
Fraction of Variance Explained
0
20
40
60
80
100
Cumul. FVE
Number of components

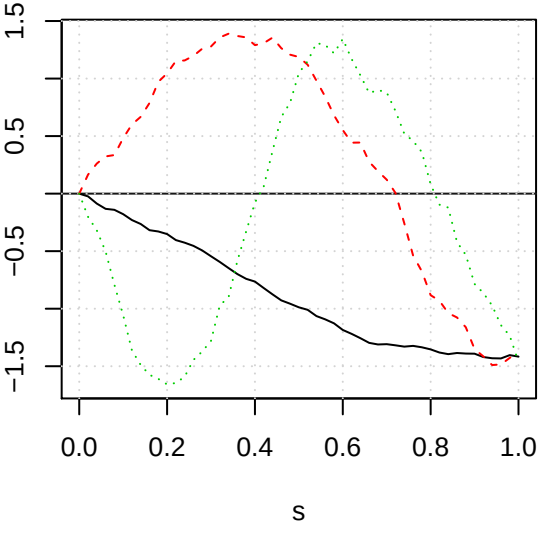

First 3 Eigenfunctions
1.5
0.5
−0.5
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
ϕ1
ϕ2
ϕ3
s

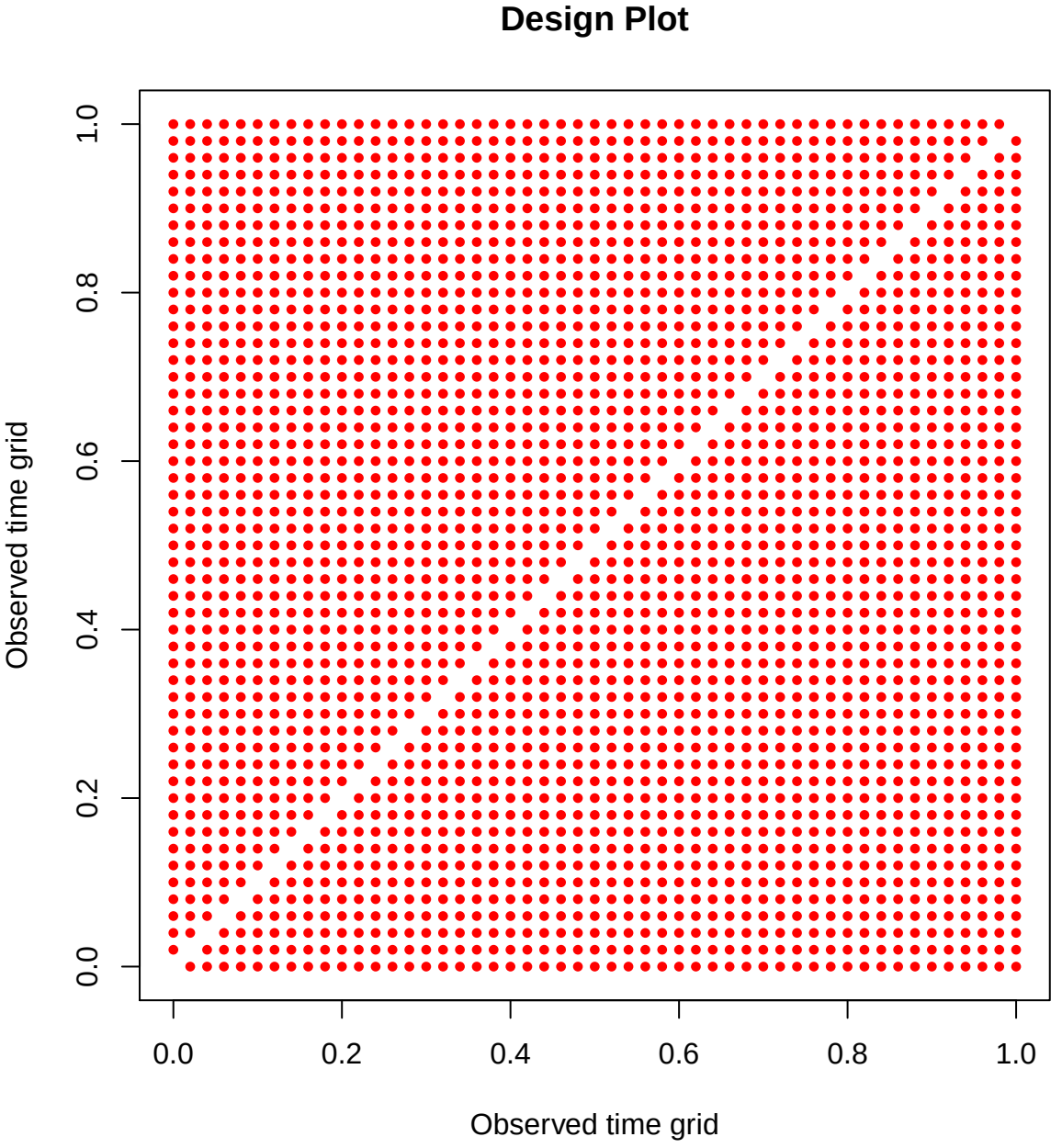

Design Plot
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Count
1
2
3
4+

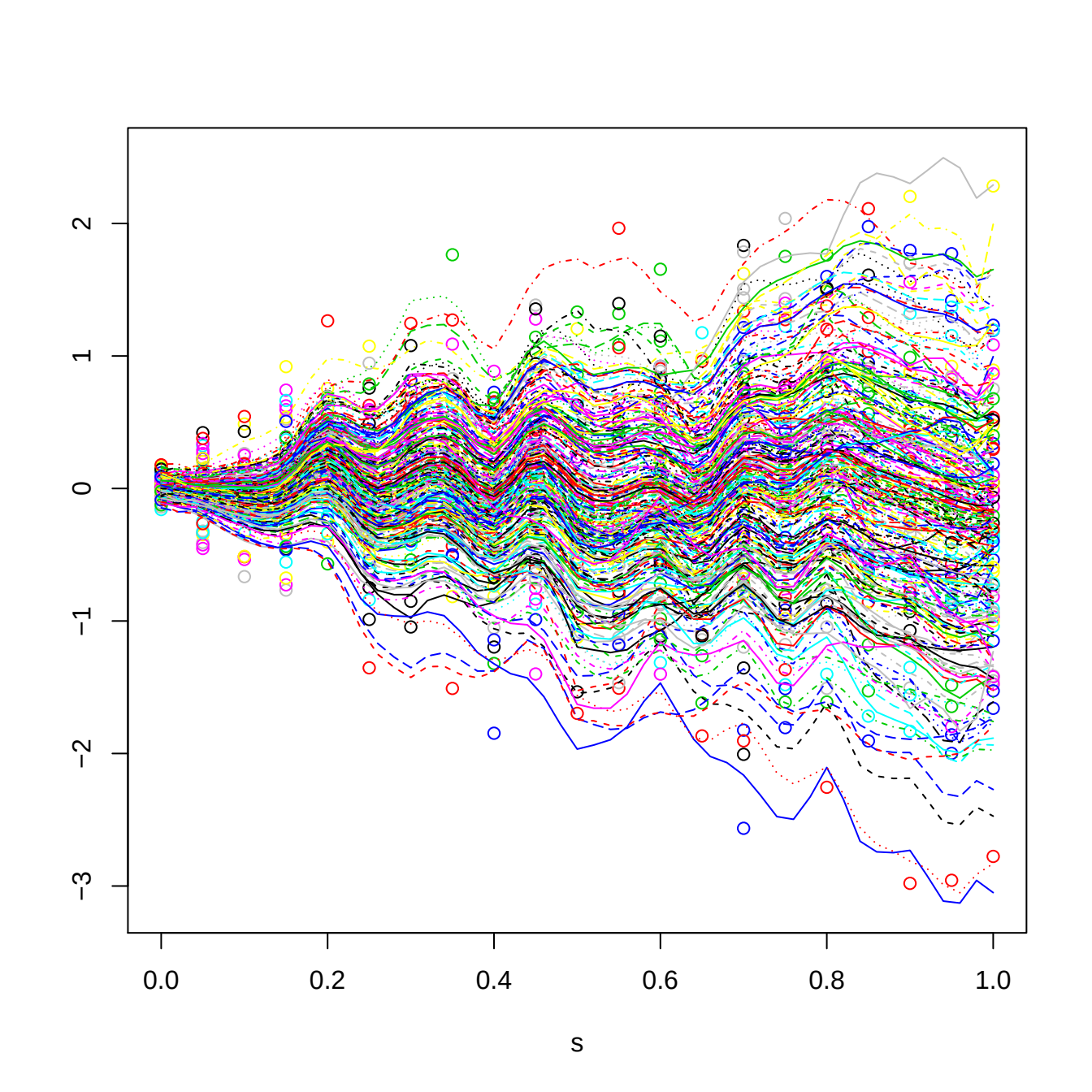

Design Plot
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Observed time grid

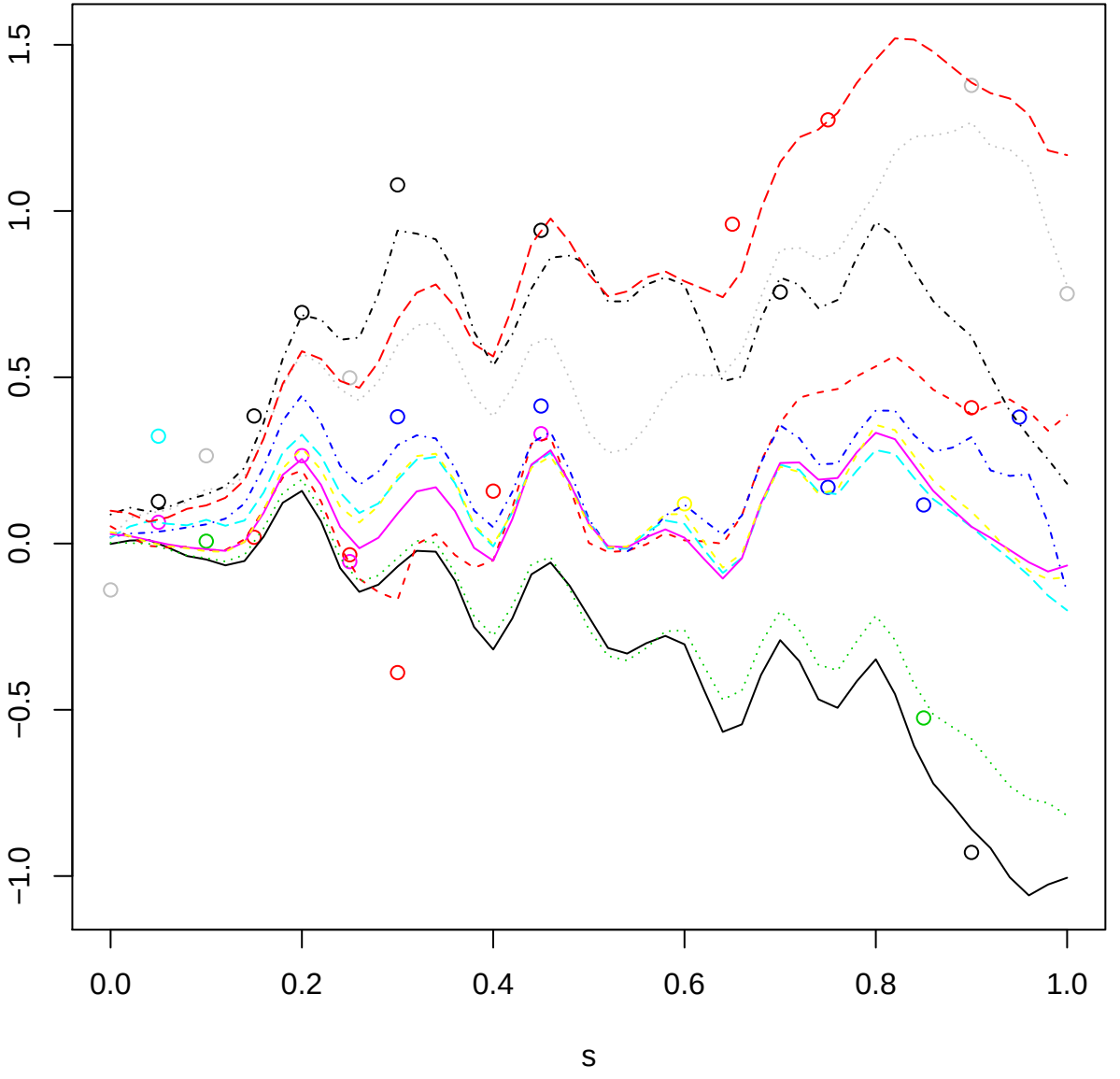

Mean Function
0.02
−0.02
−0.06
−0.10
0.0
0.2
0.4
0.6
0.8
1.0
s

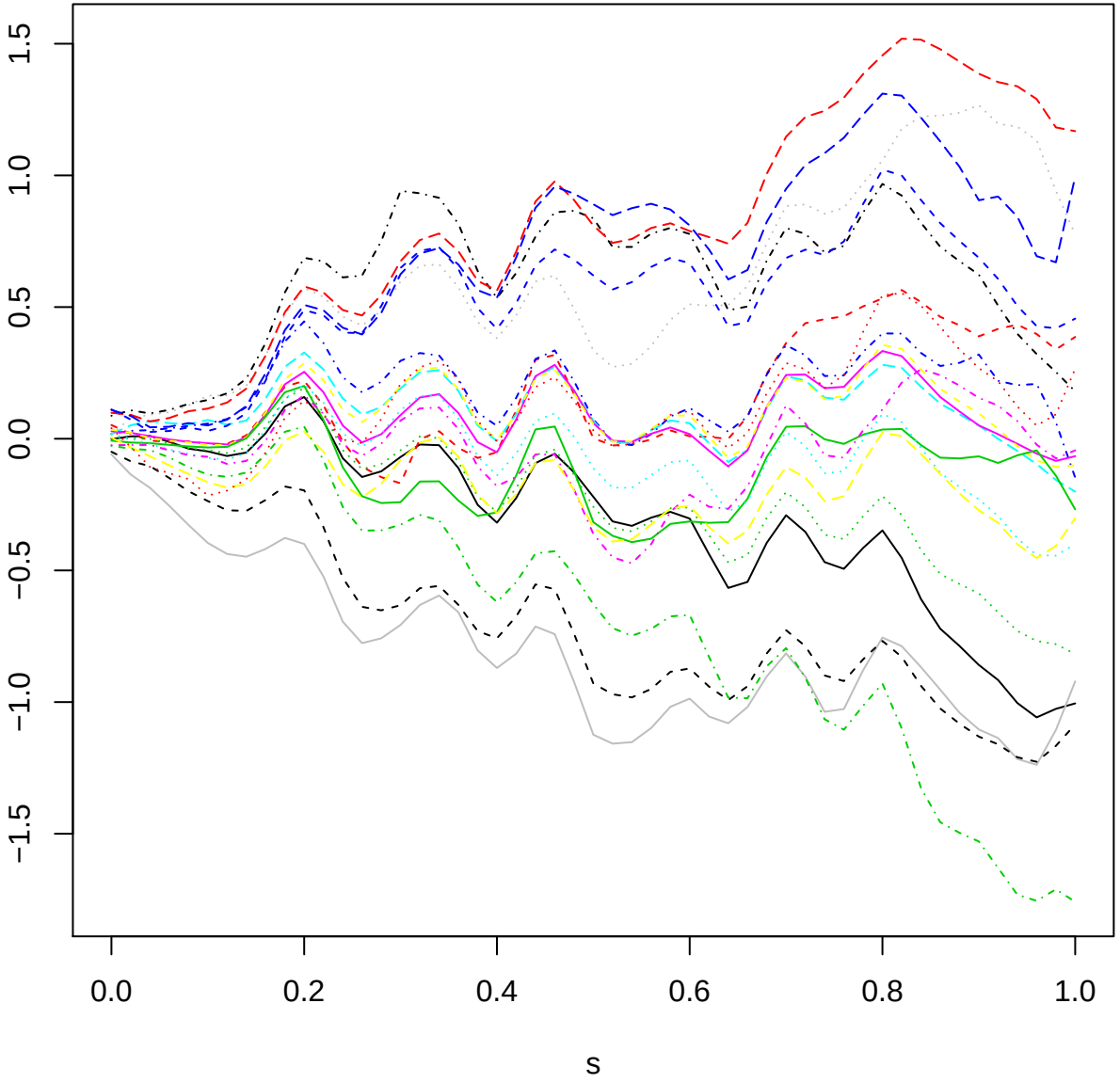

Scree−plot
Fraction of Variance Explained
0
20
40
60
80
100
Cumul. FVE
Number of components

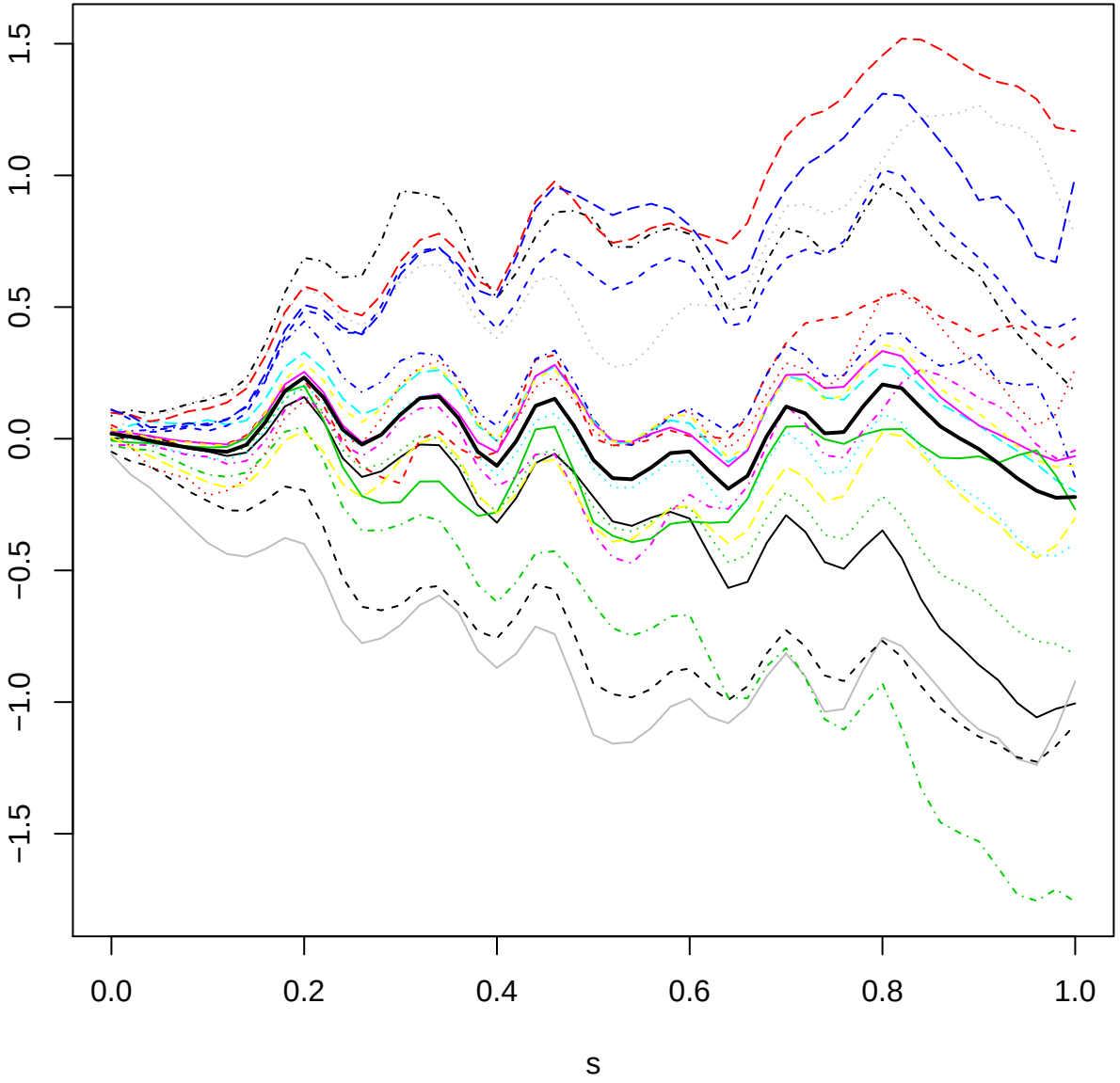

First 3 Eigenfunctions
1.5
0.5
−0.5
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s

