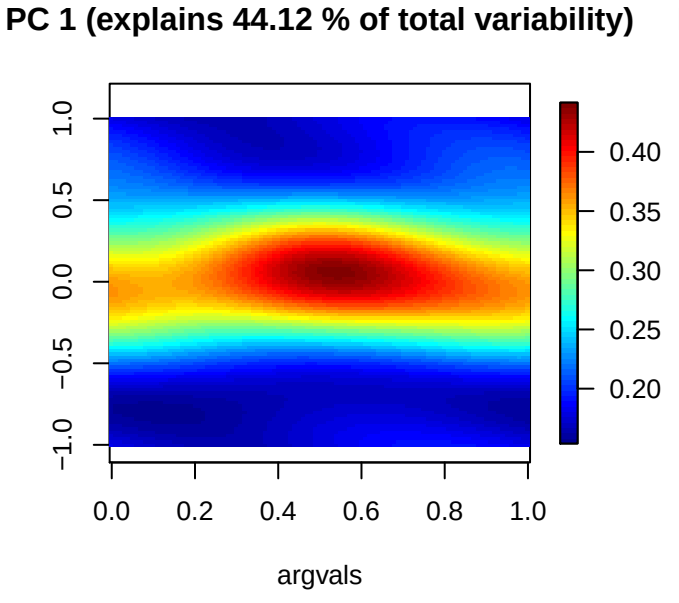
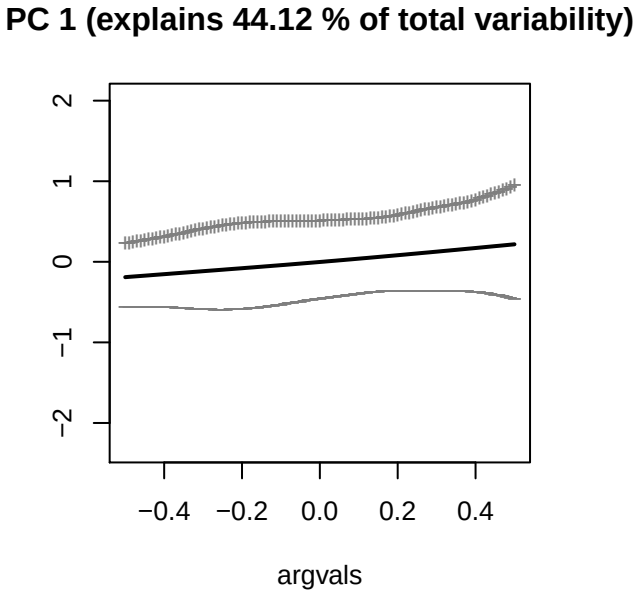
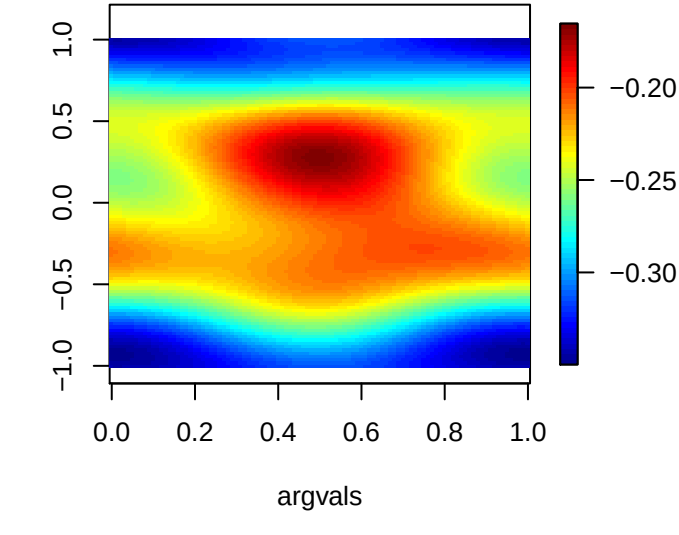
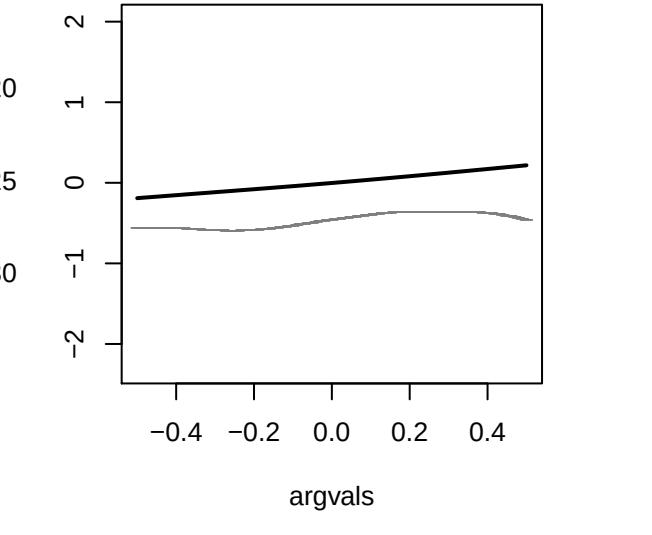
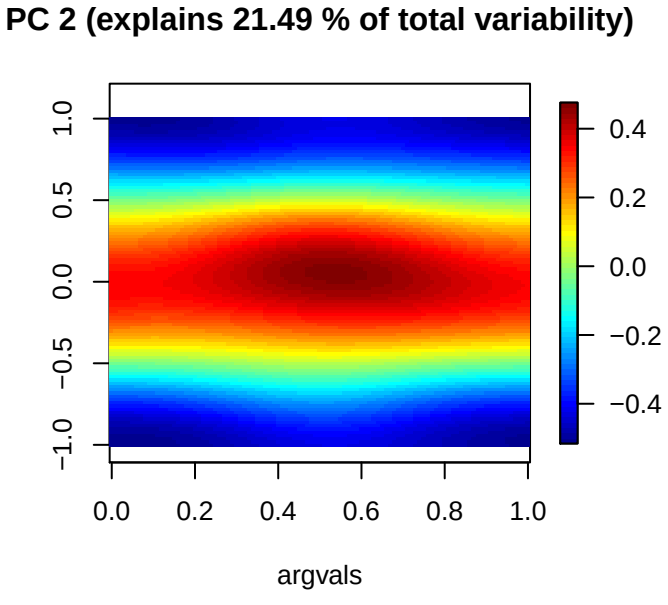
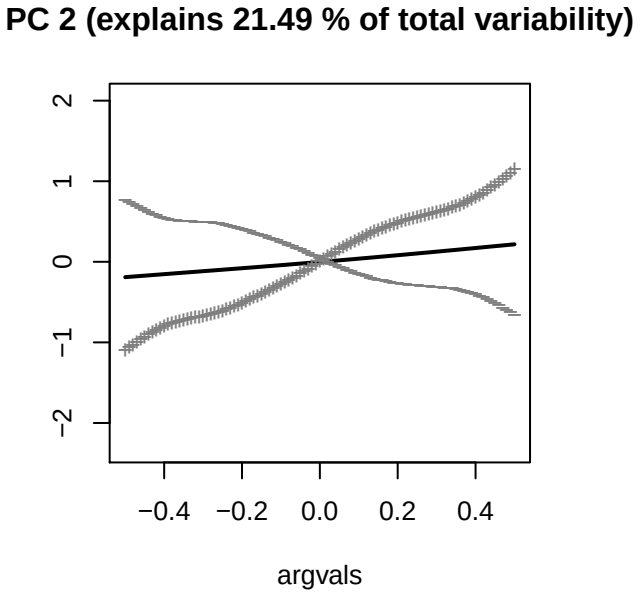

PC 1 (explains 44.12 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.40
0.35
0.30
0.25
0.20

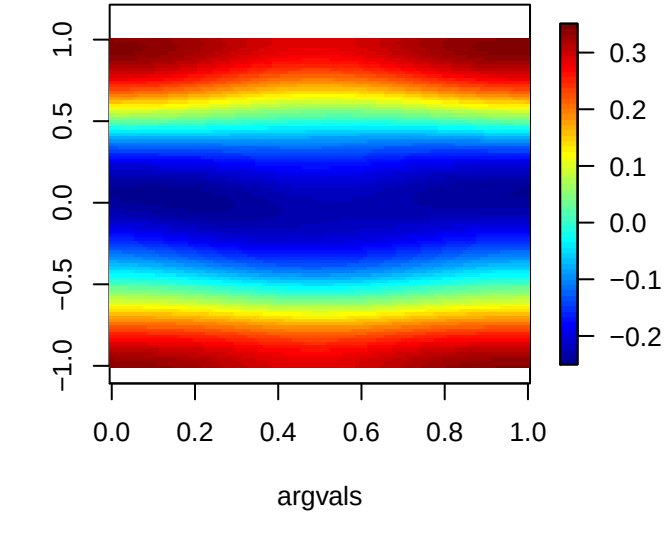

PC 1 (explains 44.12 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

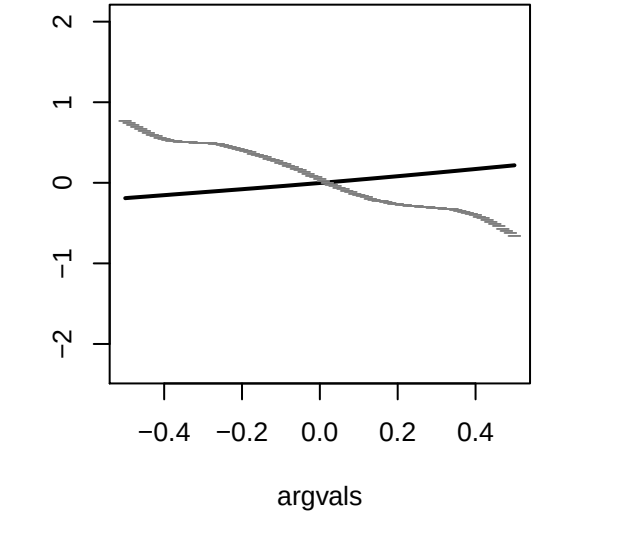

PC 1 (explains 44.12 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
−0.20
−0.25
−0.30

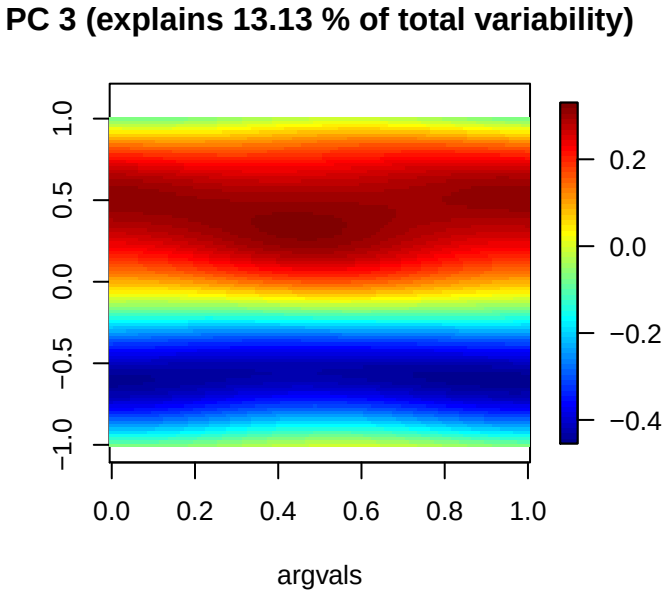

PC 1 (explains 44.12 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

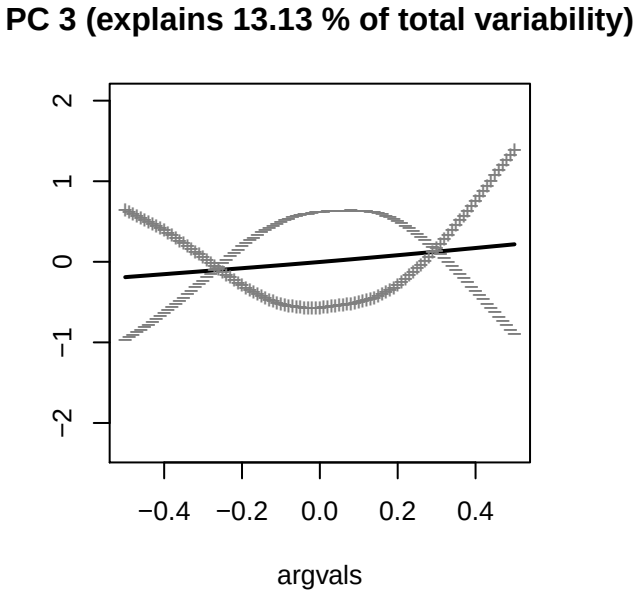

PC 2 (explains 21.49 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

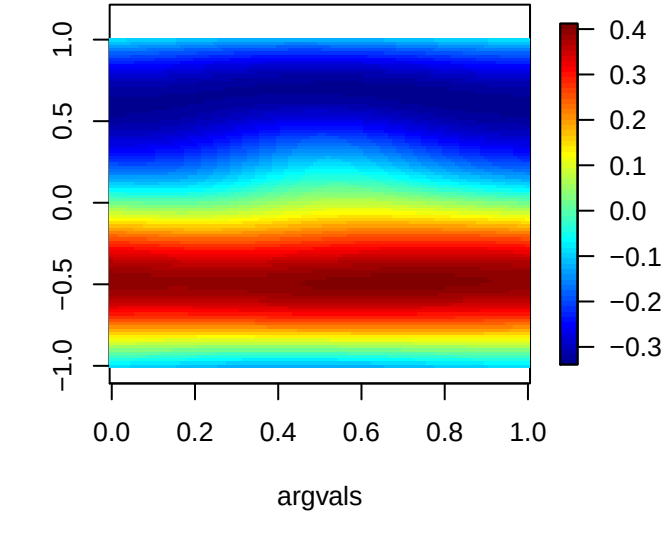

PC 2 (explains 21.49 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

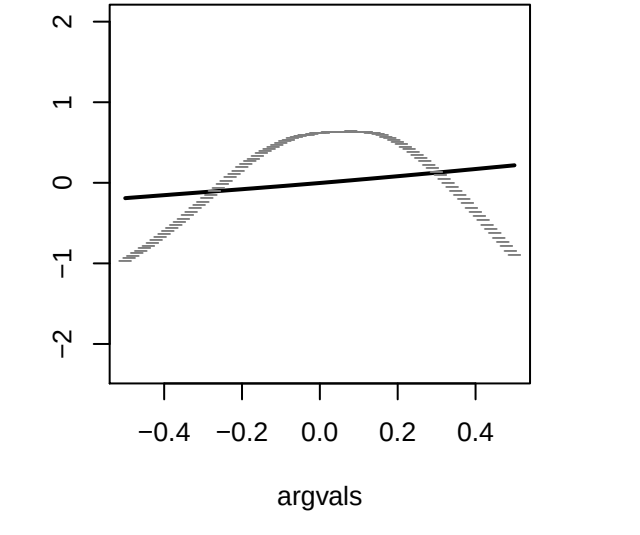

PC 2 (explains 21.49 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.3
0.2
0.1
0.0
−0.1
−0.2

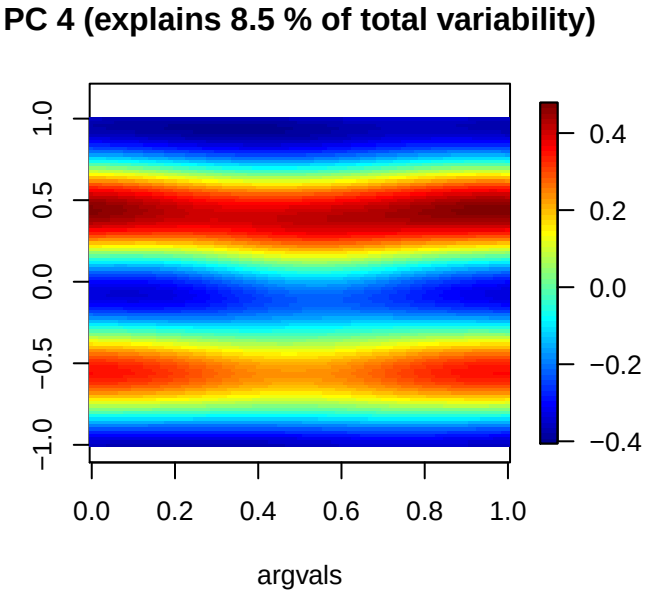

PC 2 (explains 21.49 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

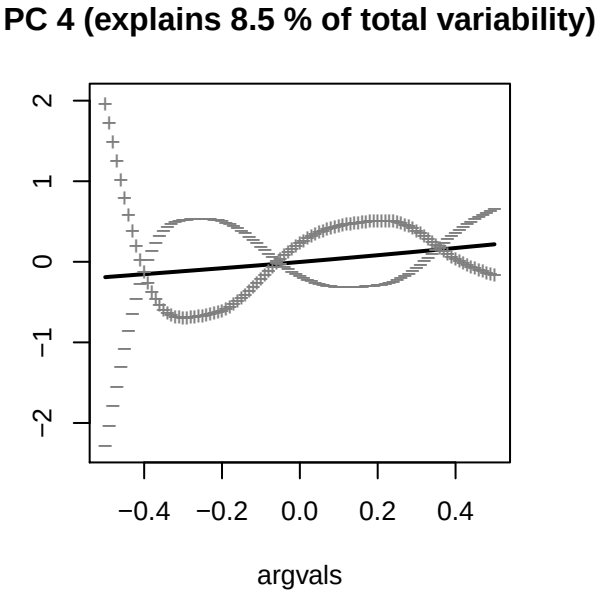

PC 3 (explains 13.13 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.2
0.0
−0.2
−0.4

