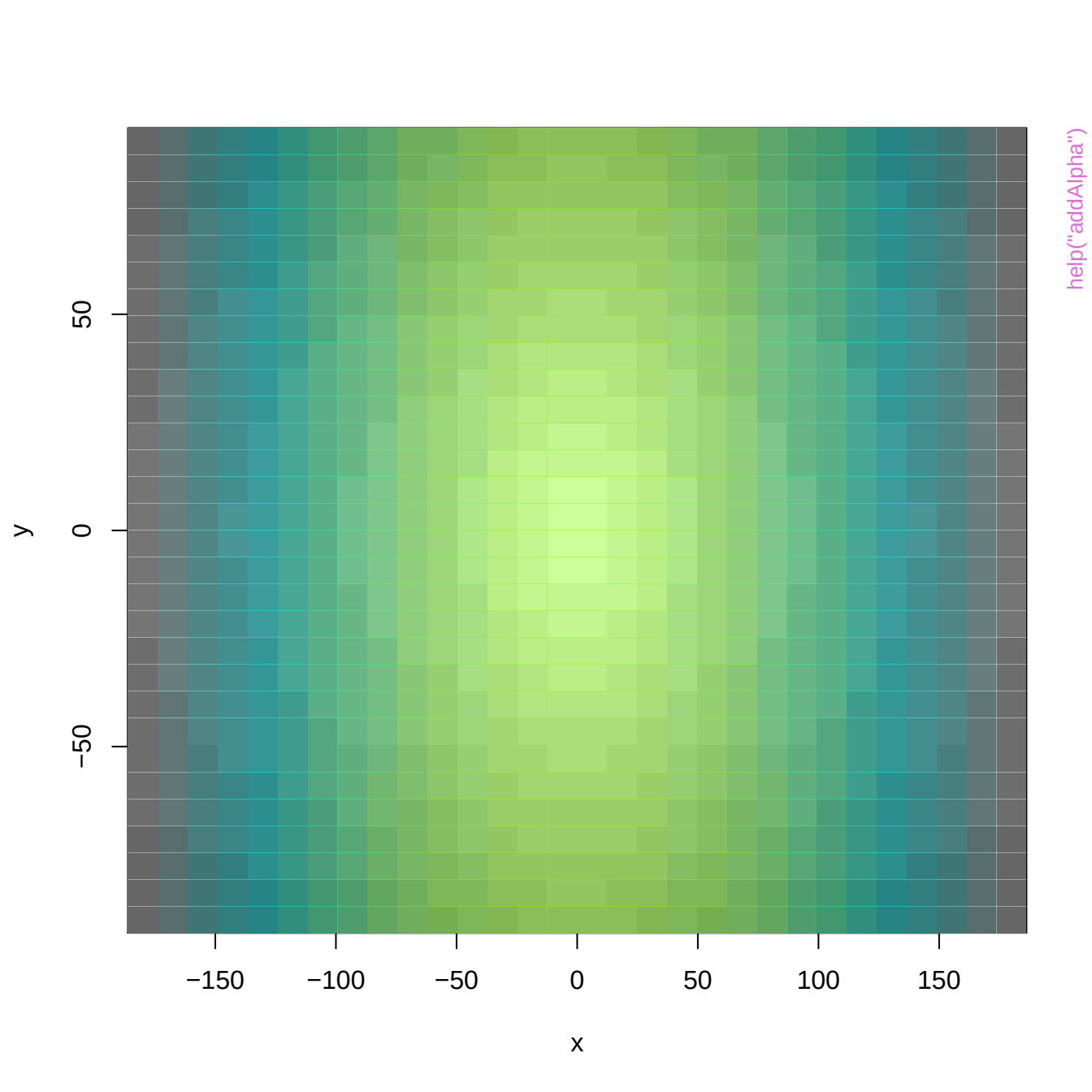
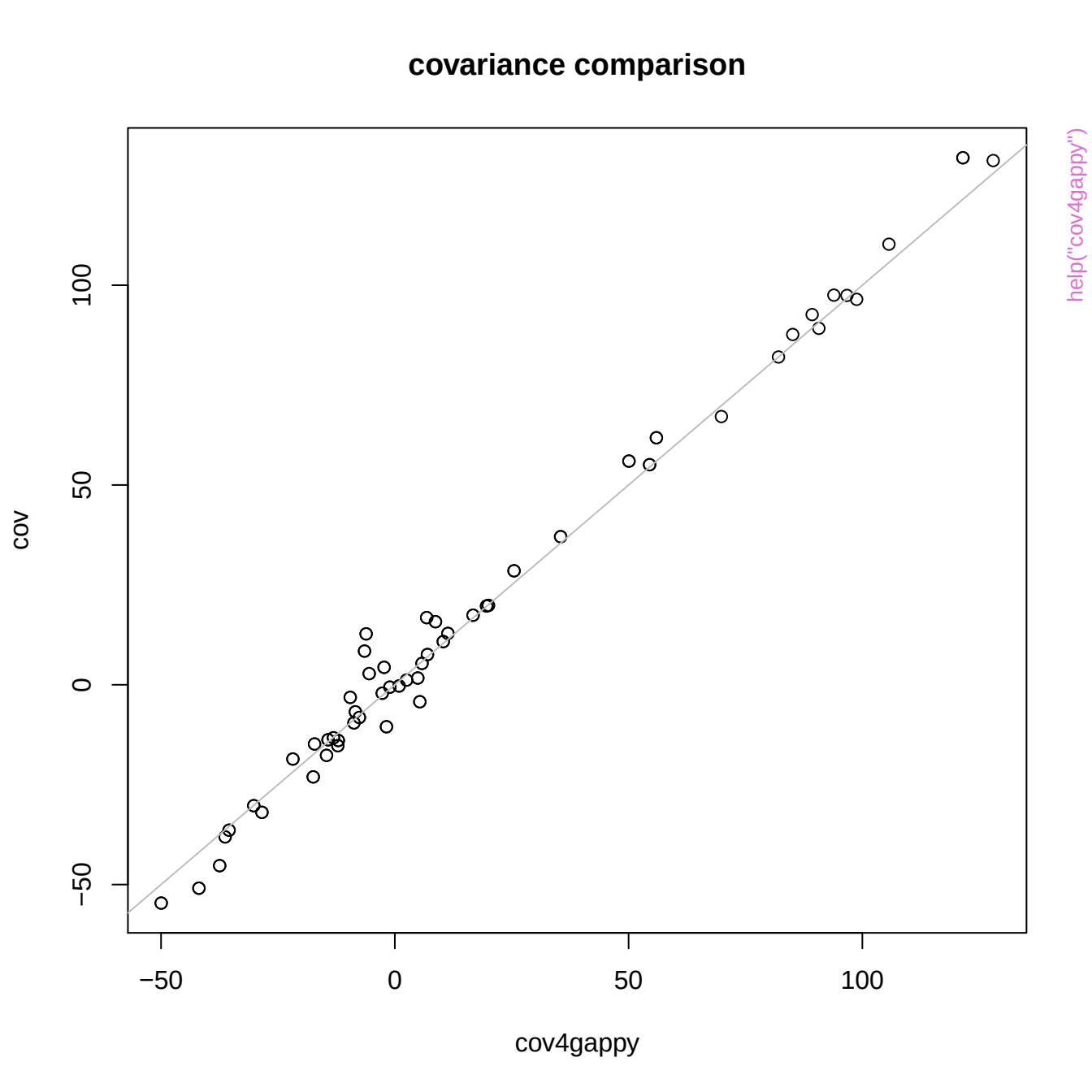
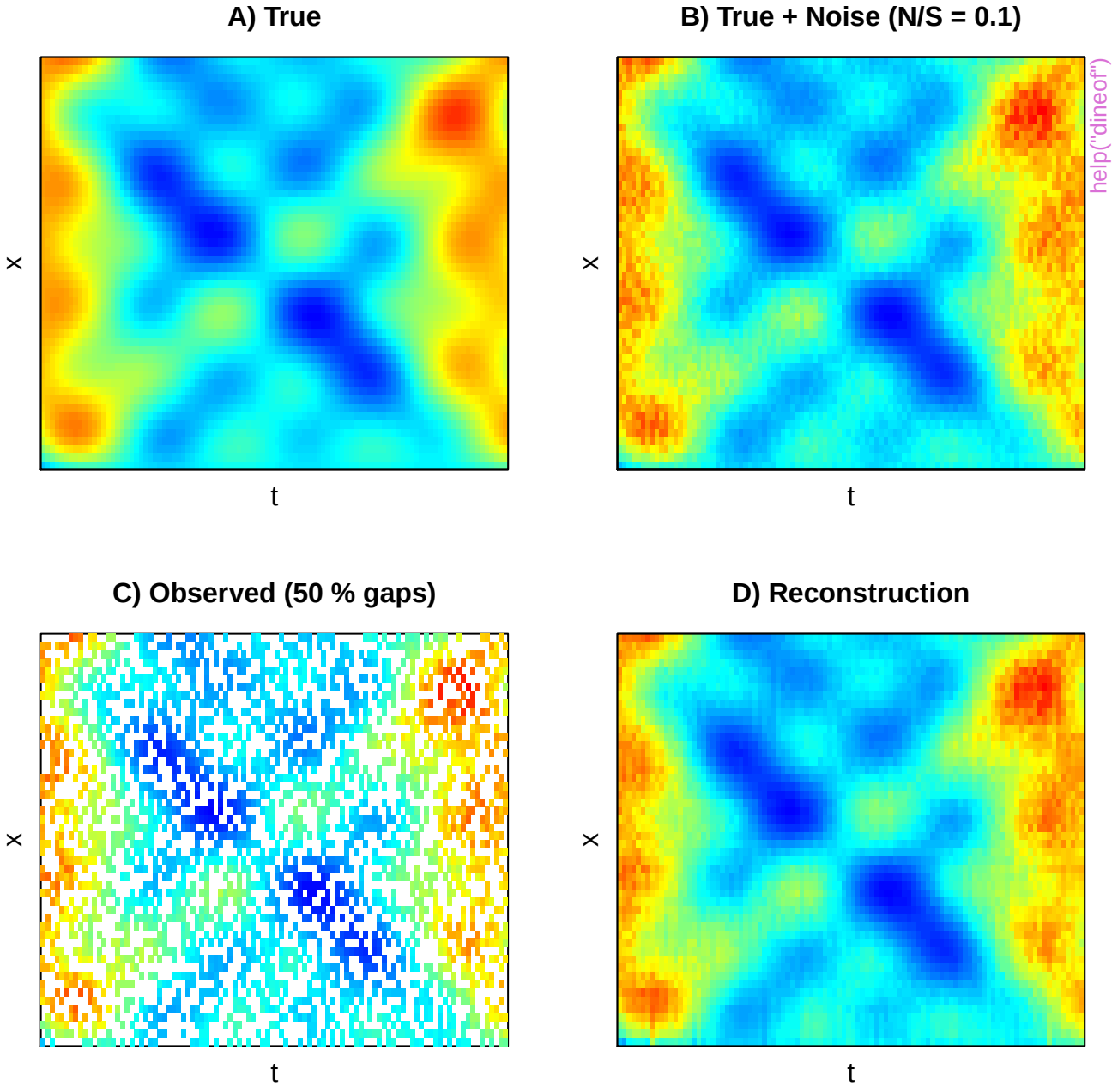
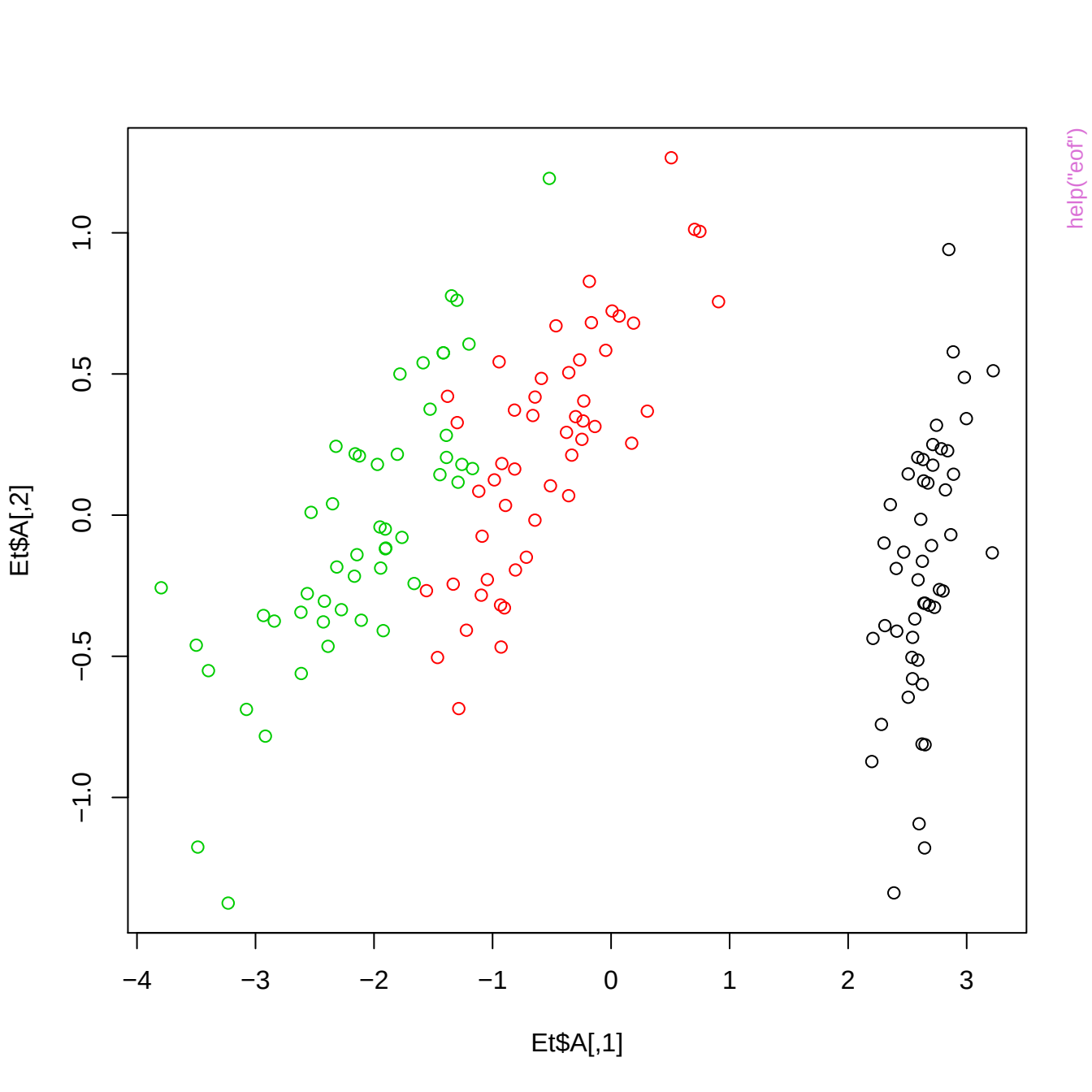
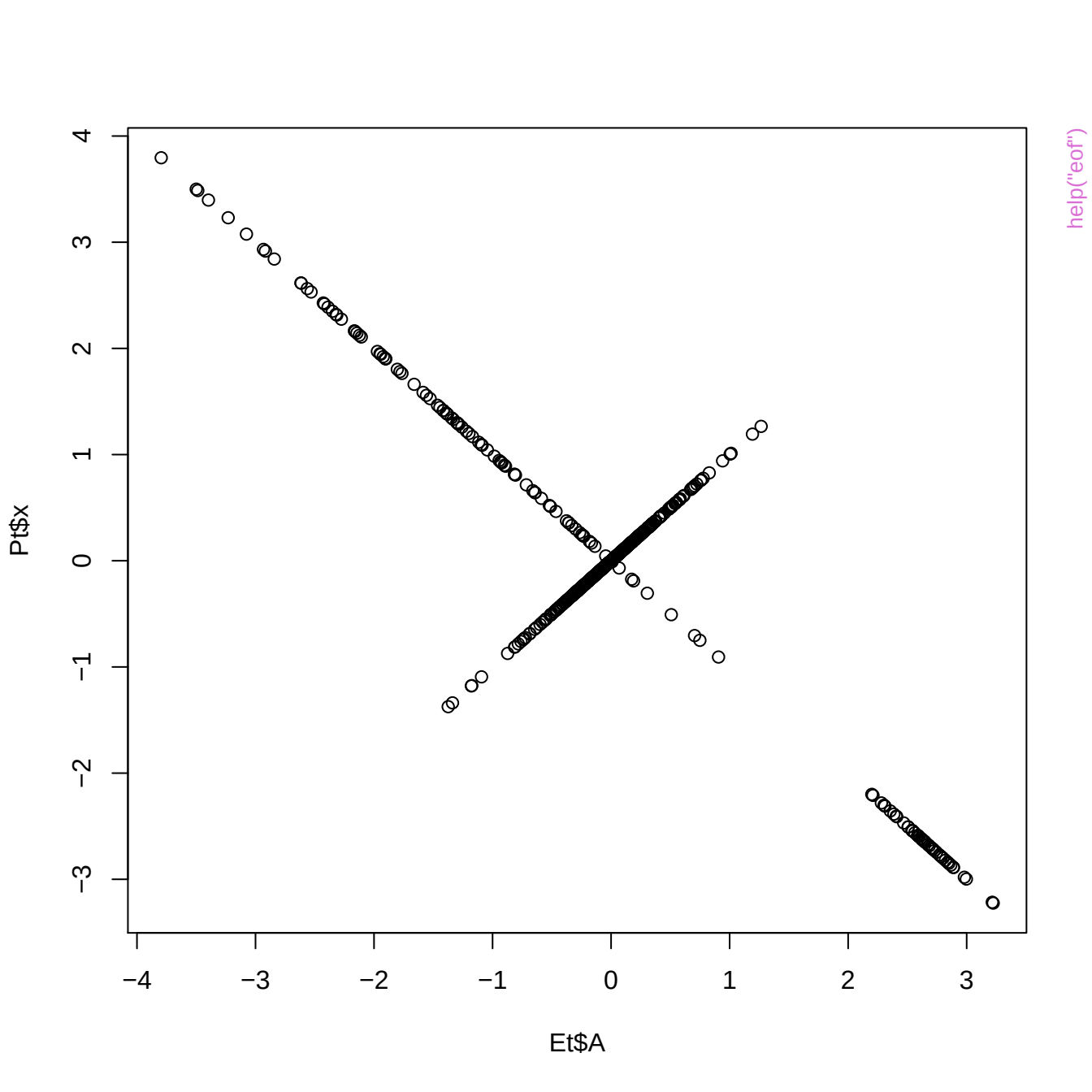
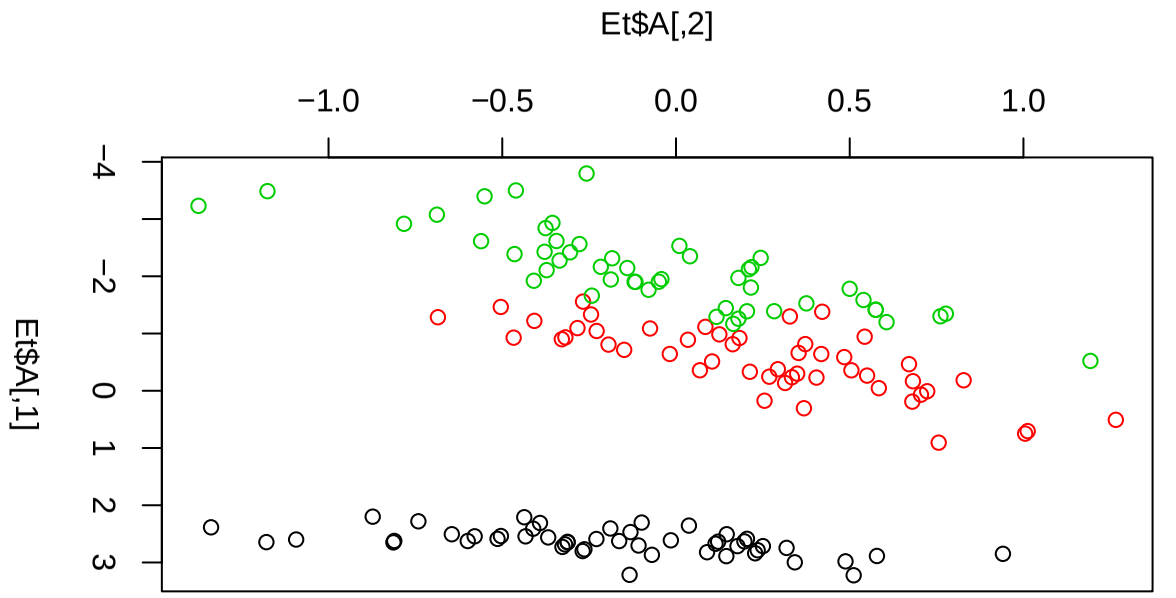