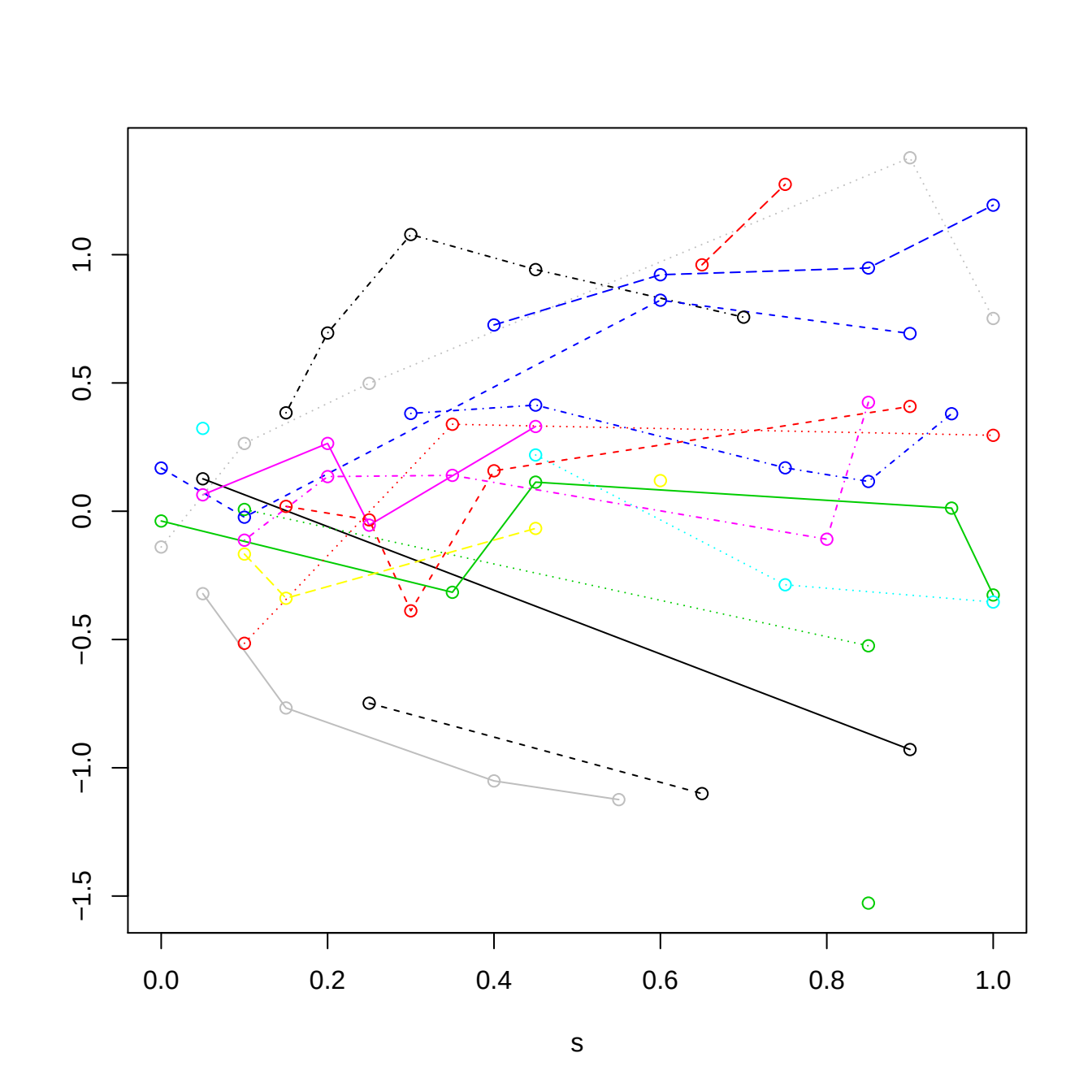

Design Plot
Observed time grid
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0