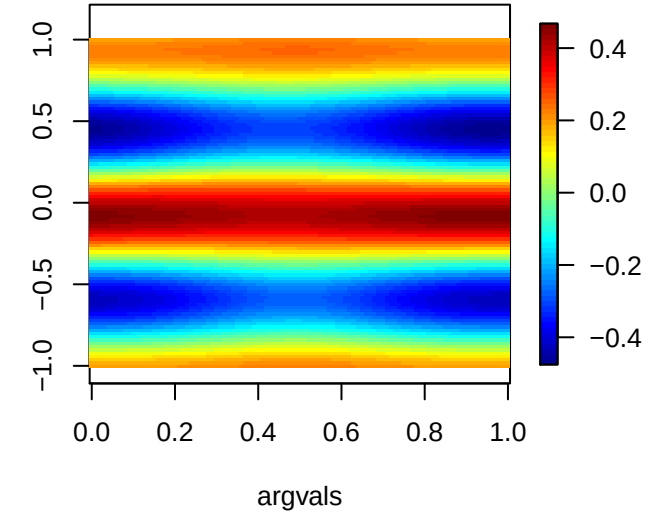

PC 3 (explains 13.13 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

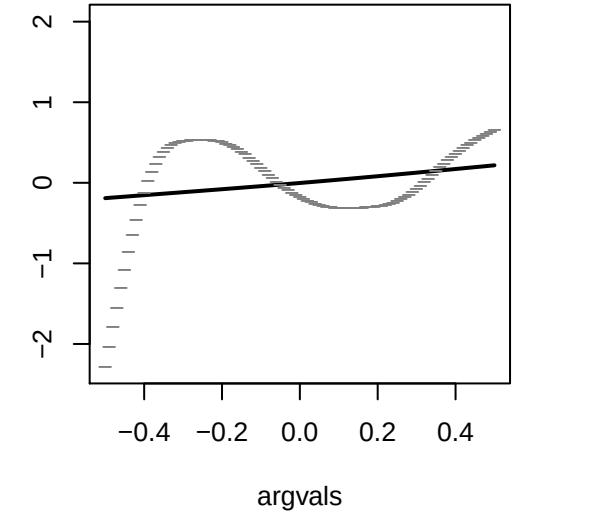

PC 3 (explains 13.13 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

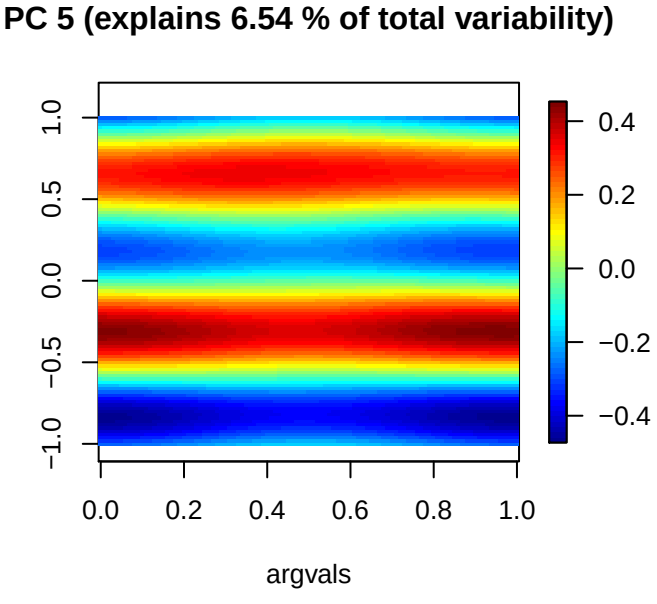

PC 3 (explains 13.13 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

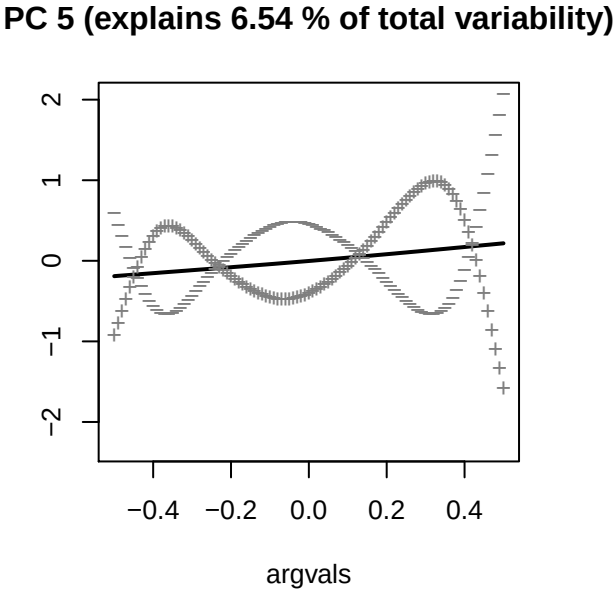

PC 4 (explains 8.5 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

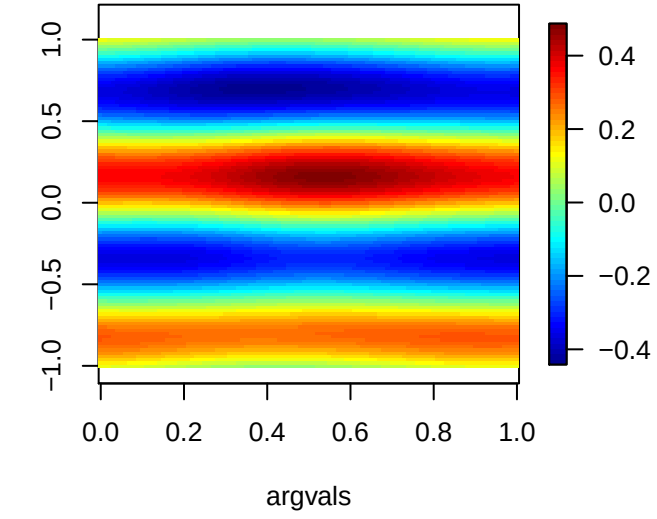

PC 4 (explains 8.5 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

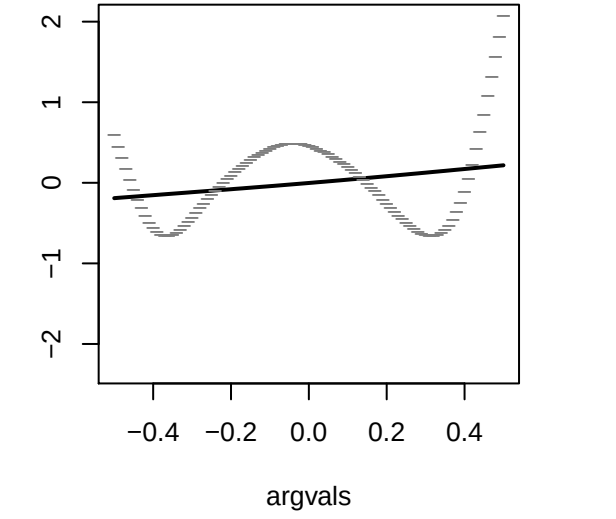

PC 4 (explains 8.5 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

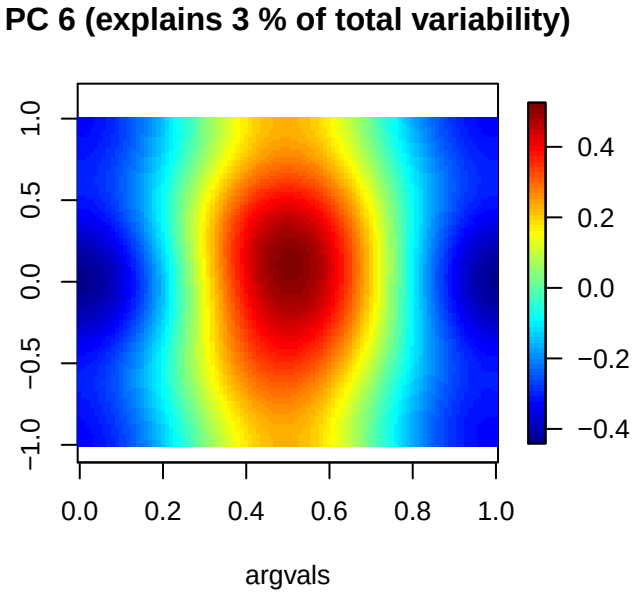

PC 4 (explains 8.5 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

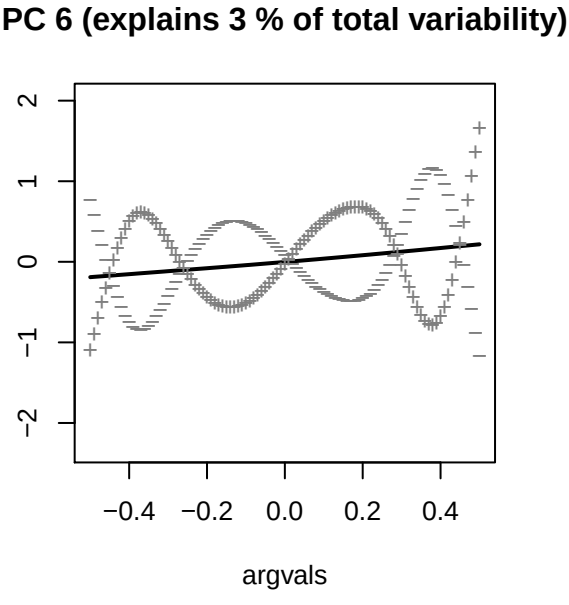

PC 5 (explains 6.54 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

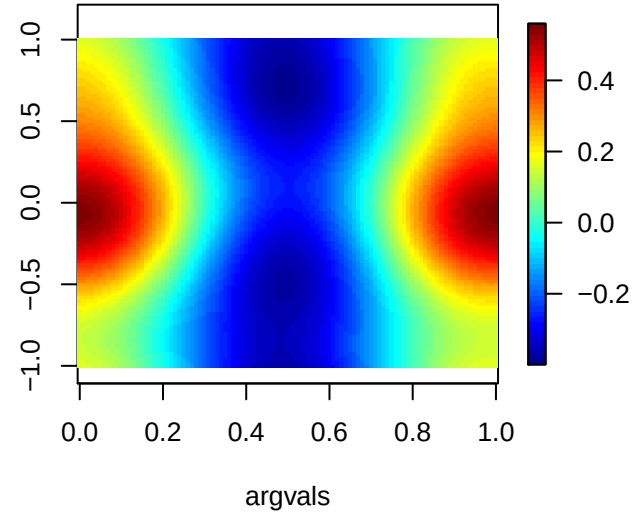

PC 5 (explains 6.54 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

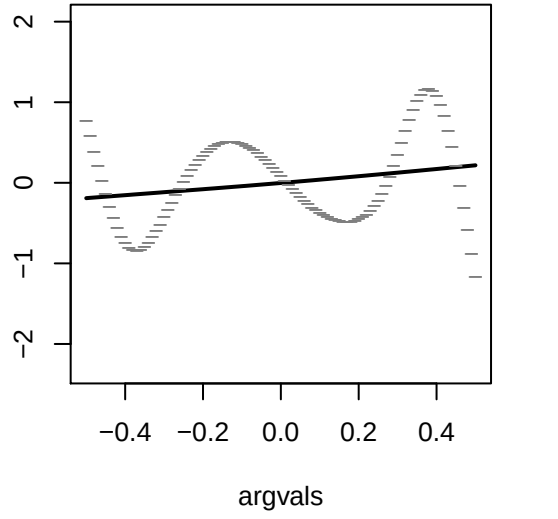

PC 5 (explains 6.54 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

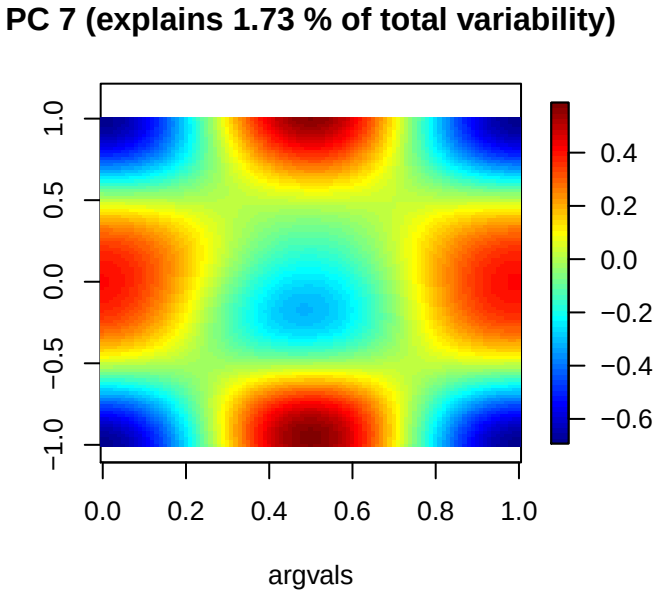

PC 5 (explains 6.54 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

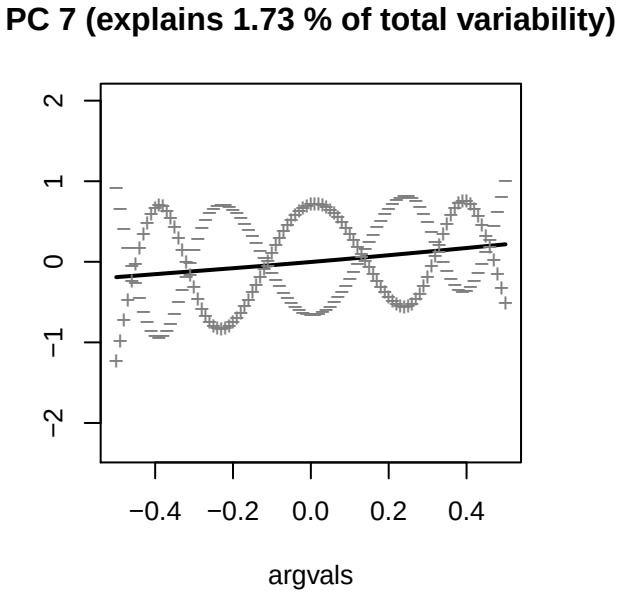

PC 6 (explains 3 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

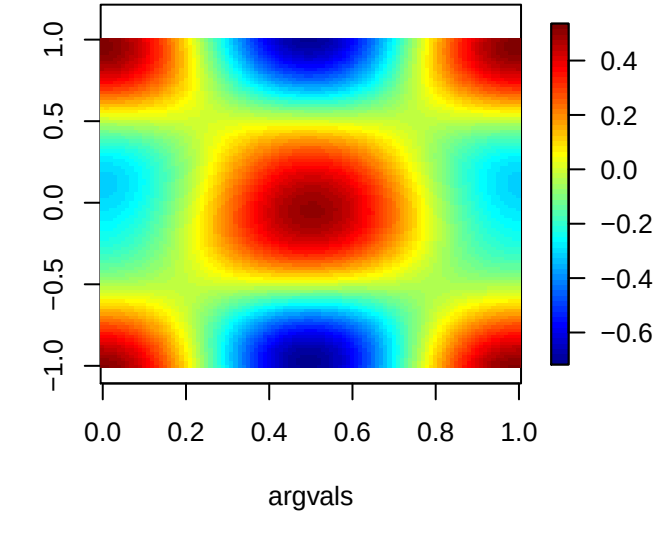

PC 6 (explains 3 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

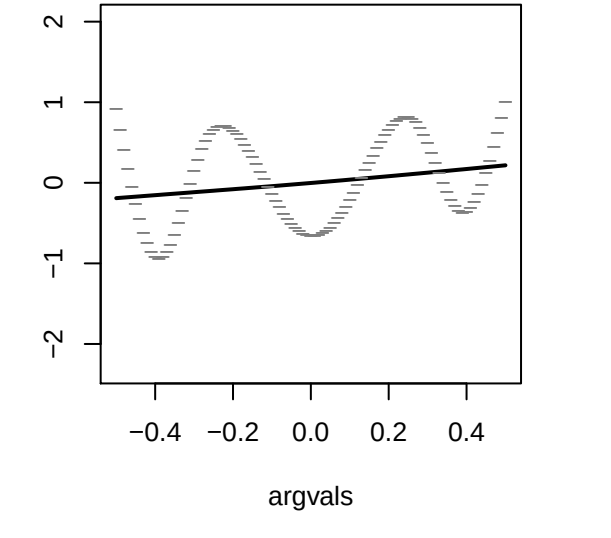

PC 6 (explains 3 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2

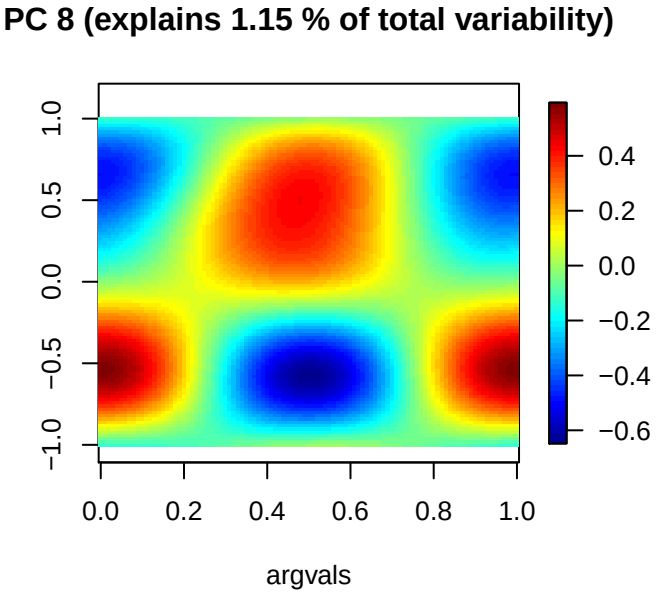

PC 6 (explains 3 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

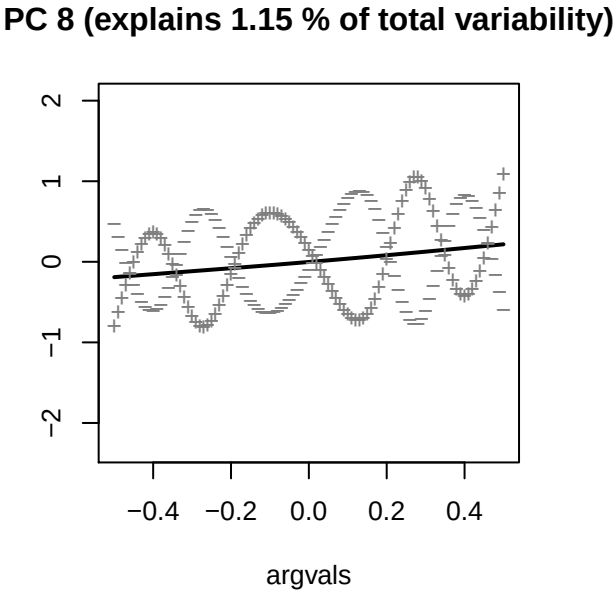