50
0
−50
y
−150
−100
−50
0
50
100
150
x
help("addAlpha")

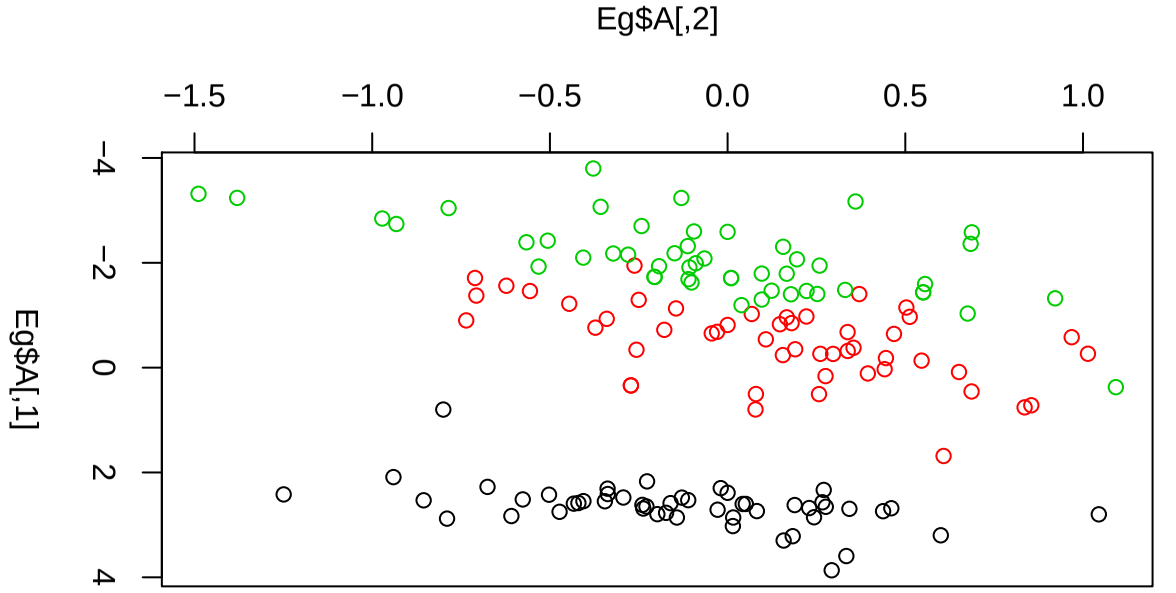

covariance comparison
cov
cov4gappy
−50
0
50
100
help("cov4gappy")


A) True
B) True + Noise (N/S = 0.1)
C) Observed (50 % gaps)
D) Reconstruction
x
t
help("dineof")

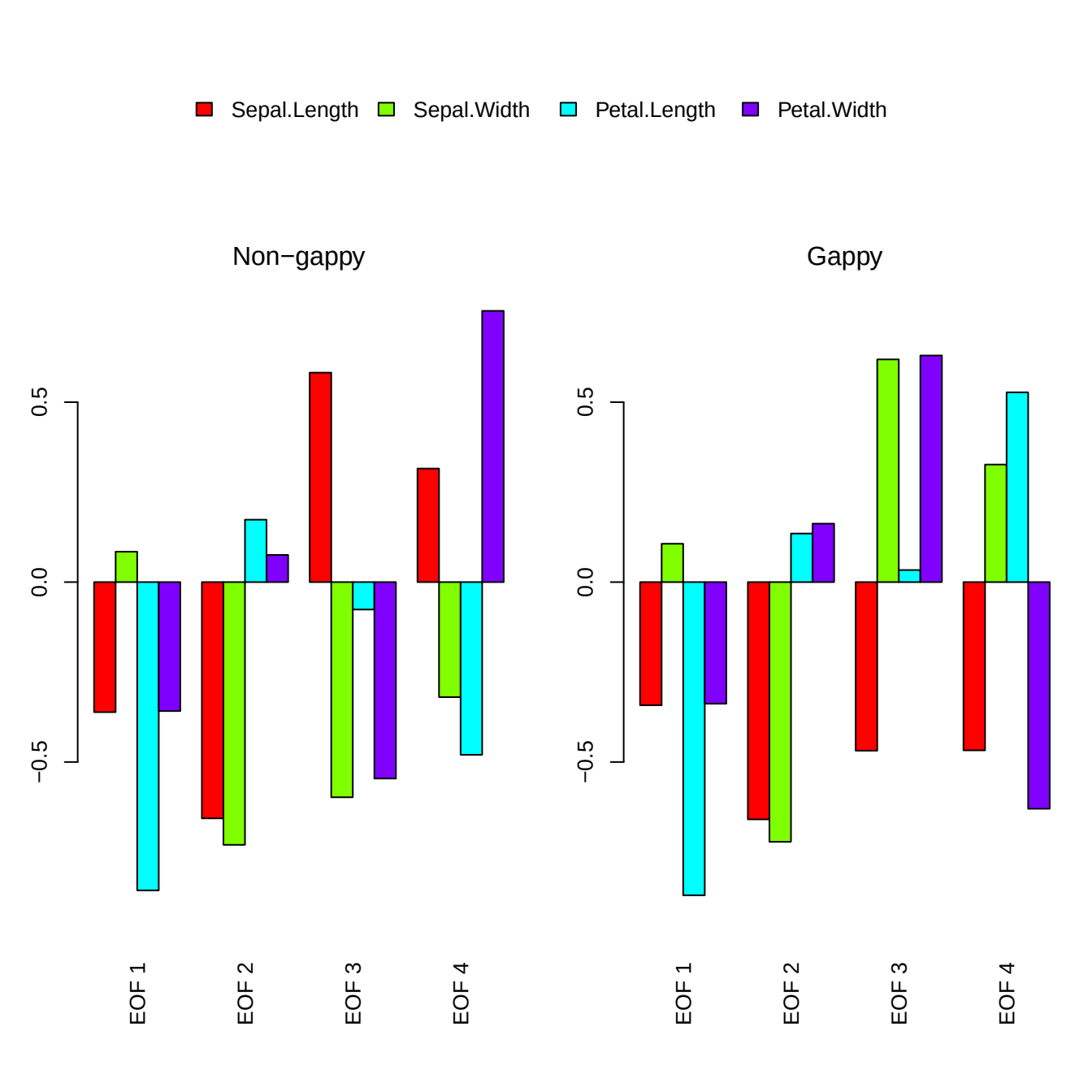

help("eof")
Et$A[,2]
1.0
0.5
0.0
−0.5
−1.0
−4
−3
−2
−1
0
1
2
3
Et$A[,1]

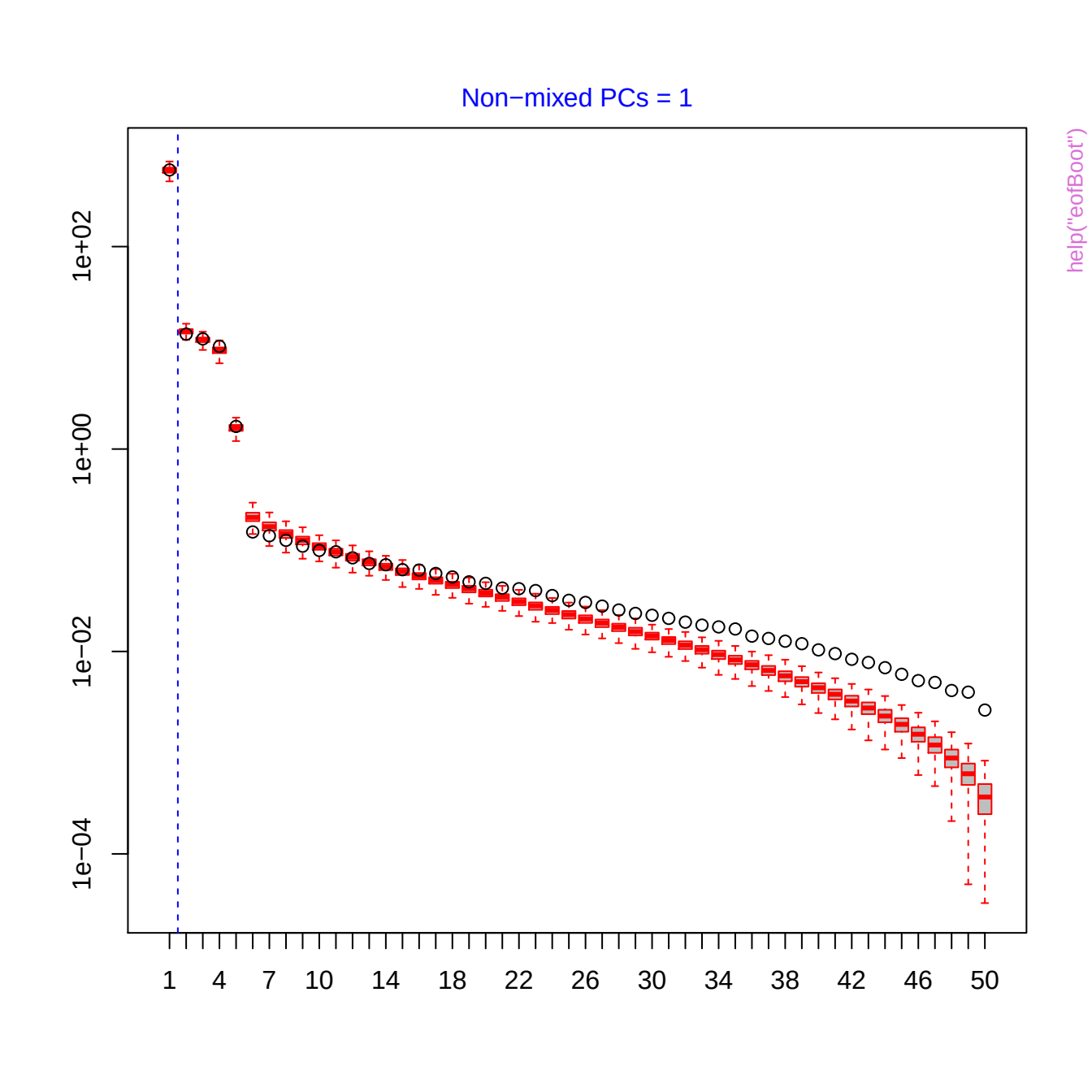

Et$A
Pt$x
−4
−3
−2
−1
0
1
2
3
4
help("eof")