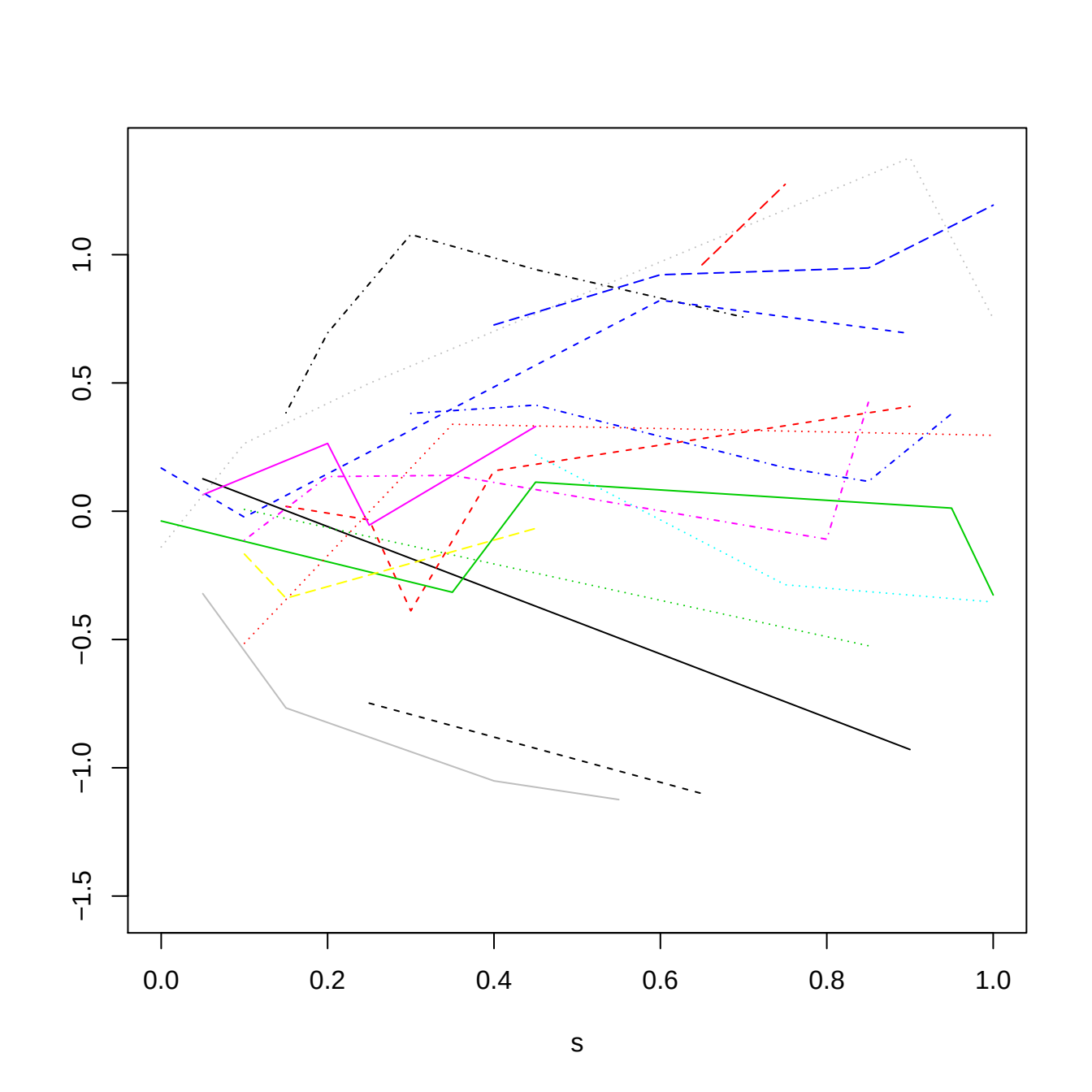

2
1
0
−1
−2
−3
0.0
0.2
0.4
0.6
0.8
1.0
s

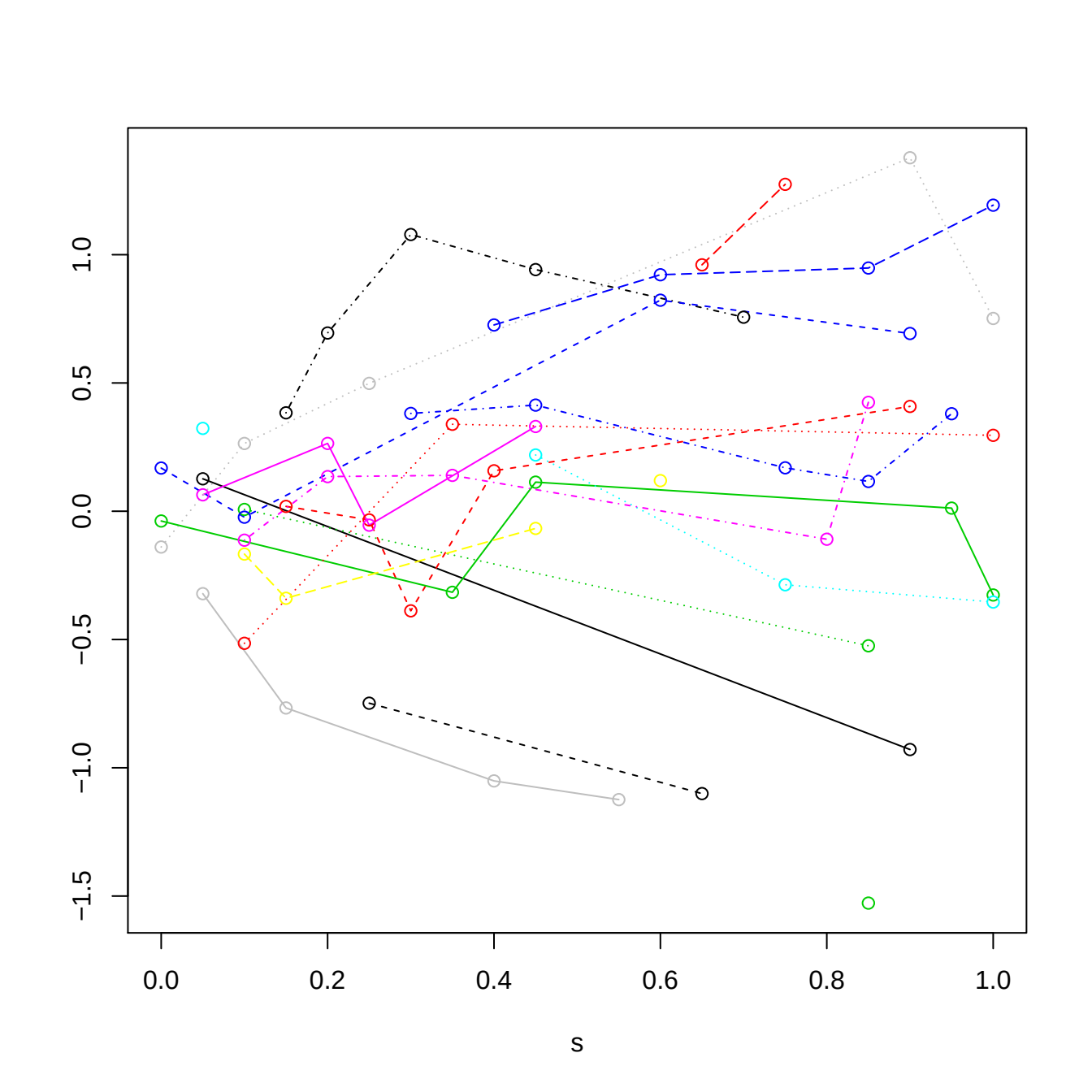

1.5
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
s

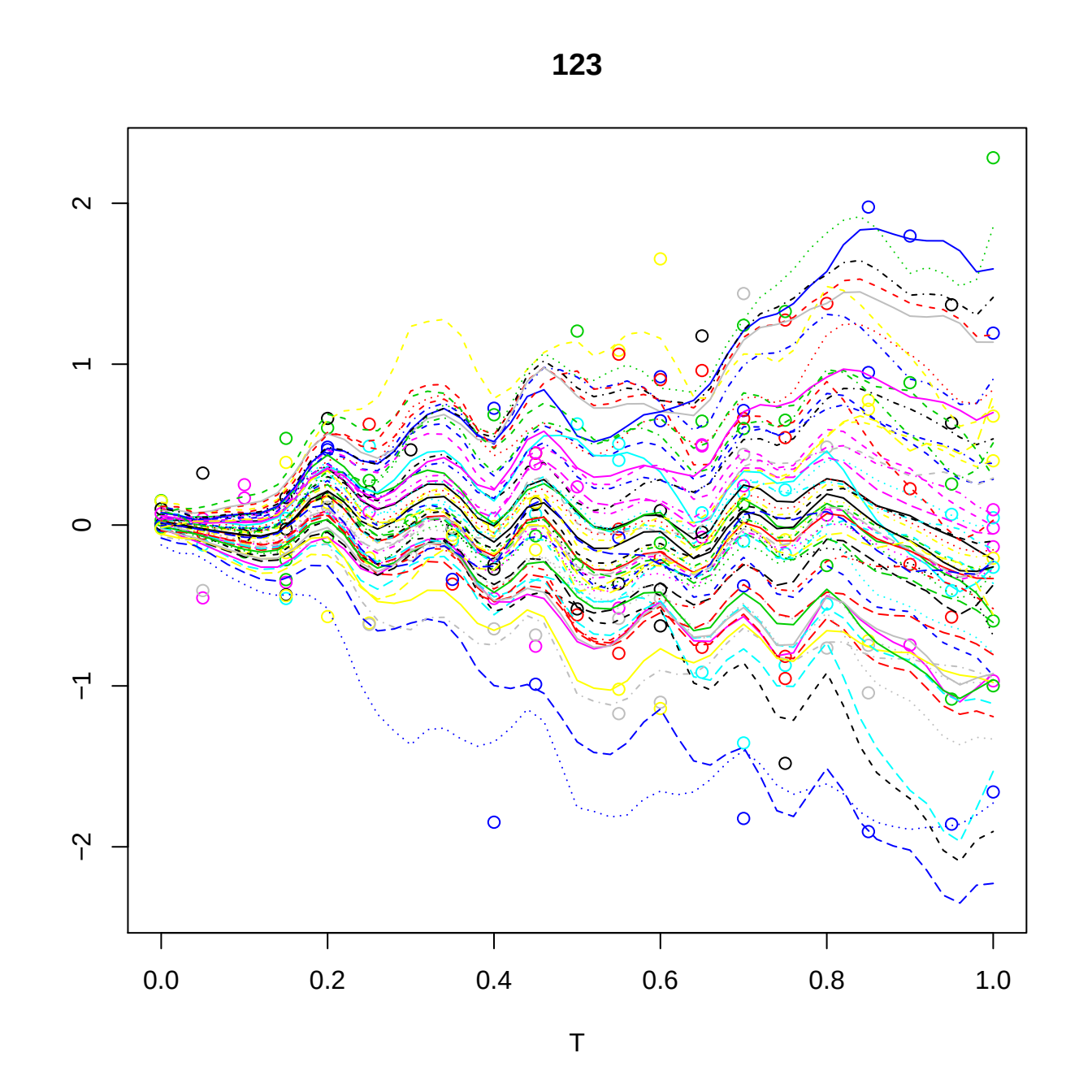

1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s

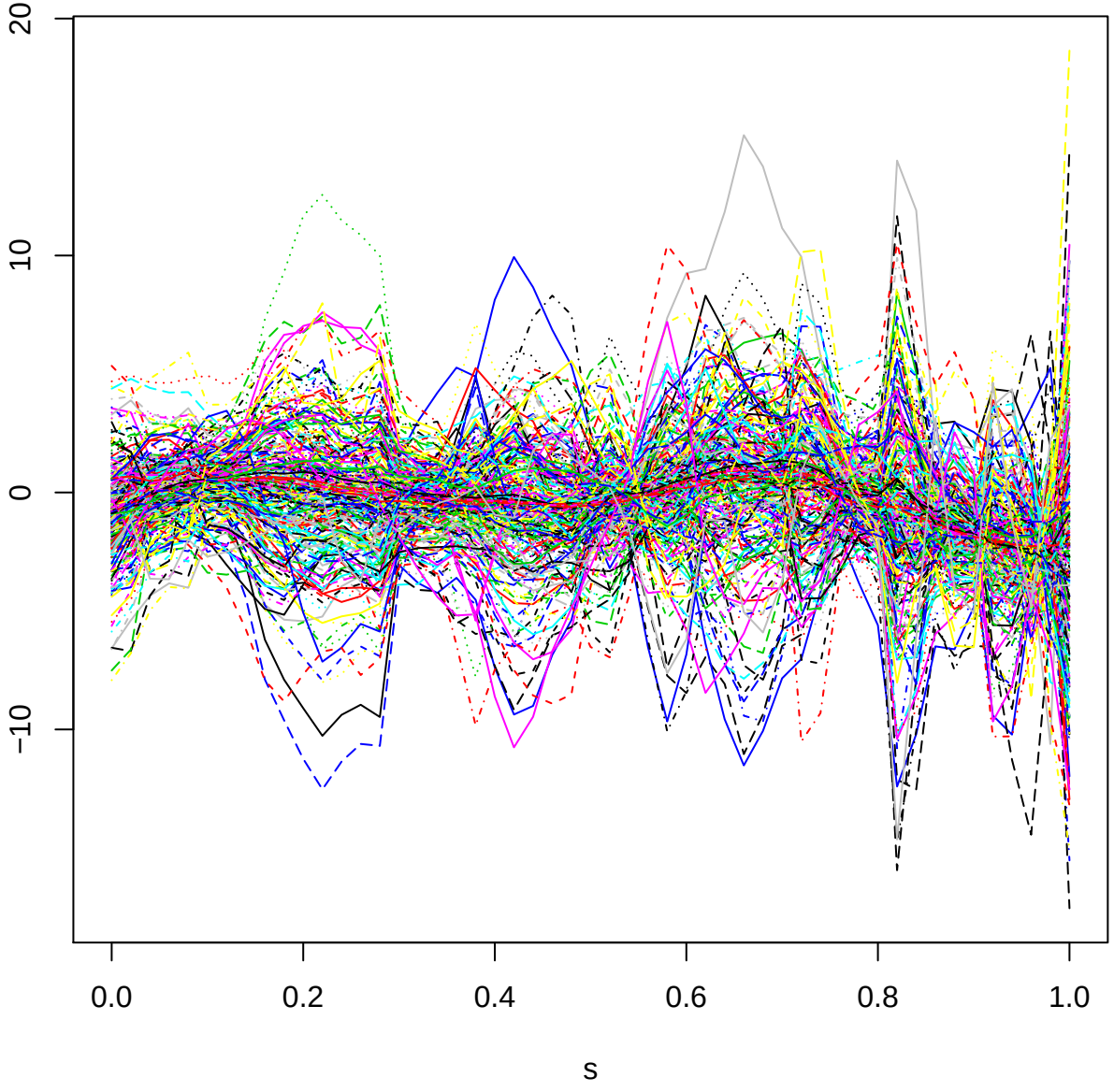

1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s

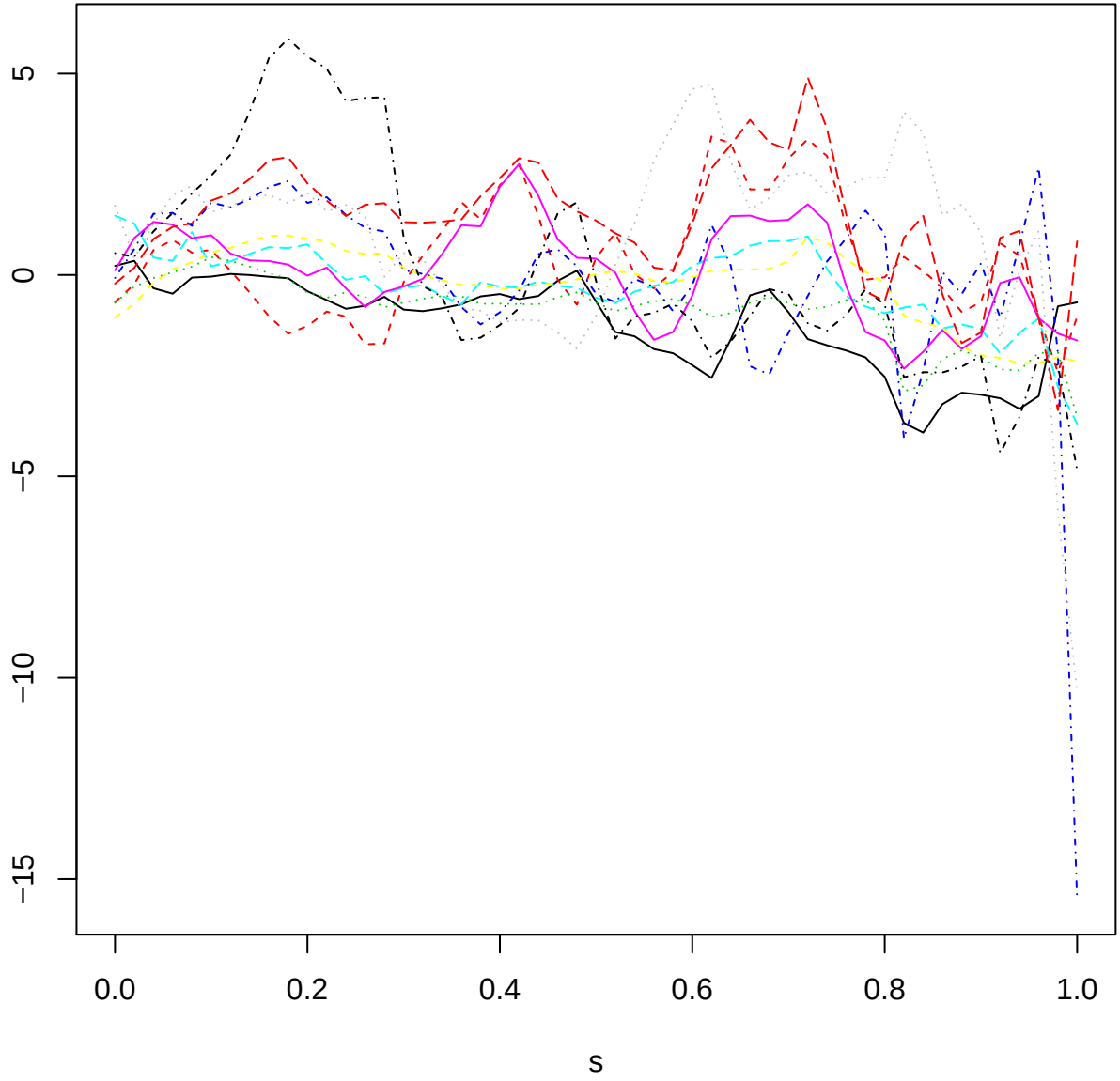

1.0
0.5
0.0
−0.5
−1.0
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s


1.0
0.5
0.0
−0.5