PC 7 (explains 1.73 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4
−0.6

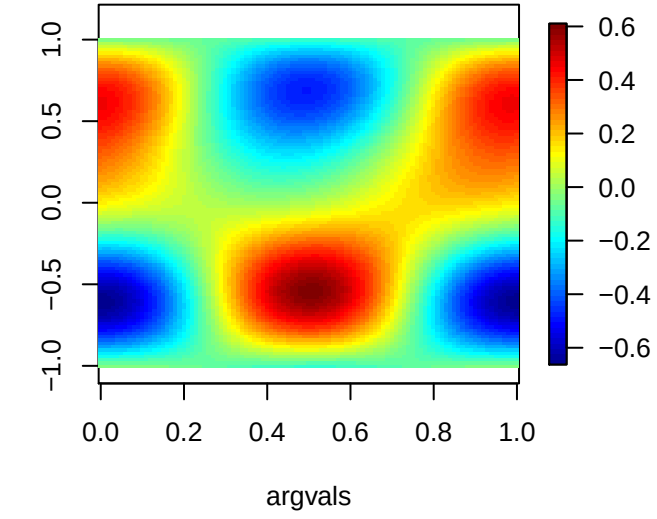

PC 7 (explains 1.73 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

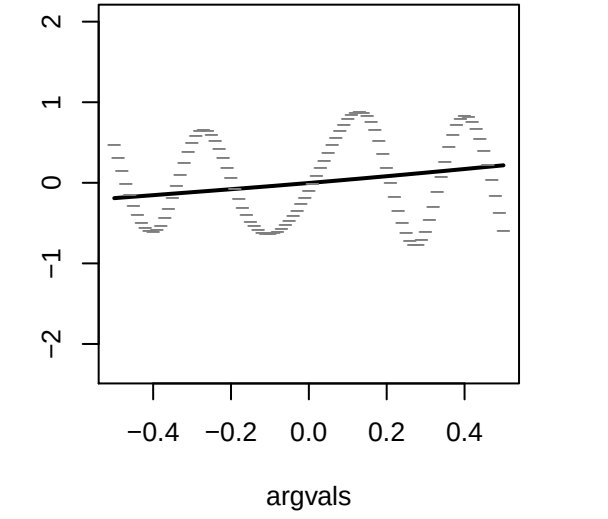

PC 7 (explains 1.73 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4
−0.6

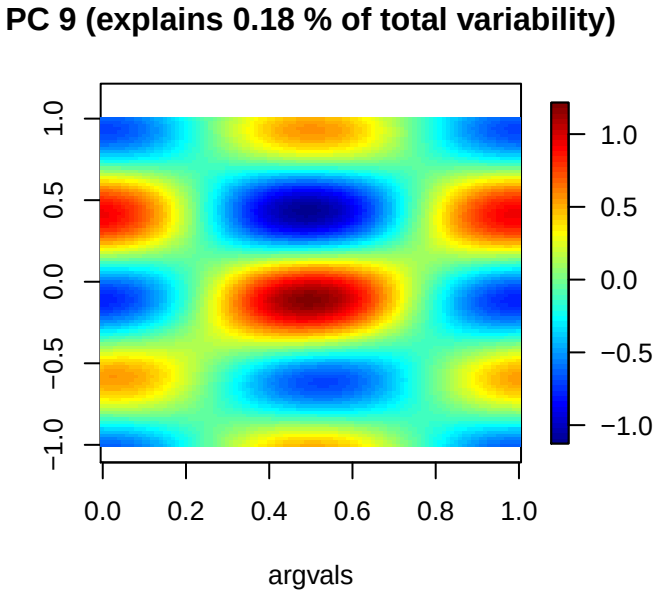

PC 7 (explains 1.73 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

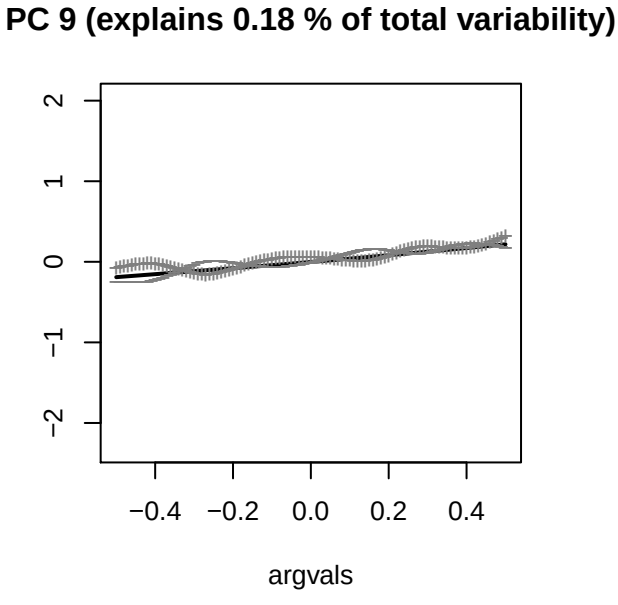

PC 8 (explains 1.15 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4
−0.6

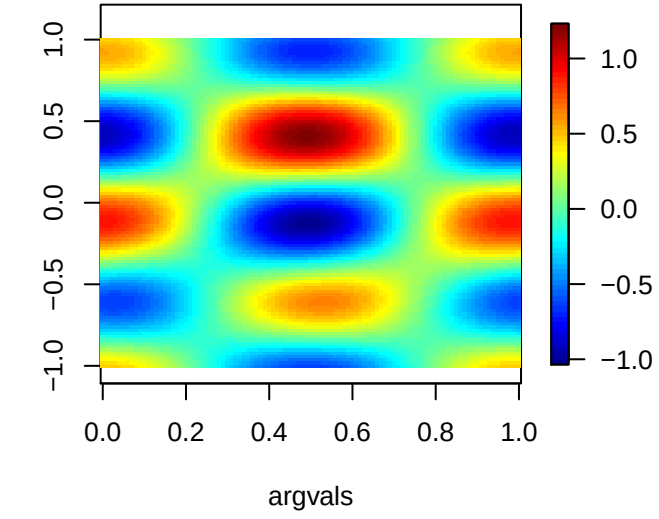

PC 8 (explains 1.15 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

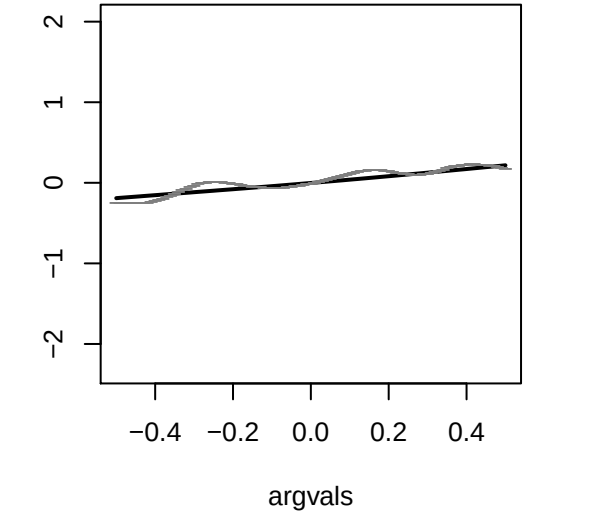

PC 8 (explains 1.15 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6

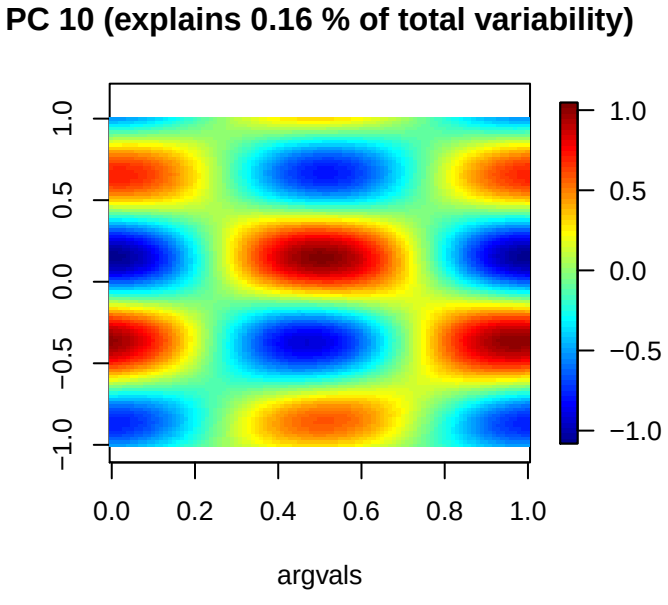

PC 8 (explains 1.15 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

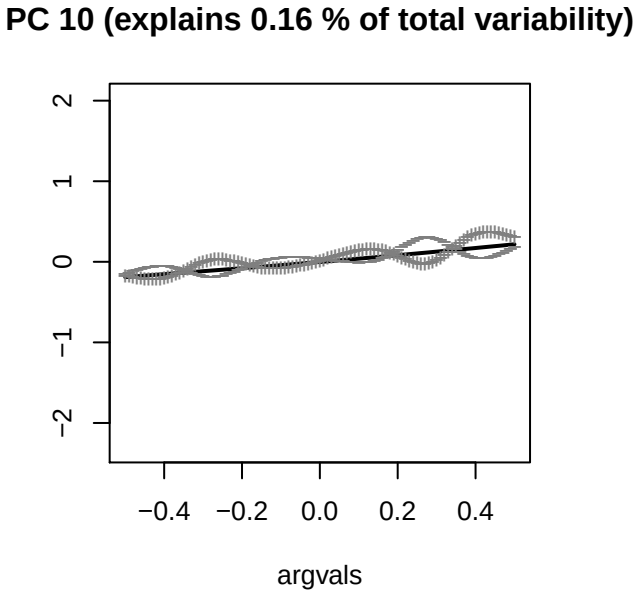

PC 9 (explains 0.18 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

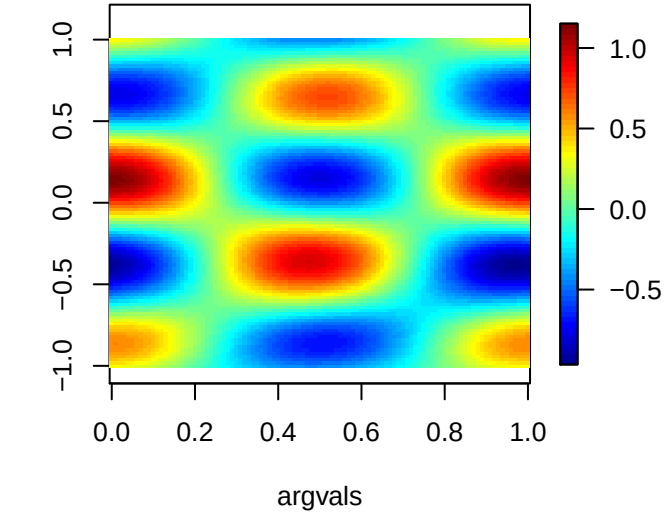

PC 9 (explains 0.18 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

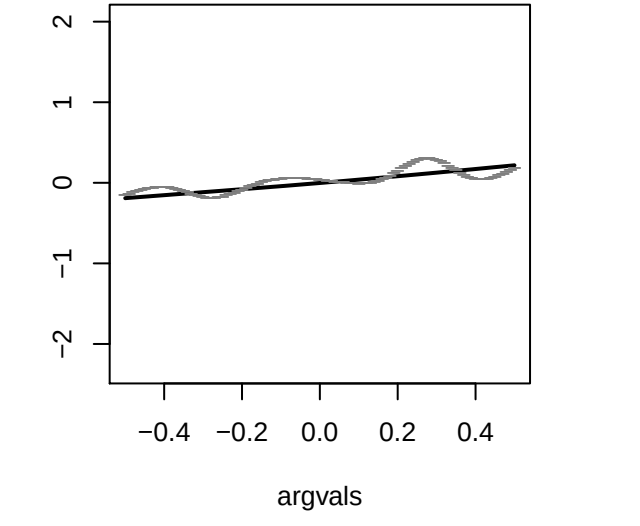

PC 9 (explains 0.18 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

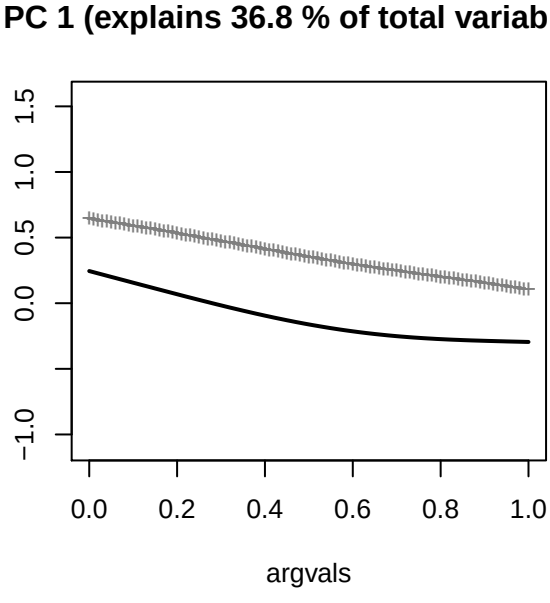

PC 9 (explains 0.18 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

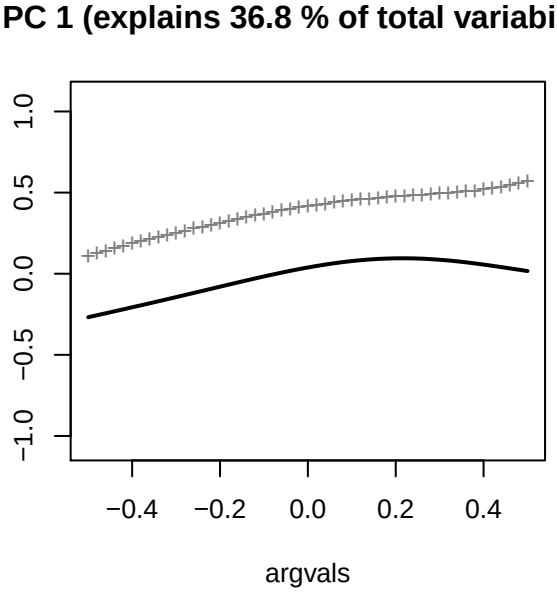

PC 10 (explains 0.16 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

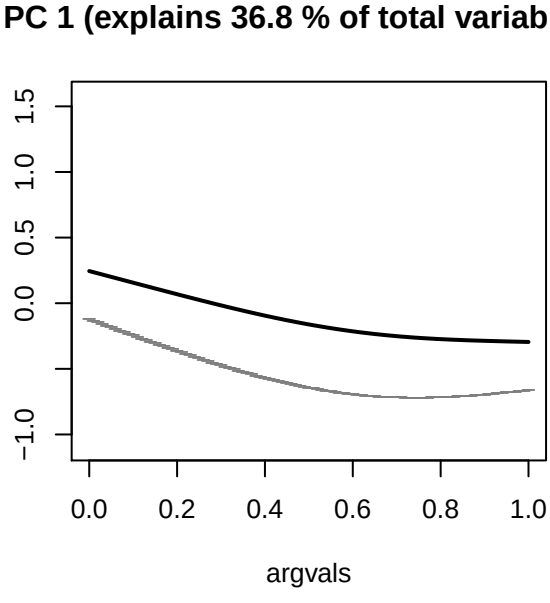

PC 10 (explains 0.16 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

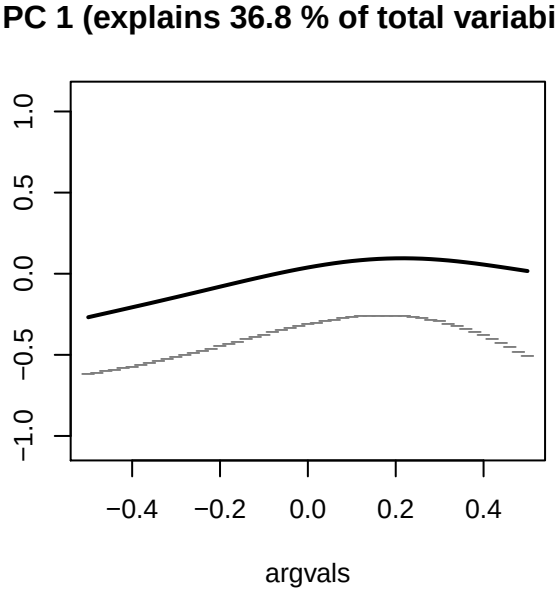

PC 10 (explains 0.16 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

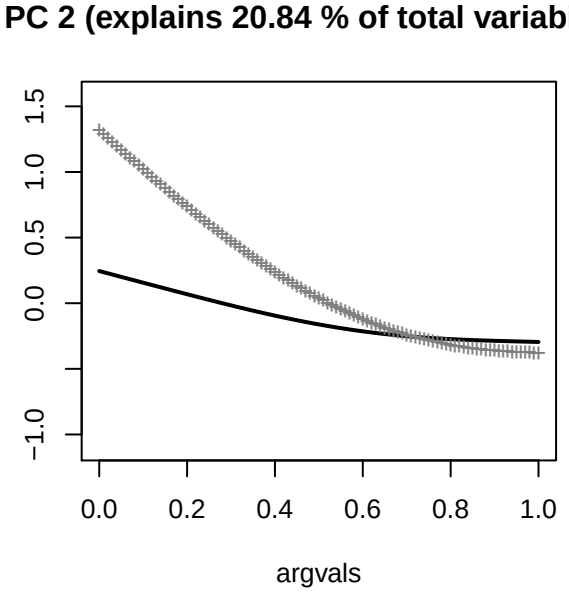