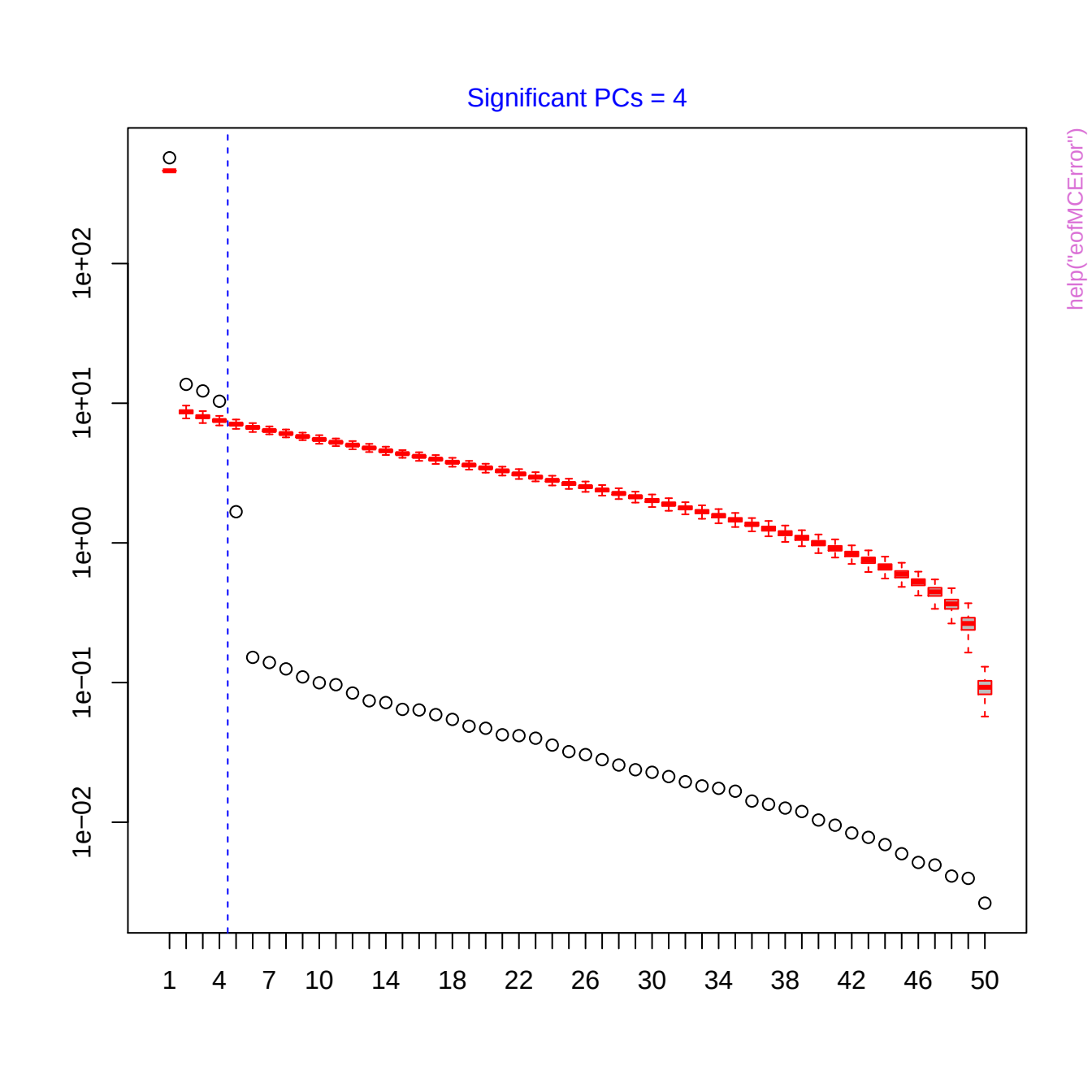


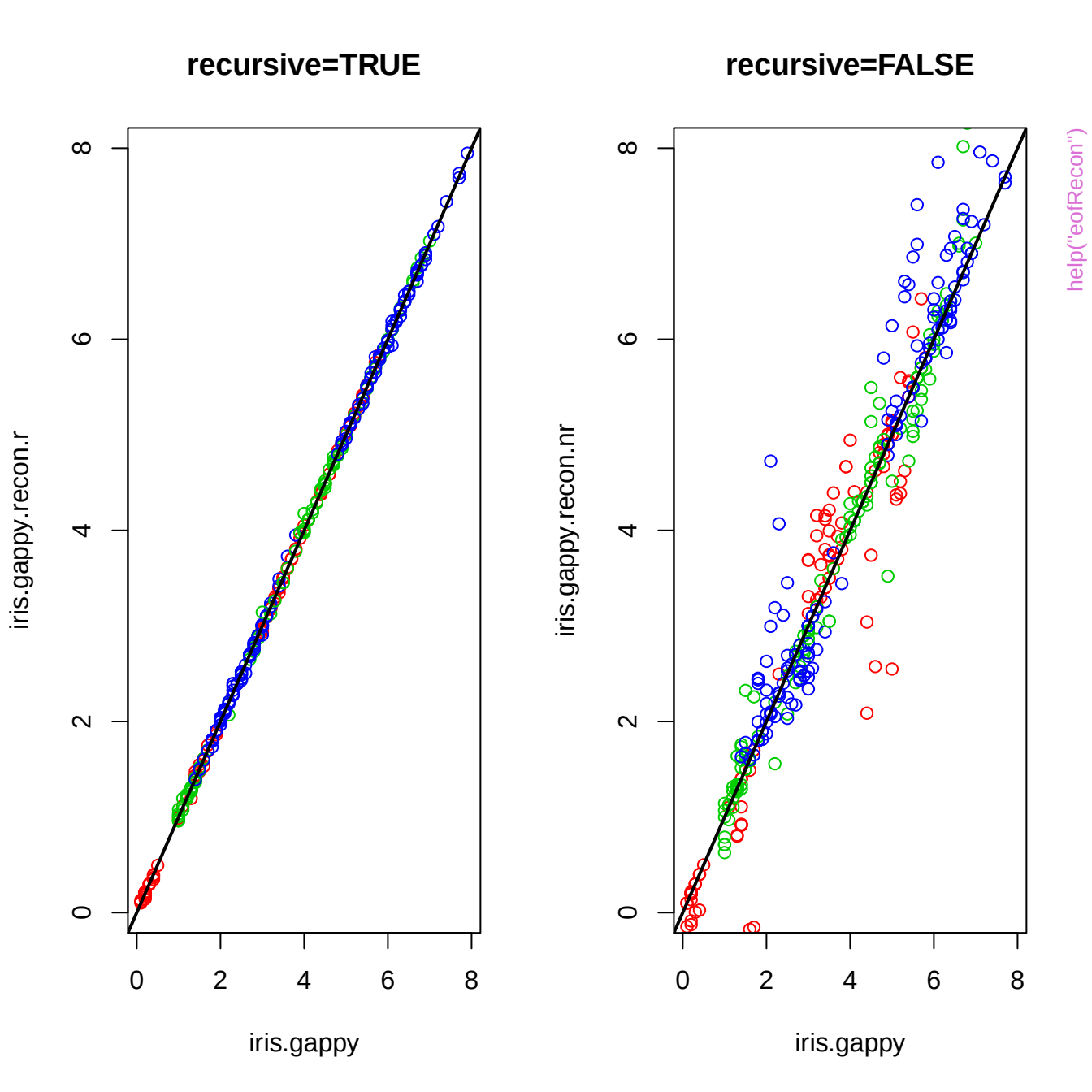


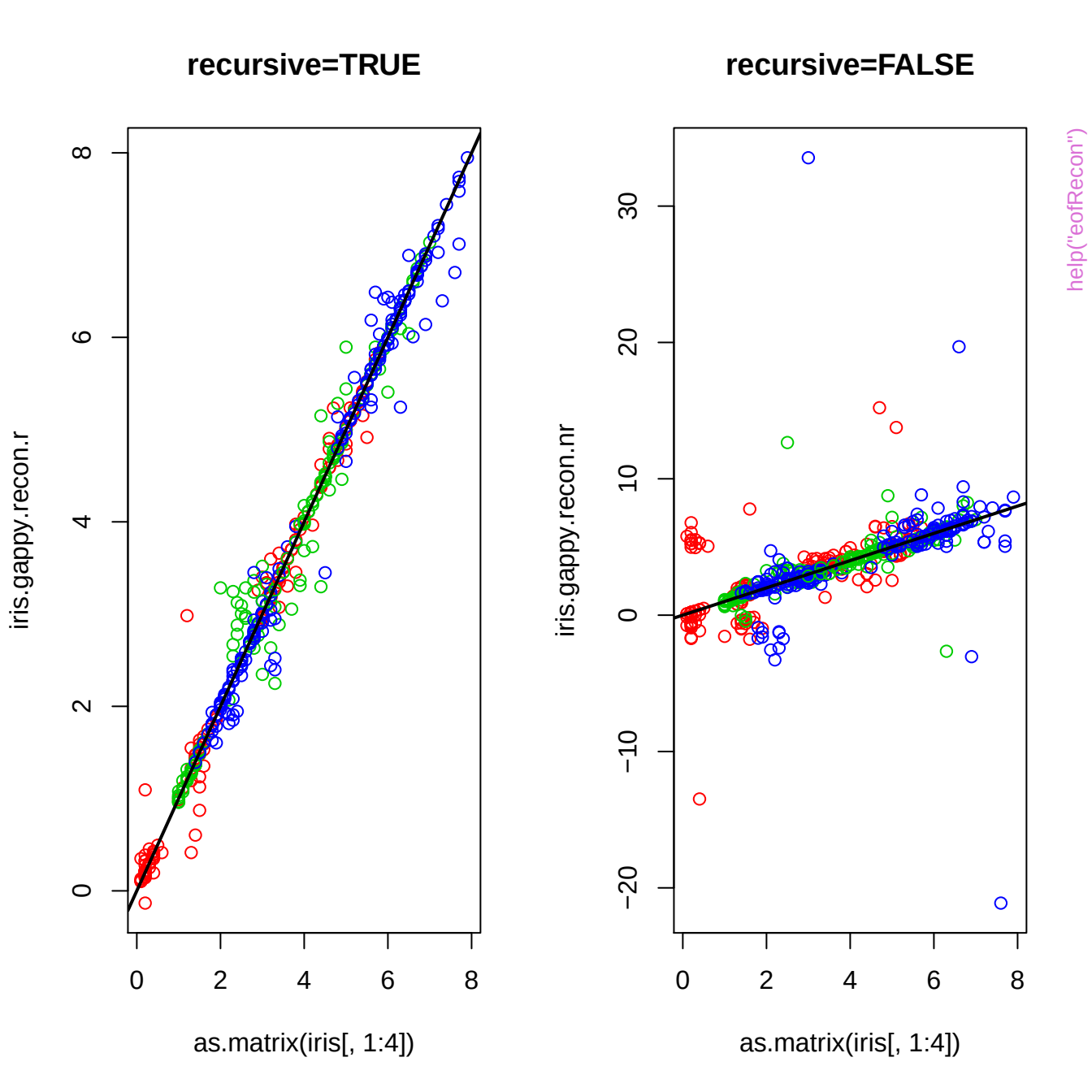
help("eof")

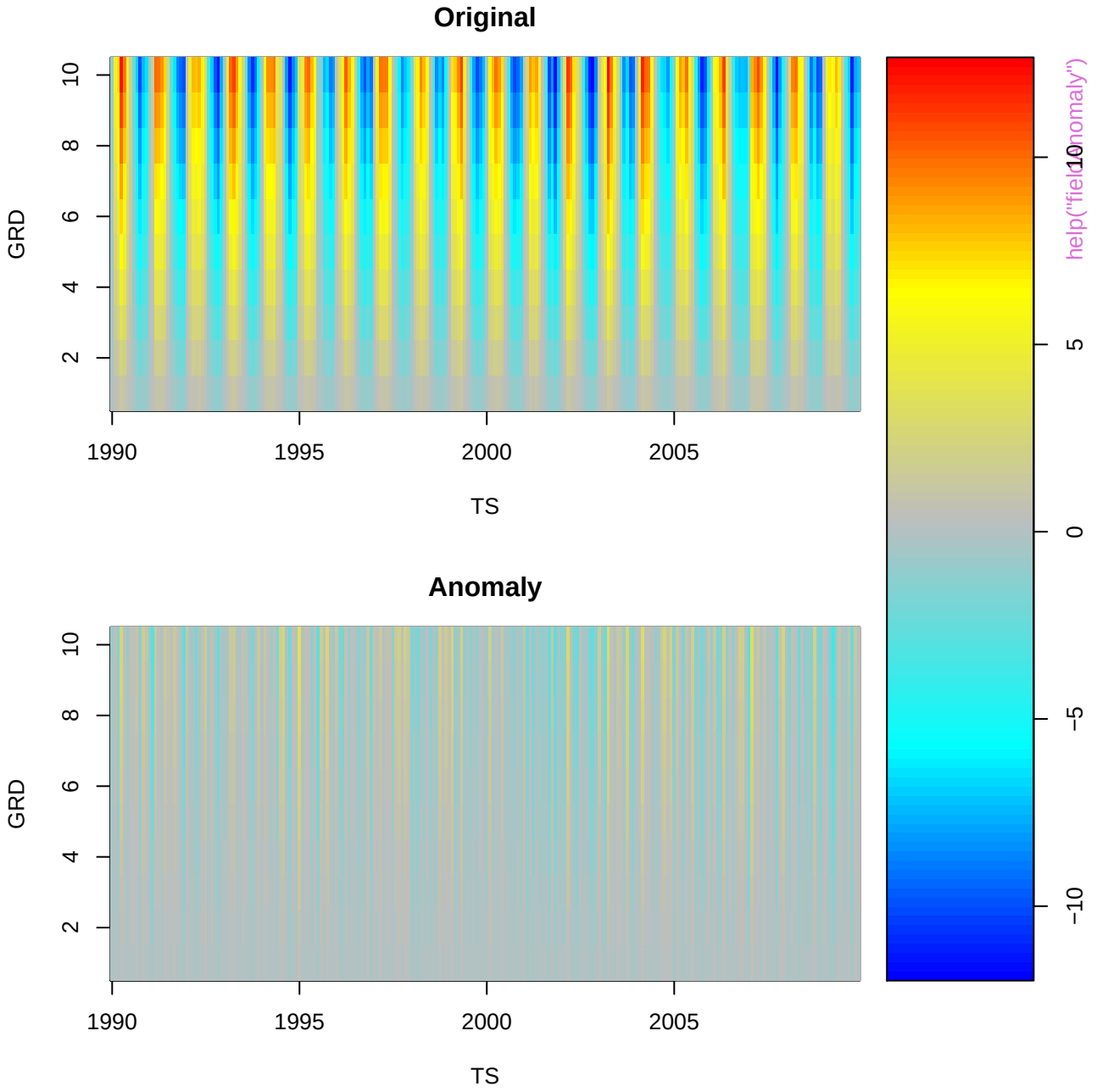

Sepal.Length
Sepal.Width
Petal.Length
Petal.Width
Non−gappy
Gappy
0.5
0.0
−0.5
EOF 1
EOF 2
EOF 3
EOF 4

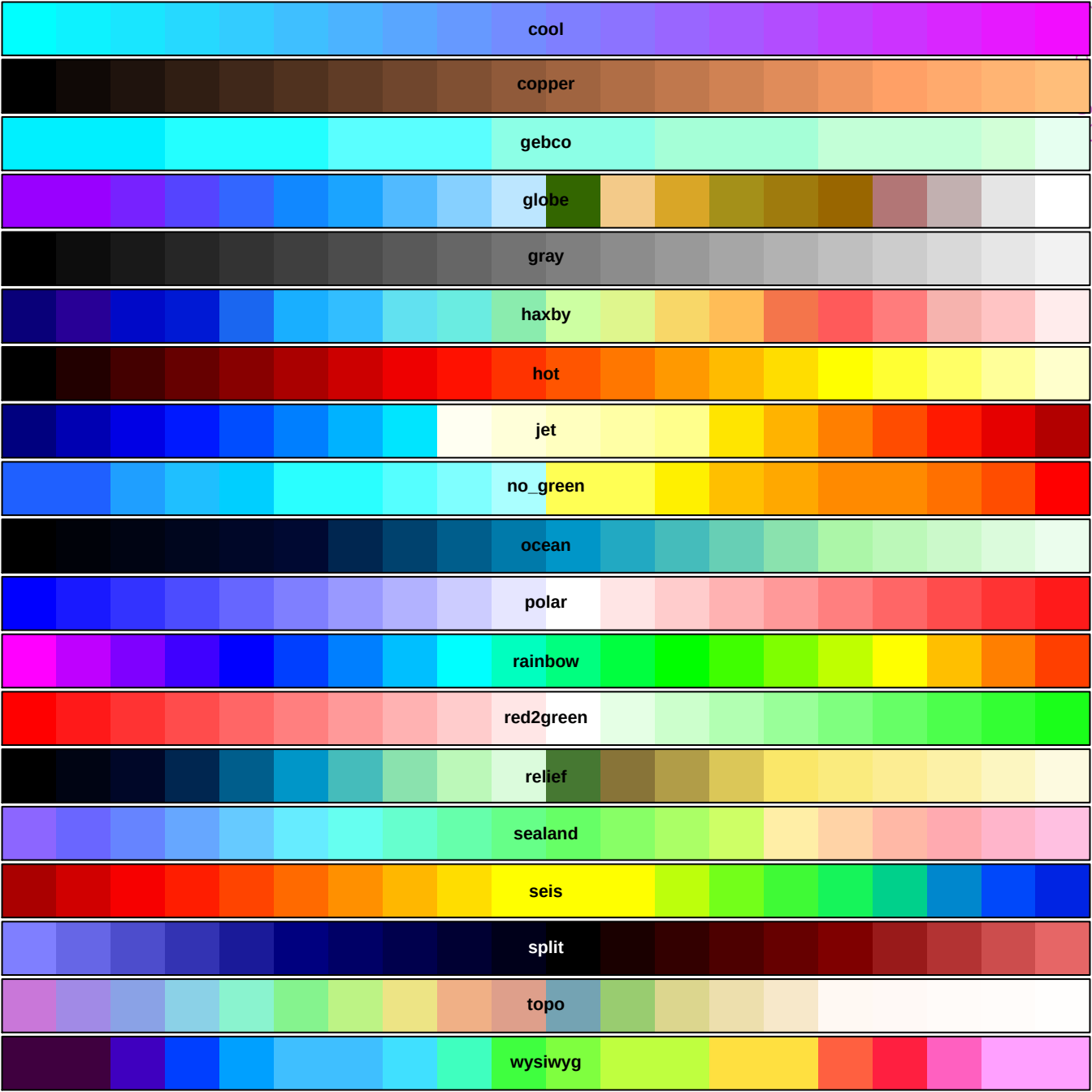

Non−mixed PCs = 1
1e+02
1e+00
1e−02
1e−04
1
4
7
10
14
18
22
26
30
34
38
42
46
50
help("eofBoot")


Significant PCs = 4
1e+02
1e+01
1e+00
1e−01
1e−02
1
4
7
10
14
18
22
26
30
34
38
42
46
50
help("eofMCError")

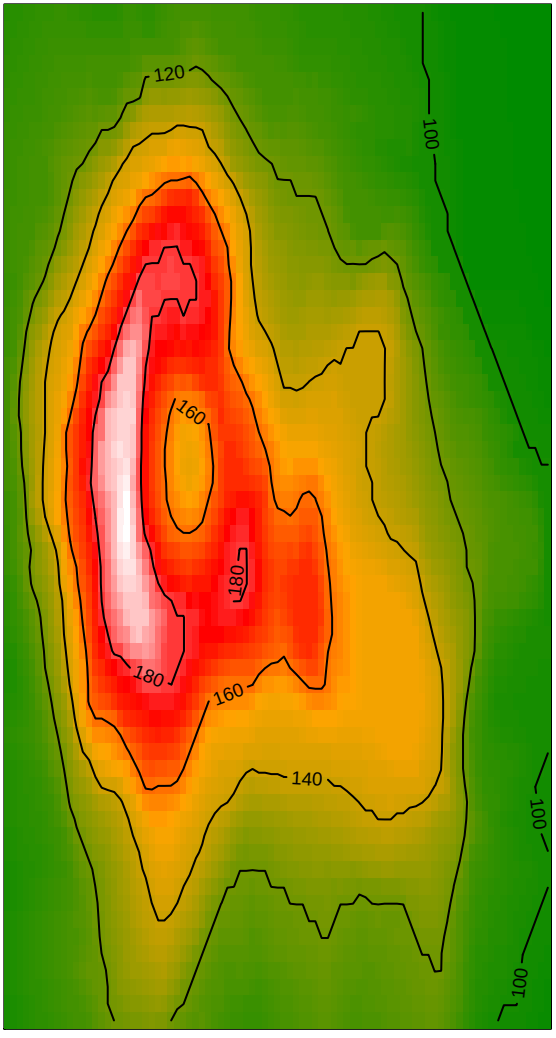

recursive=TRUE
recursive=FALSE
iris.gappy.recon.r
iris.gappy.recon.nr
iris.gappy
iris.gappy
0
2
4
6
8
help("eofRecon")

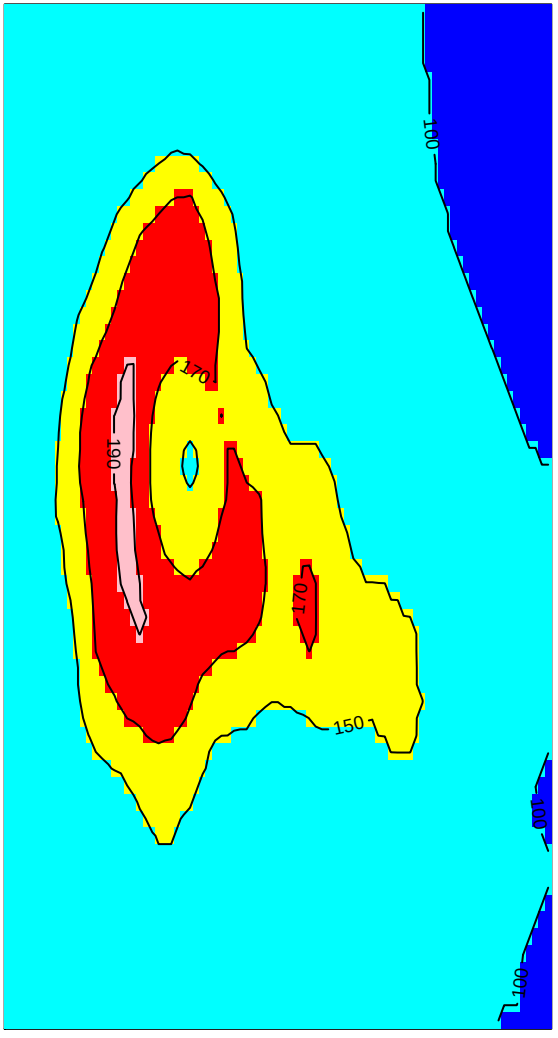

recursive=TRUE
recursive=FALSE
iris.gappy.recon.r
iris.gappy.recon.nr
as.matrix(iris[, 1:4])
as.matrix(iris[, 1:4])
help("eofRecon")

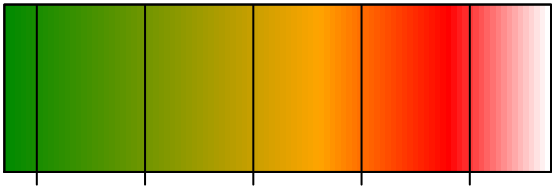

Original
GRD
2
4
6
8
10
1990
1995
2000
2005
TS
Anomaly
GRD
2
4
6
8
10
1990
1995
2000
2005
TS
help("fieldanomaly")
−10
−5
0
5
10

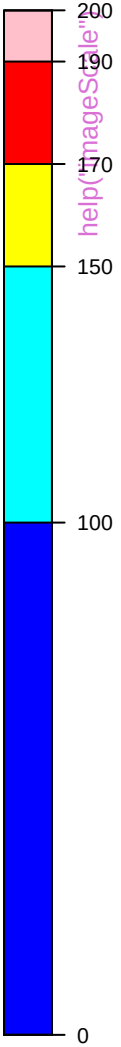

cool
copper
gebco
globe
gray
haxby
hot
jet
no_green
ocean
polar
rainbow
red2green
relief
sealand
seis
split
topo
wysiwyg