−1.0
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s


1.0
0.5
0.0
−0.5
−1.0
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s


123
2
1
0
−1
−2
0.0
0.2
0.4
0.6
0.8
1.0
T


20
10
0
−10
0.0
0.2
0.4
0.6
0.8
1.0
s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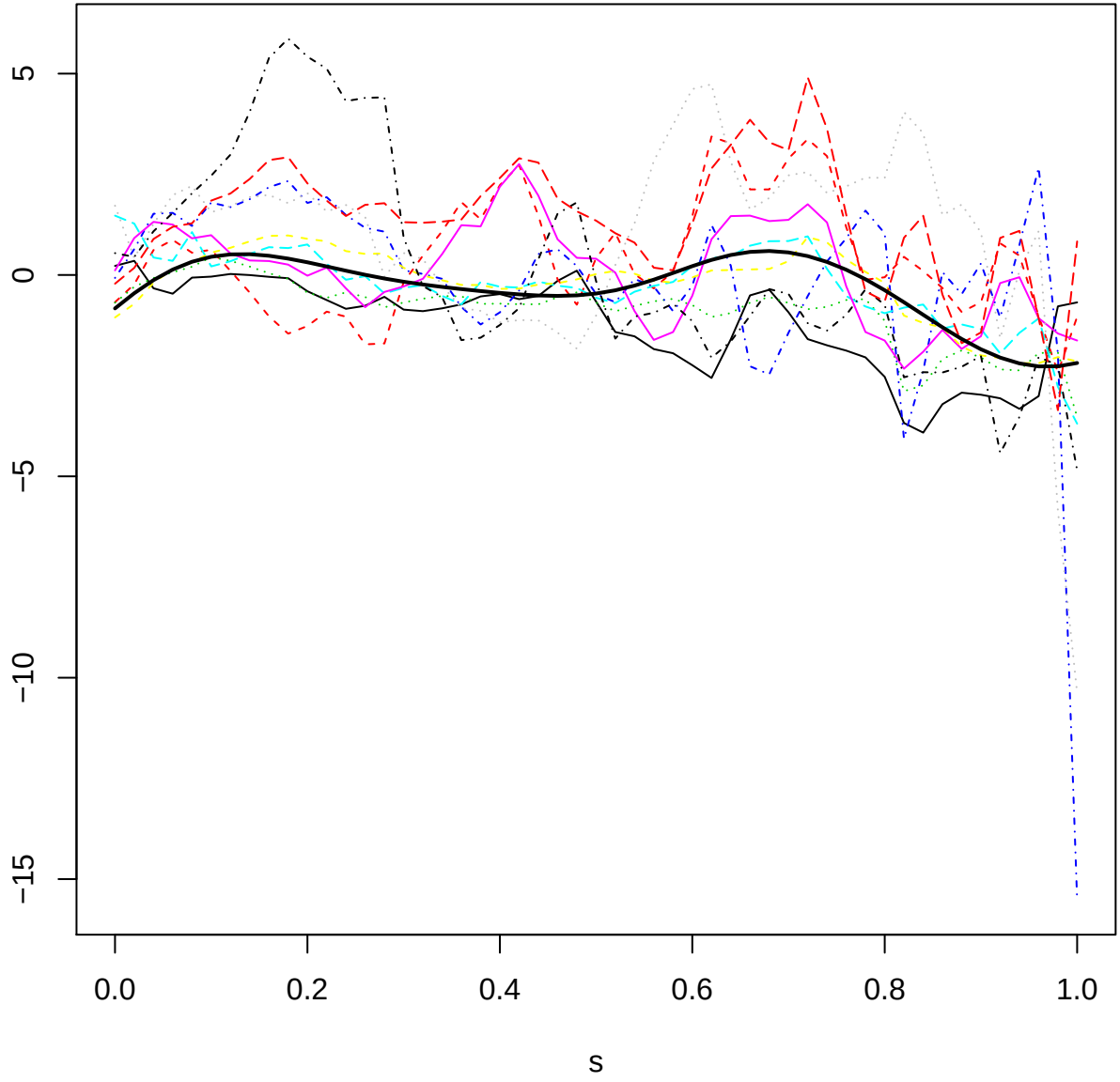
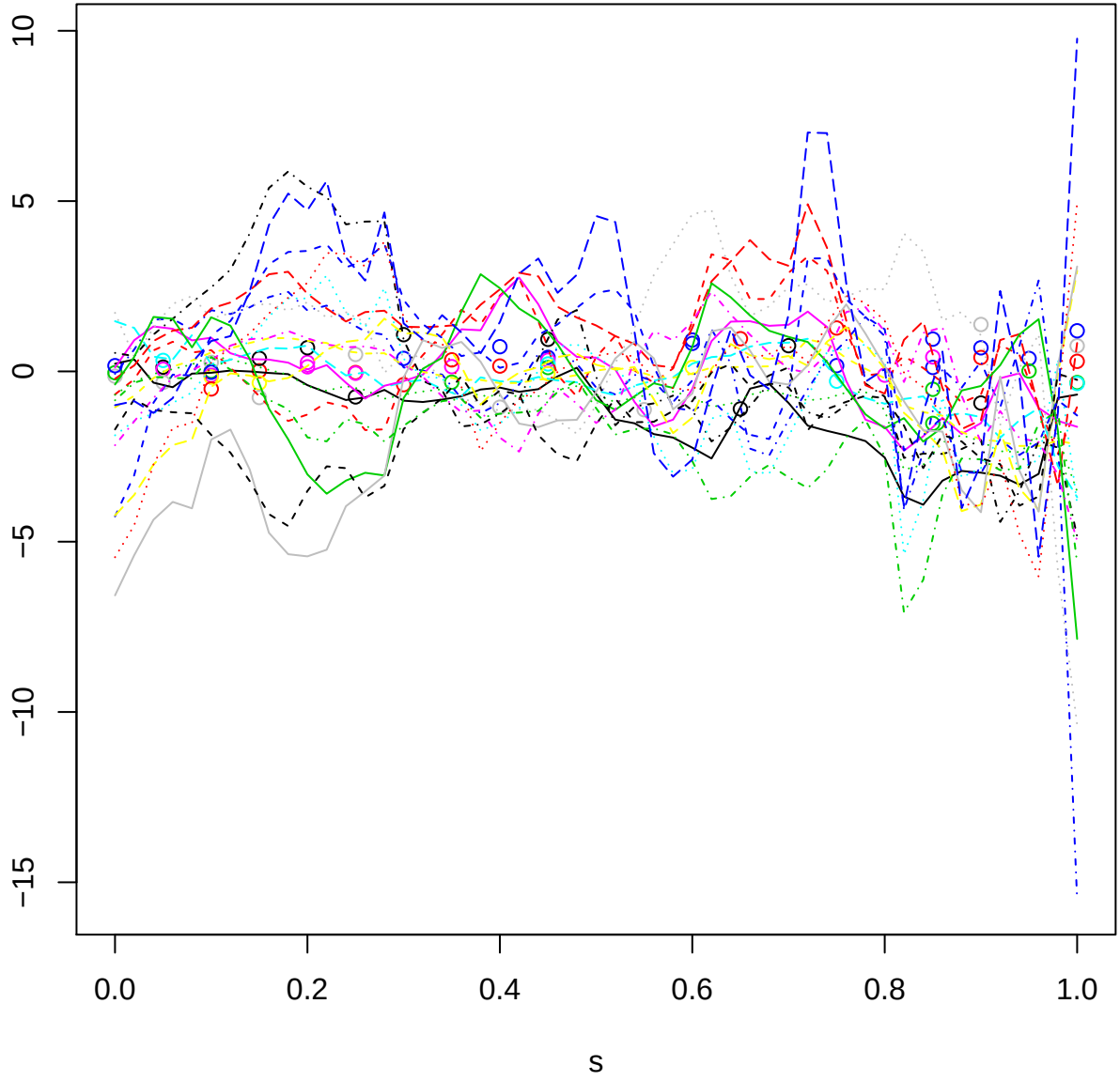
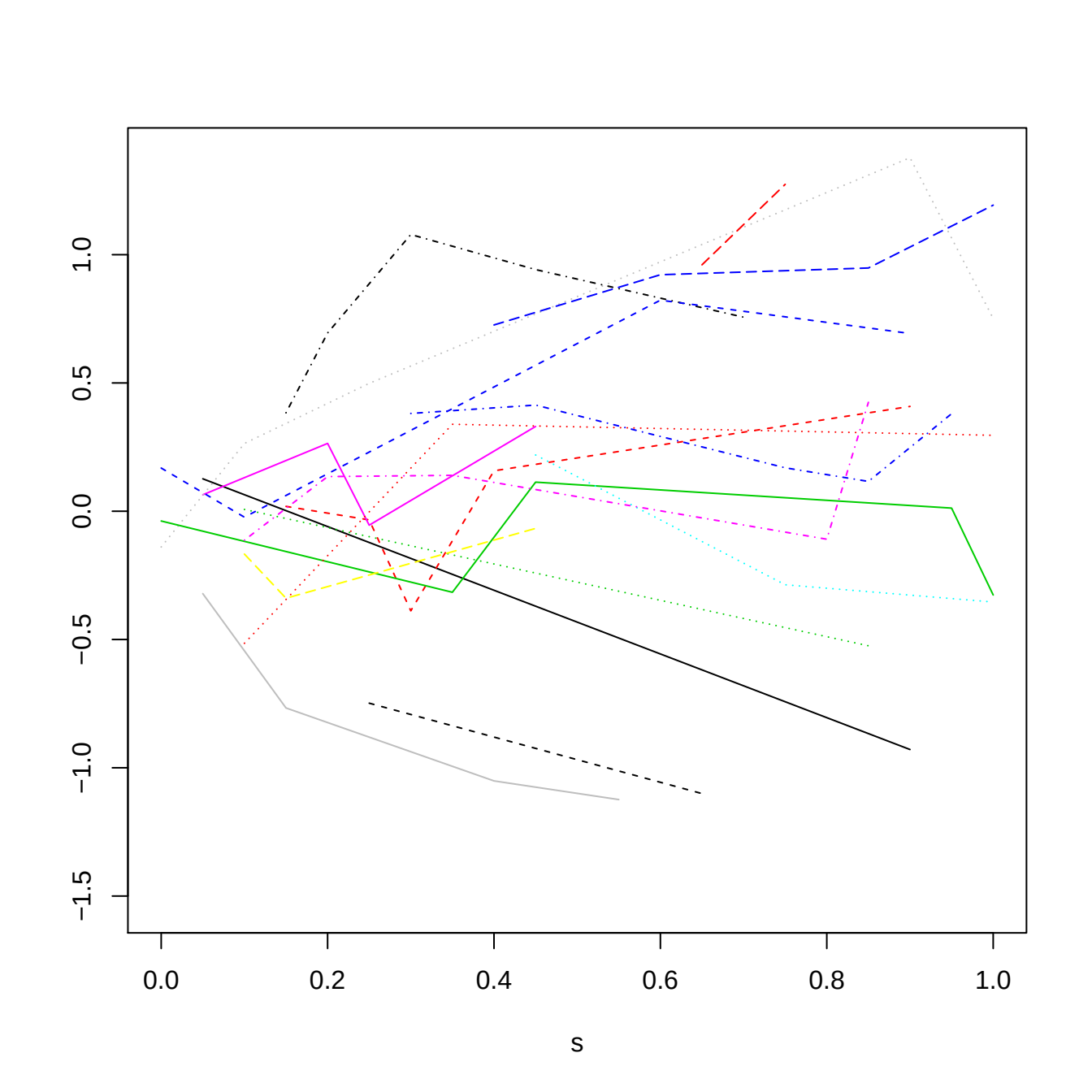
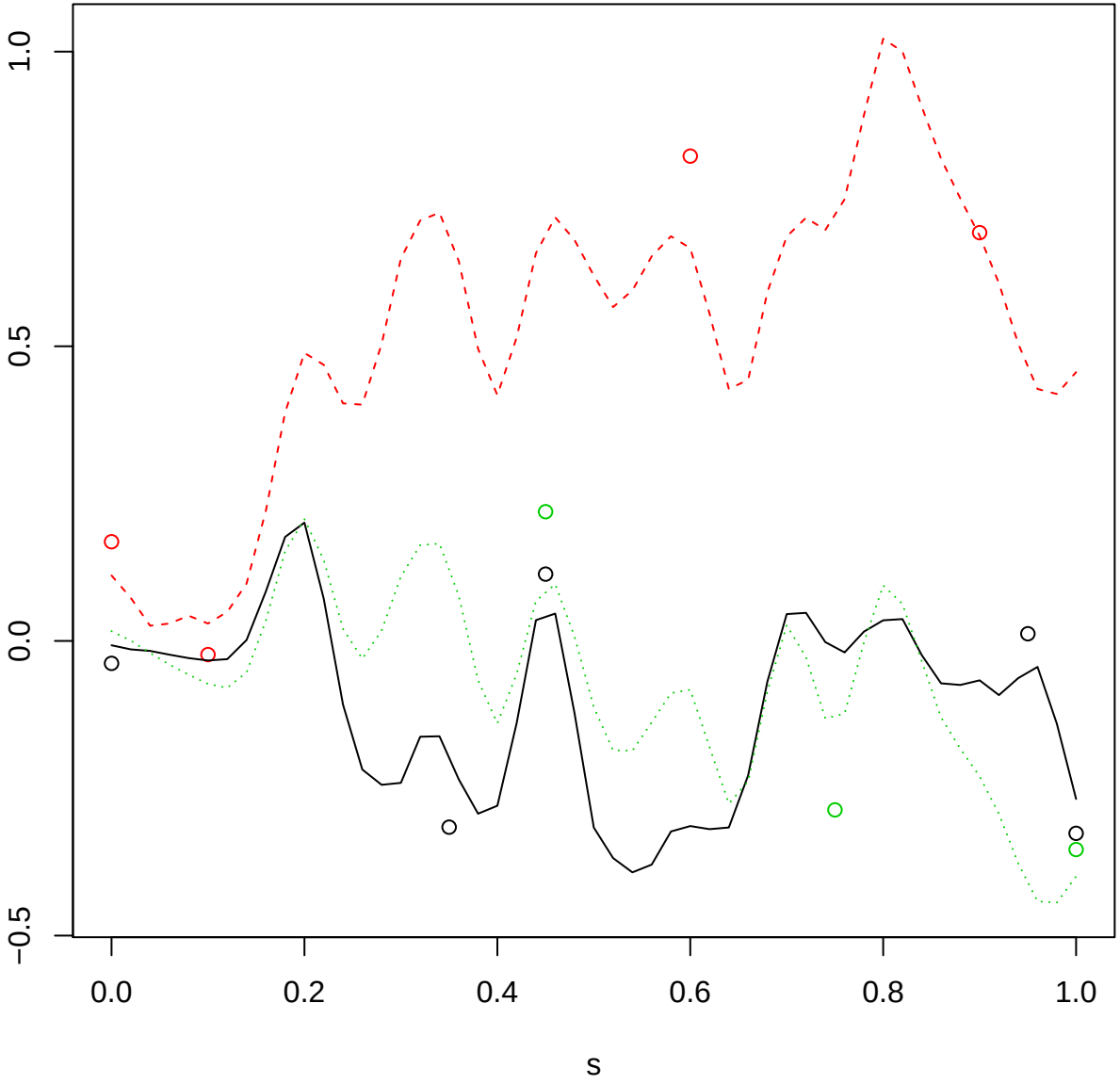
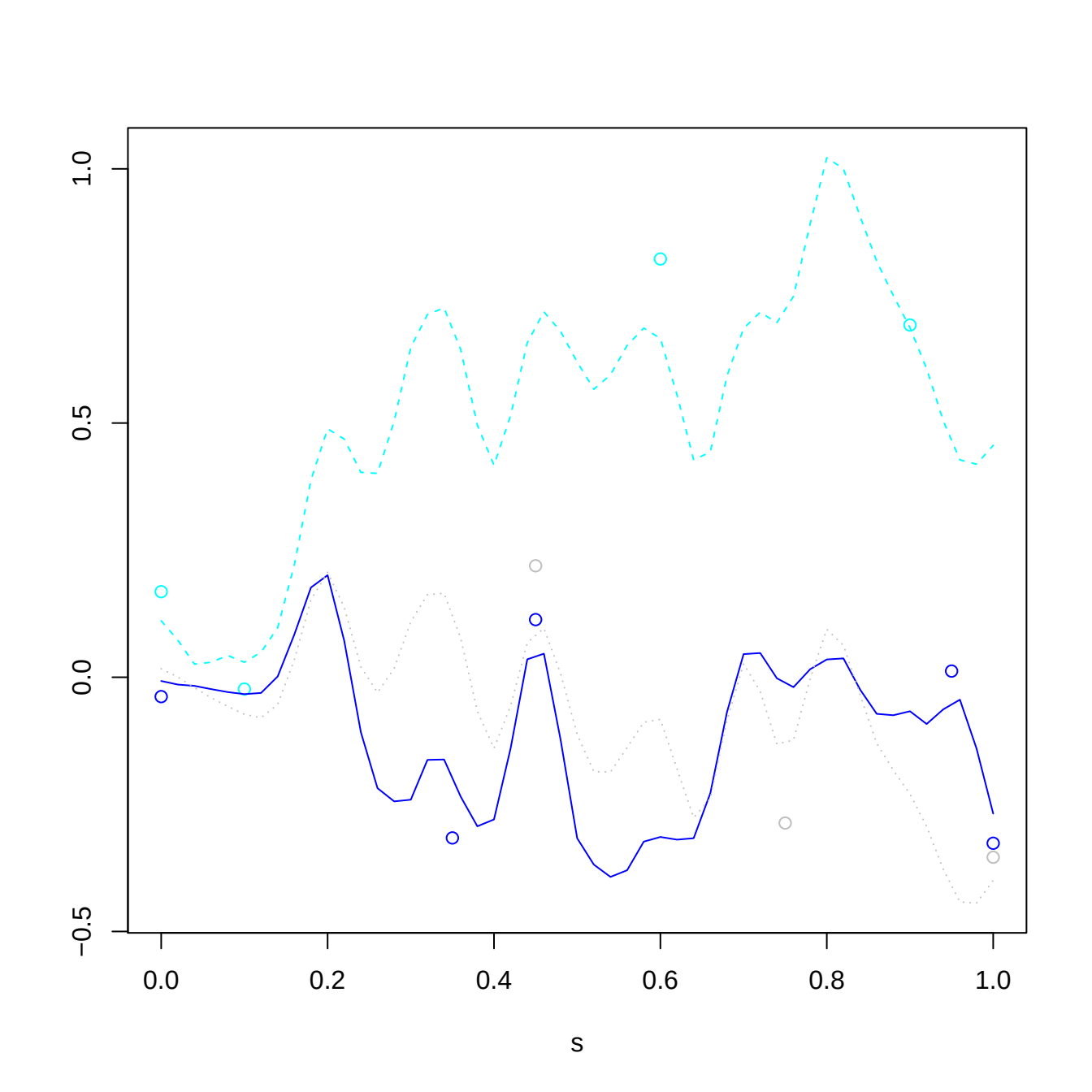
0
−5
−10
−15
0.0
0.2
0.4
0.6
0.8
1.0
s