PC 10 (explains 0.16 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

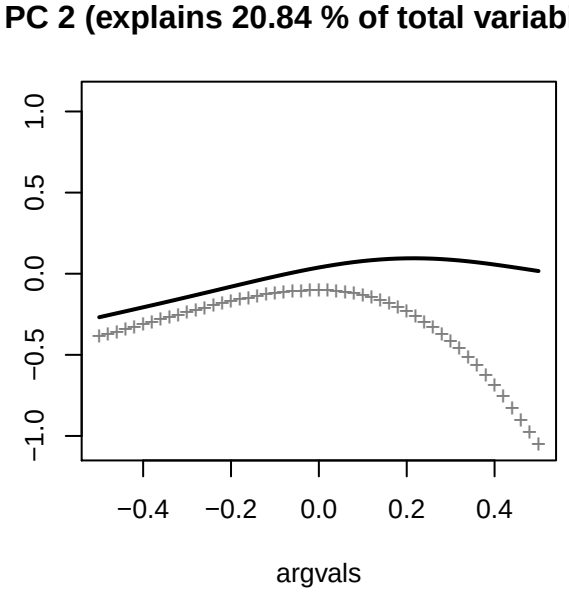

PC 1 (explains 36.8 % of total variability)
1.5
1.0
0.5
0.0
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

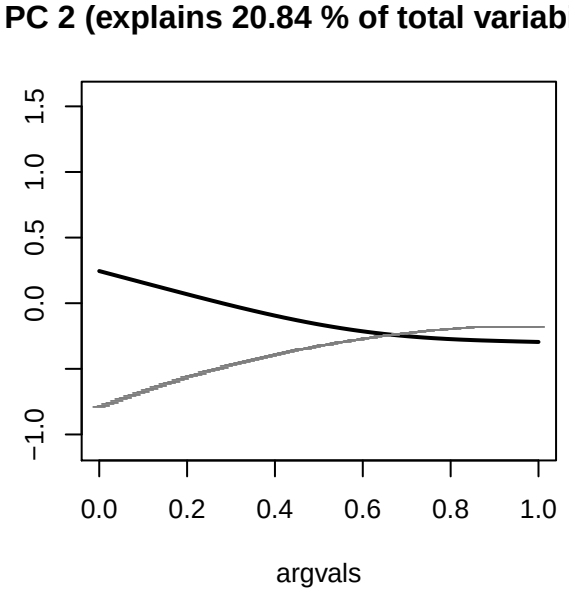

PC 1 (explains 36.8 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
−0.4
−0.2
0.0
0.2
0.4
argvals

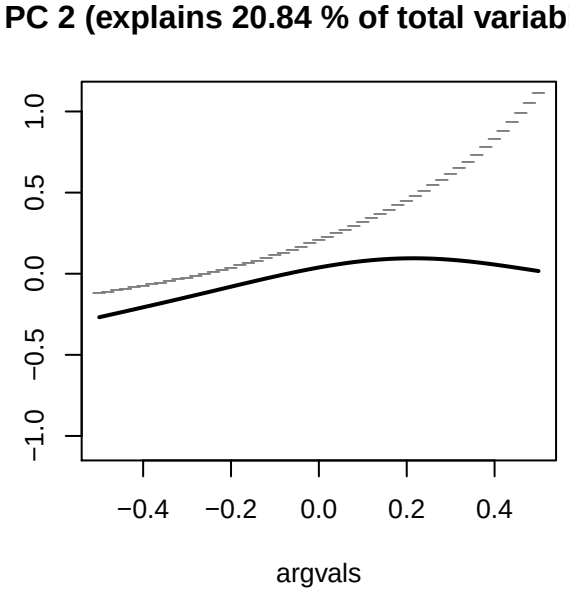

PC 1 (explains 36.8 % of total variability)
1.5
1.0
0.5
0.0
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals


PC 1 (explains 36.8 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
−0.4
−0.2
0.0
0.2
0.4
argvals

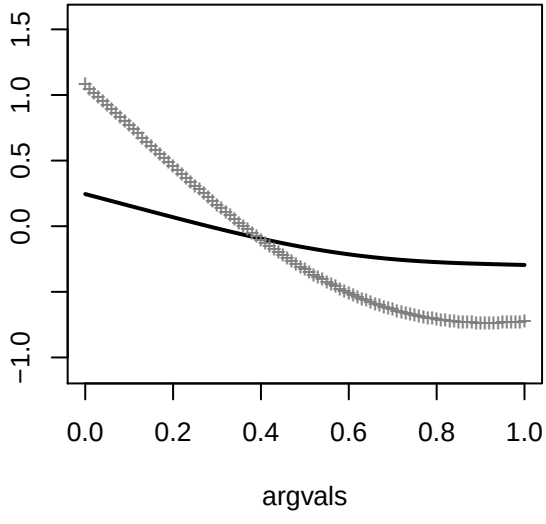

PC 2 (explains 20.84 % of total variability
1.5
1.0
0.5
0.0
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals


PC 2 (explains 20.84 % of total variability
1.0
0.5
0.0
−0.5
−1.0
−0.4
−0.2
0.0
0.2
0.4
argvals

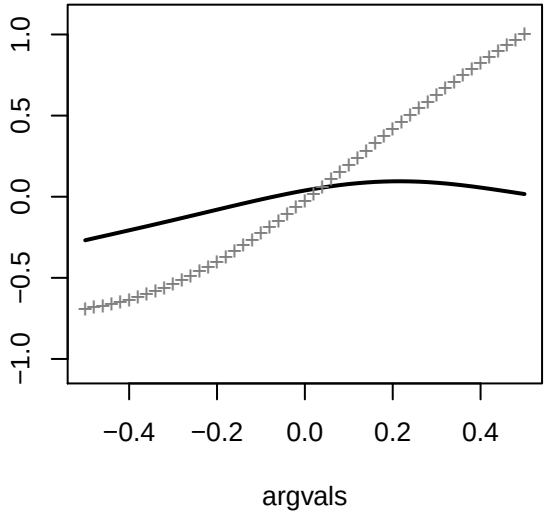

PC 2 (explains 20.84 % of total variability
1.5
1.0
0.5
0.0
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals


PC 2 (explains 20.84 % of total variability
1.0
0.5
0.0
−0.5
−1.0
−0.4
−0.2
0.0
0.2
0.4
argvals

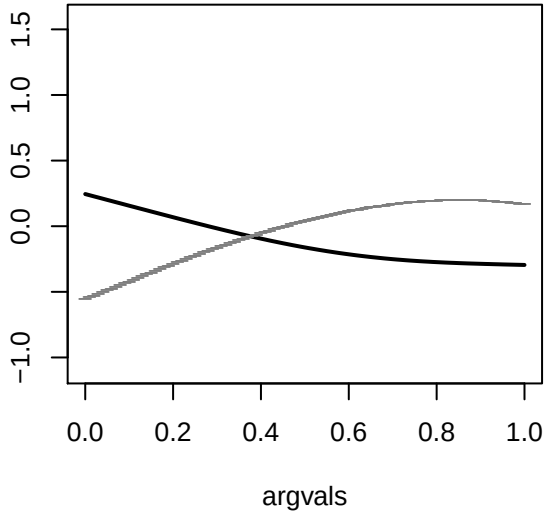
PC 3 (explains 18.5 % of total variability)



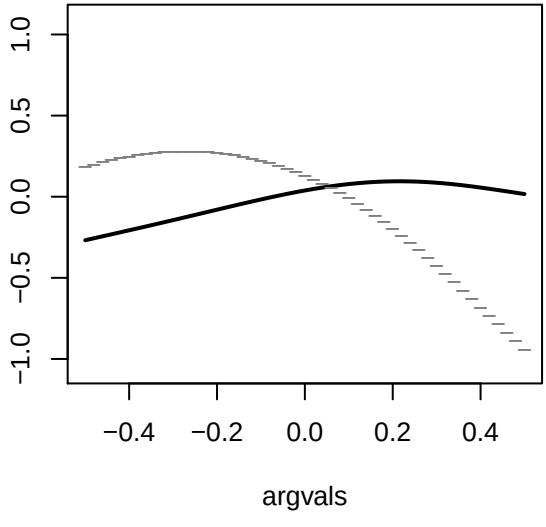
PC 3 (explains 18.5 % of total variability)

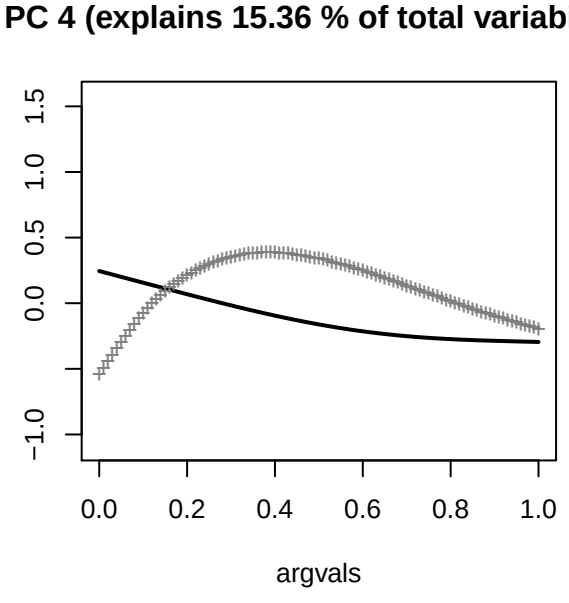


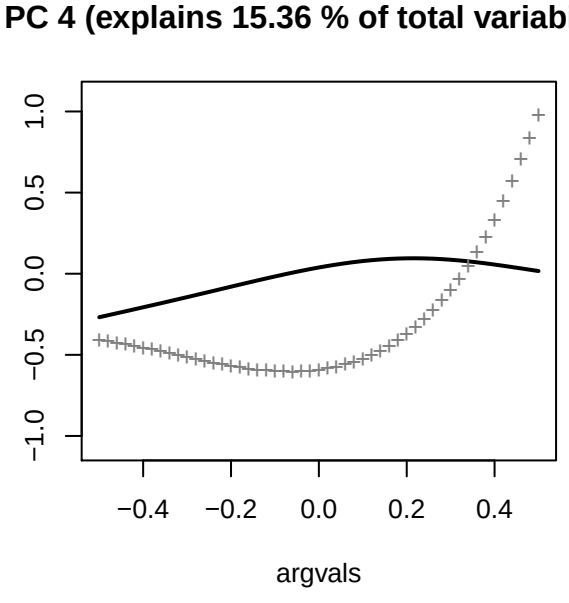
PC 3 (explains 18.5 % of total variability)

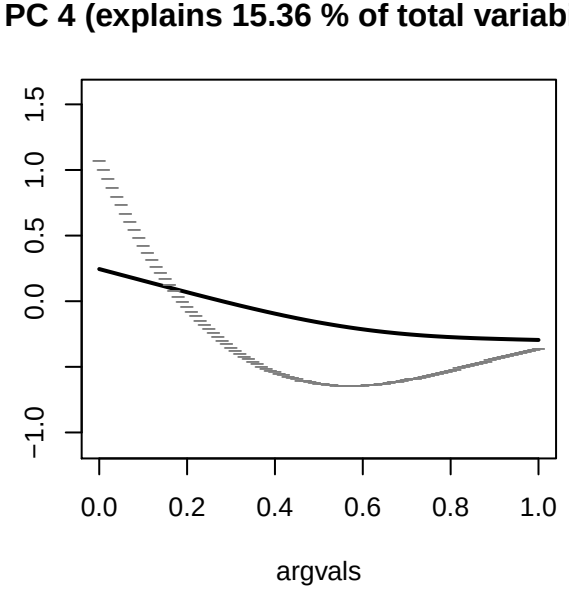


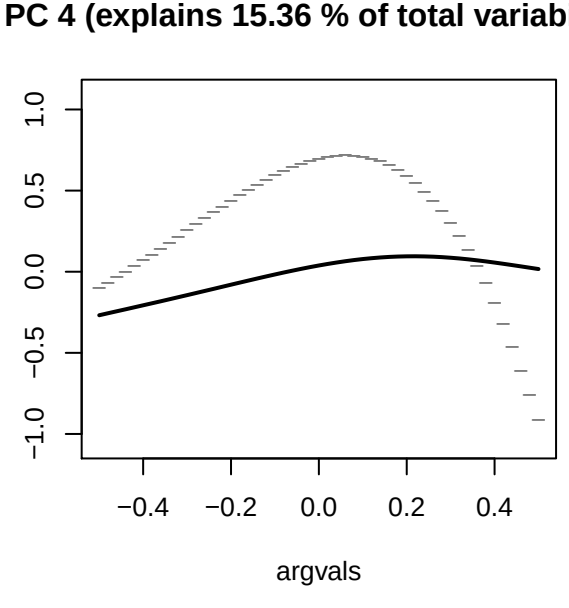
PC 3 (explains 18.5 % of total variability)

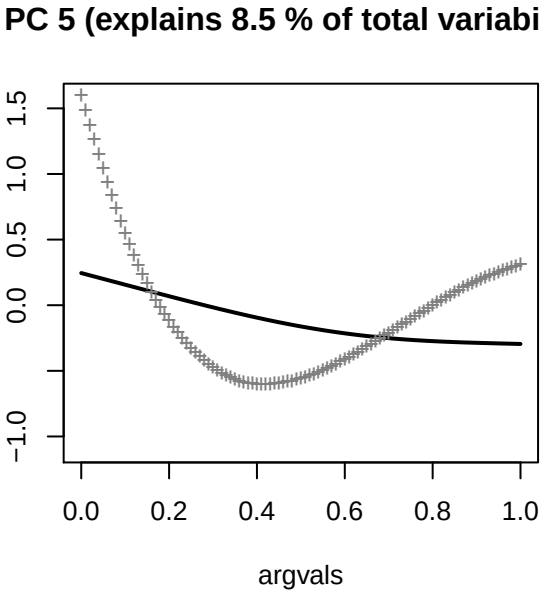


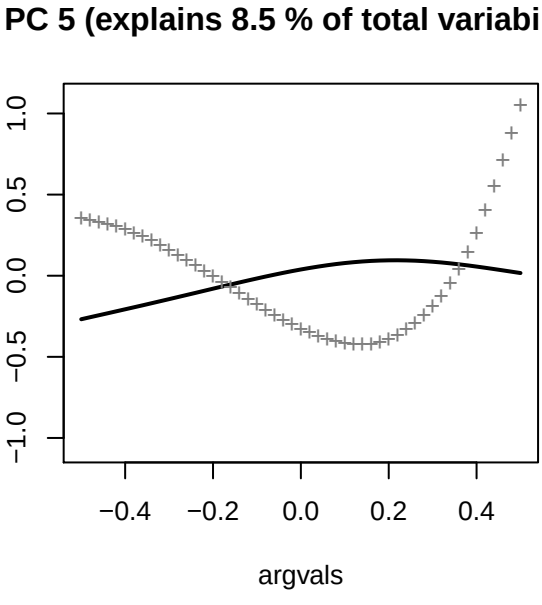

PC 4 (explains 15.36 % of total variability
1.5
1.0
0.5
0.0
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