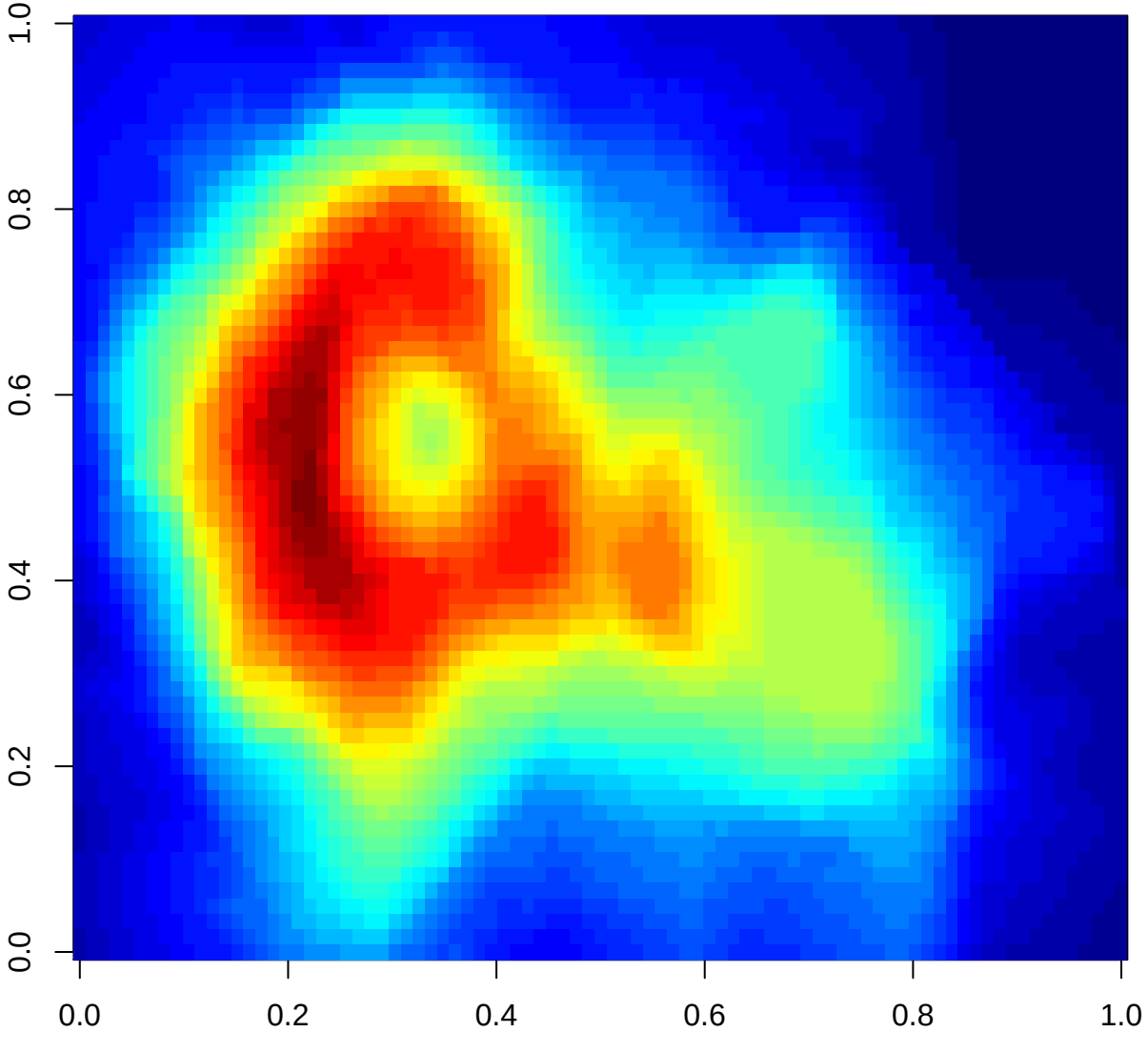
help("gmtColors")

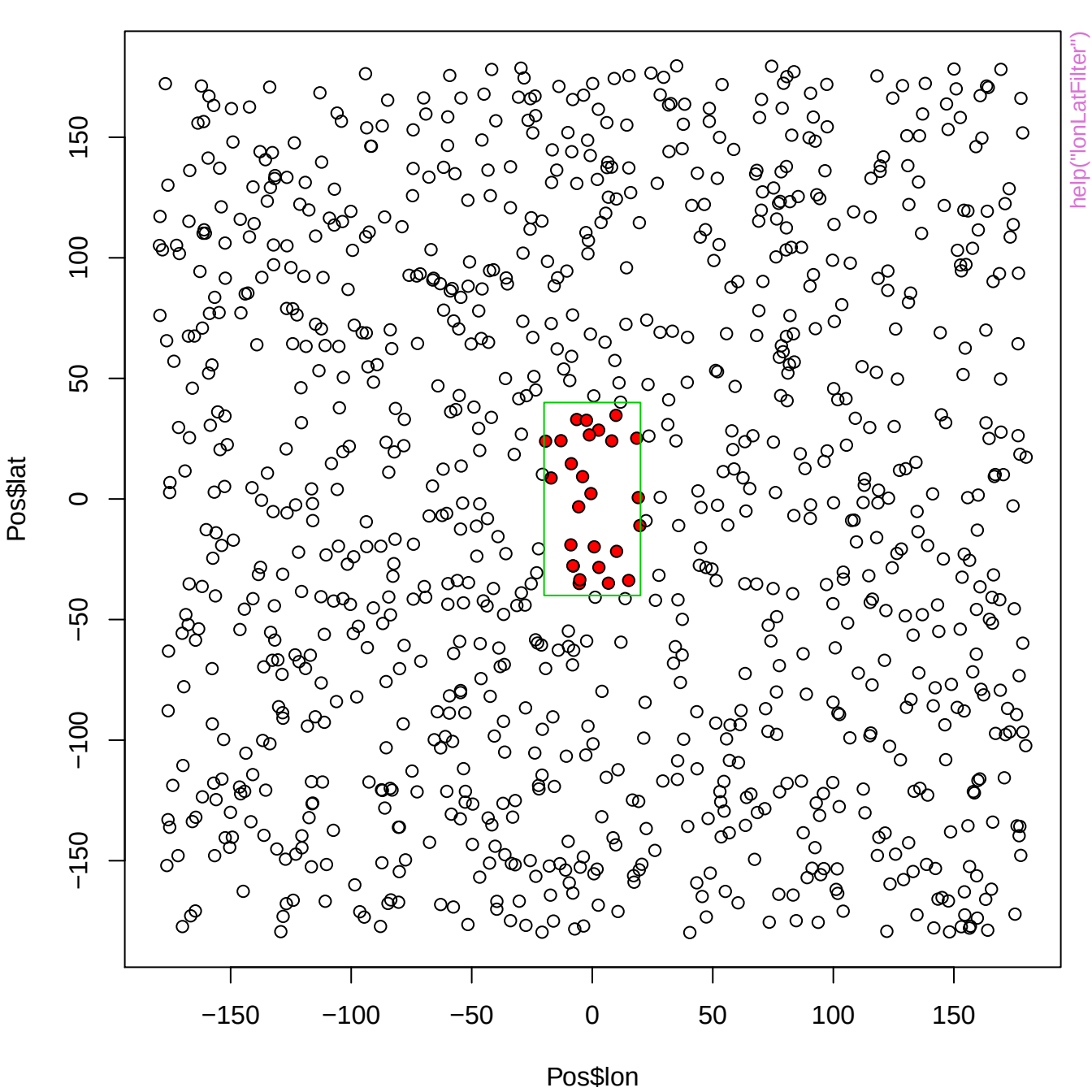

120
100
160
180
180
160
140
100
100

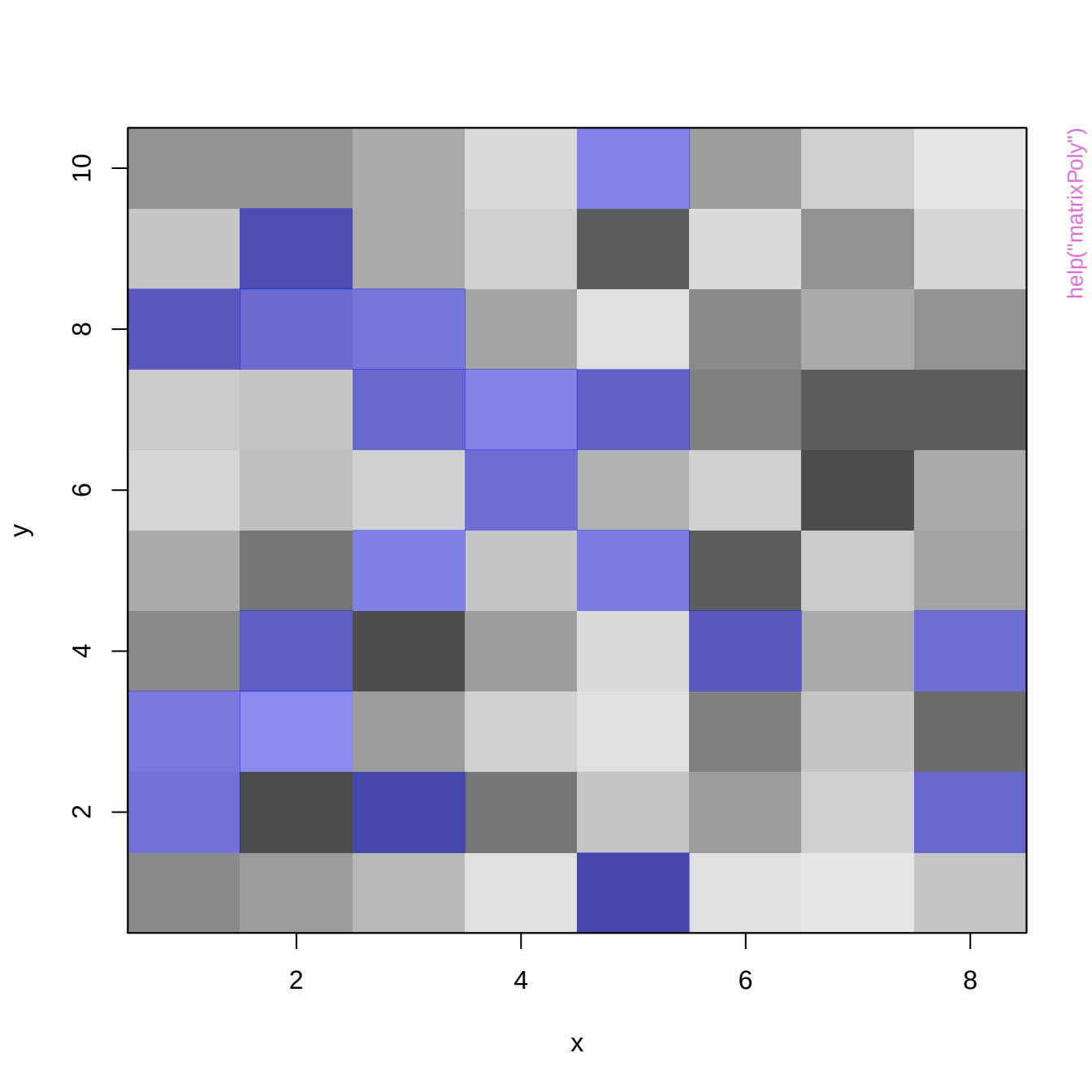

100
170
190
170
150
100
100

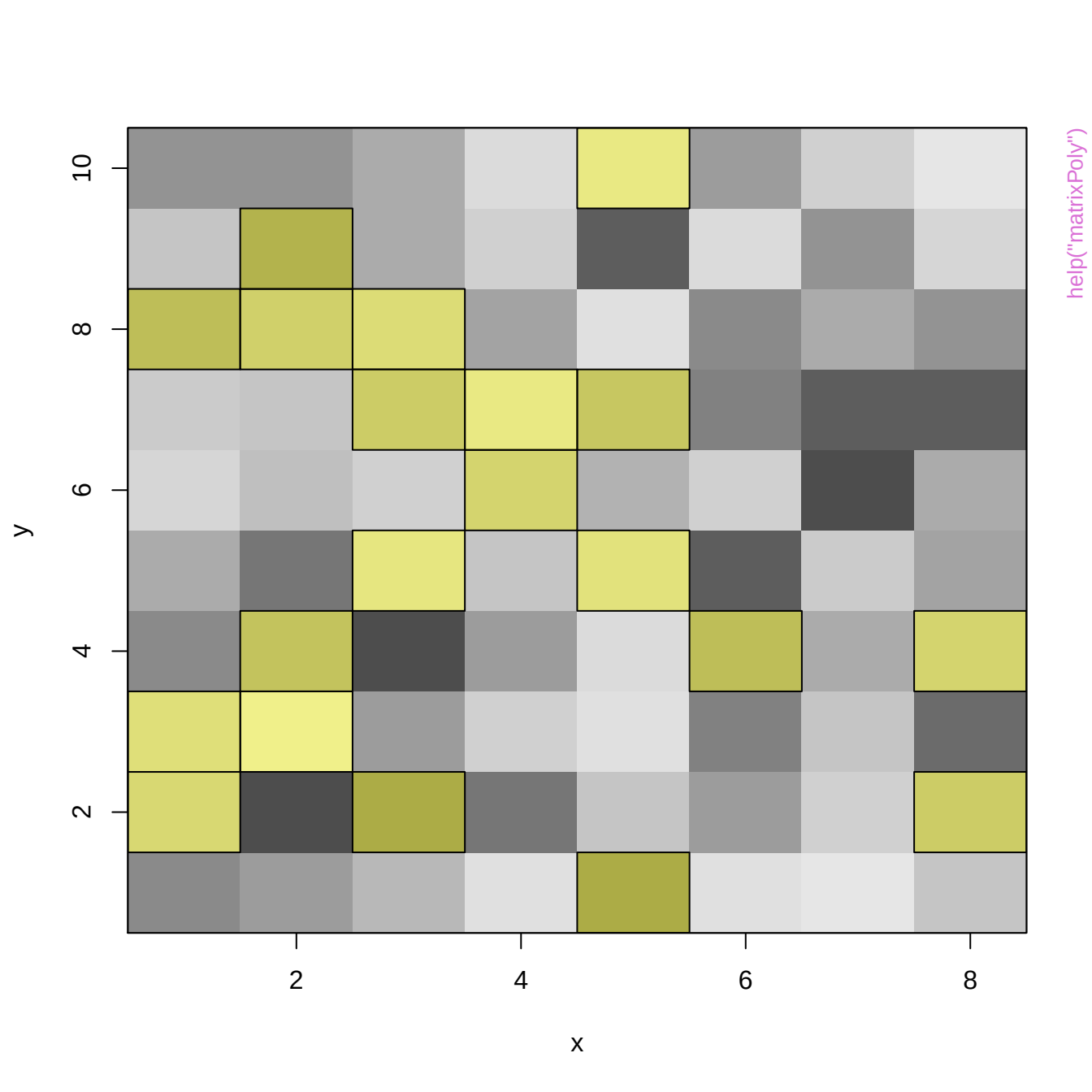

100
120
140
160
180

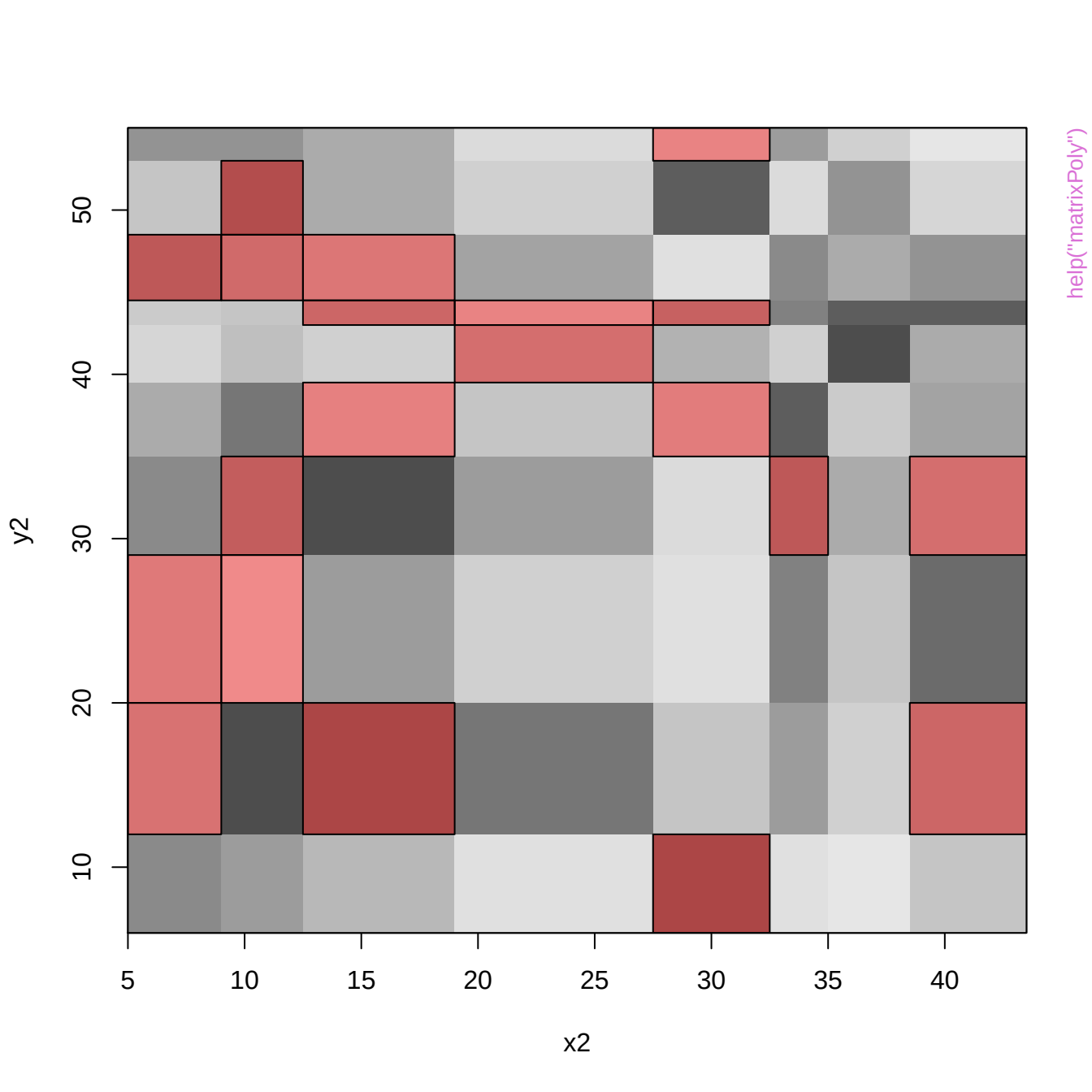

help("imageScale")
200
190
170
150
100
0

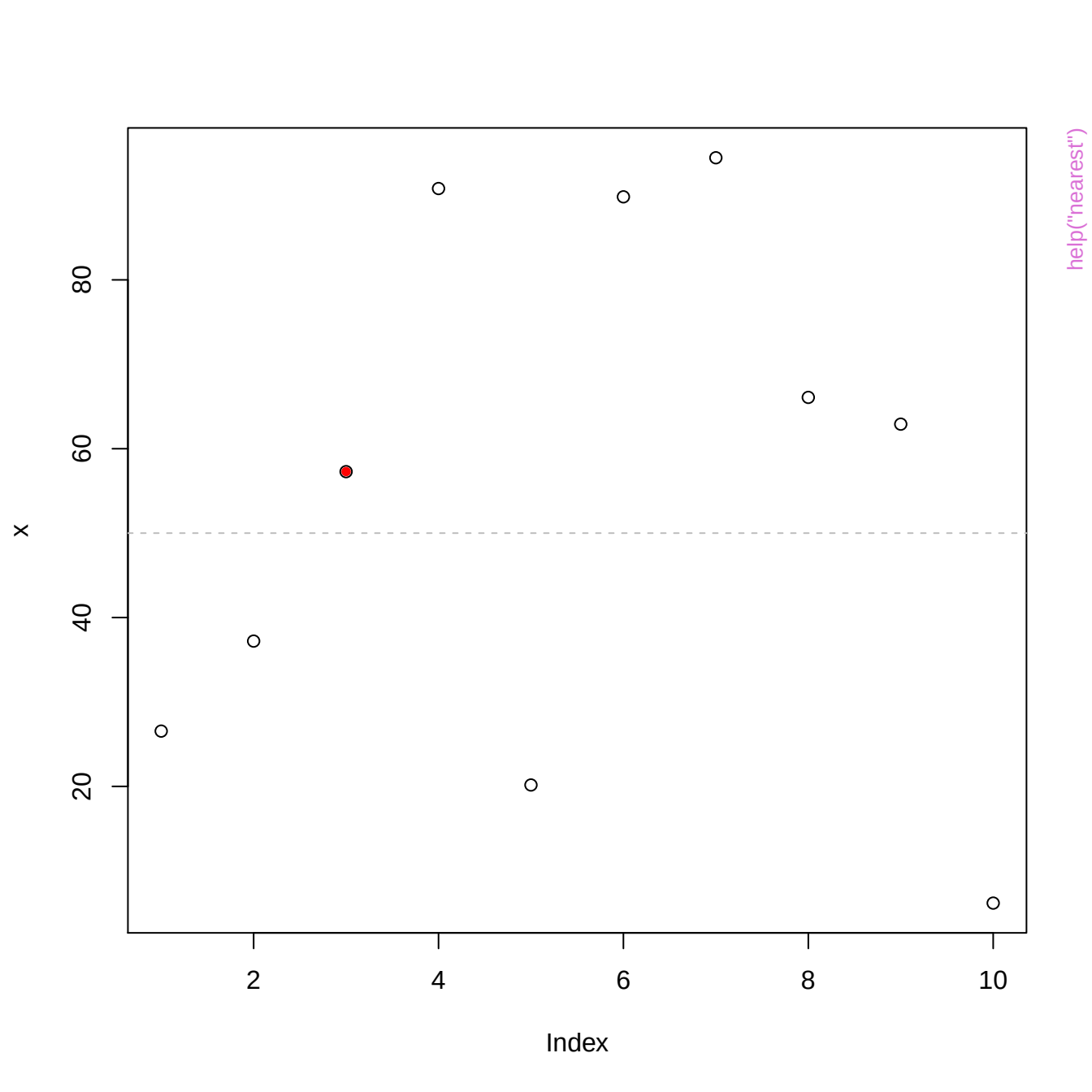

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
help("jetPal")