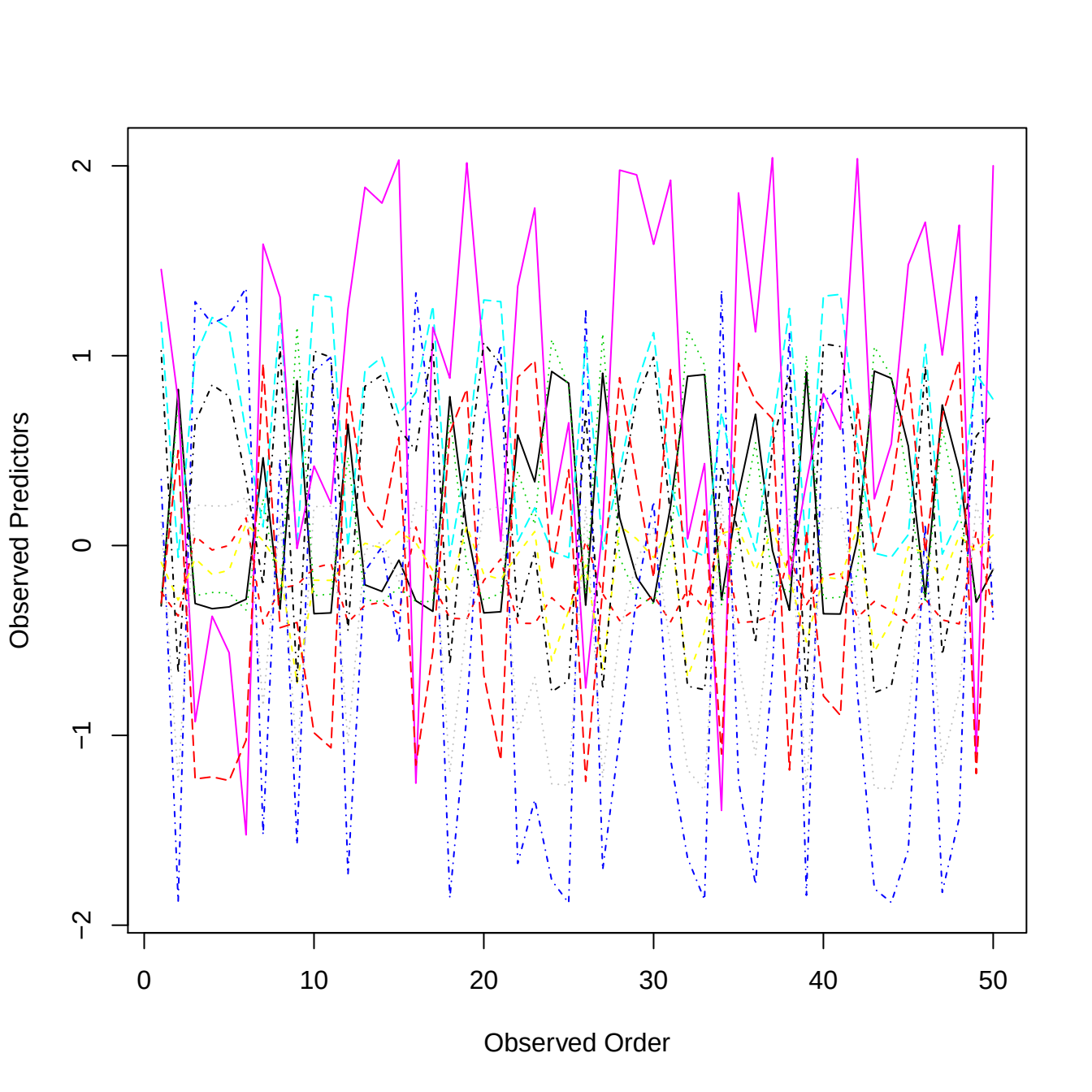

5
0
−5
−10
−15
0.0
0.2
0.4
0.6
0.8
1.0
s

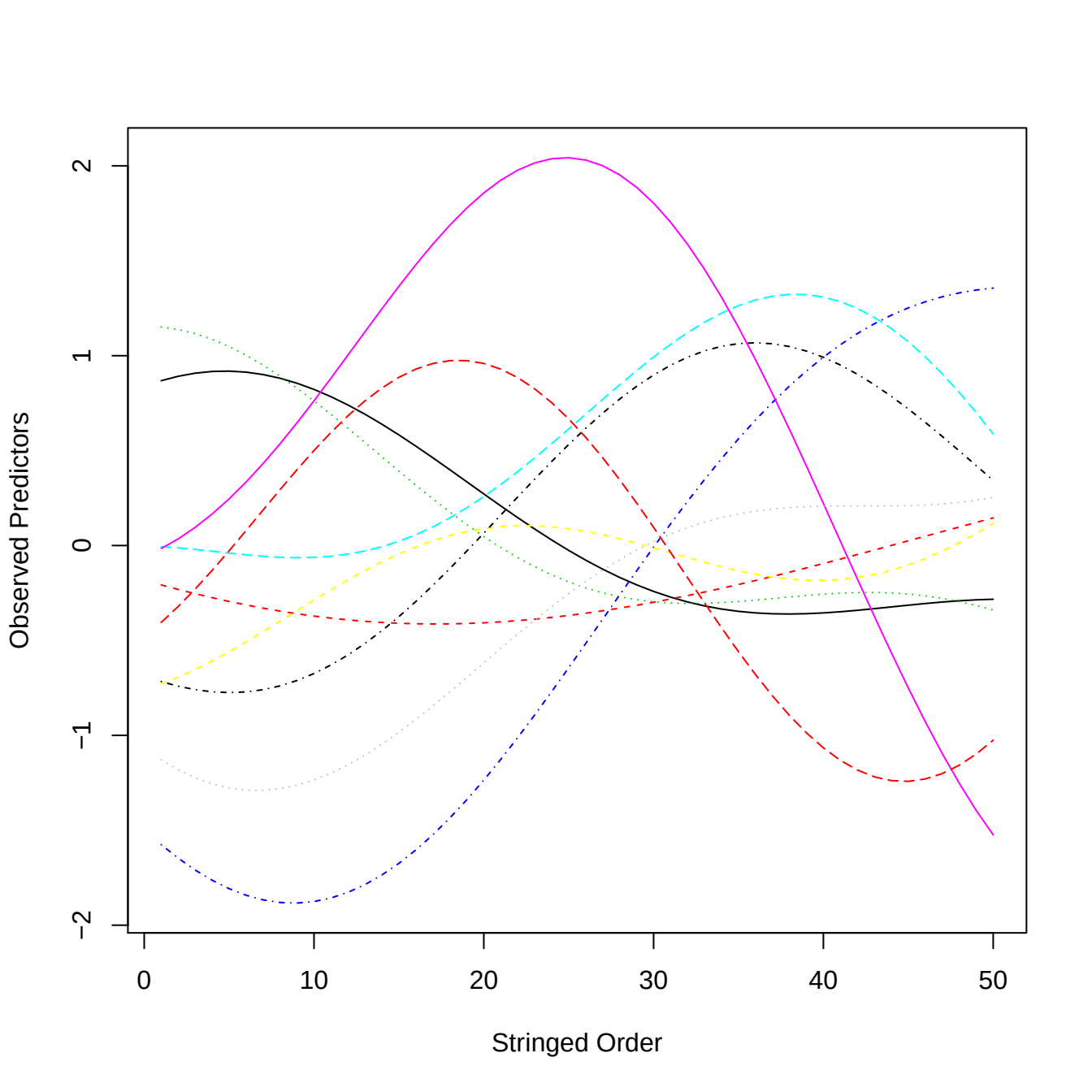

10
5
0
−5
−10
−15
0.0
0.2
0.4
0.6
0.8
1.0
s

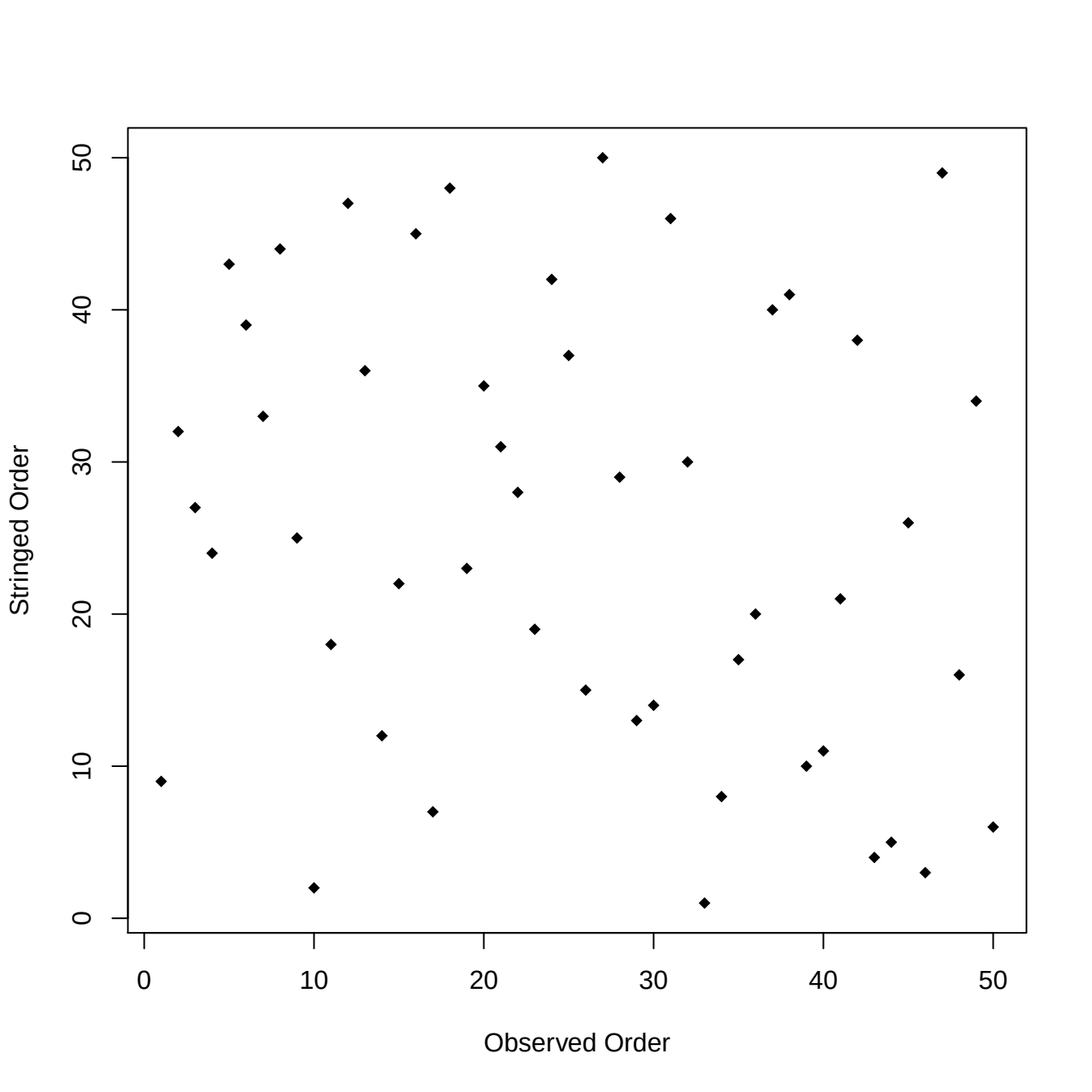

1.0
0.5
0.0
−0.5
−1.0
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s

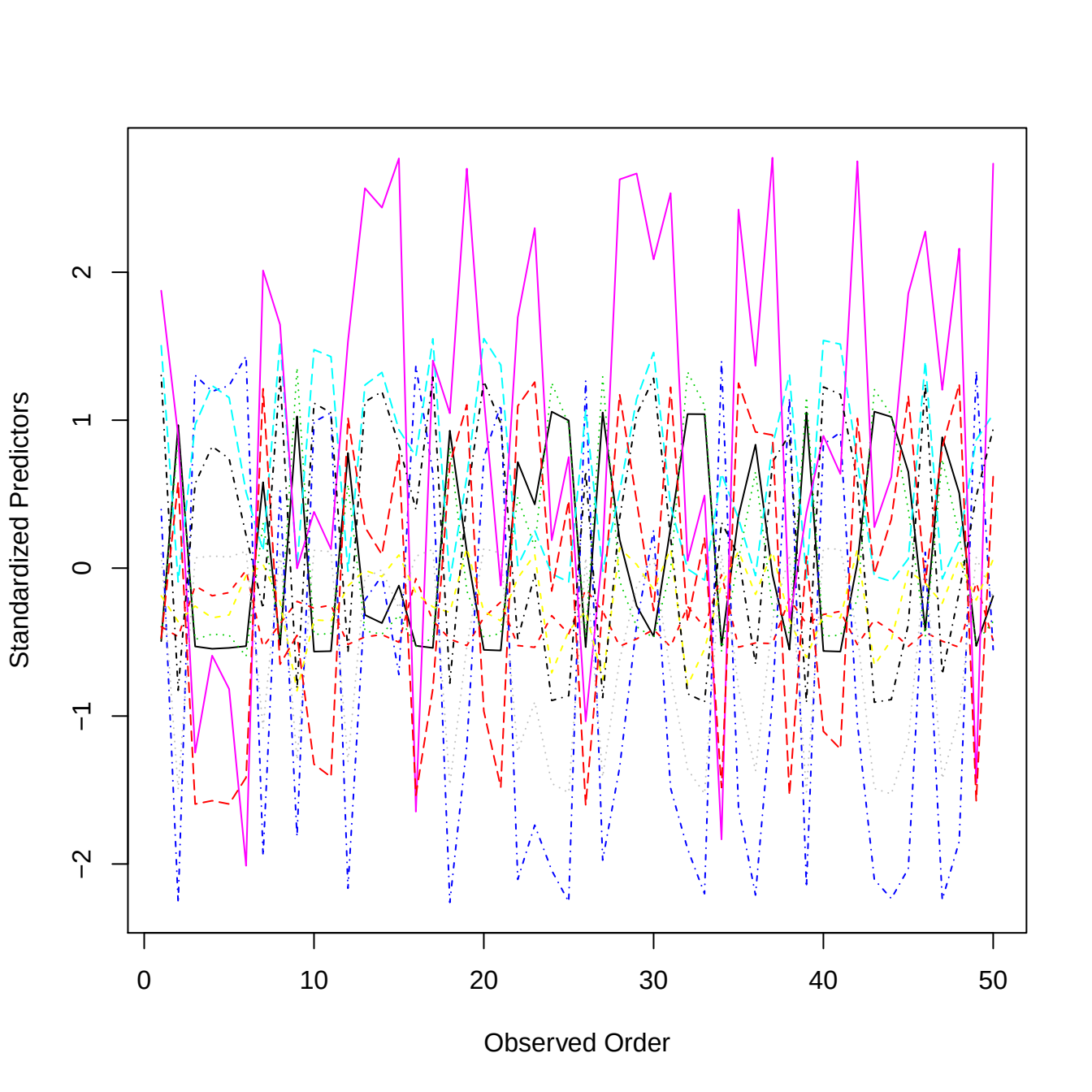

1.0
0.5
0.0
−0.5
0.0
0.2
0.4
0.6
0.8
1.0
s

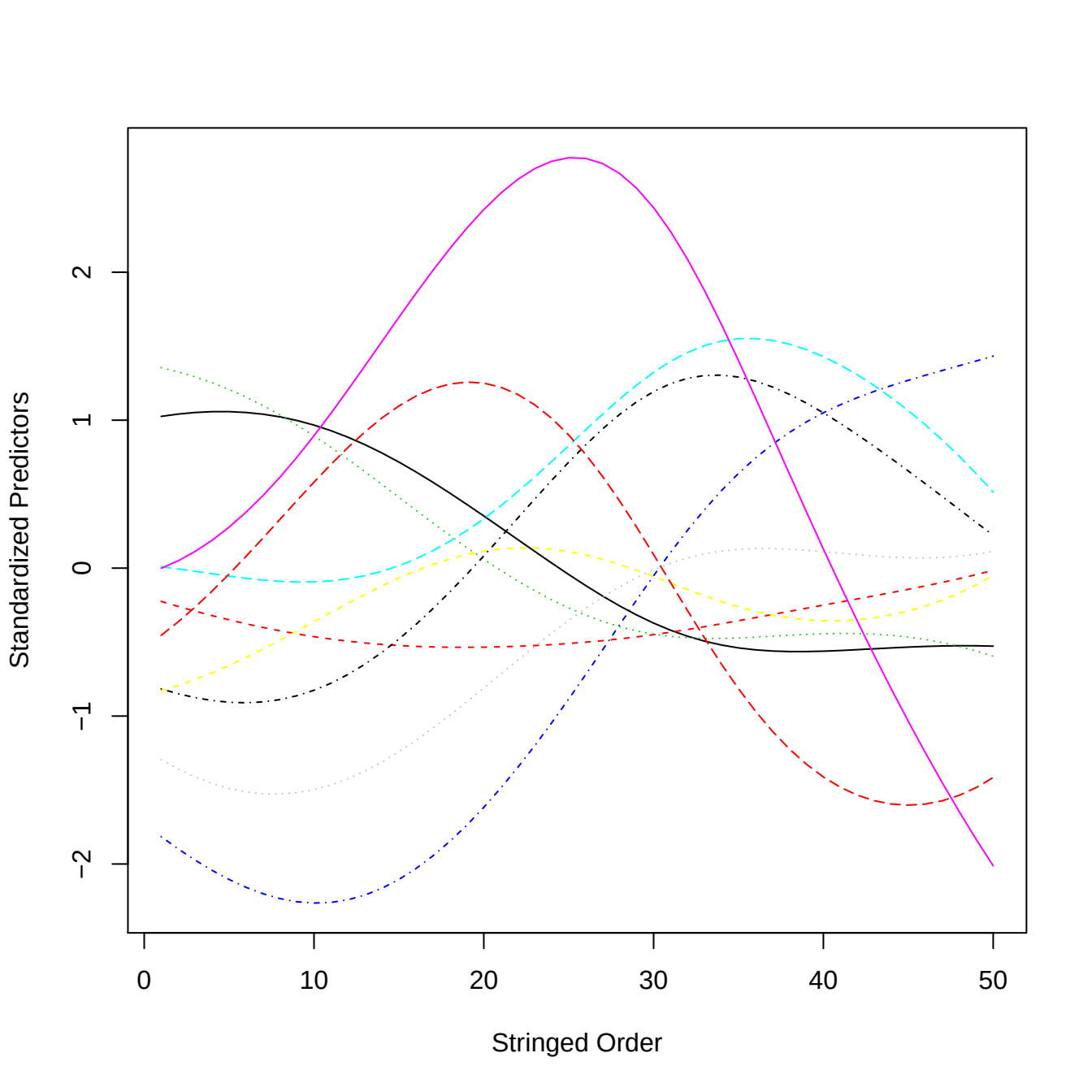

1.0
0.5
0.0
−0.5
0.0
0.2
0.4
0.6
0.8
1.0
s

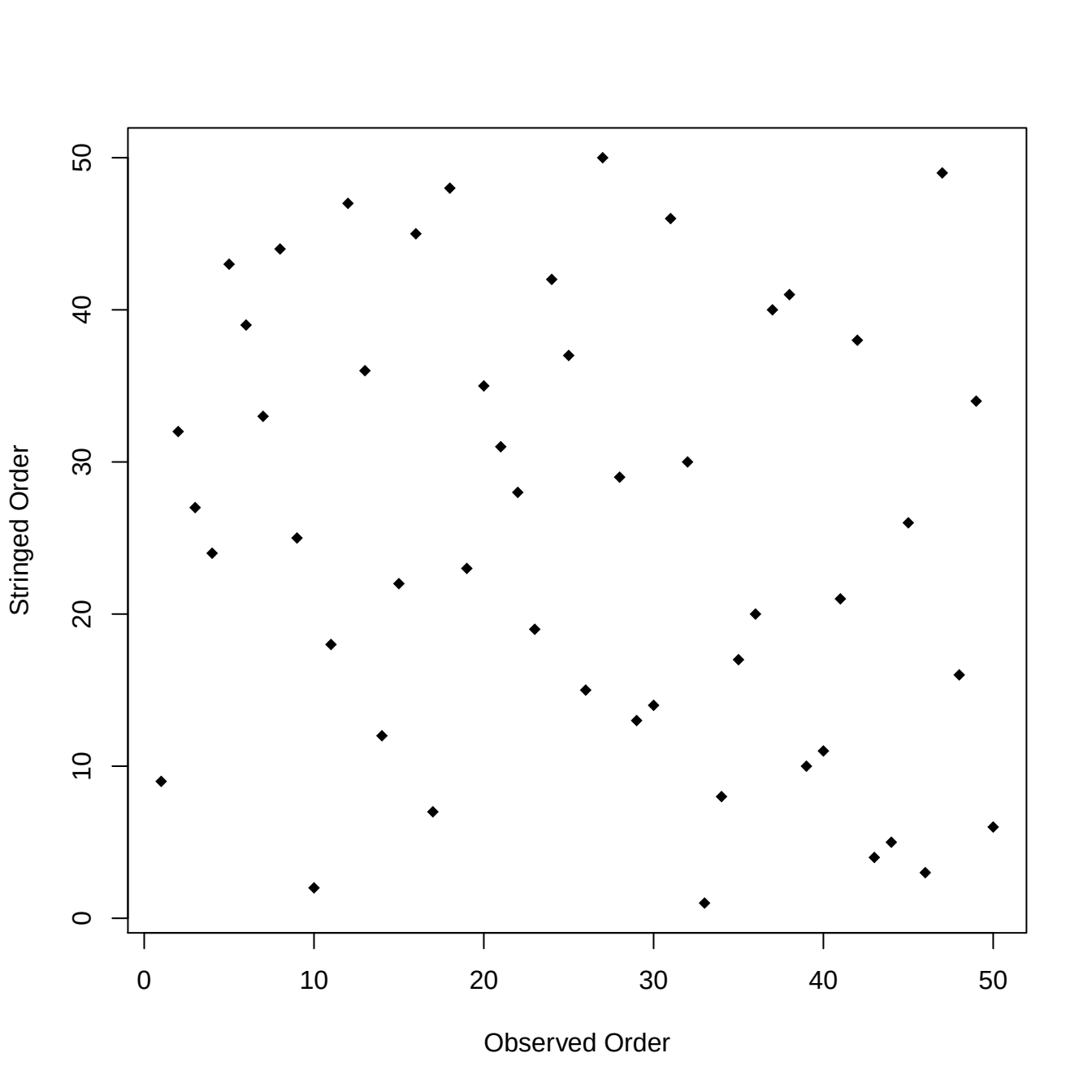

Observed Predictors
2
1
0
−1
−2
0
10
20
30
40
50
Observed Order

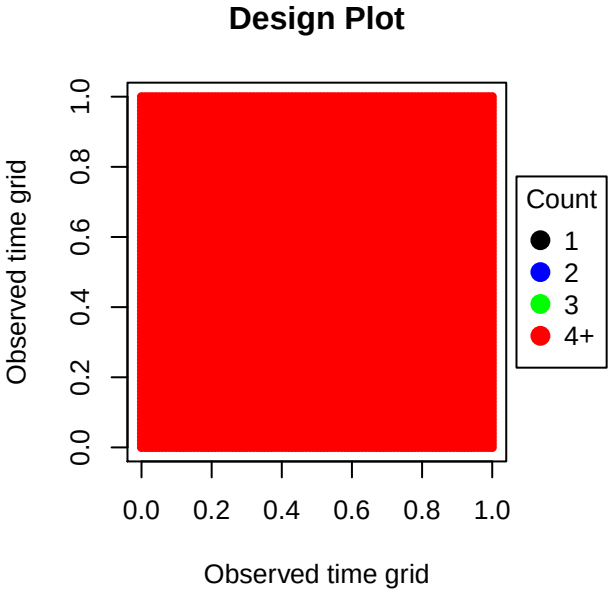

Observed Predictors
2
1
0
−1
−2
0
10
20
30
40
50
Stringed Order

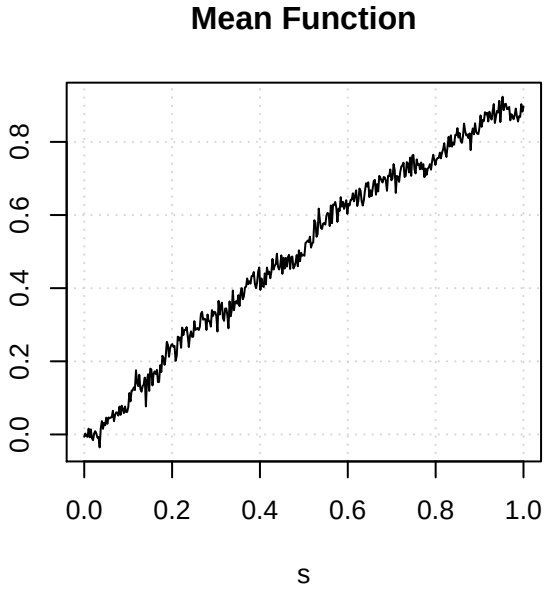

Stringed Order
Observed Order
0
10
20
30
40
50

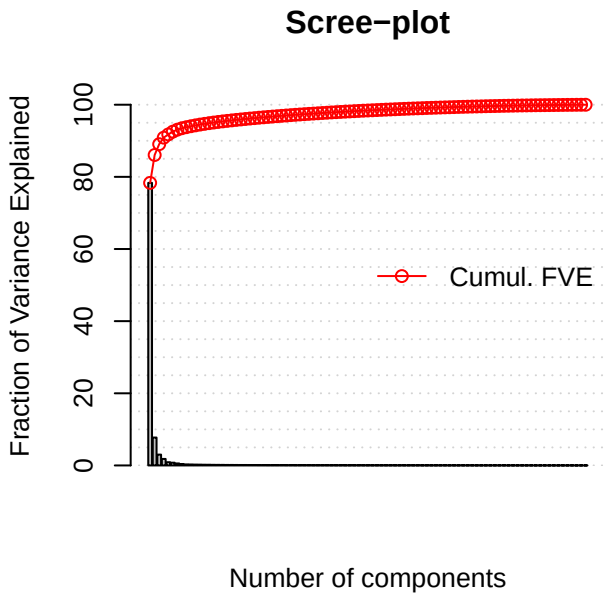

Standardized Predictors
2
1
0
−1
−2
0
10
20
30
40
50
Observed Order

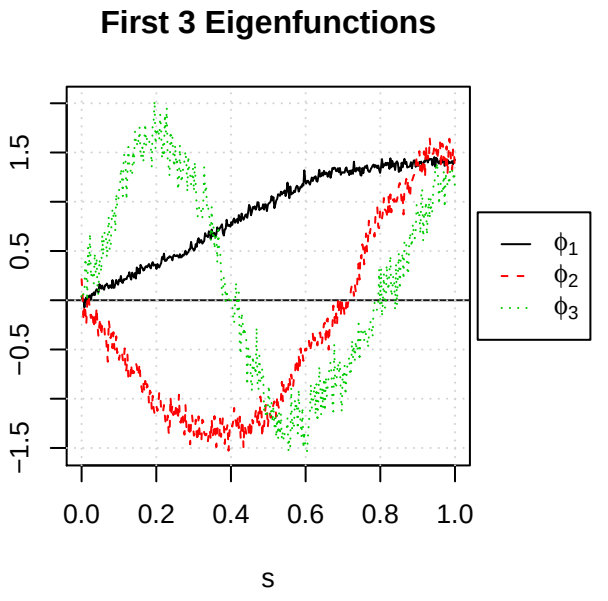

Standardized Predictors
2
1
0
−1
−2
0
10
20
30
40
50
Stringed Order

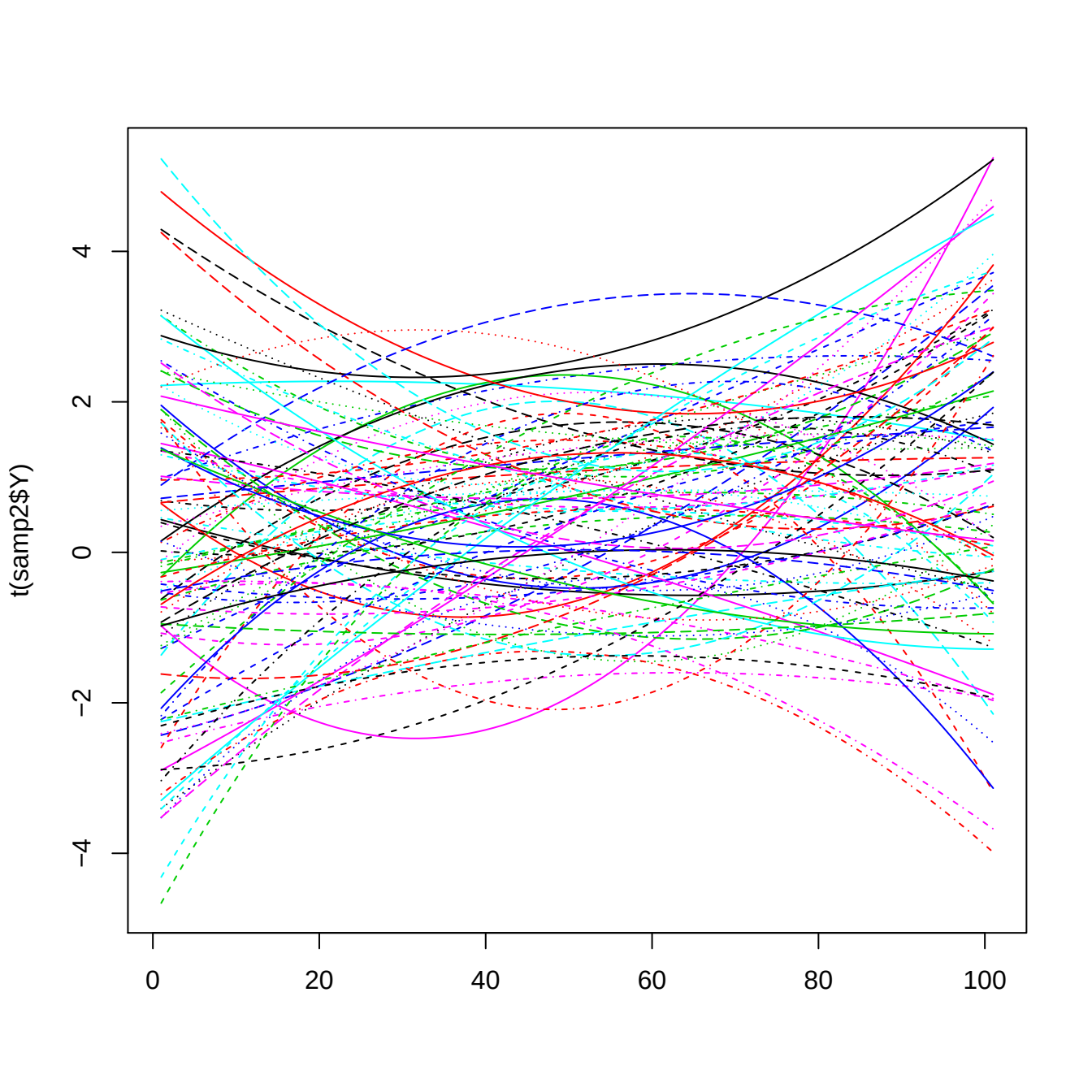

Stringed Order
Observed Order
0
10
20
30
40
50

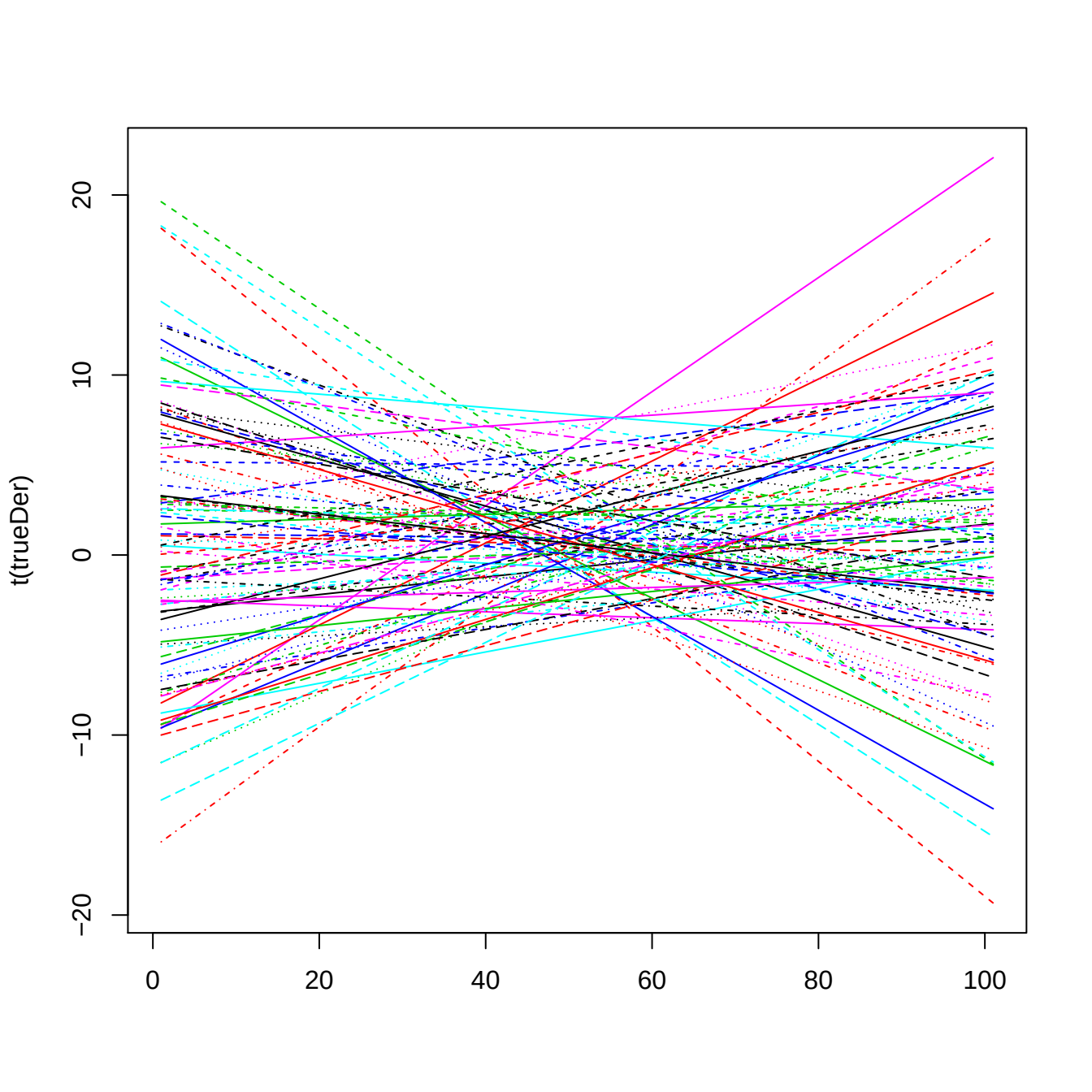

Design Plot
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Count
1
2
3
4+
Observed time grid