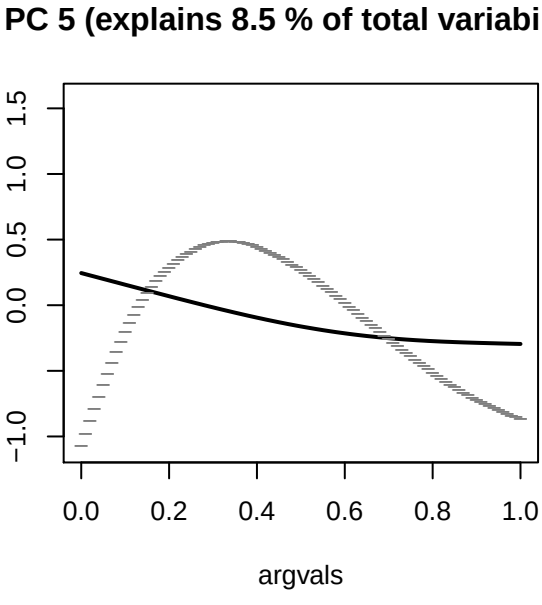

PC 4 (explains 15.36 % of total variability
1.0
0.5
0.0
−0.5
−1.0
−0.4
−0.2
0.0
0.2
0.4
argvals

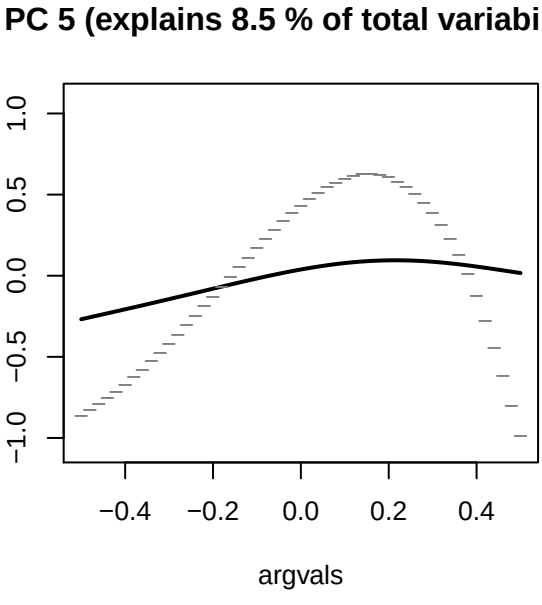

PC 4 (explains 15.36 % of total variability
1.5
1.0
0.5
0.0
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

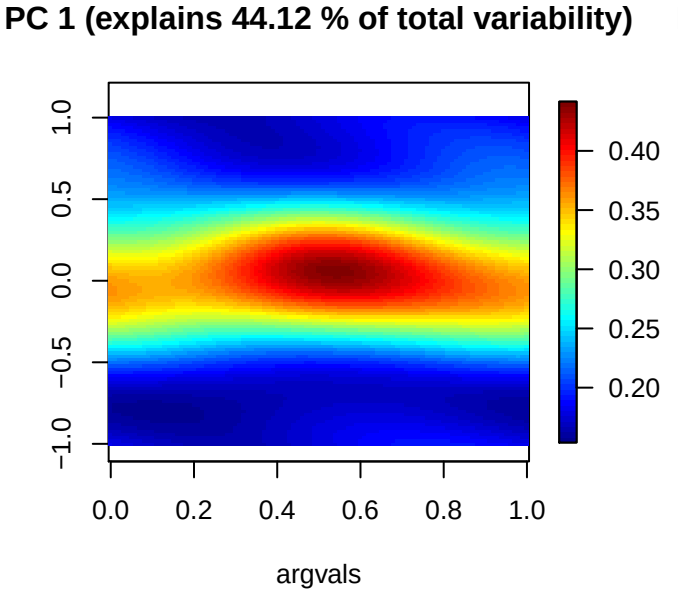

PC 4 (explains 15.36 % of total variability
1.0
0.5
0.0
−0.5
−1.0
−0.4
−0.2
0.0
0.2
0.4
argvals

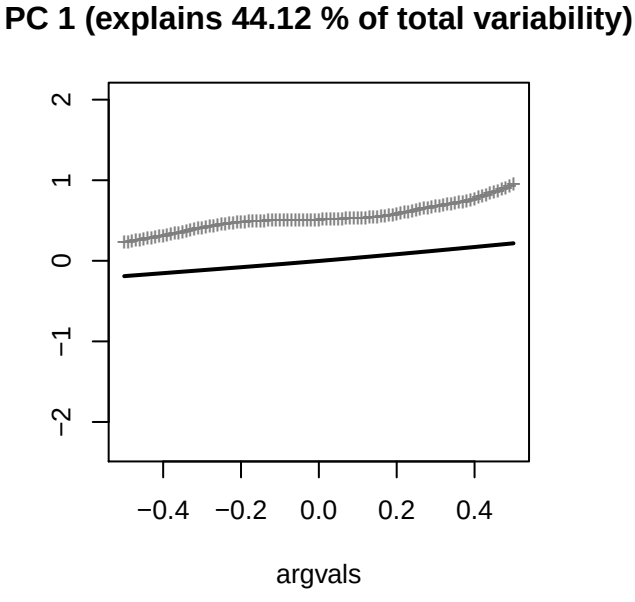

PC 5 (explains 8.5 % of total variability)
1.5
1.0
0.5
0.0
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

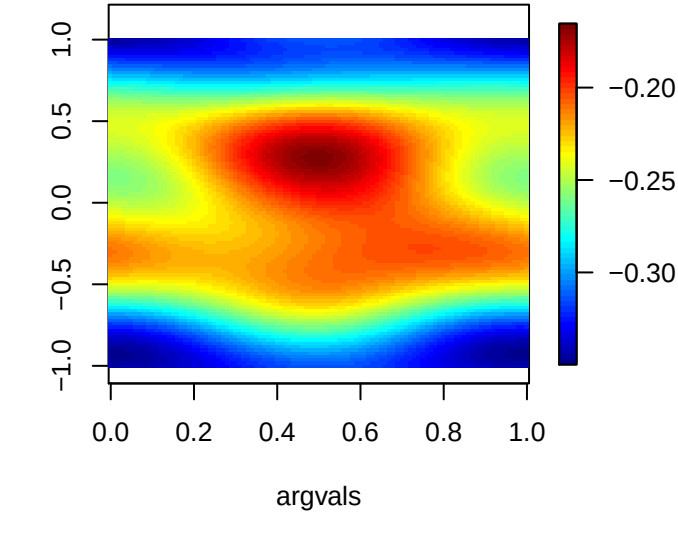

PC 5 (explains 8.5 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
−0.4
−0.2
0.0
0.2
0.4
argvals

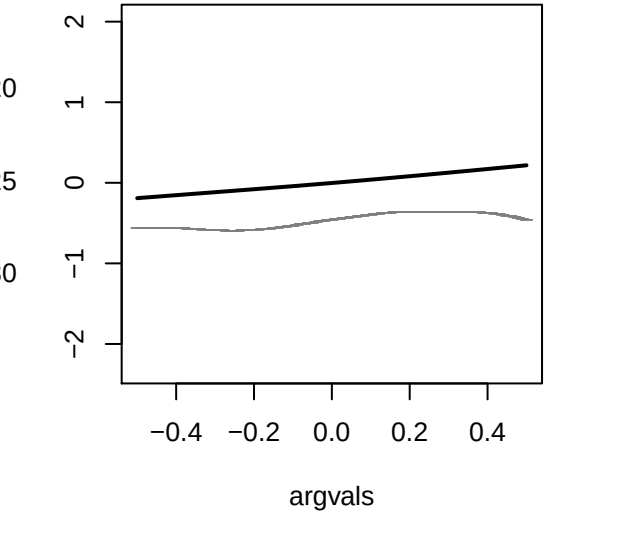

PC 5 (explains 8.5 % of total variability)
1.5
1.0
0.5
0.0
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

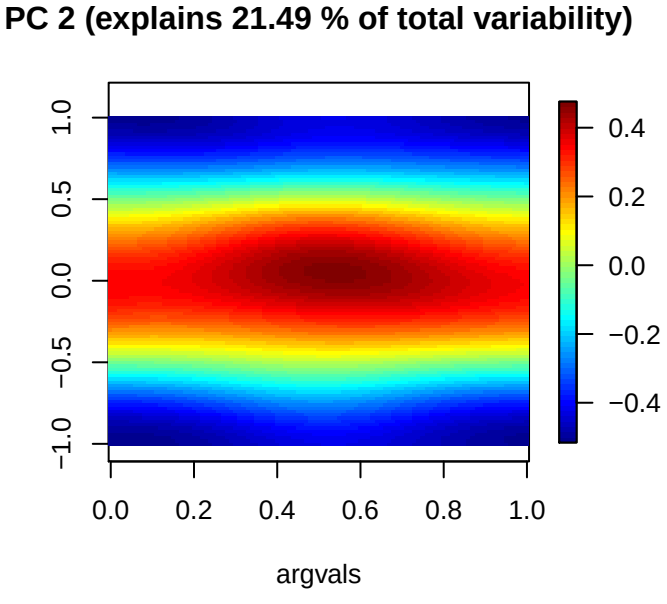

PC 5 (explains 8.5 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
−0.4
−0.2
0.0
0.2
0.4
argvals

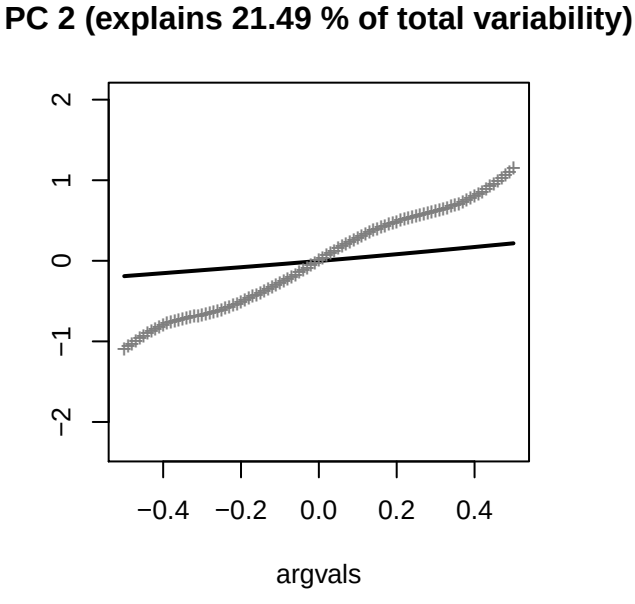

PC 1 (explains 44.12 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.40
0.35
0.30
0.25
0.20

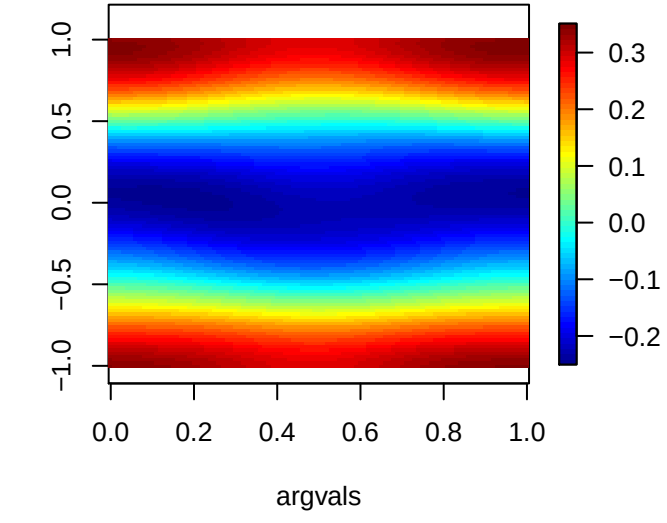

PC 1 (explains 44.12 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

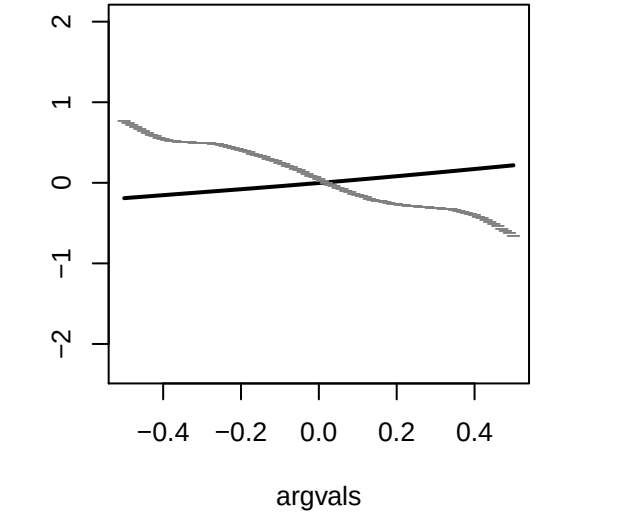

PC 1 (explains 44.12 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
−0.20
−0.25
−0.30

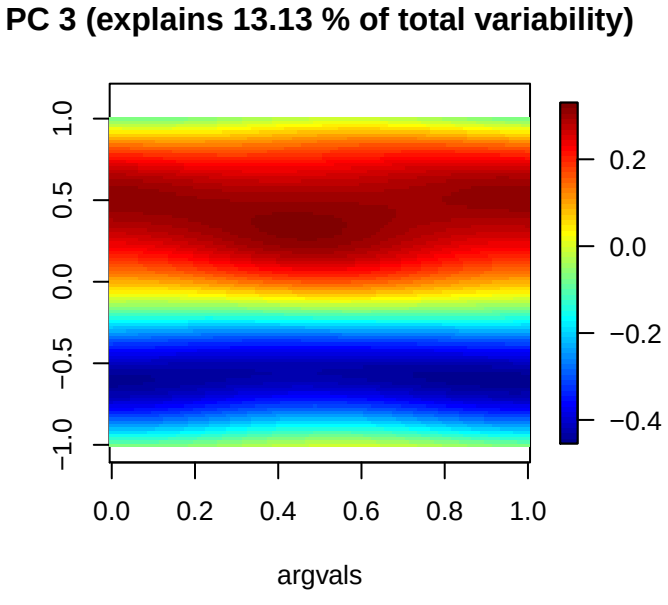

PC 1 (explains 44.12 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

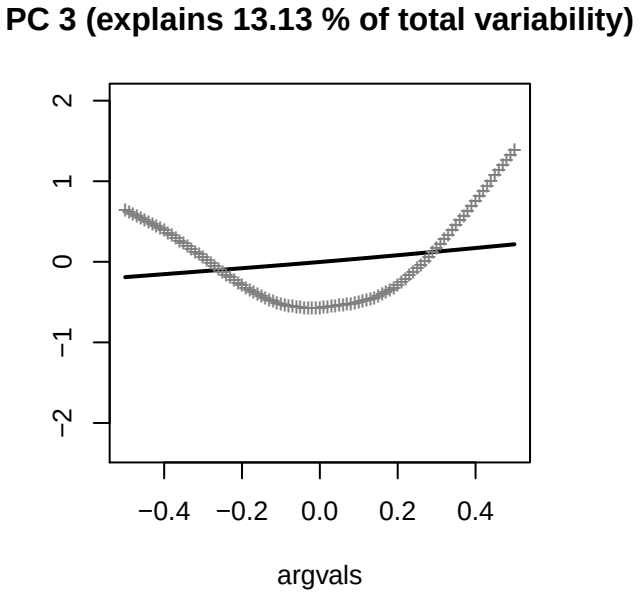

PC 2 (explains 21.49 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

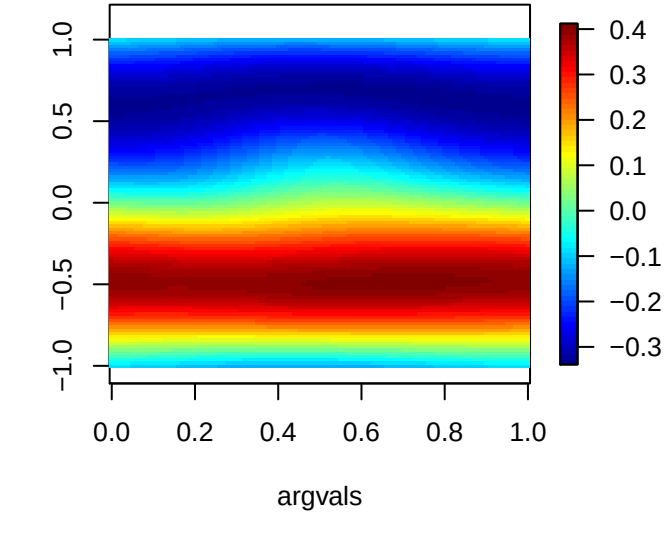

PC 2 (explains 21.49 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

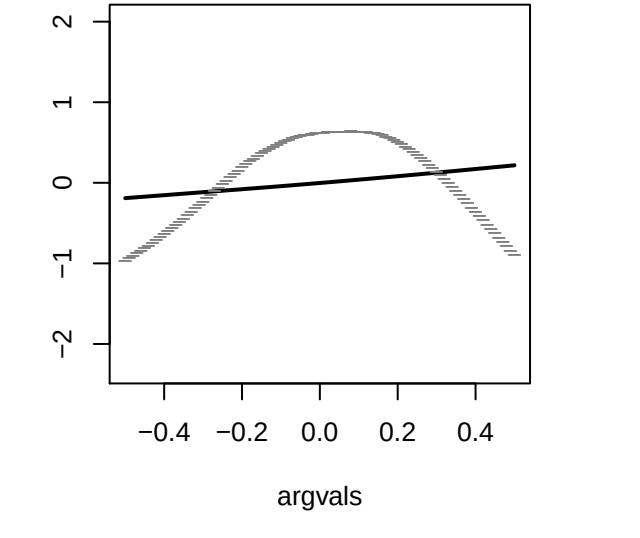

PC 2 (explains 21.49 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.3
0.2
0.1
0.0
−0.1
−0.2