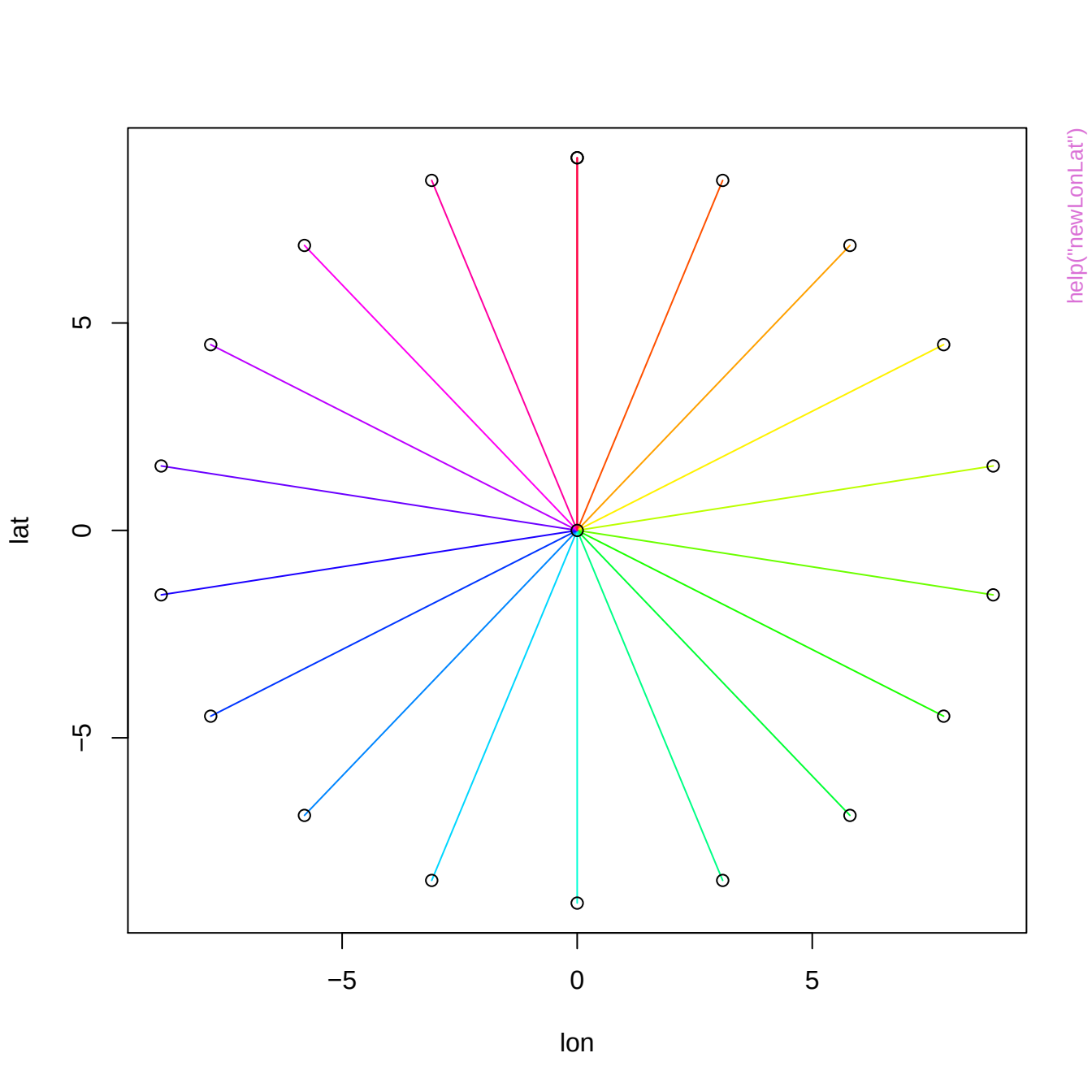

Pos$lat
150
100
50
0
−50
−100
−150
−150
−100
−50
0
50
100
150
Pos$lon
help("lonLatFilter")

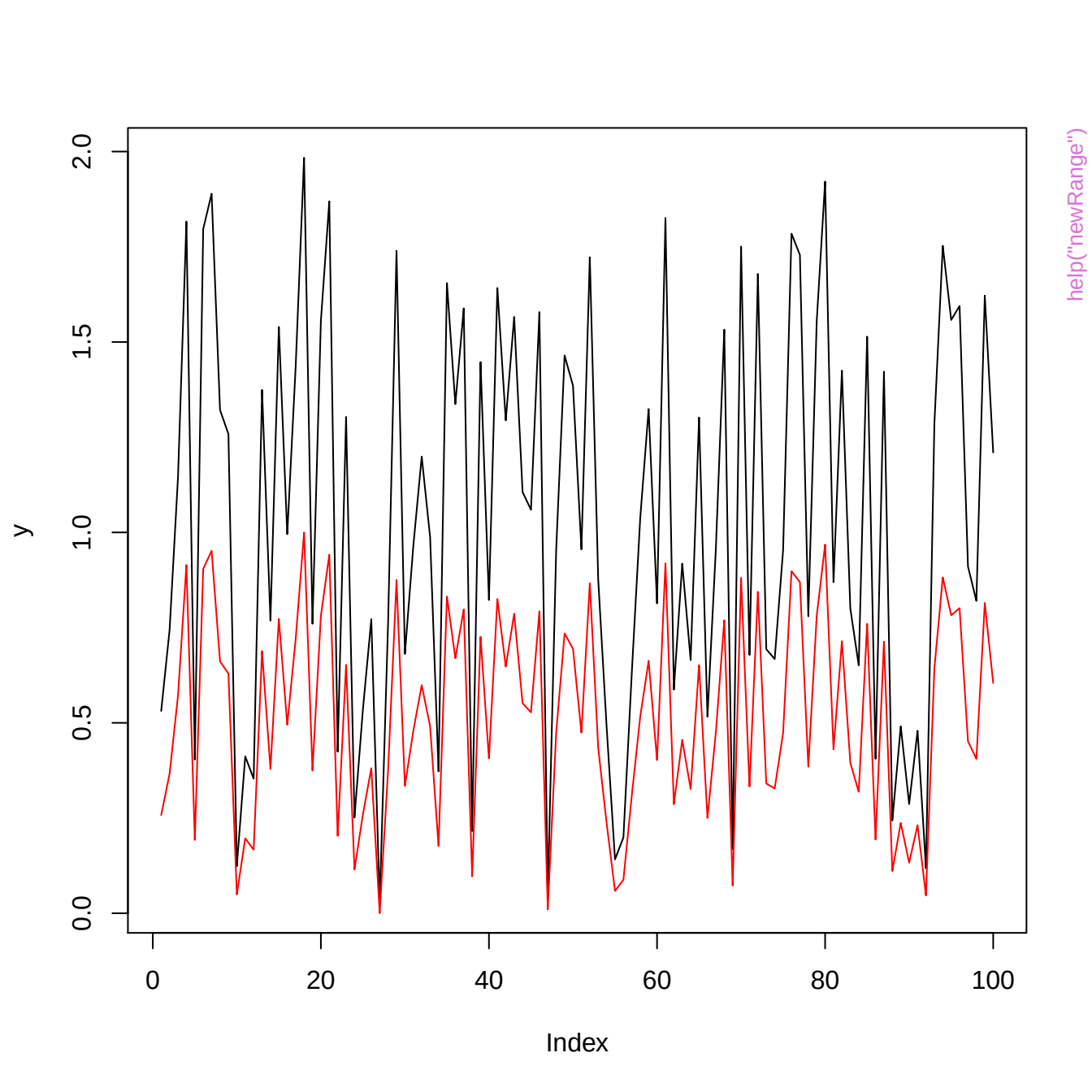

y
10
8
6
4
2
x
2
4
6
8
help("matrixPoly")

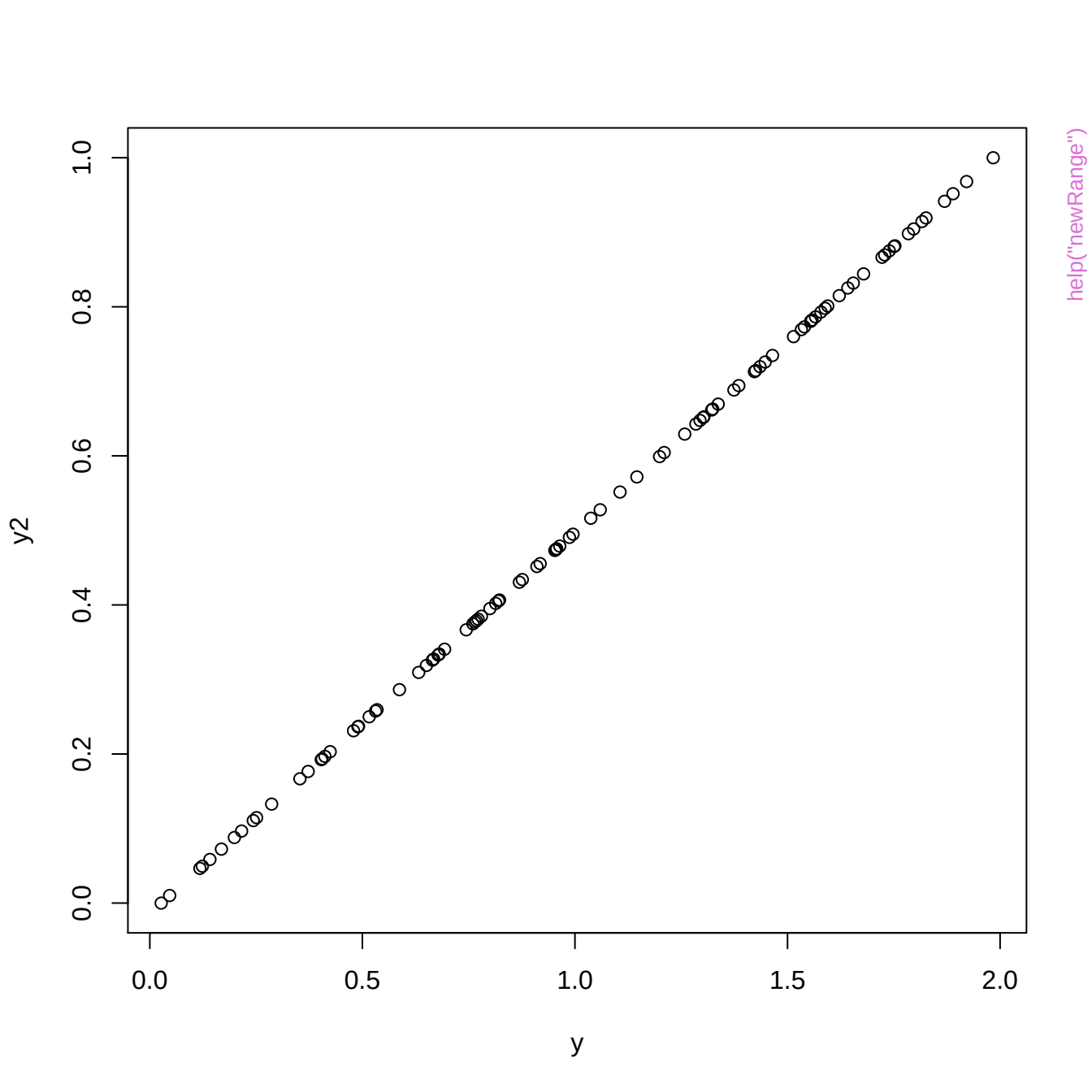

help("matrixPoly")
y
x
2
4
6
8
10
2
4
6
8

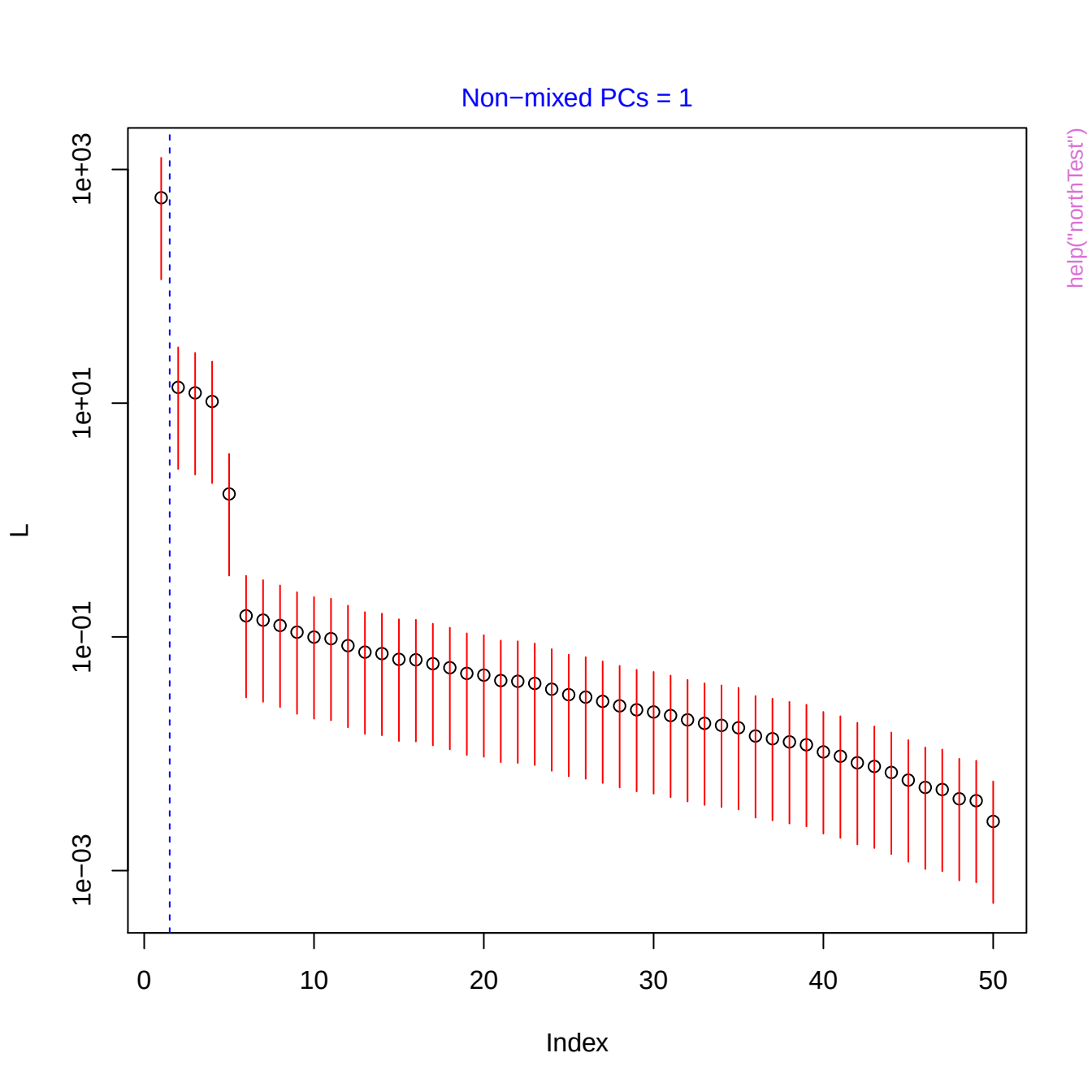

help("matrixPoly")
y2
50
40
30
20
10
5
10
15
20
25
30
35
40
x2

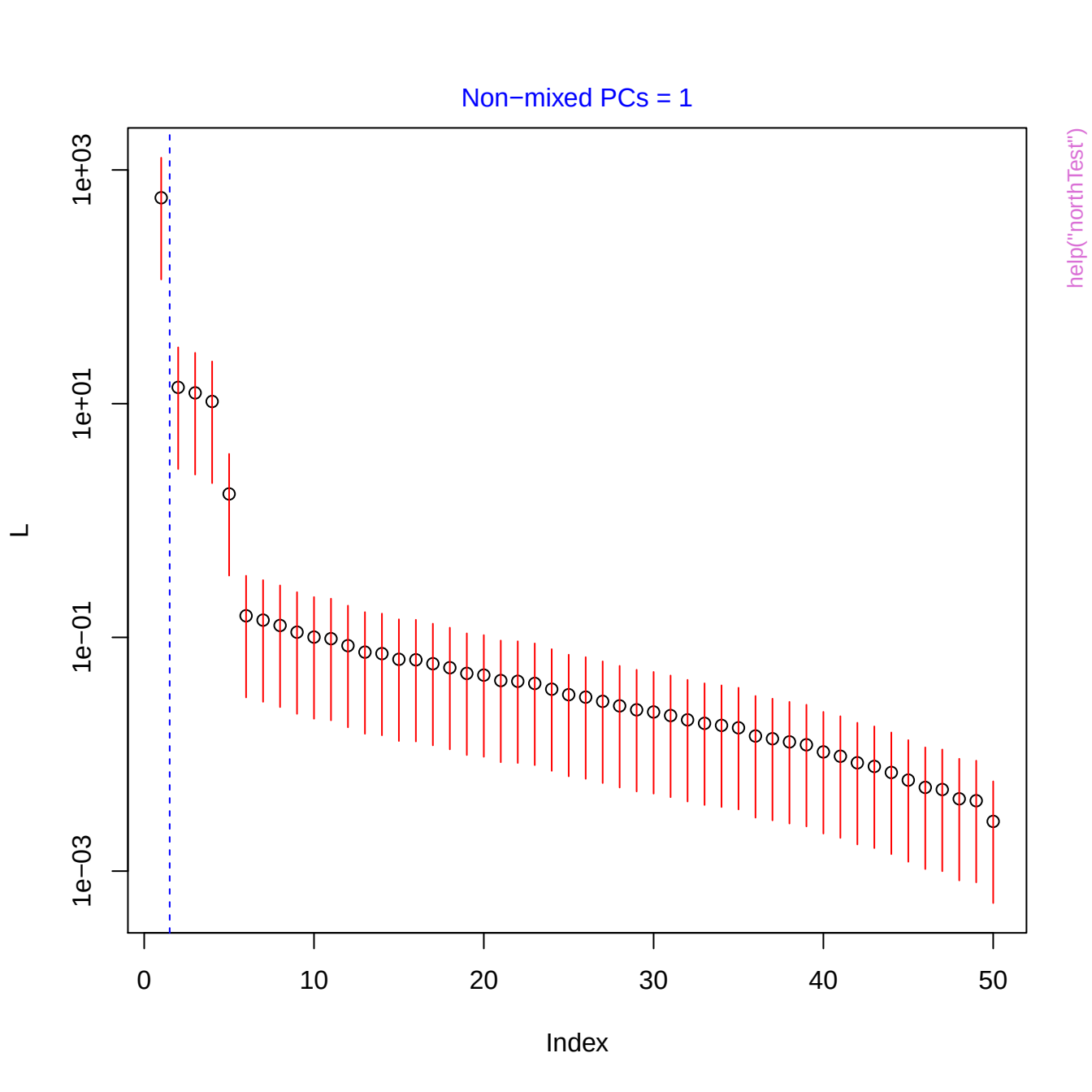

x
20
40
60
80
2
4
6
8
10
Index
help("nearest")