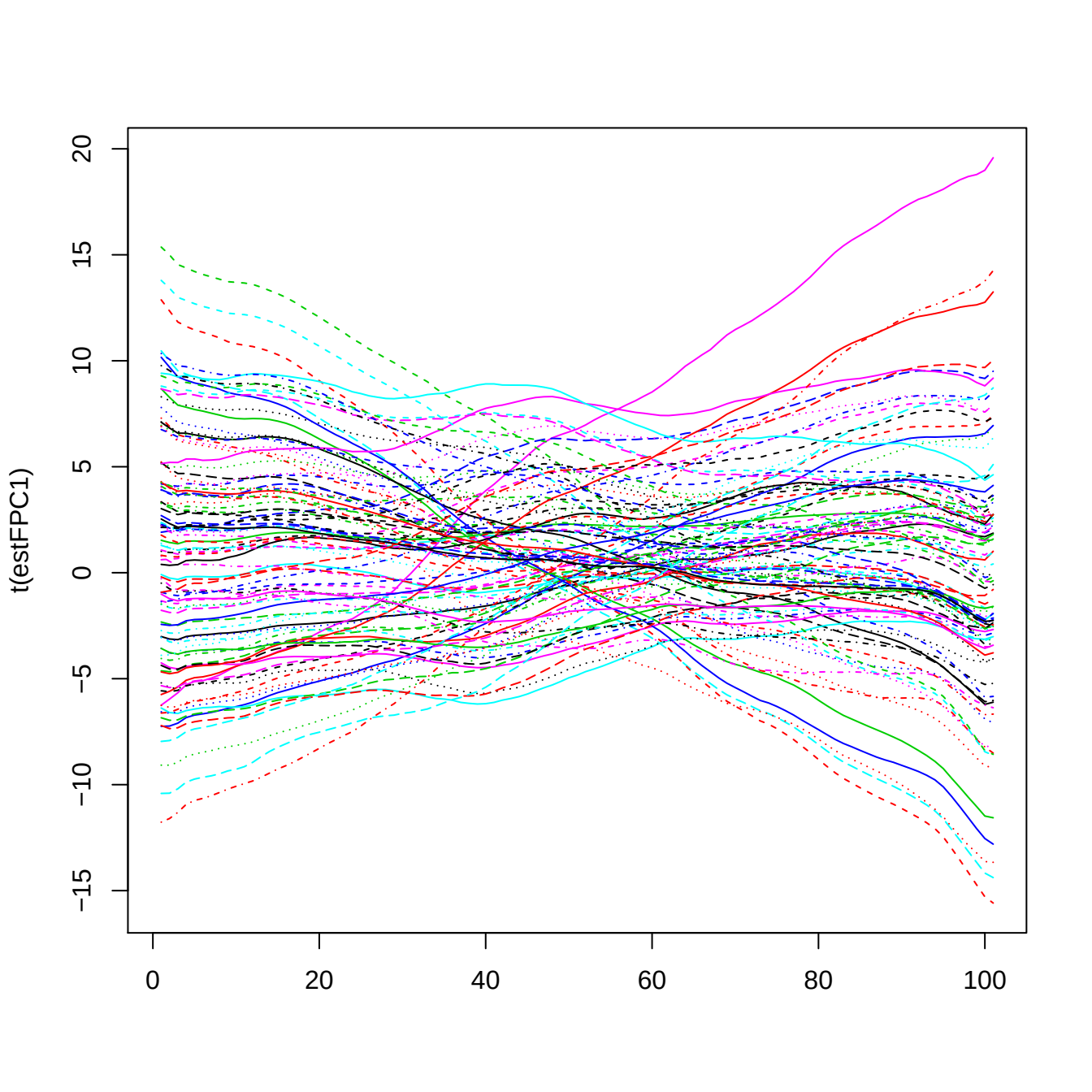

Mean Function
0.0
0.2
0.4
0.6
0.8
1.0
s

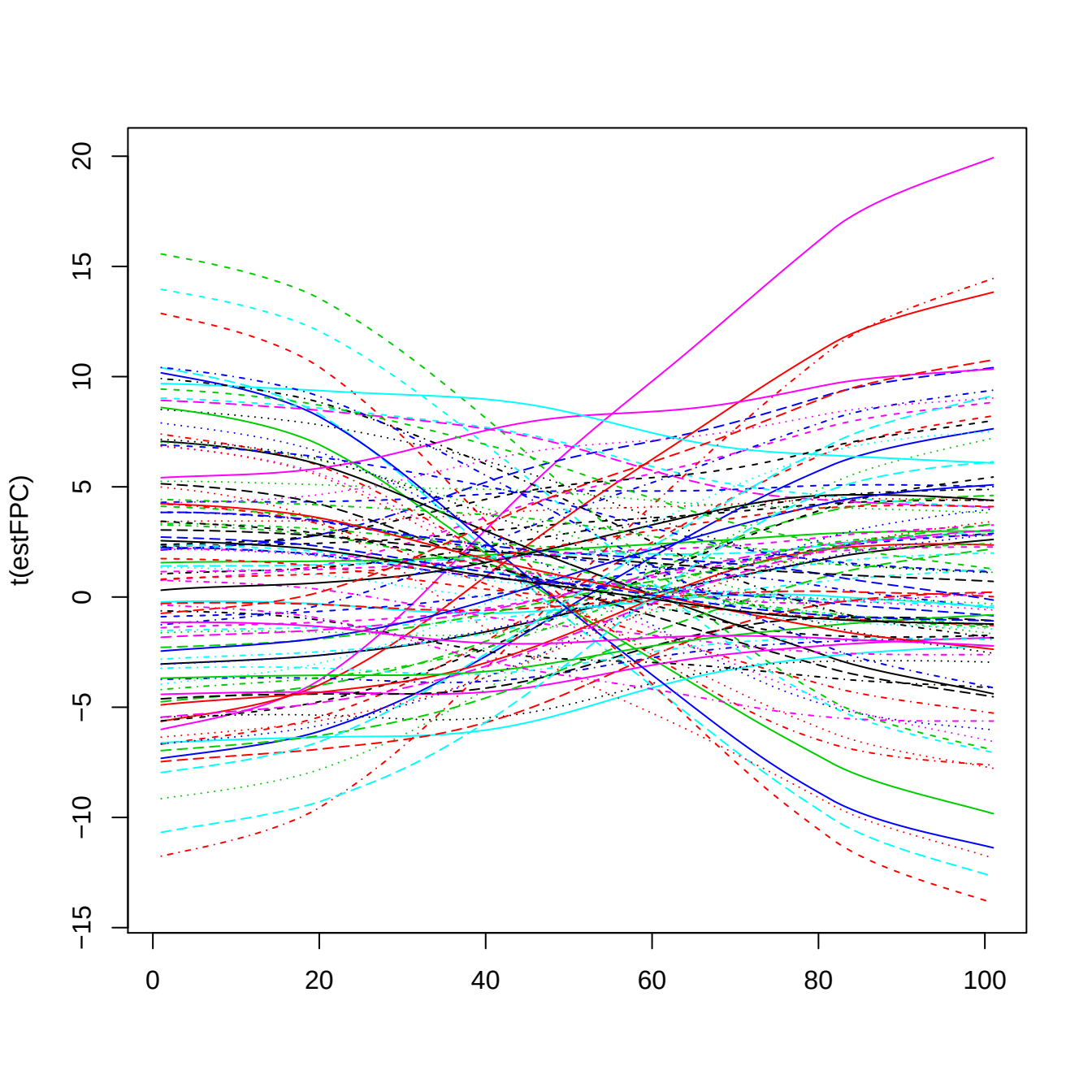

Scree−plot
Fraction of Variance Explained
0
20
40
60
80
100
Cumul. FVE
Number of components