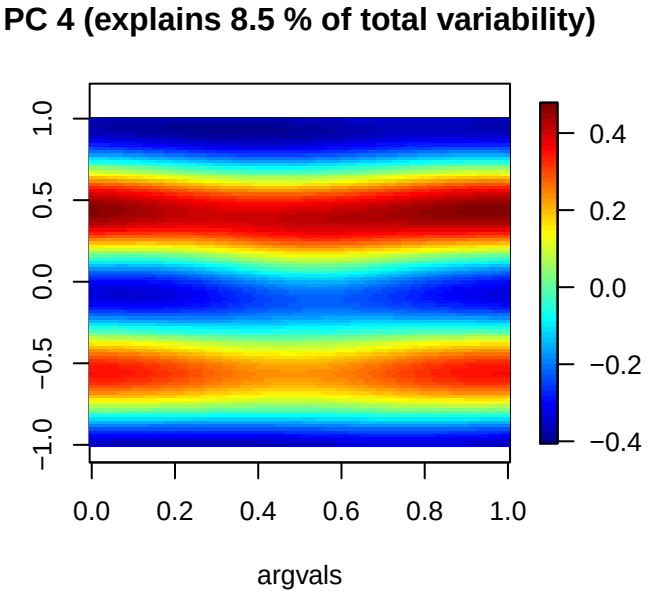

PC 2 (explains 21.49 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

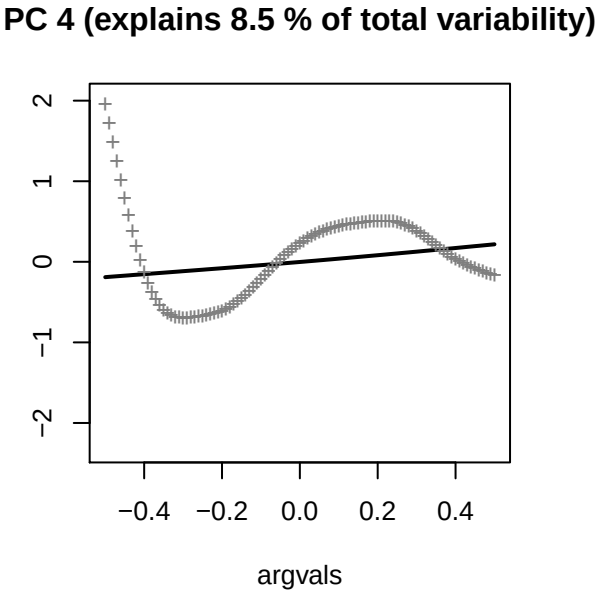

PC 3 (explains 13.13 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.2
0.0
−0.2
−0.4