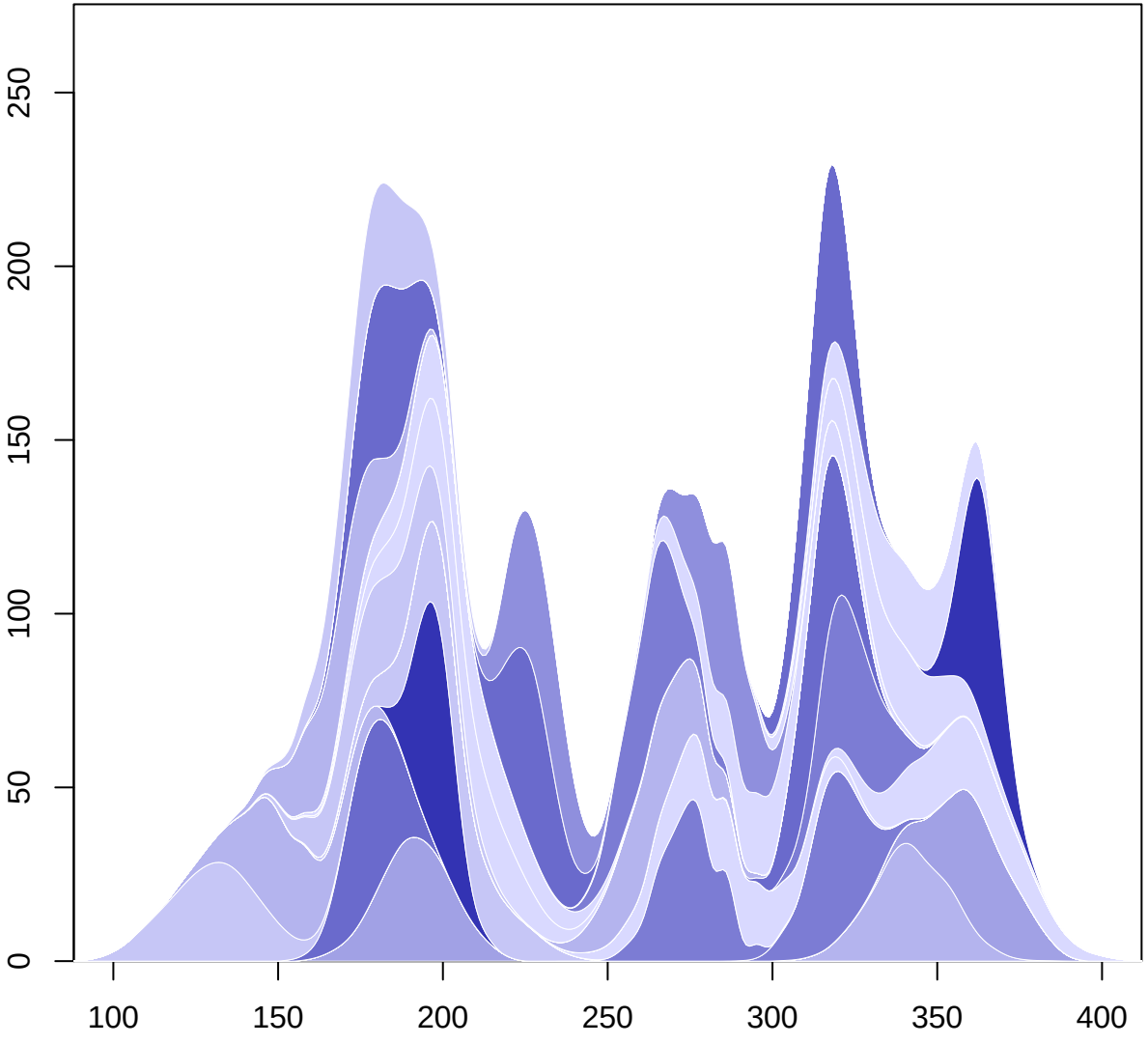

lat
5
0
−5
−5
0
5
lon
help("newLonLat")

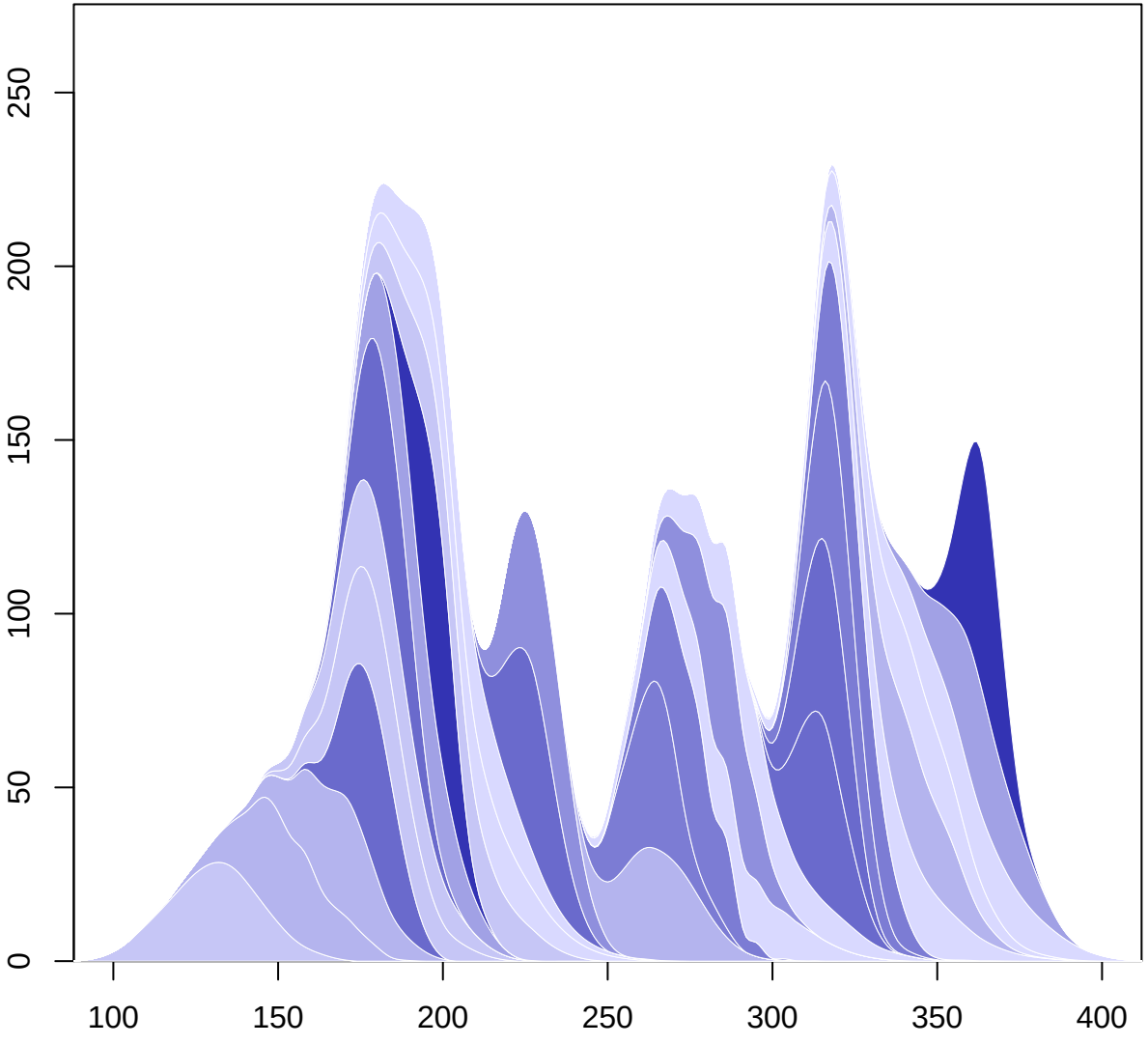

help("newRange")
y
0.0
0.5
1.0
1.5
2.0
0
20
40
60
80
100
Index


y2
0.0
0.2
0.4
0.6
0.8
1.0
0.0
0.5
1.0
1.5
2.0
y
help("newRange")

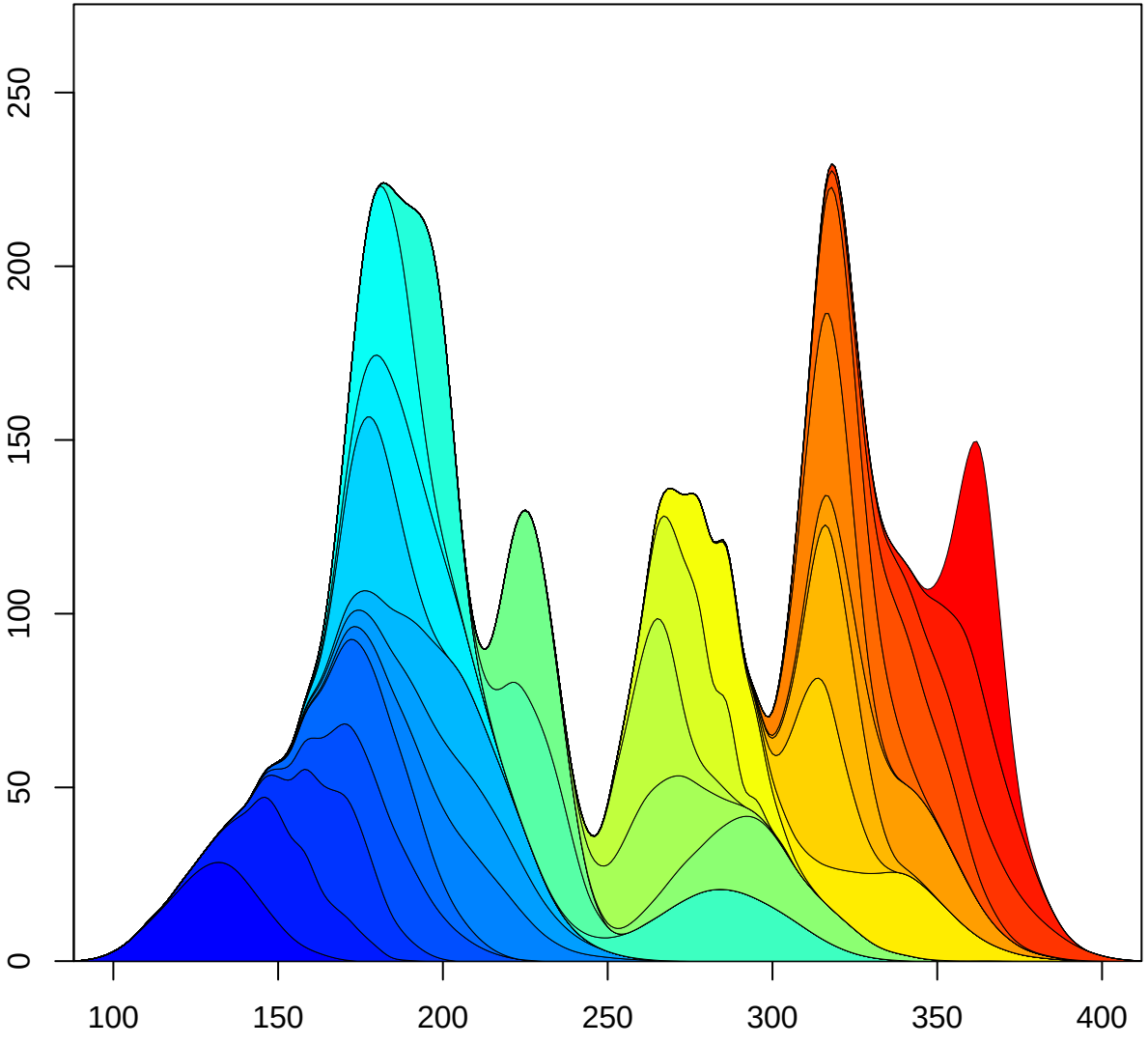

Non−mixed PCs = 1
L
1e+03
1e+01
1e−01
1e−03
0
10
20
30
40
50
Index
help("northTest")


Non−mixed PCs = 1
L
1e+03
1e+01
1e−01
1e−03
0
10
20
30
40
50
Index
help("northTest")

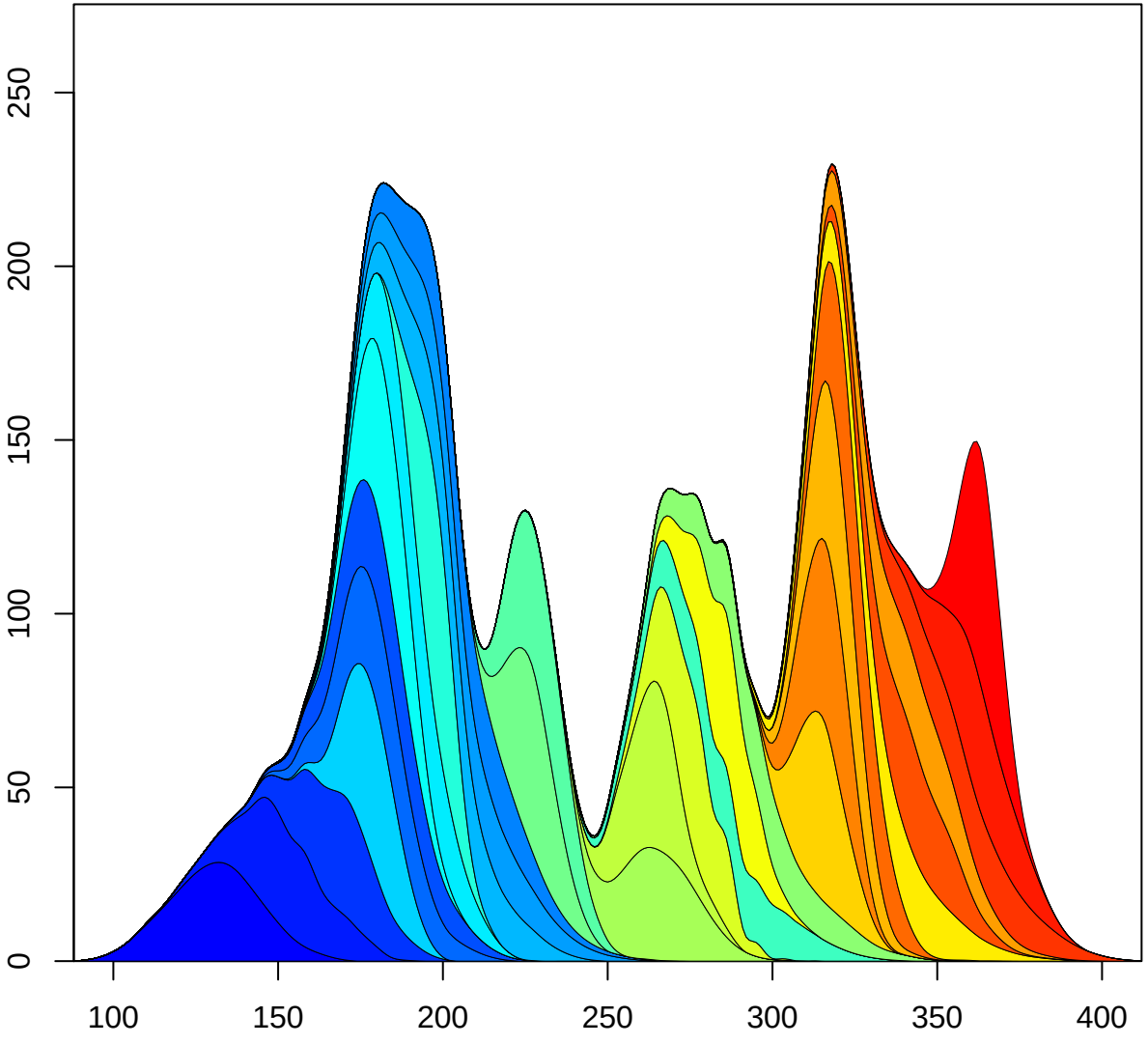

0
50
100
150
200
250
100
150
200
250
300
350
400
help("plotStacked")