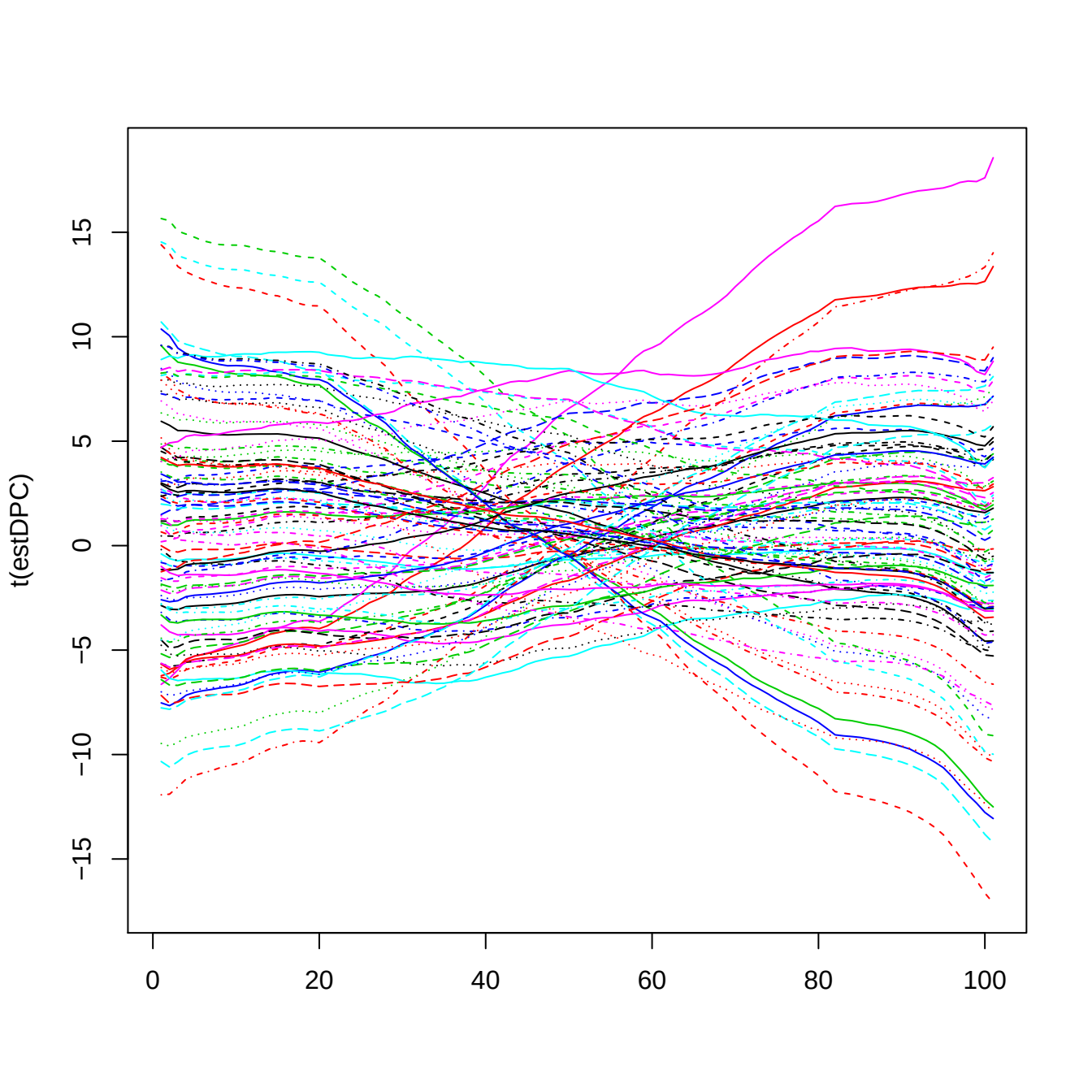

First 3 Eigenfunctions
−1.5
−0.5
0.5
1.5
0.0
0.2
0.4
0.6
0.8
1.0
ϕ1
ϕ2
ϕ3
s

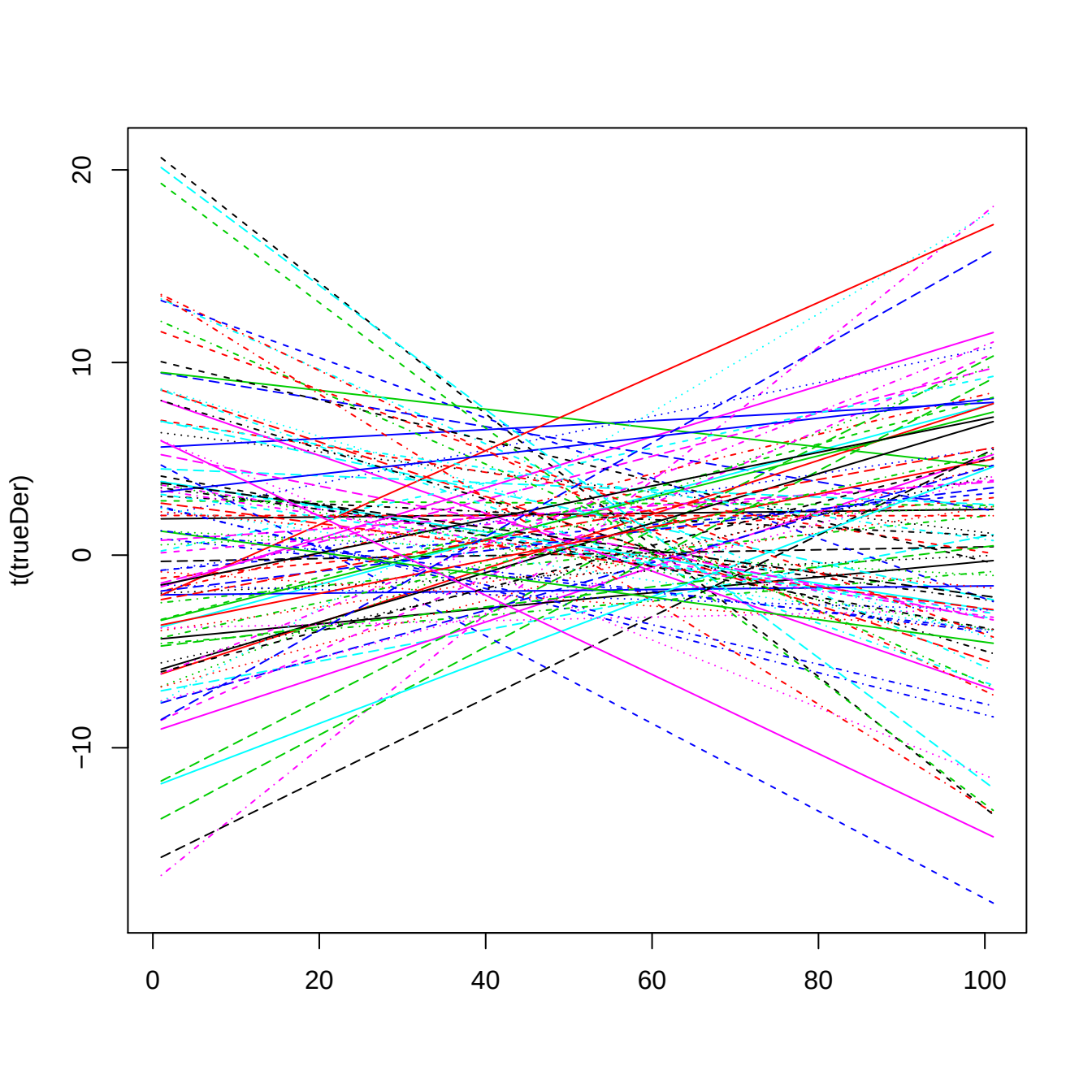

t(samp2$Y)
4
2
0
−2
−4
0
20
40
60
80
100

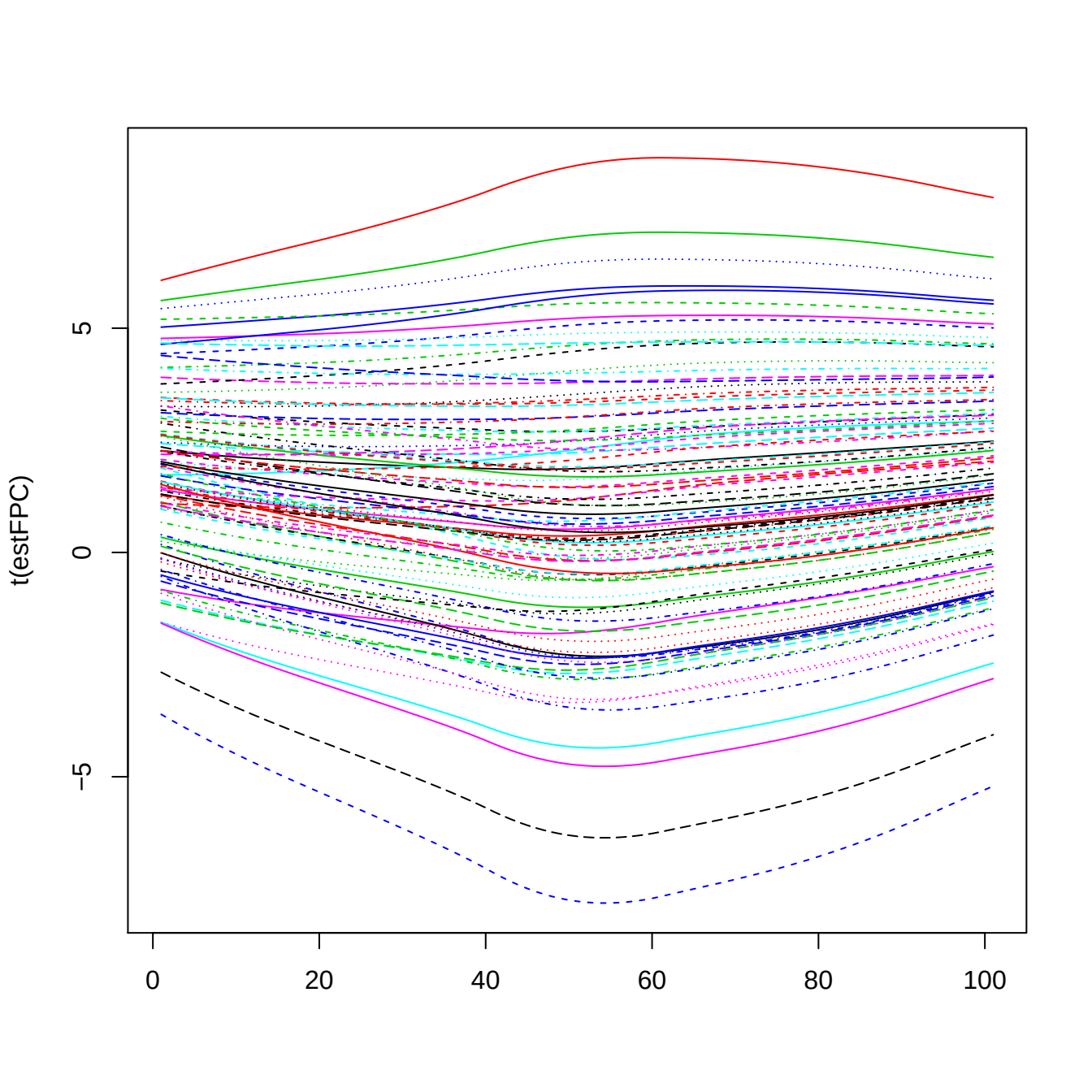

t(trueDer)
20
10
0
−10
−20
0
20
40
60
80
100

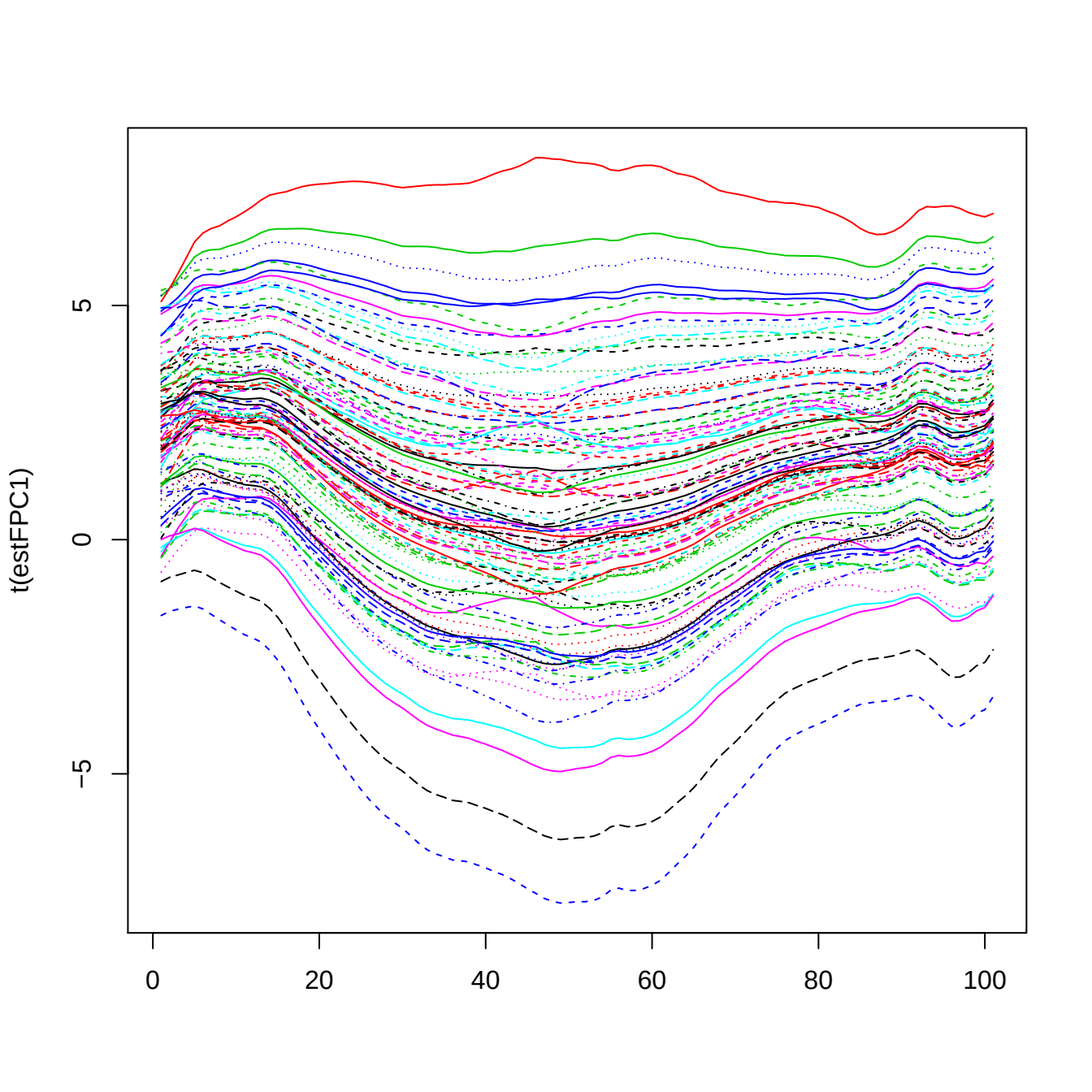

t(estFPC1)
20
15
10
5
0
−5
−10
−15
0
20
40
60
80
100

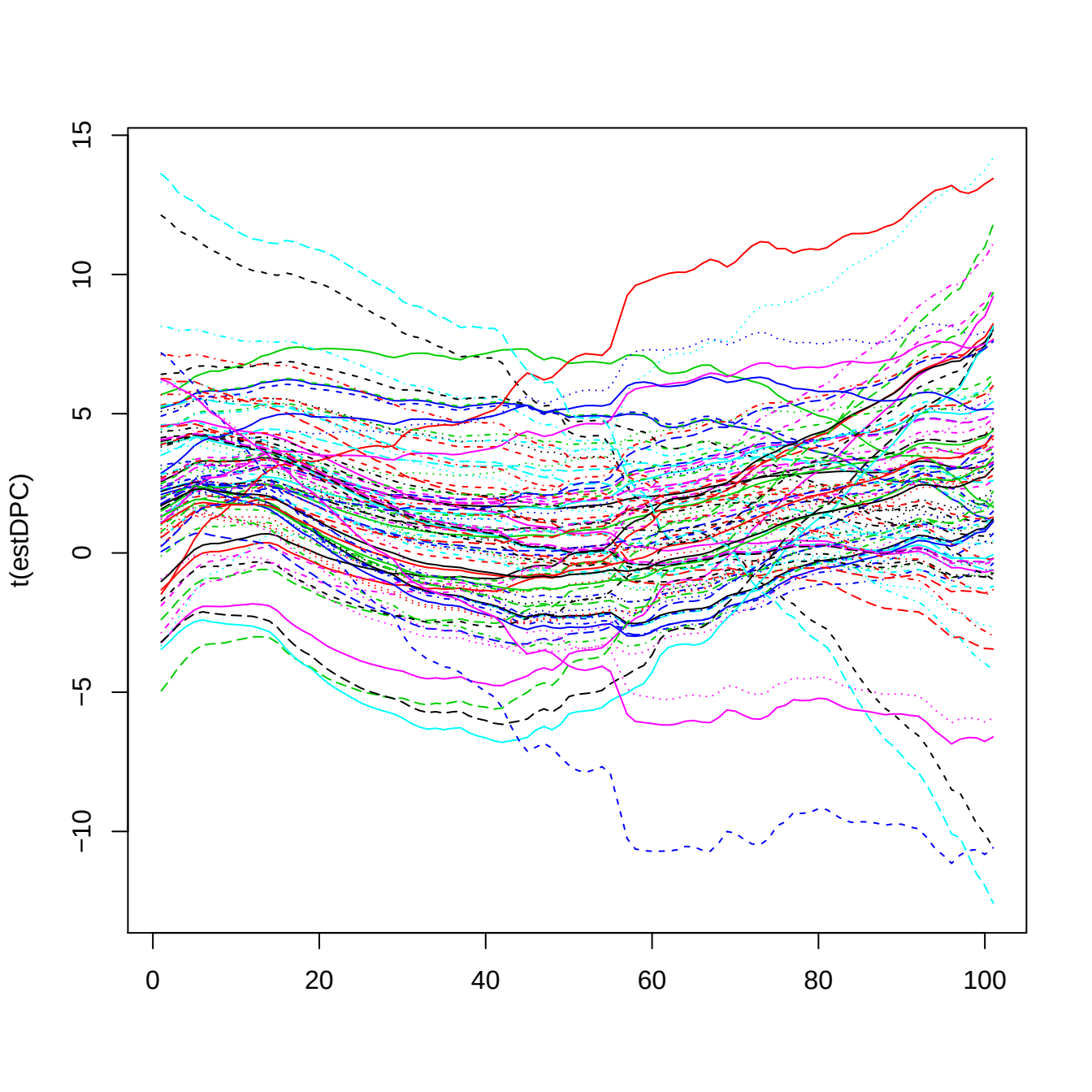

t(estFPC)
20
15
10
5
0
−5
−10
−15
0
20
40
60
80
100

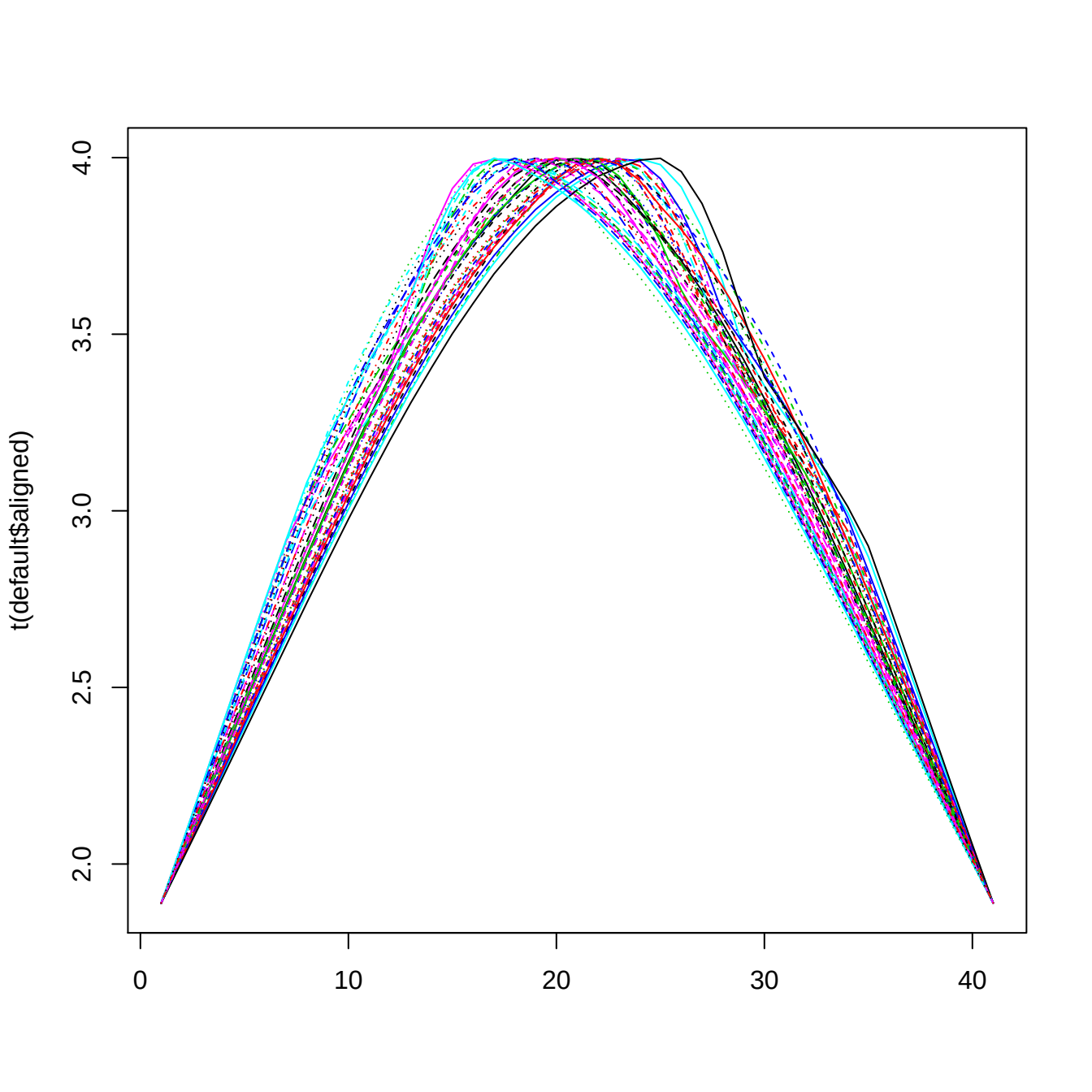

t(estDPC)
15
10
5
0
−5
−10
−15
0
20
40
60
80
100

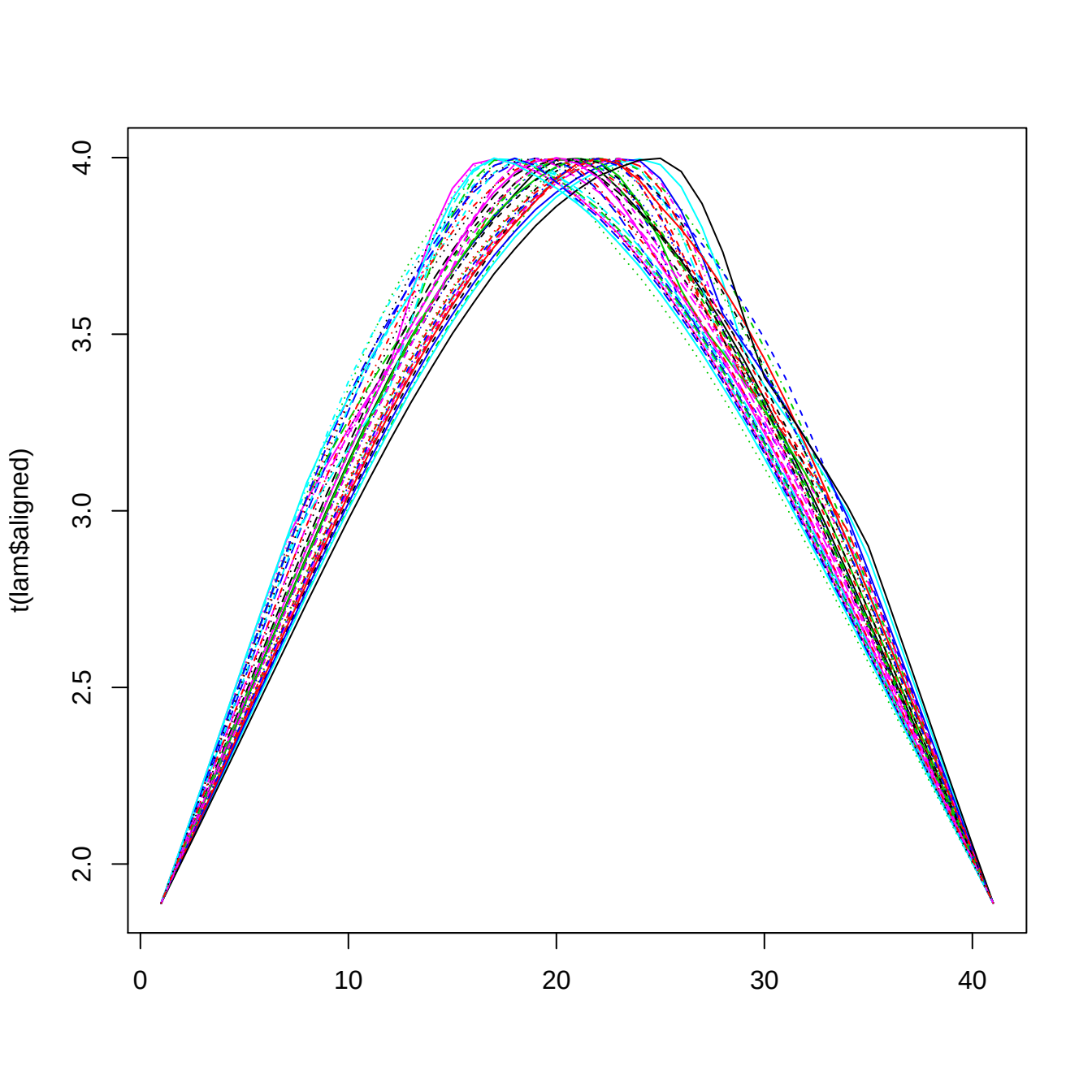

t(trueDer)
20
10
0
−10
0
20
40
60
80
100

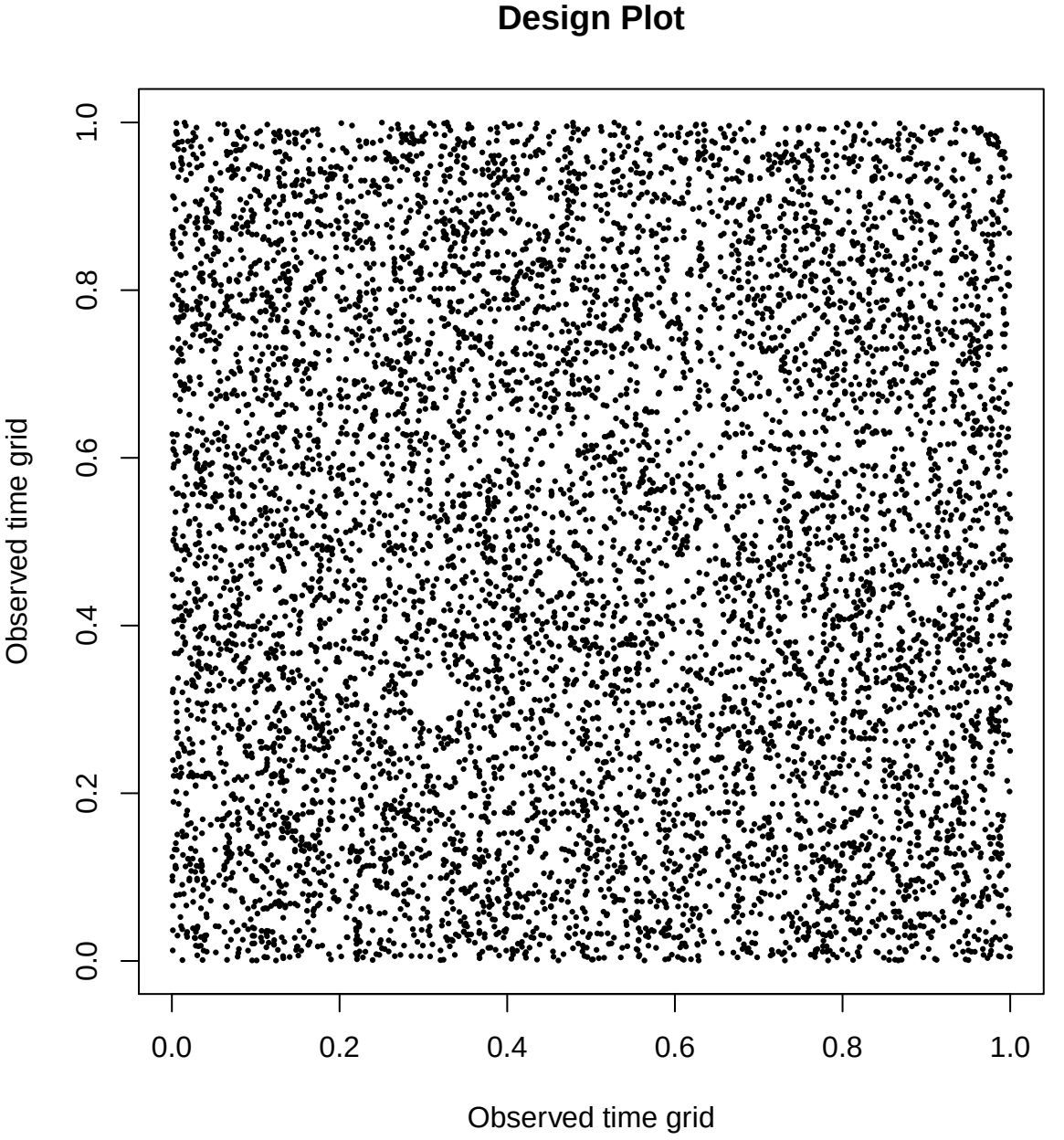

t(estFPC)
5
0
−5
0
20
40
60
80
100

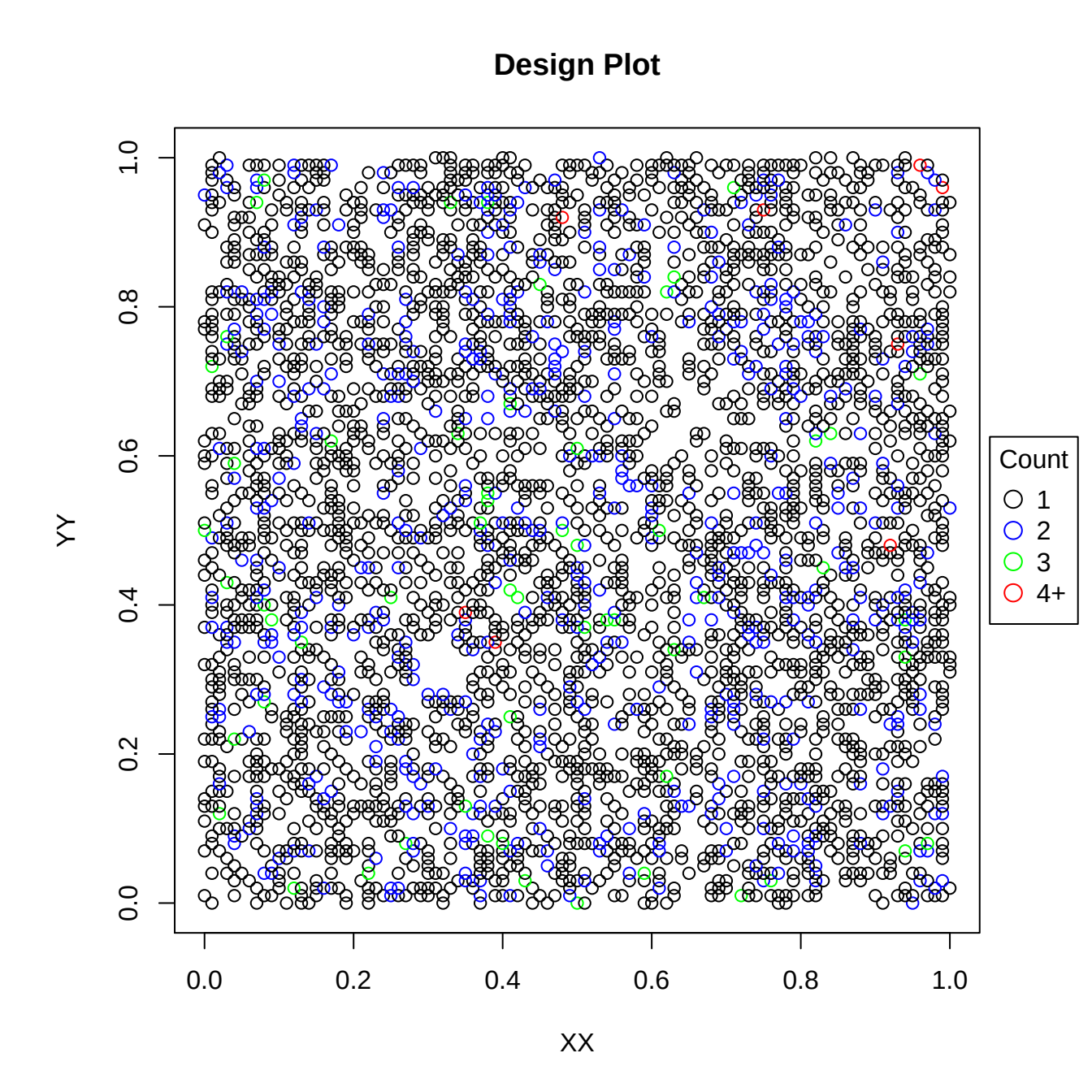

t(estFPC1)
5
0
−5
0
20
40
60
80
100

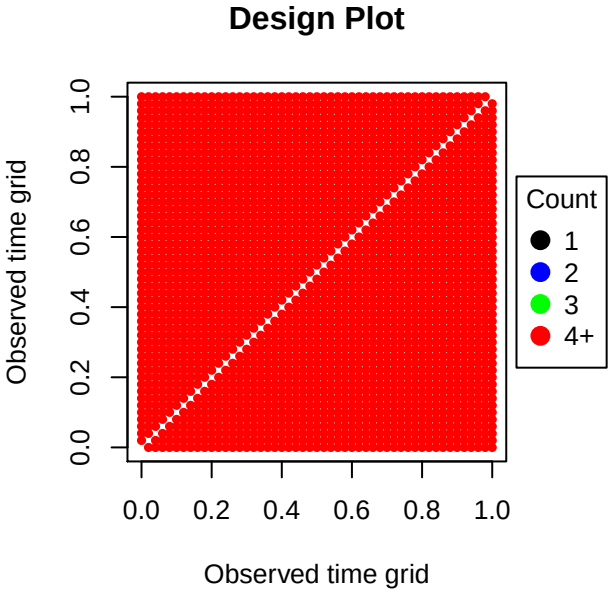

t(estDPC)
15
10
5
0
−5
−10
0
20
40
60
80
100

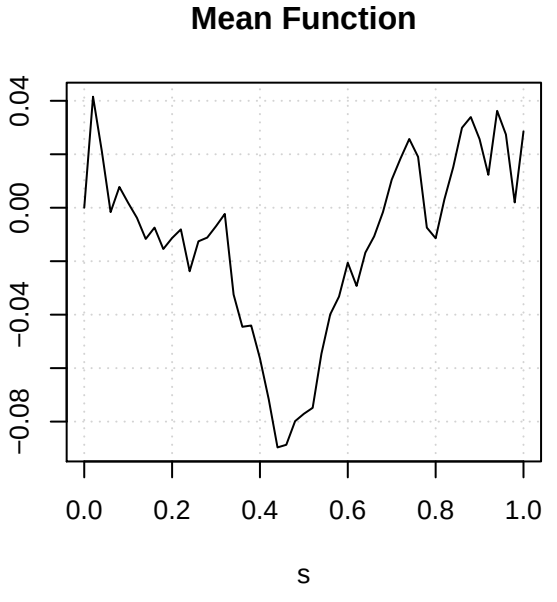

t(default$aligned)
4.0
3.5
3.0
2.5
2.0
0
10
20
30
40

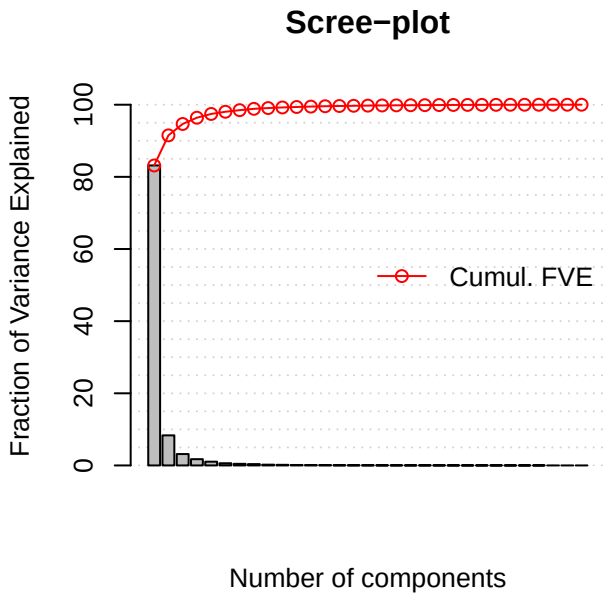

t(lam$aligned)
4.0
3.5
3.0
2.5
2.0
0
10
20
30
40

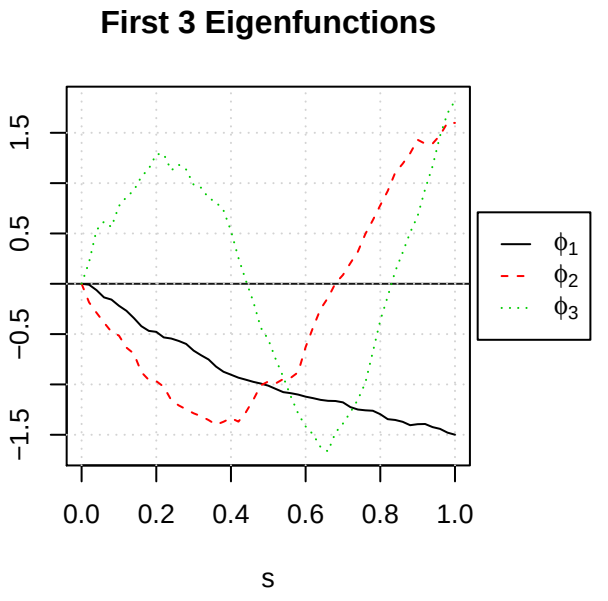

Design Plot