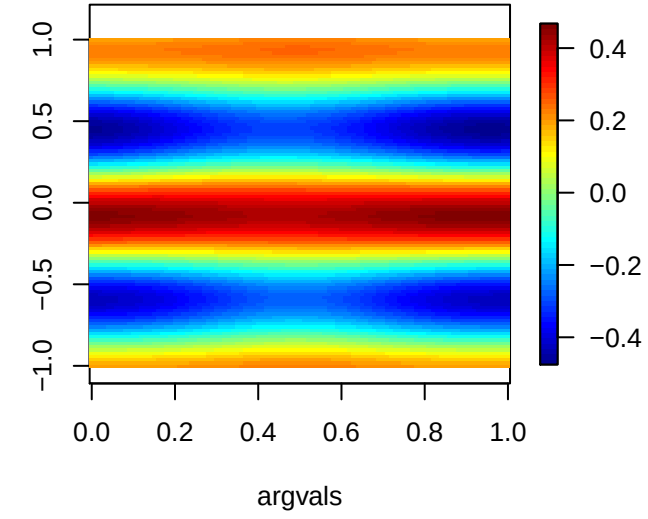

PC 3 (explains 13.13 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

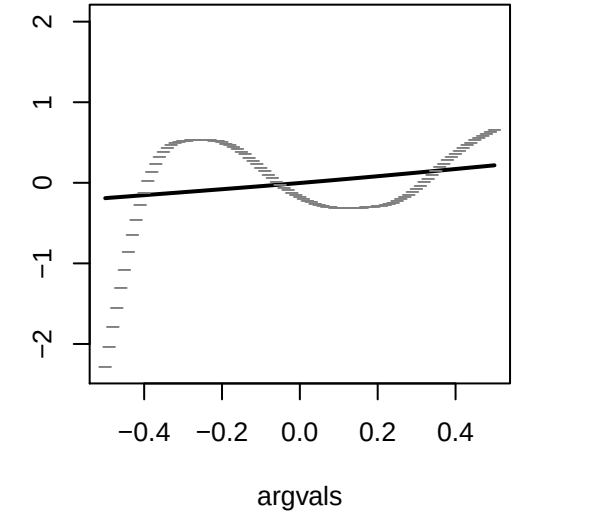

PC 3 (explains 13.13 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

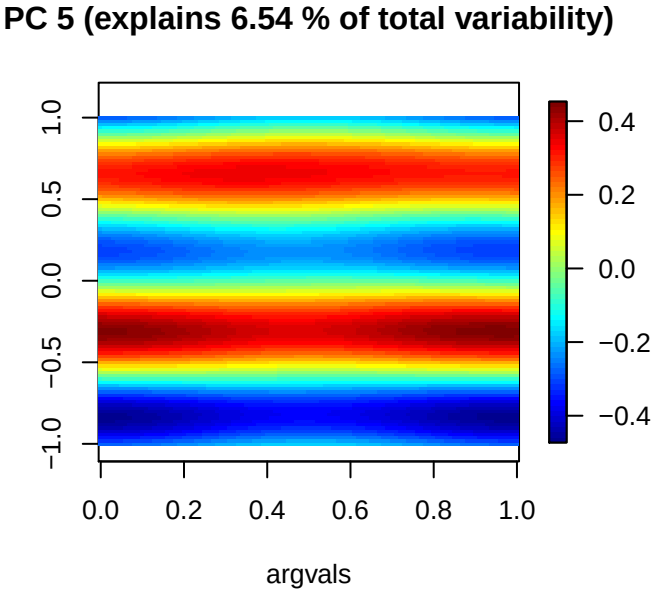

PC 3 (explains 13.13 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

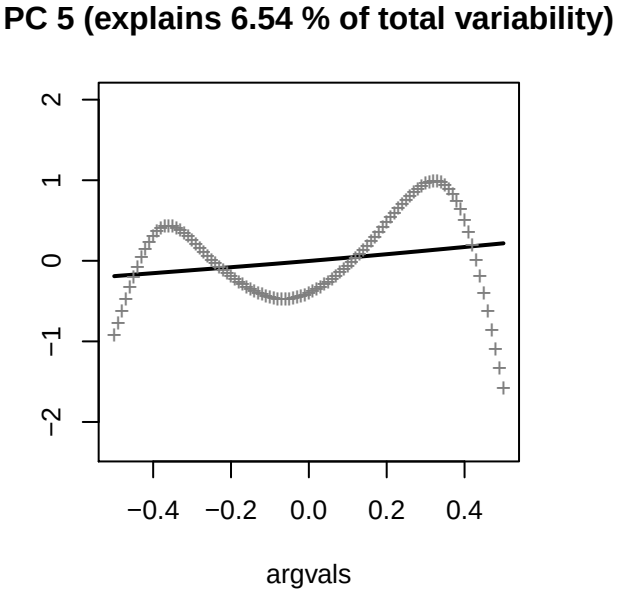

PC 4 (explains 8.5 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

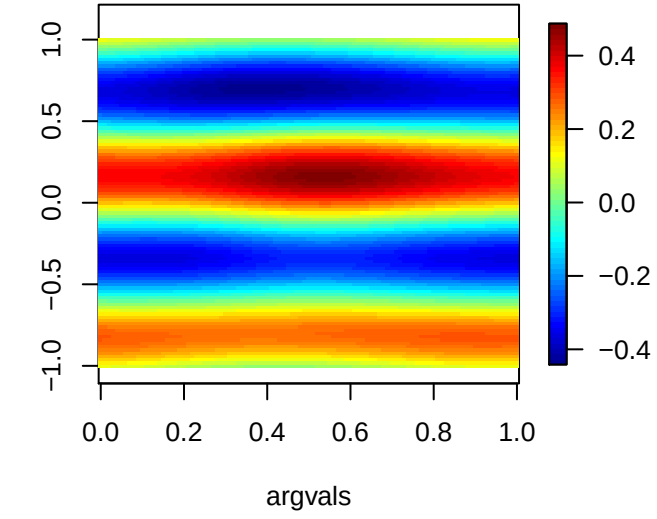

PC 4 (explains 8.5 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

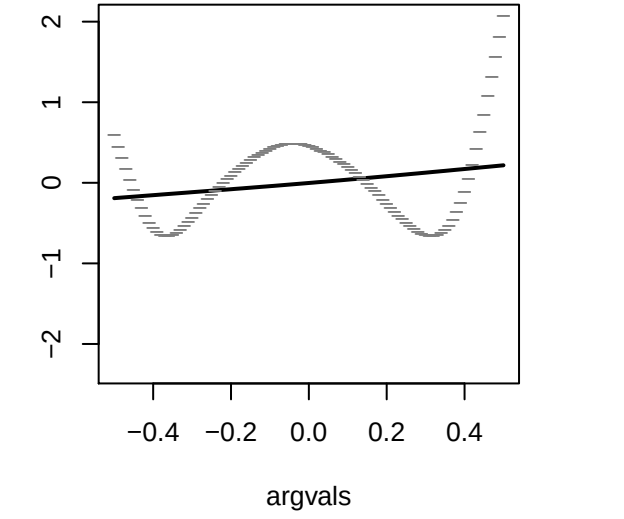

PC 4 (explains 8.5 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

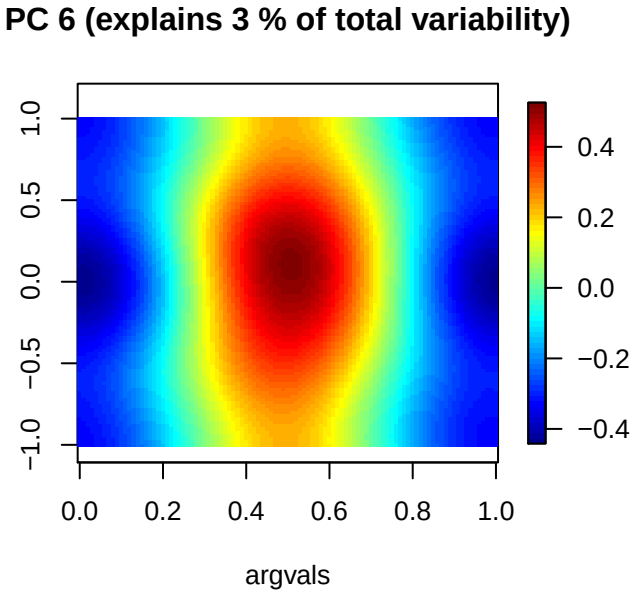

PC 4 (explains 8.5 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

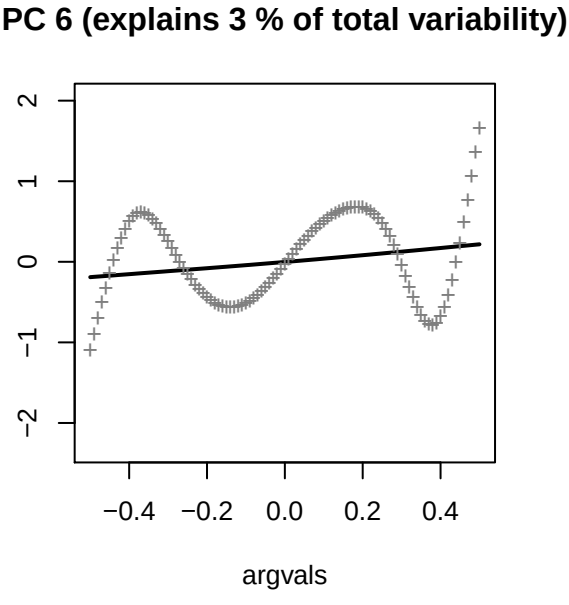

PC 5 (explains 6.54 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

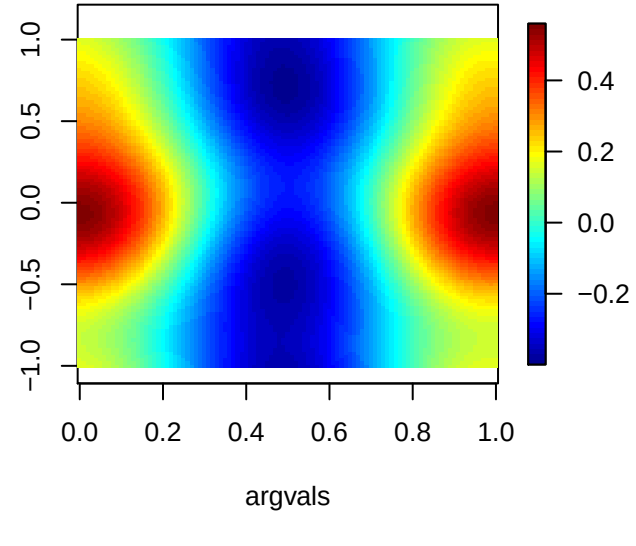

PC 5 (explains 6.54 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

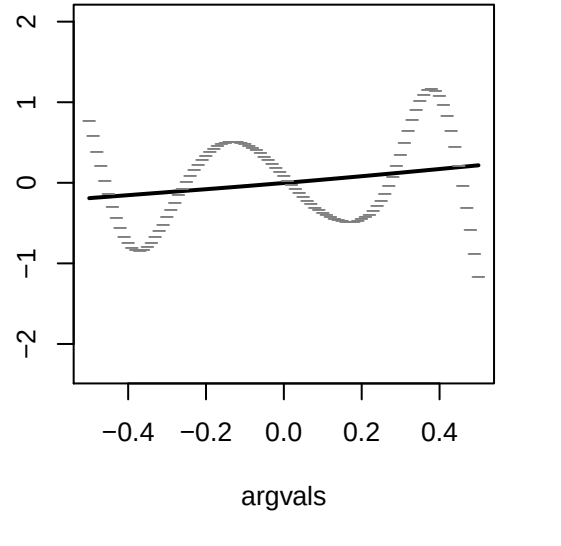

PC 5 (explains 6.54 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

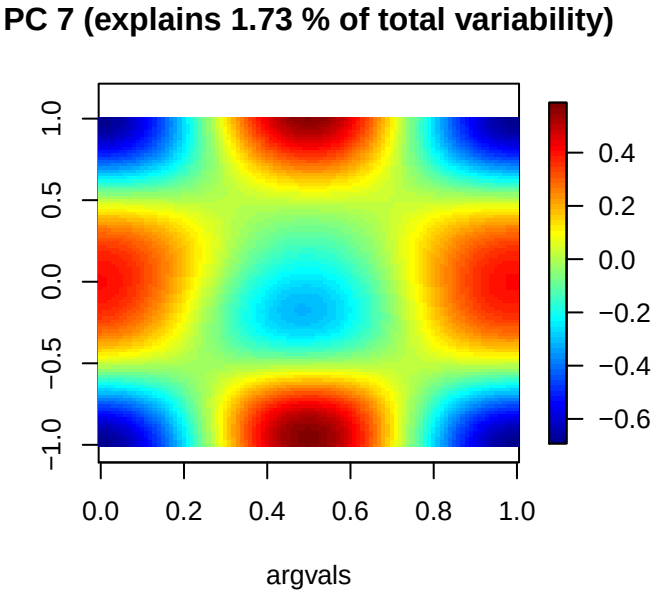

PC 5 (explains 6.54 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

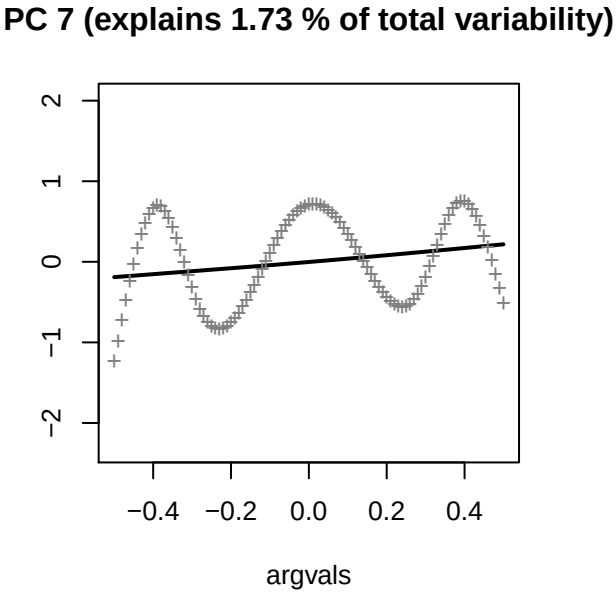

PC 6 (explains 3 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4

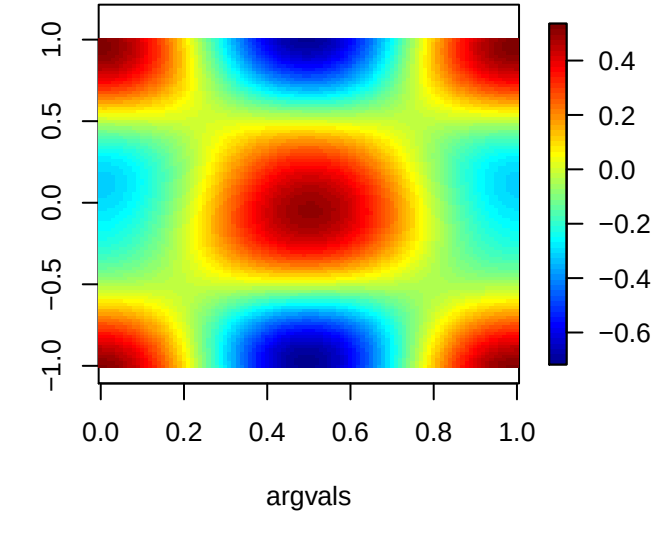

PC 6 (explains 3 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

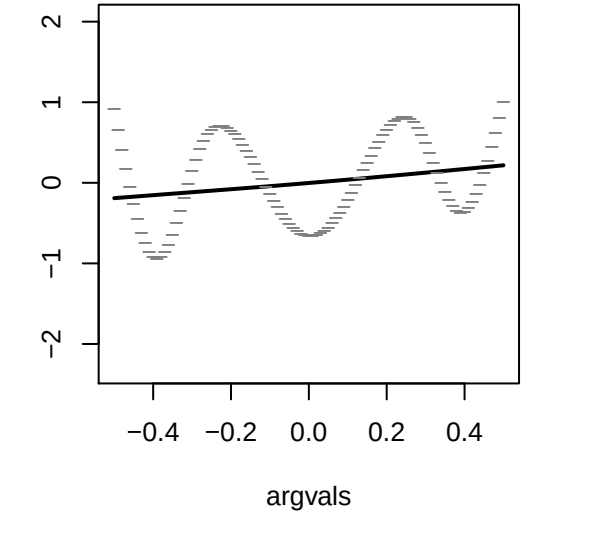

PC 6 (explains 3 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2

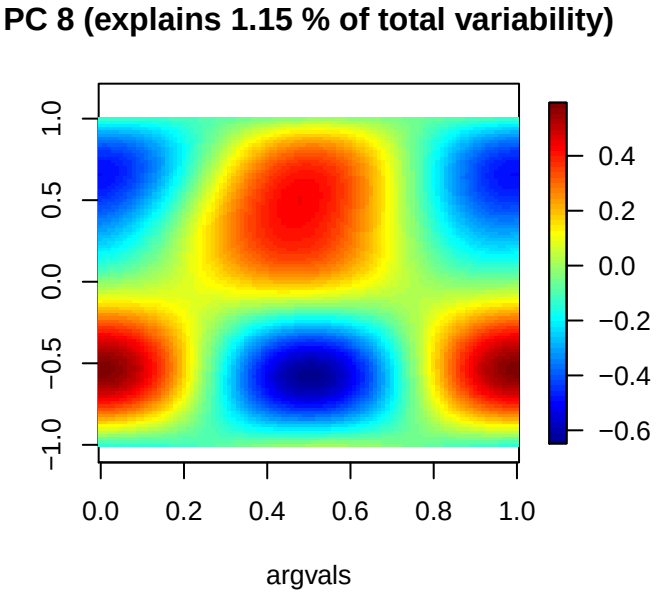

PC 6 (explains 3 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

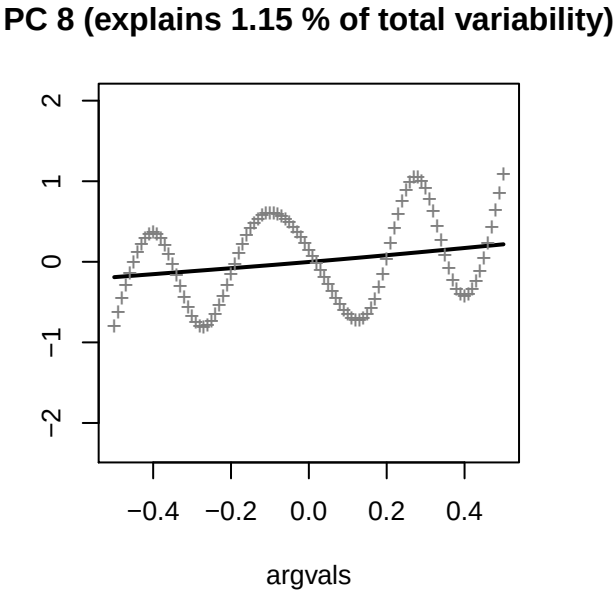

PC 7 (explains 1.73 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4
−0.6

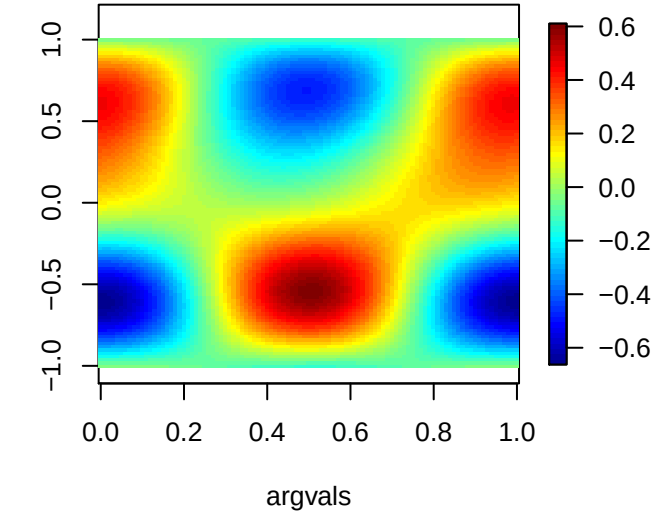

PC 7 (explains 1.73 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

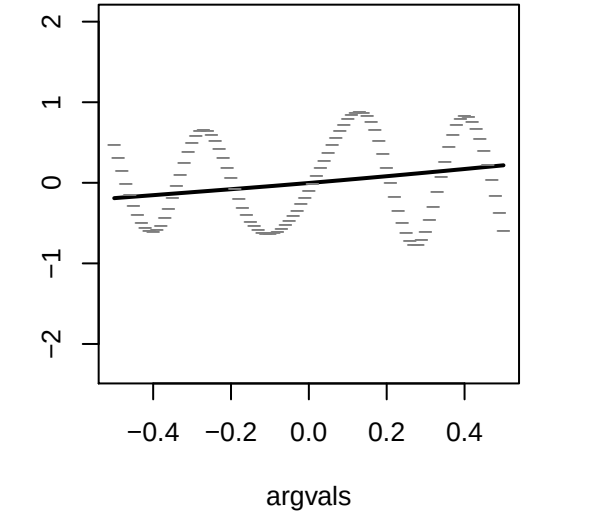

PC 7 (explains 1.73 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4
−0.6

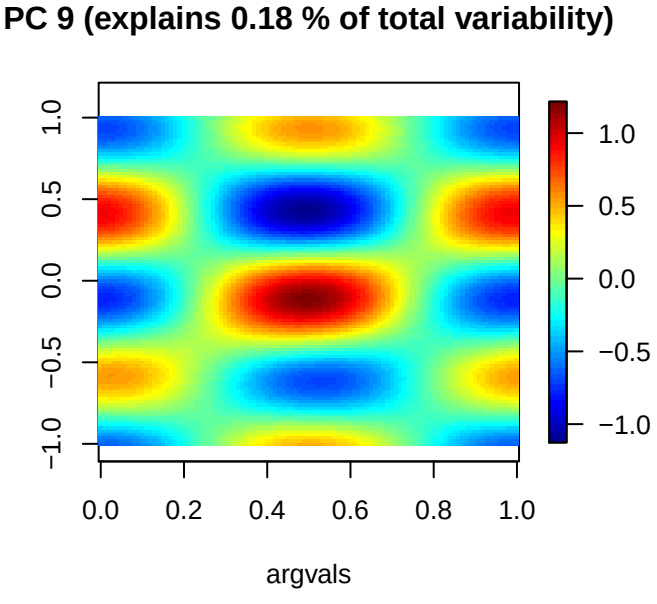

PC 7 (explains 1.73 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

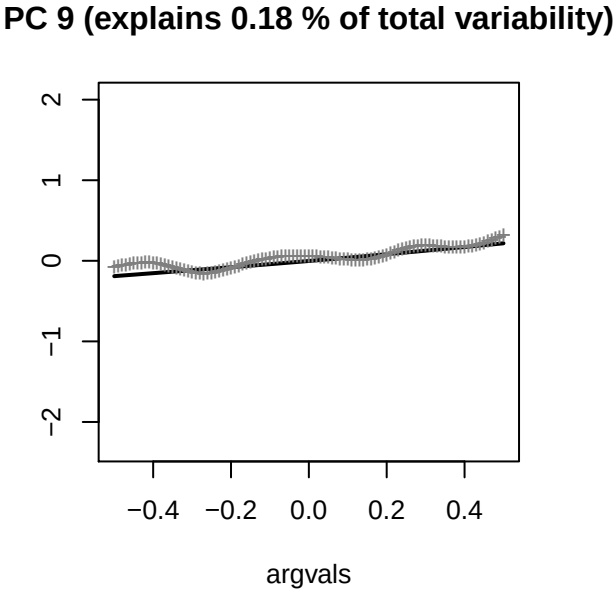

PC 8 (explains 1.15 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.4
0.2
0.0
−0.2
−0.4
−0.6