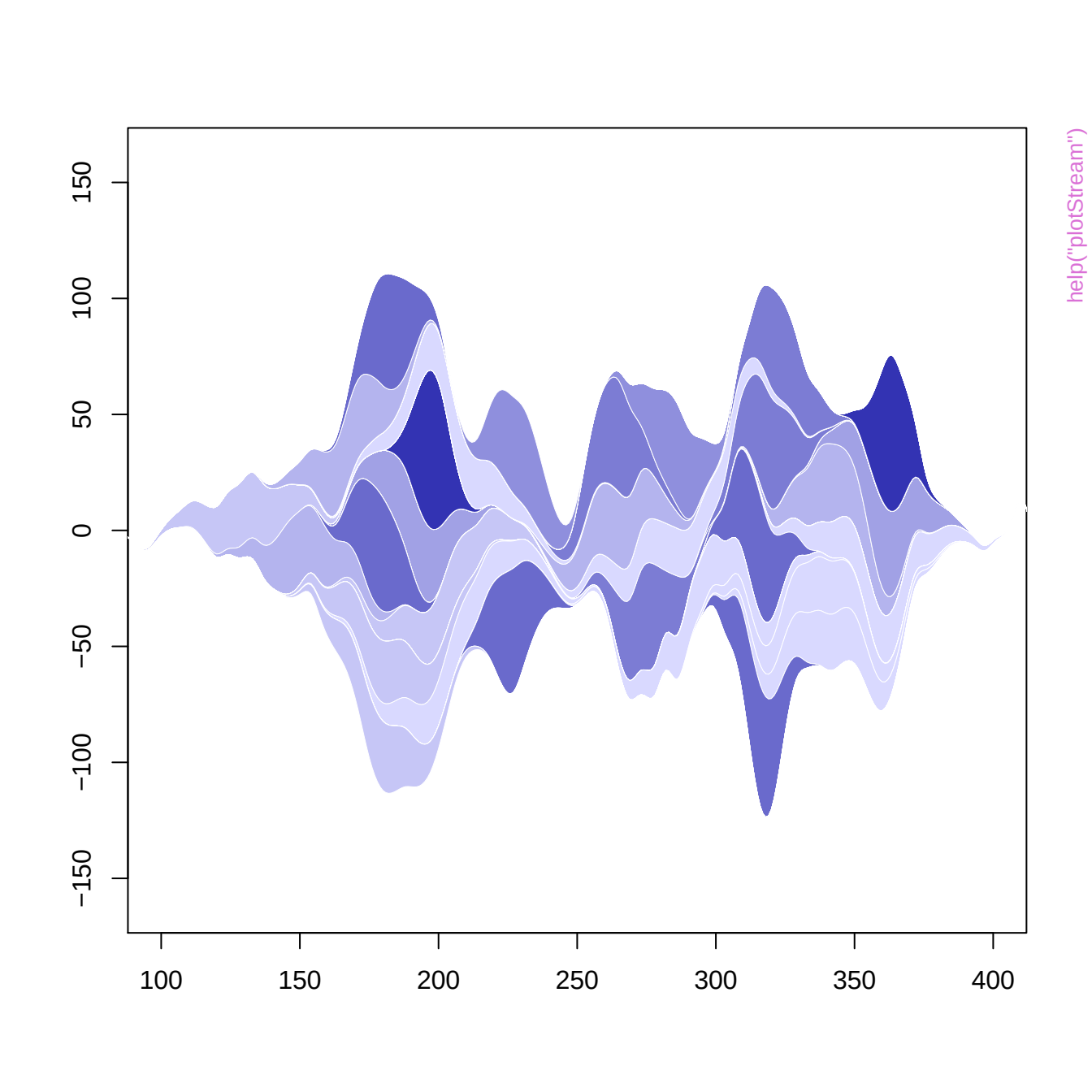
help("plotStacked")

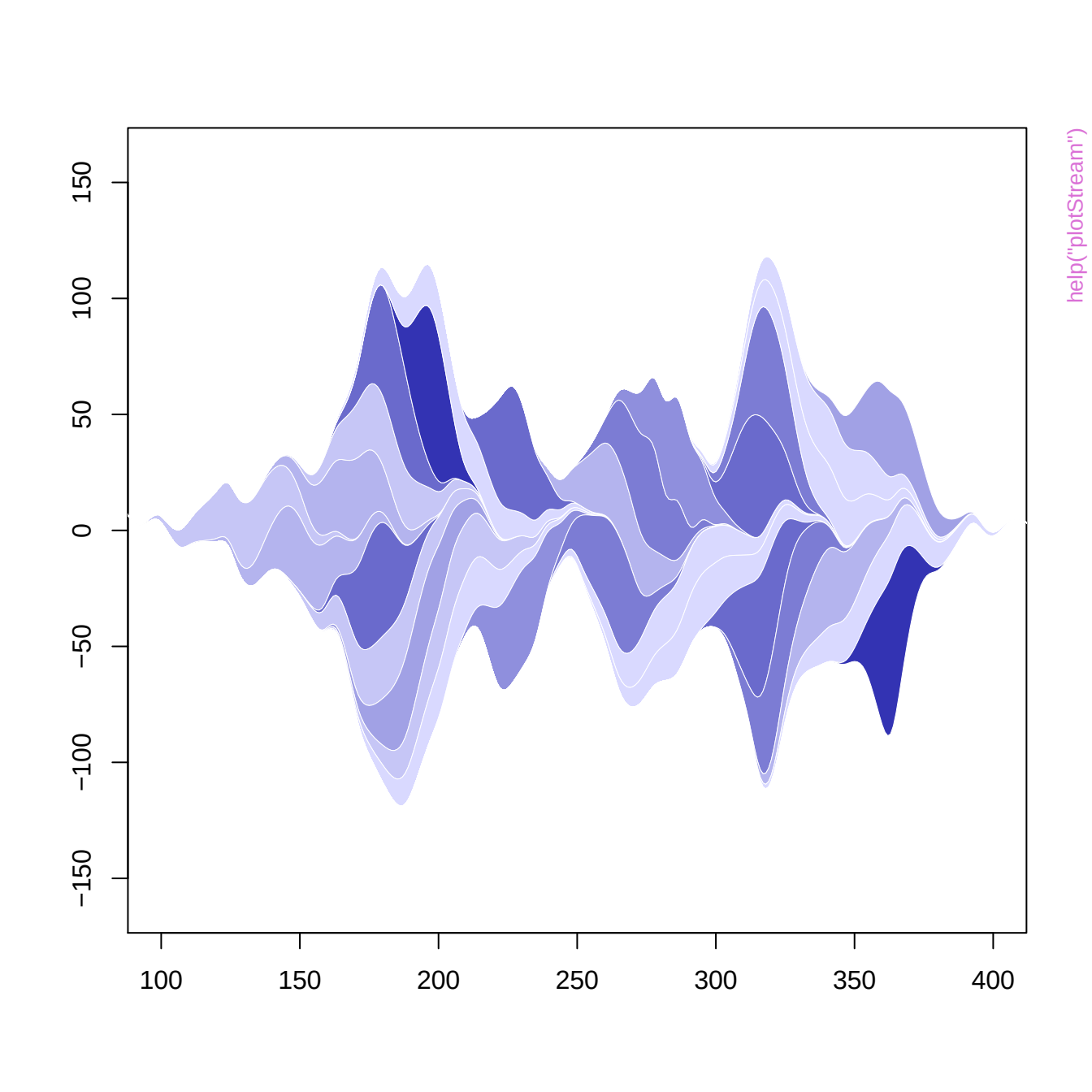


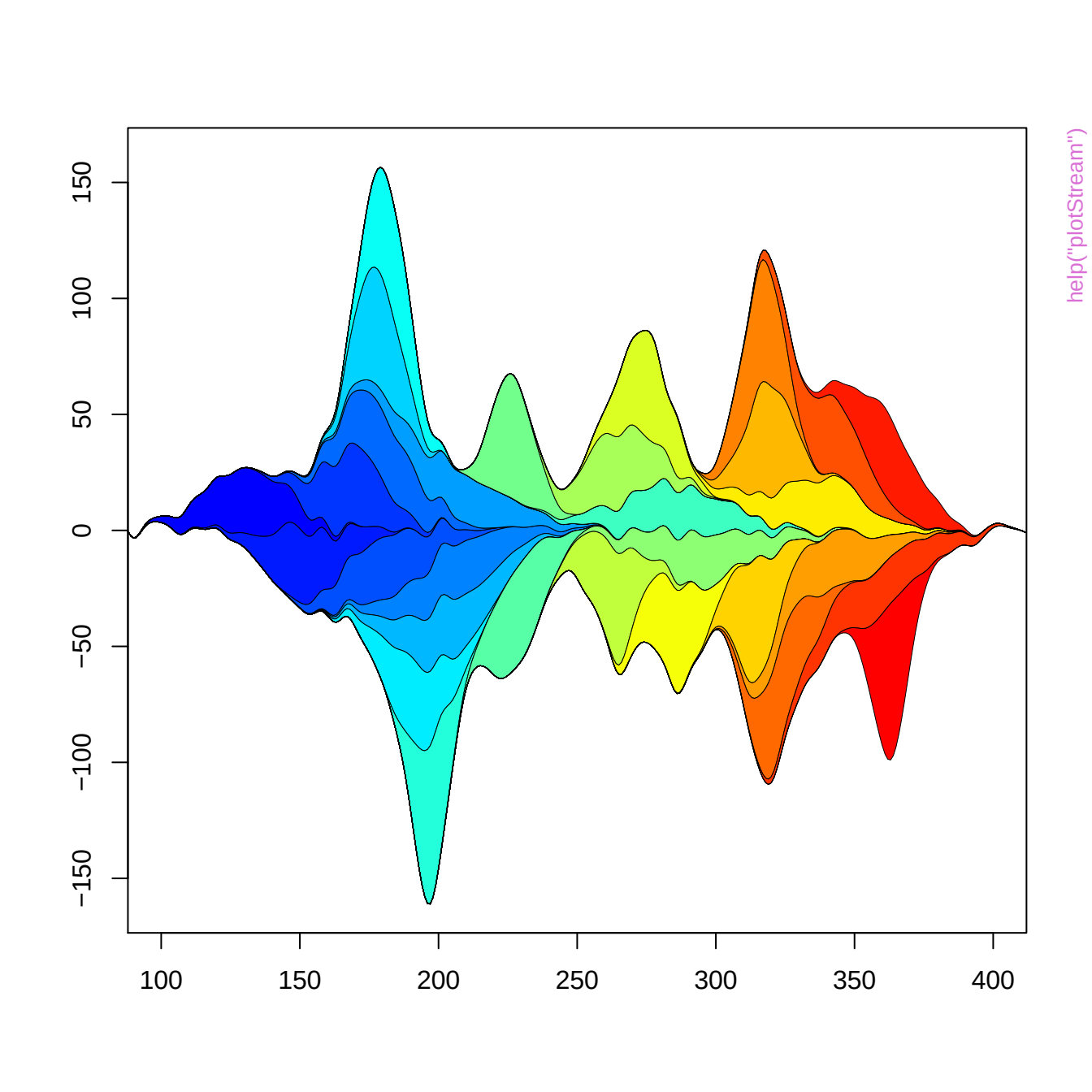
help("plotStacked")

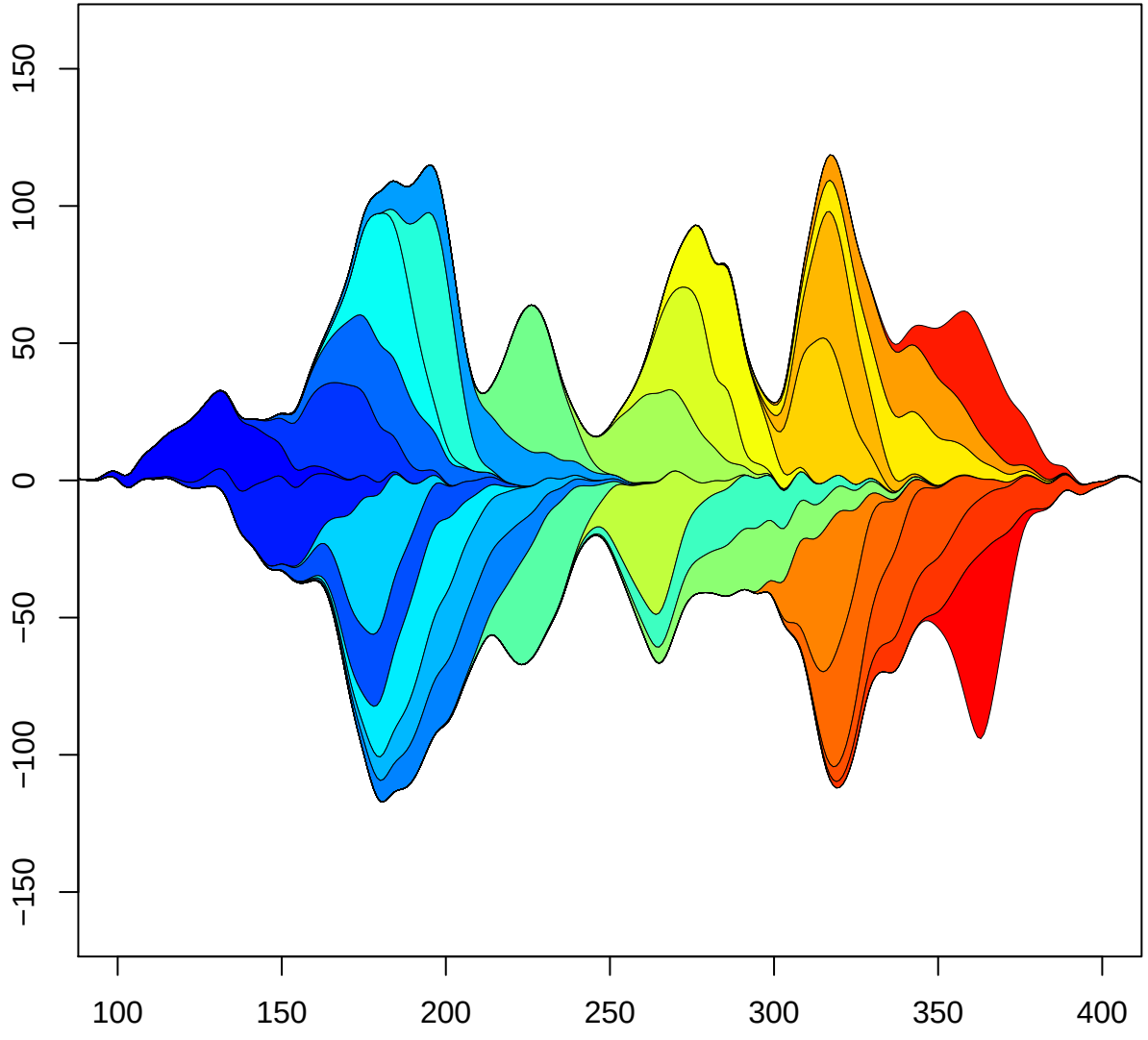


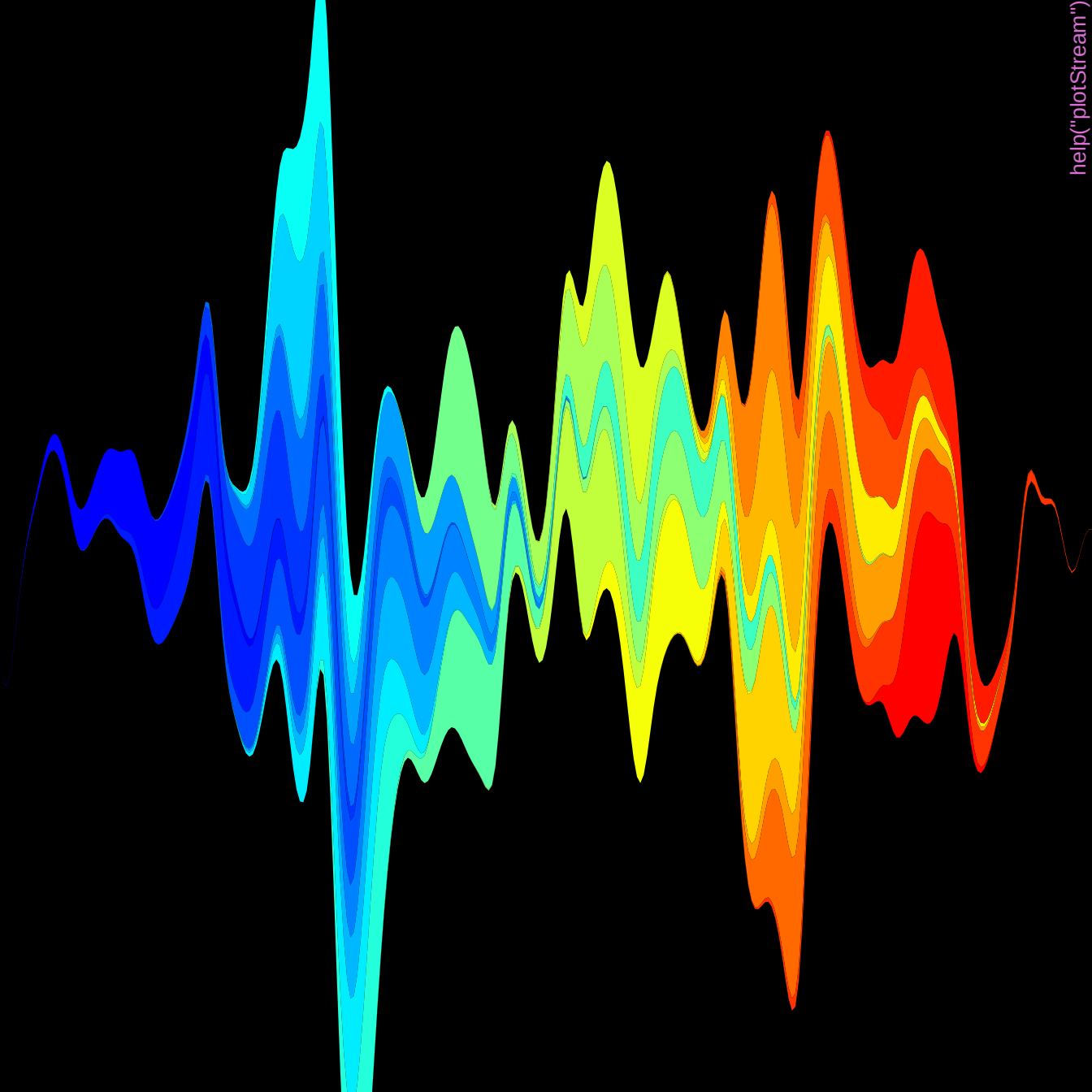
help("plotStacked")