Observed time grid
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0

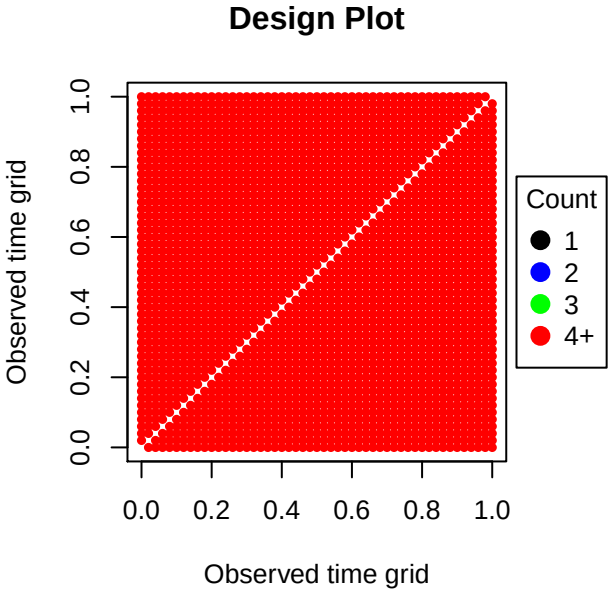

Design Plot
YY
XX
0.0
0.2
0.4
0.6
0.8
1.0
Count
1
2
3
4+

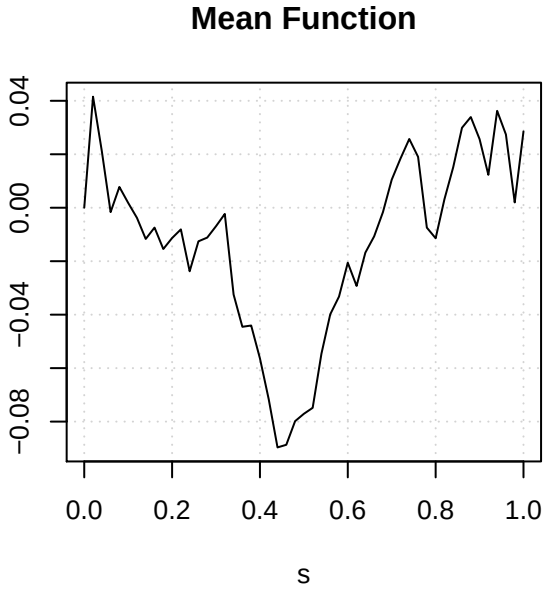

Design Plot
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Observed time grid
Count
1
2
3
4+

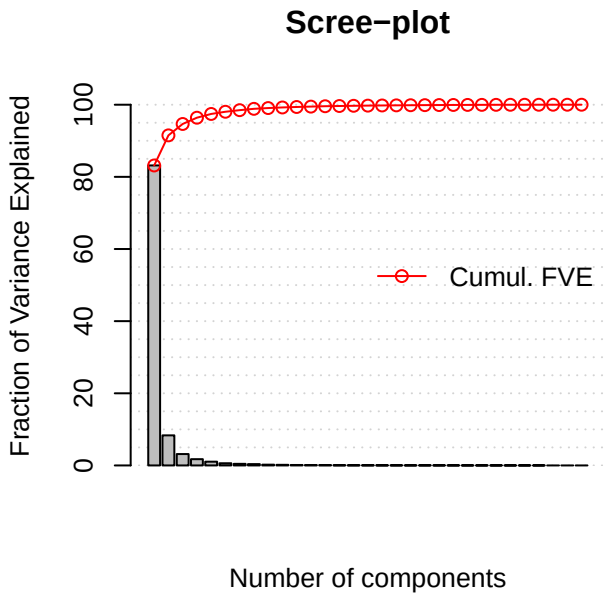

Mean Function
0.04
0.00
−0.04
−0.08
0.0
0.2
0.4
0.6
0.8
1.0
s

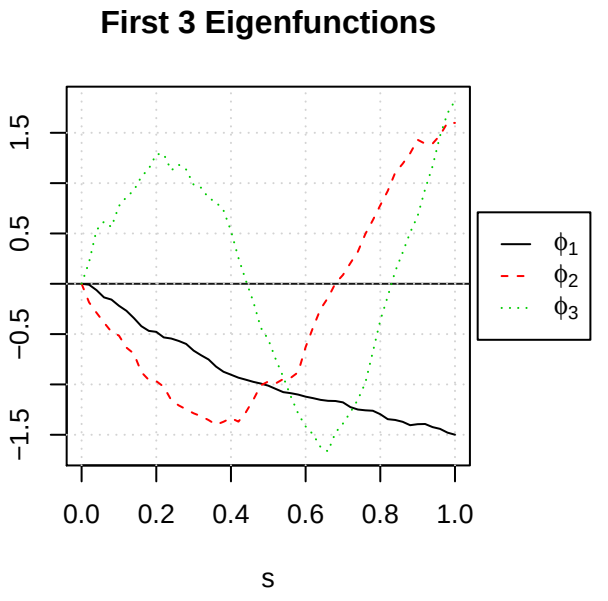

Scree−plot
Fraction of Variance Explained
0
20
40
60
80
100
Cumul. FVE
Number of components

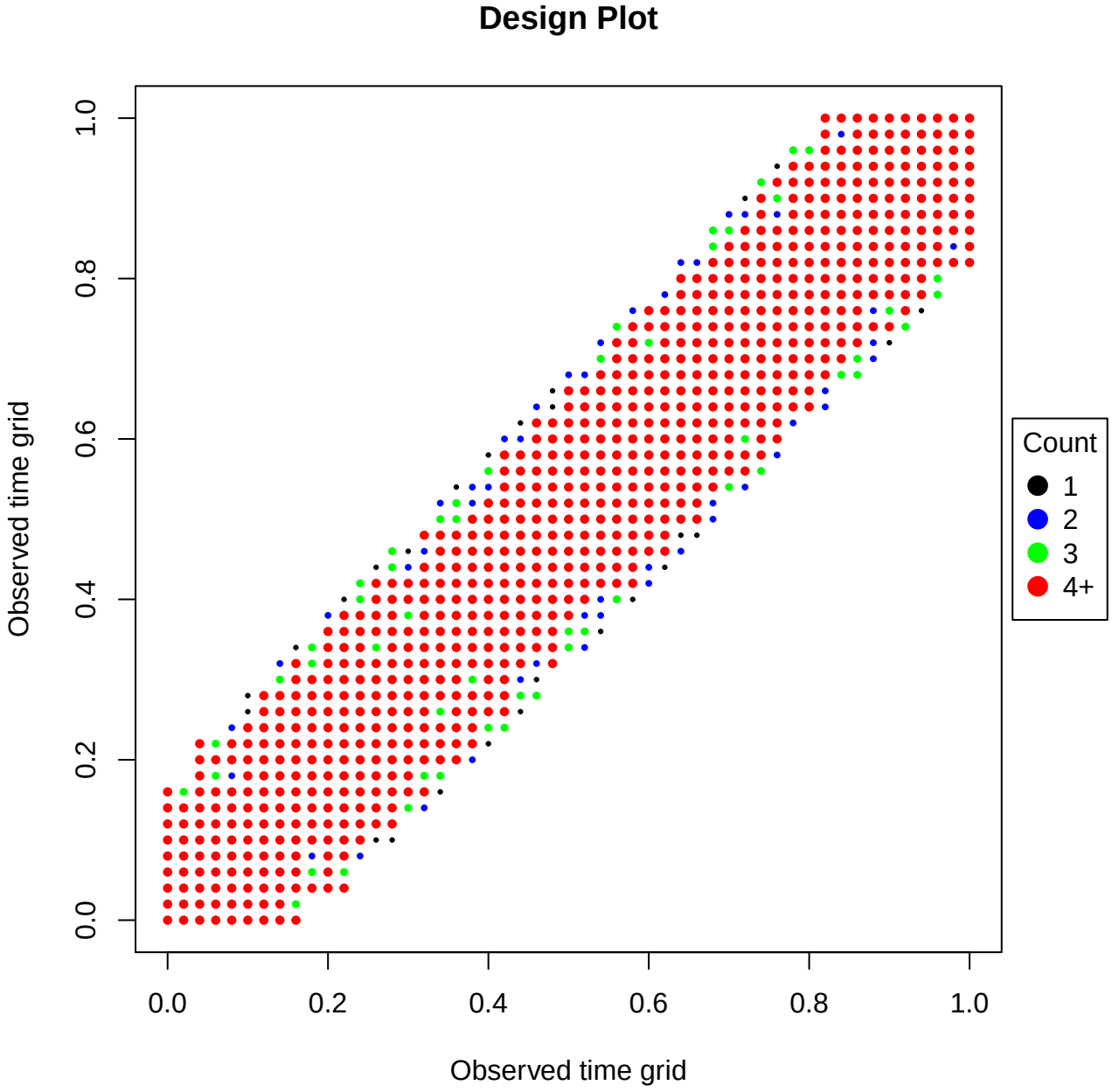

First 3 Eigenfunctions
1.5
0.5
−0.5
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s
ϕ1
ϕ2
ϕ3


Design Plot
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Observed time grid
Count
1
2
3
4+


Mean Function
0.04
0.00
−0.04
−0.08
0.0
0.2
0.4
0.6
0.8
1.0
s


Scree−plot
Fraction of Variance Explained
0
20
40
60
80
100
Cumul. FVE
Number of components


First 3 Eigenfunctions
1.5
0.5
−0.5
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
s
ϕ1
ϕ2
ϕ3


Design Plot
Observed time grid
Observed time grid
0.0
0.2
0.4
0.6
0.8
1.0
Count
1
2
3
4+