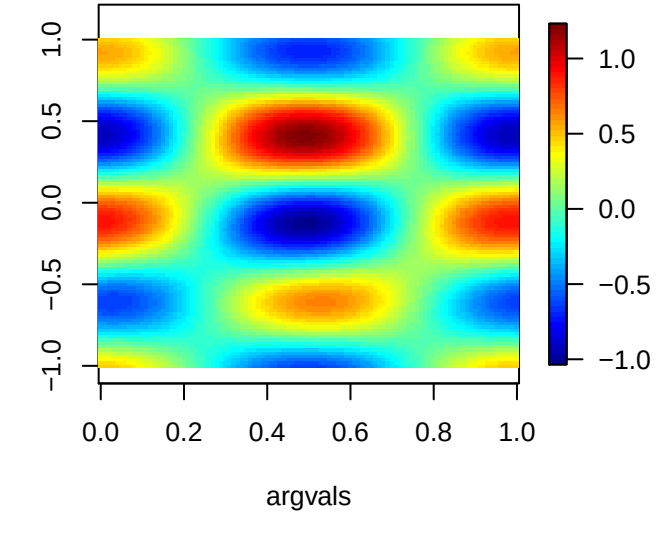

PC 8 (explains 1.15 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

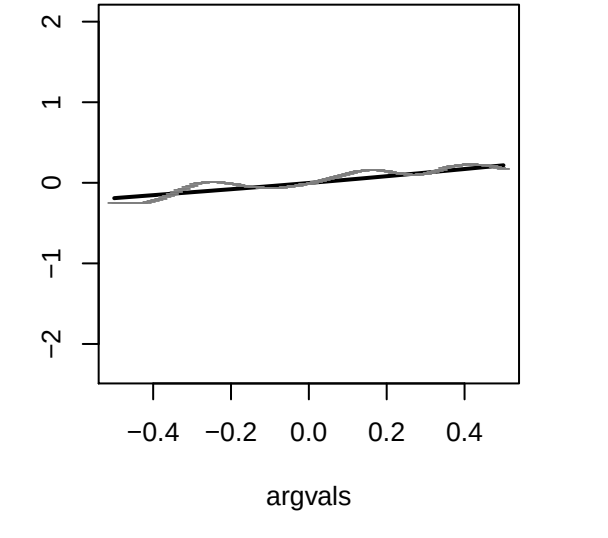

PC 8 (explains 1.15 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6

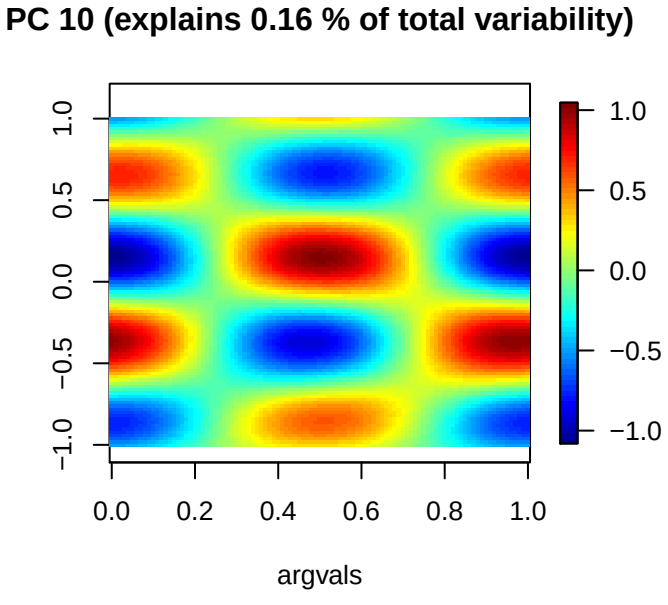

PC 8 (explains 1.15 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

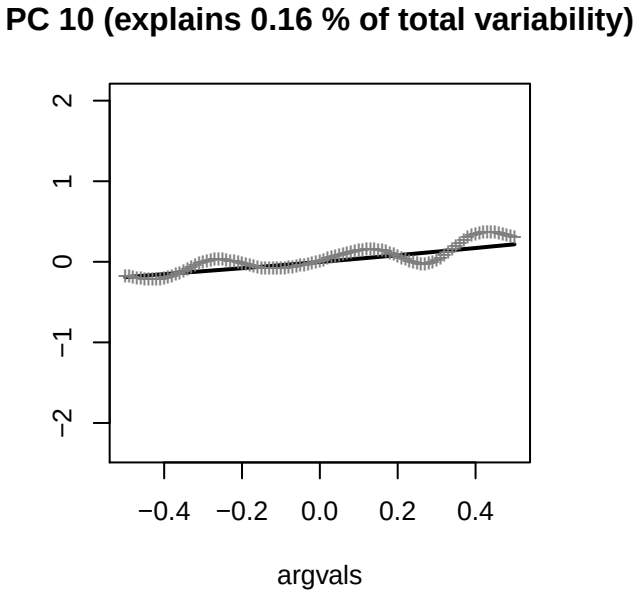

PC 9 (explains 0.18 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

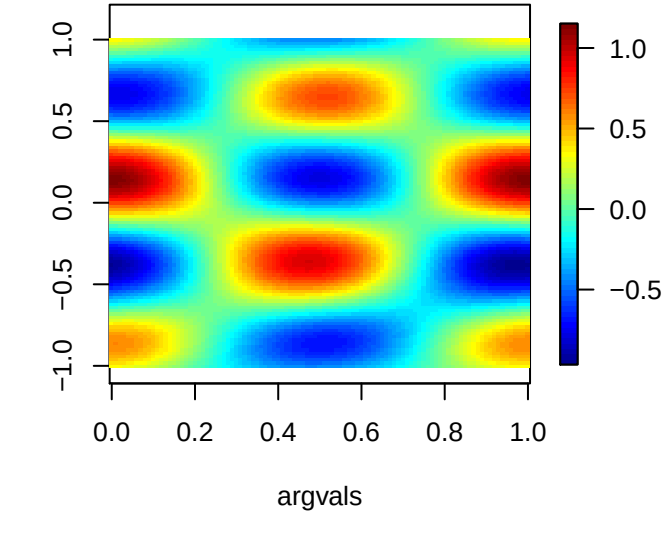

PC 9 (explains 0.18 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

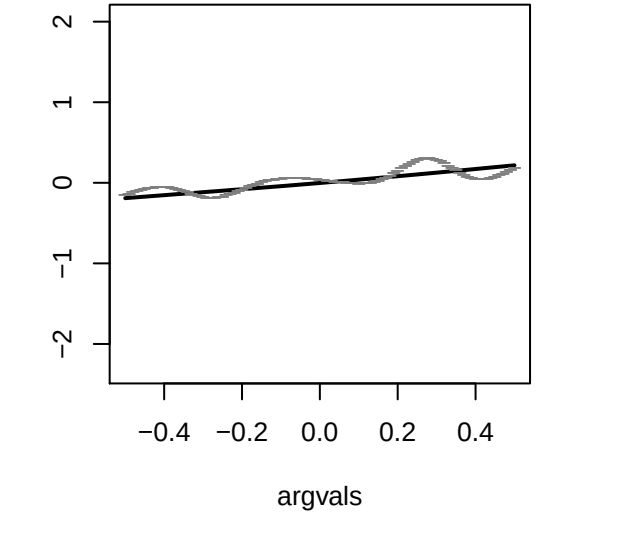

PC 9 (explains 0.18 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

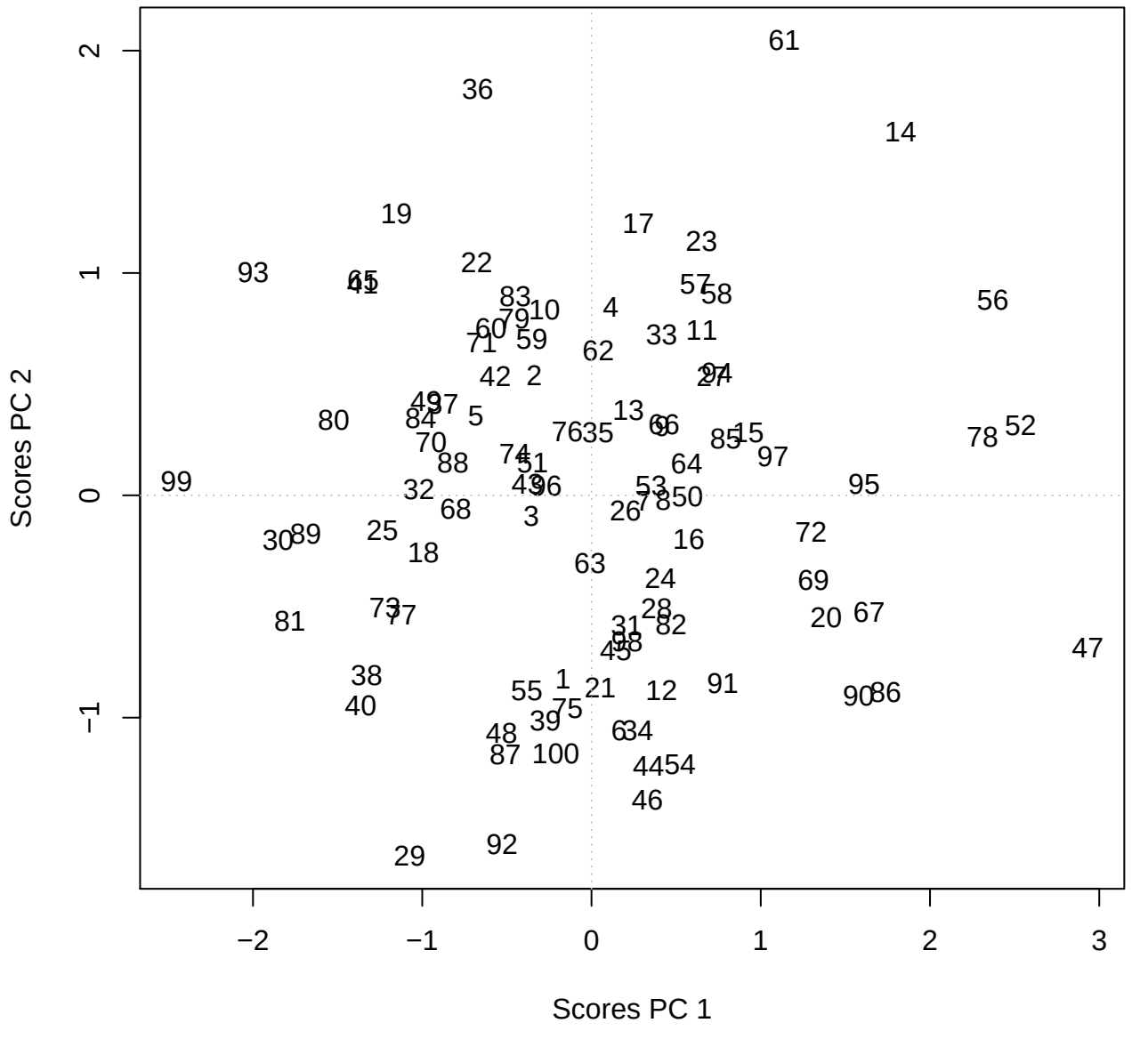

PC 9 (explains 0.18 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

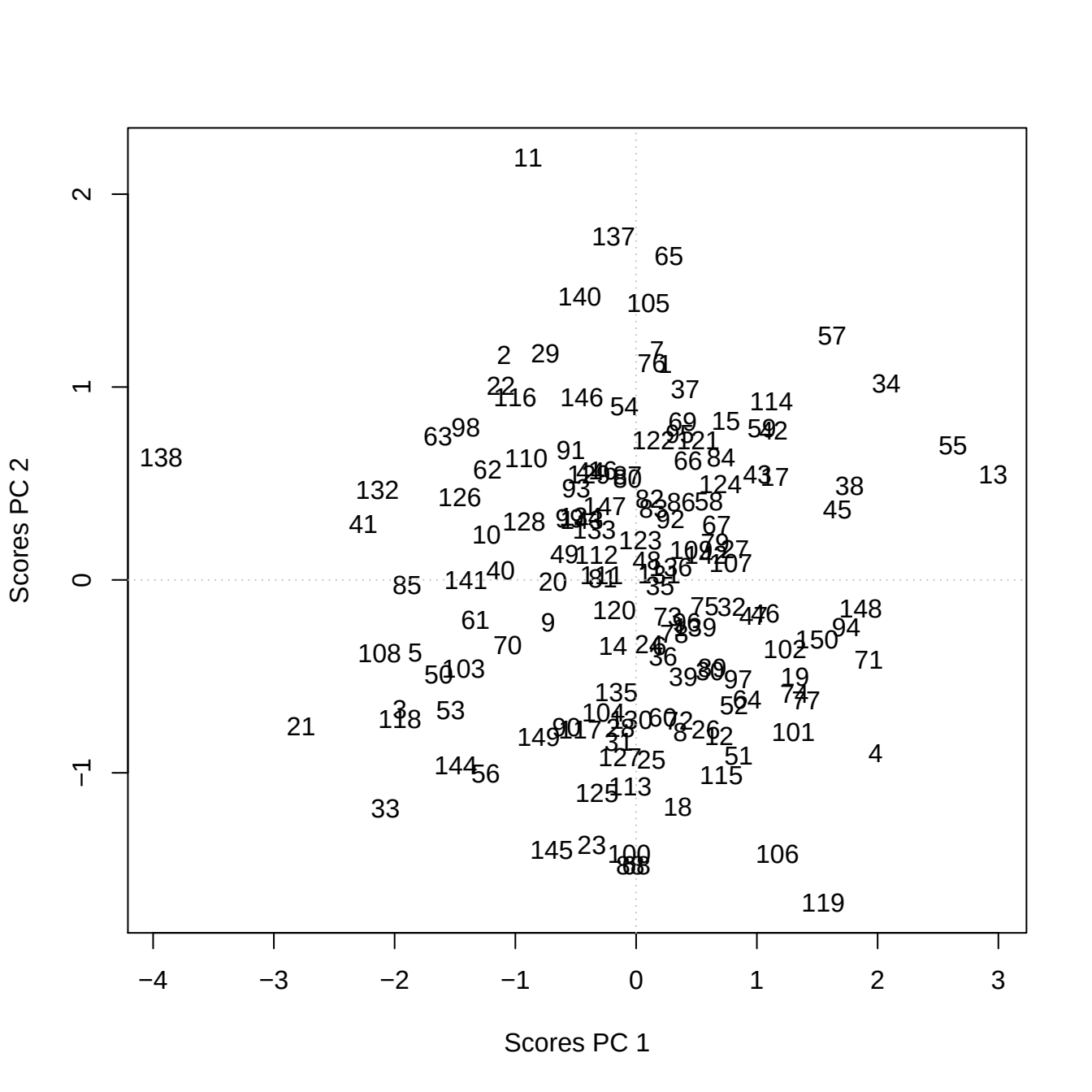

PC 10 (explains 0.16 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals

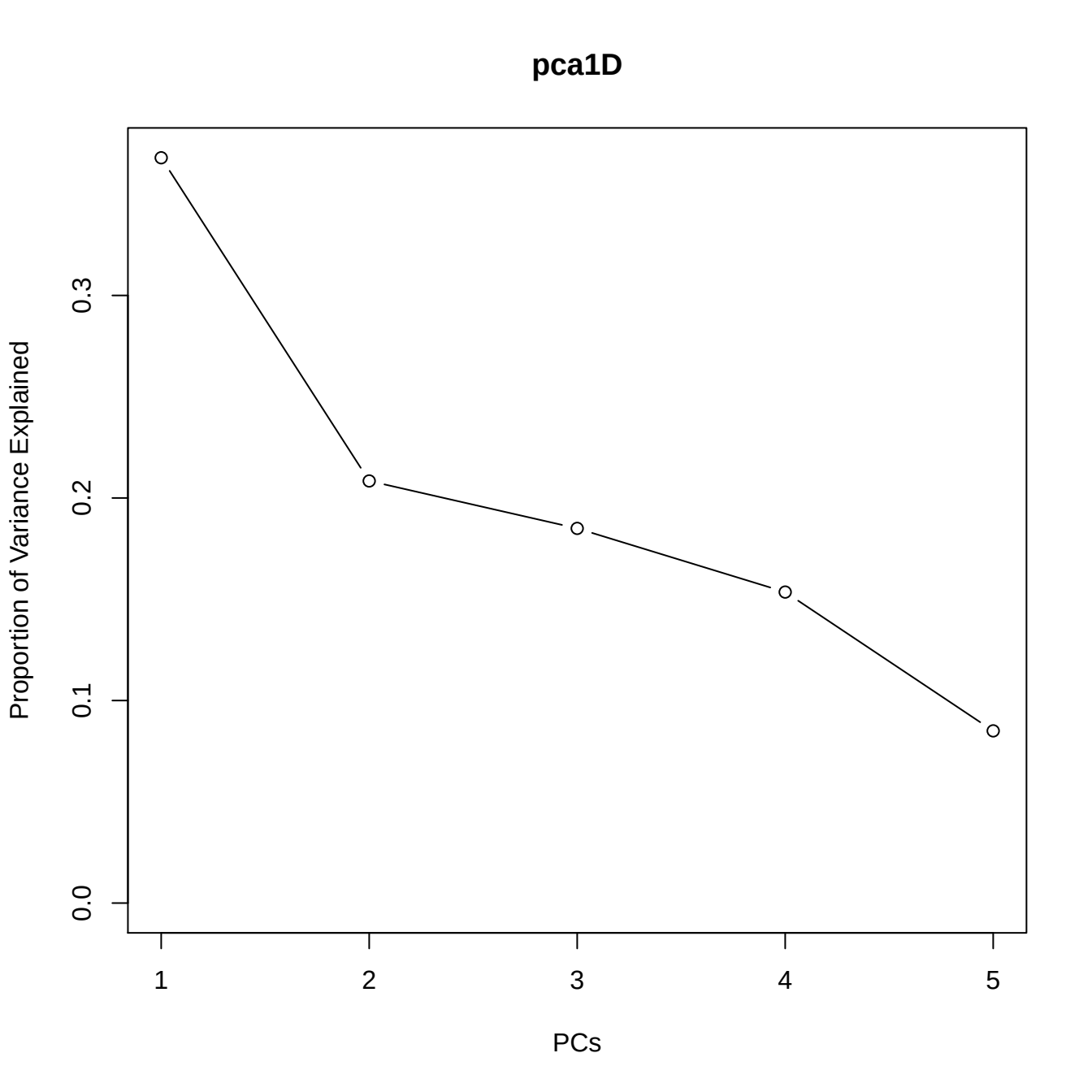

PC 10 (explains 0.16 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals

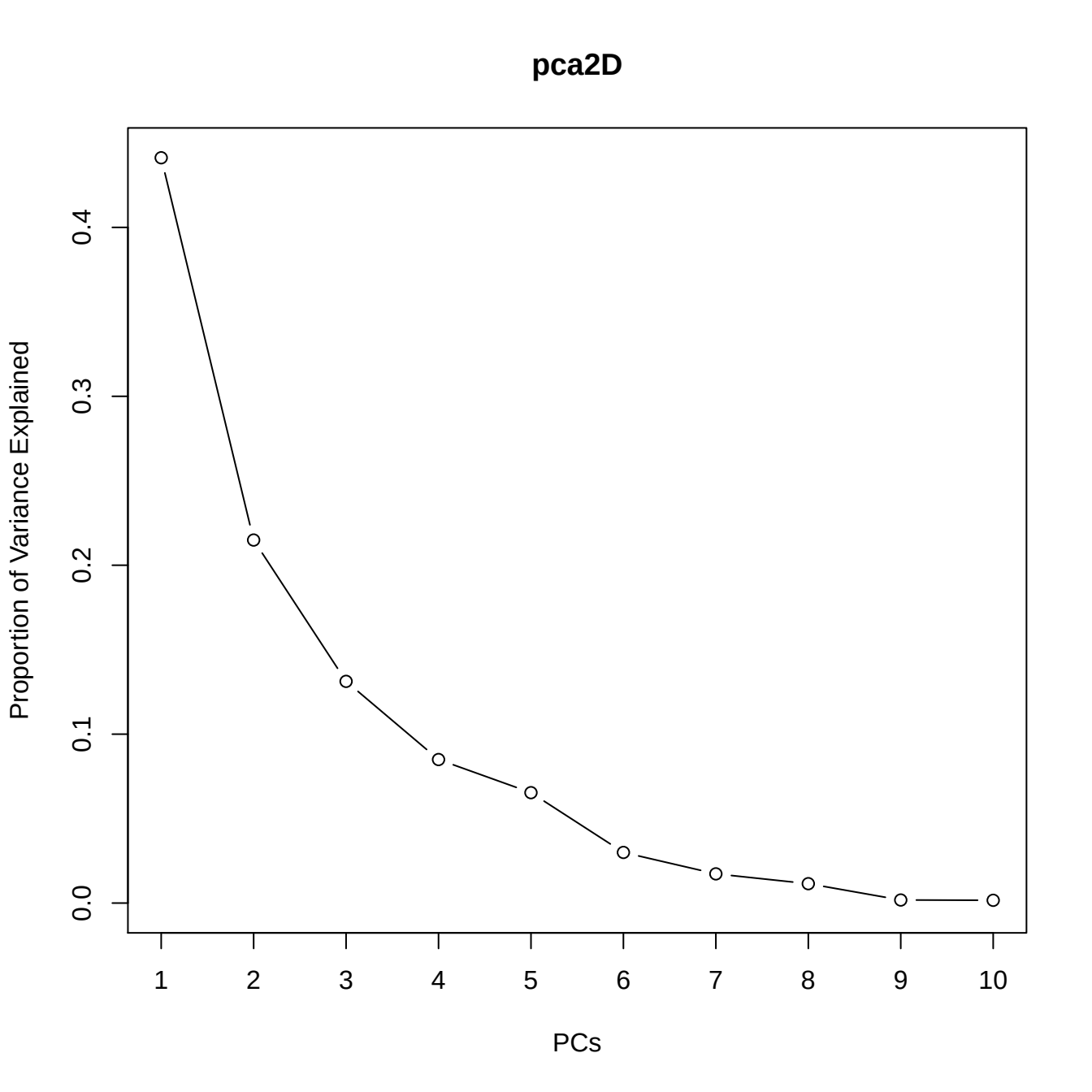

PC 10 (explains 0.16 % of total variability)
1.0
0.5
0.0
−0.5
−1.0
0.0
0.2
0.4
0.6
0.8
1.0
argvals


PC 10 (explains 0.16 % of total variability)
2
1
0
−1
−2
−0.4
−0.2
0.0
0.2
0.4
argvals


Scores PC 1
Scores PC 2
−2
−1
0
1
2
3
−1
0
1
2


Scores PC 2
Scores PC 1
2
1
0
−1
−4
−3
−2
−1
0
1
2
3


pca1D
Proportion of Variance Explained
0.0
0.1
0.2
0.3
1
2
3
4
5
PCs


pca2D
Proportion of Variance Explained
0.0
0.1
0.2
0.3
0.4
1
2
3
4
5
6
7
8
9
10
PCs