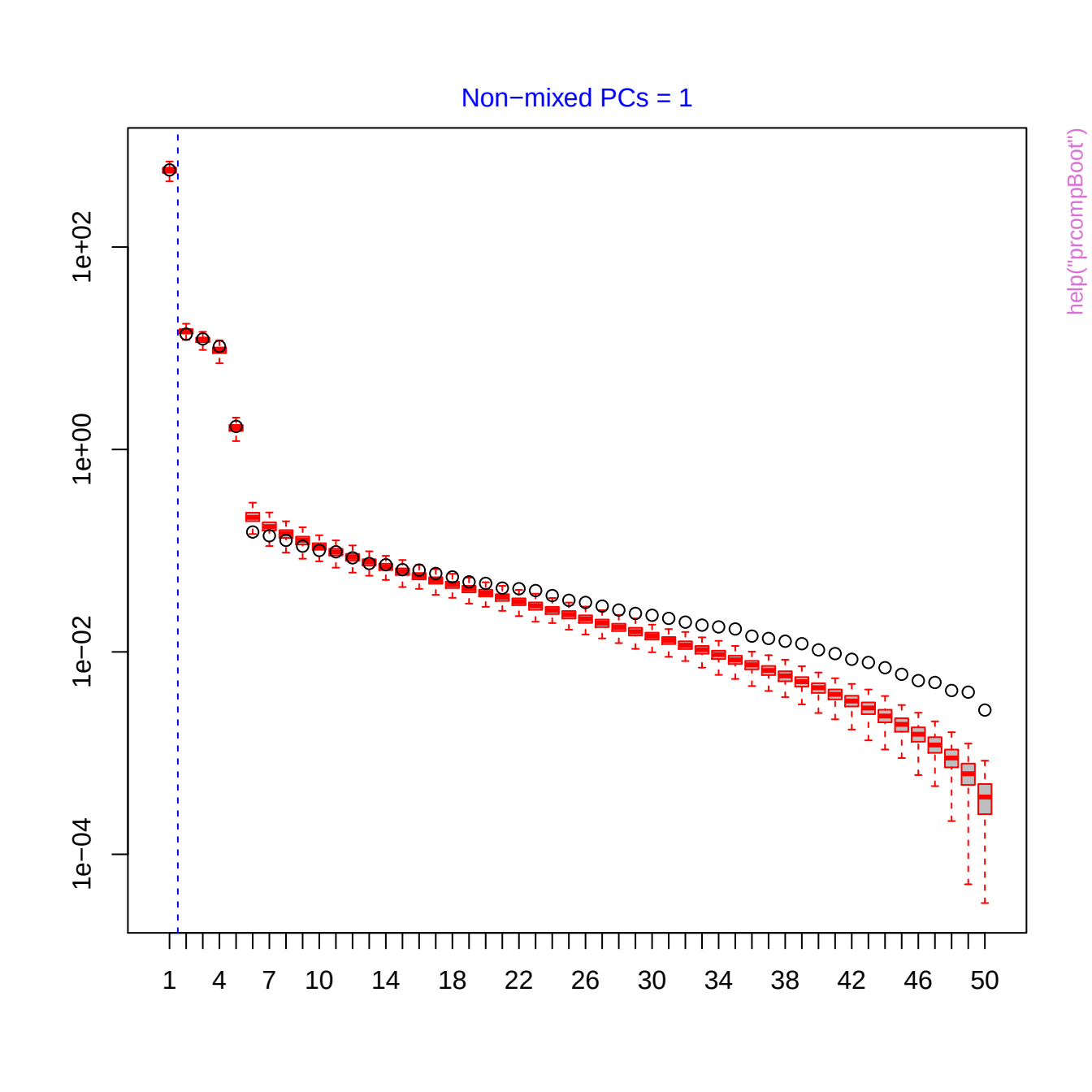

150
100
50
0
−50
−100
−150
100
150
200
250
300
350
400
help("plotStream")

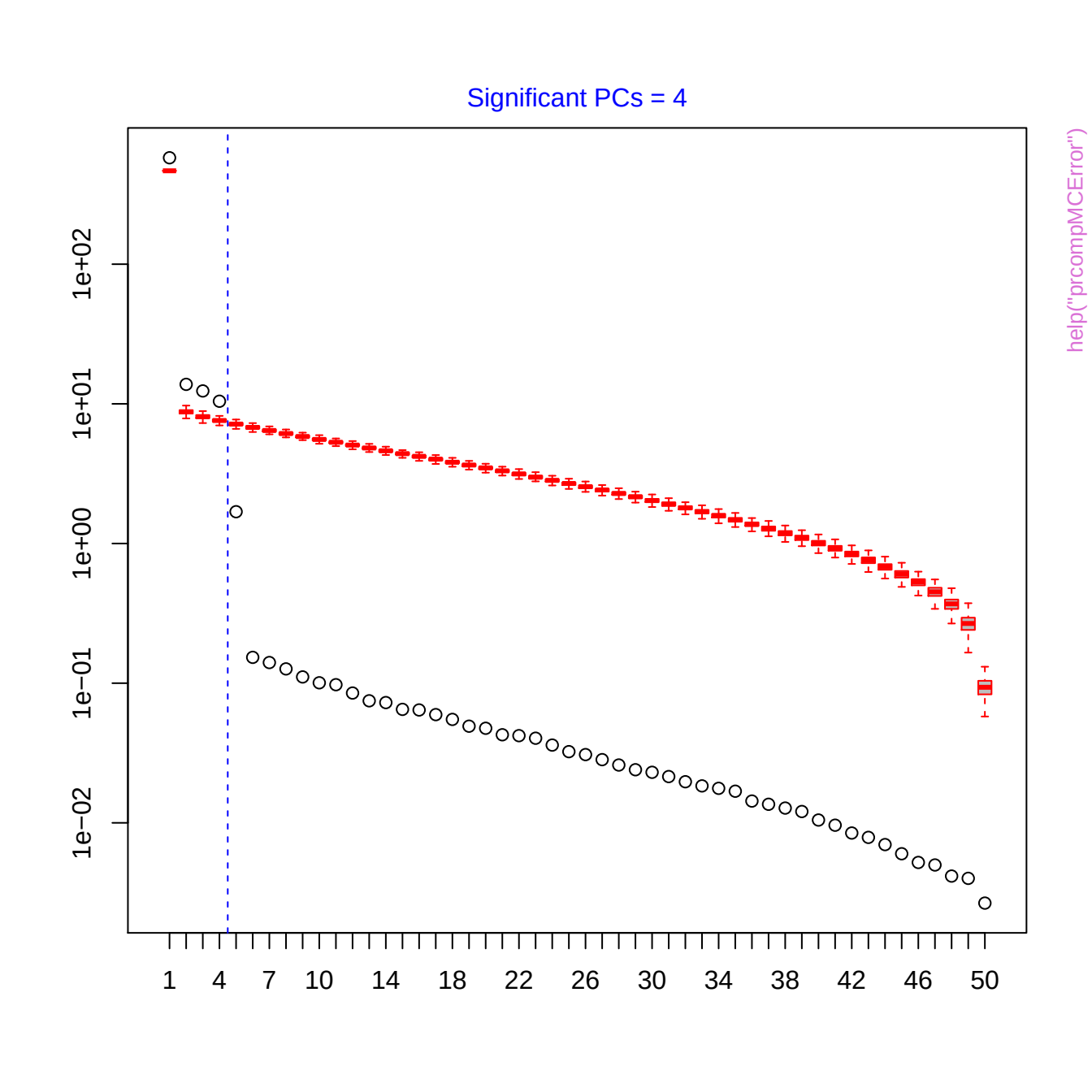

150
100
50
0
−50
−100
−150
100
150
200
250
300
350
400
help("plotStream")

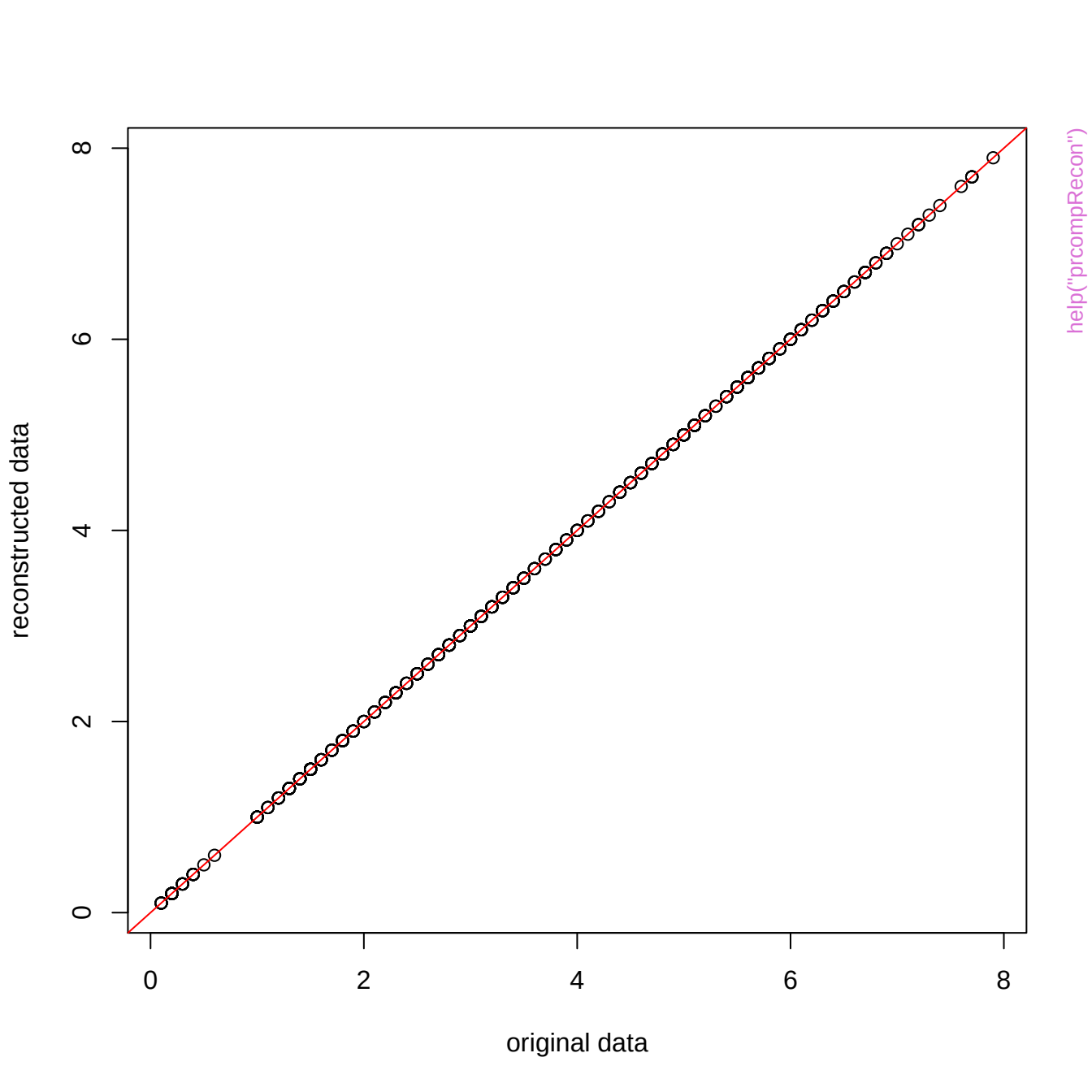

150
100
50
0
−50
−100
−150
100
150
200
250
300
350
400
help("plotStream")

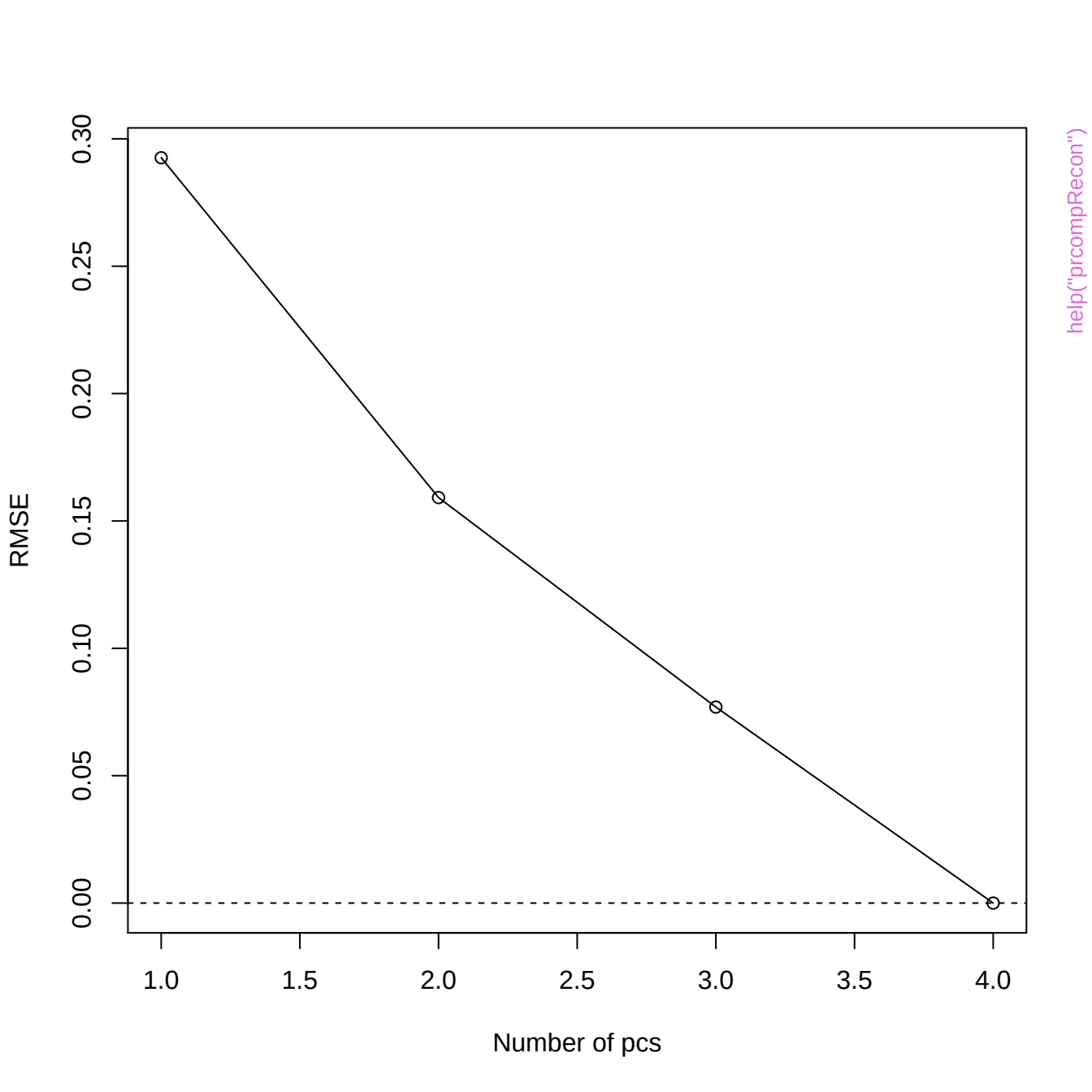

150
100
50
0
−50
−100
−150
100
150
200
250
300
350
400
help("plotStream")

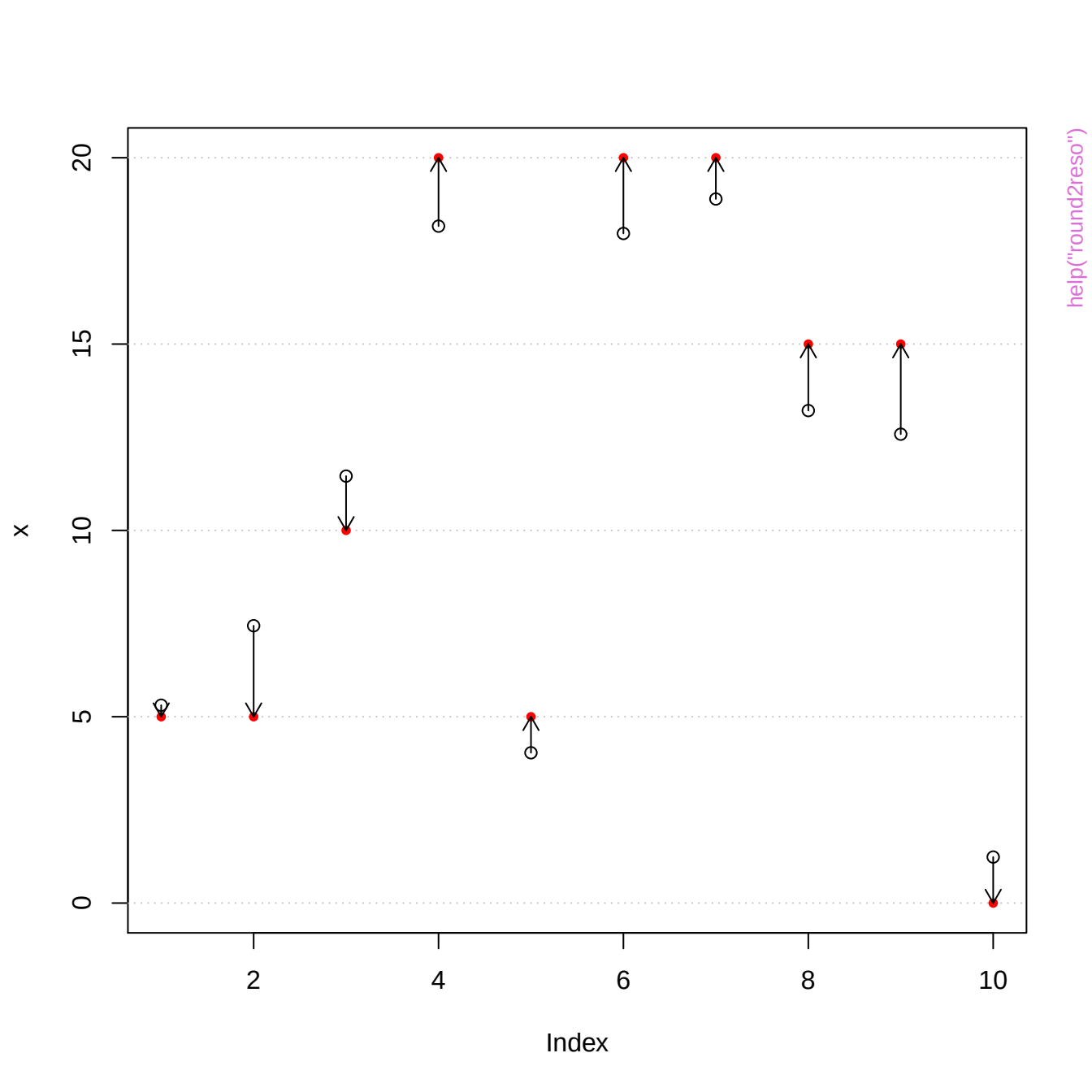

help("plotStream")


Non−mixed PCs = 1
1e+02
1e+00
1e−02
1e−04
1
4
7
10
14
18
22
26
30
34
38
42
46
50
help("prcompBoot")


Significant PCs = 4
1e+02
1e+01
1e+00
1e−01
1e−02
1
4
7
10
14
18
22
26
30
34
38
42
46
50
help("prcompMCError")


reconstructed data
original data
0
2
4
6
8
help("prcompRecon")


RMSE
0.00
0.05
0.10
0.15
0.20
0.25
0.30
1.0
1.5
2.0
2.5
3.0
3.5
4.0
Number of pcs
help("prcompRecon")


x
Index
0
5
10
15
20
2
4
6
8
10
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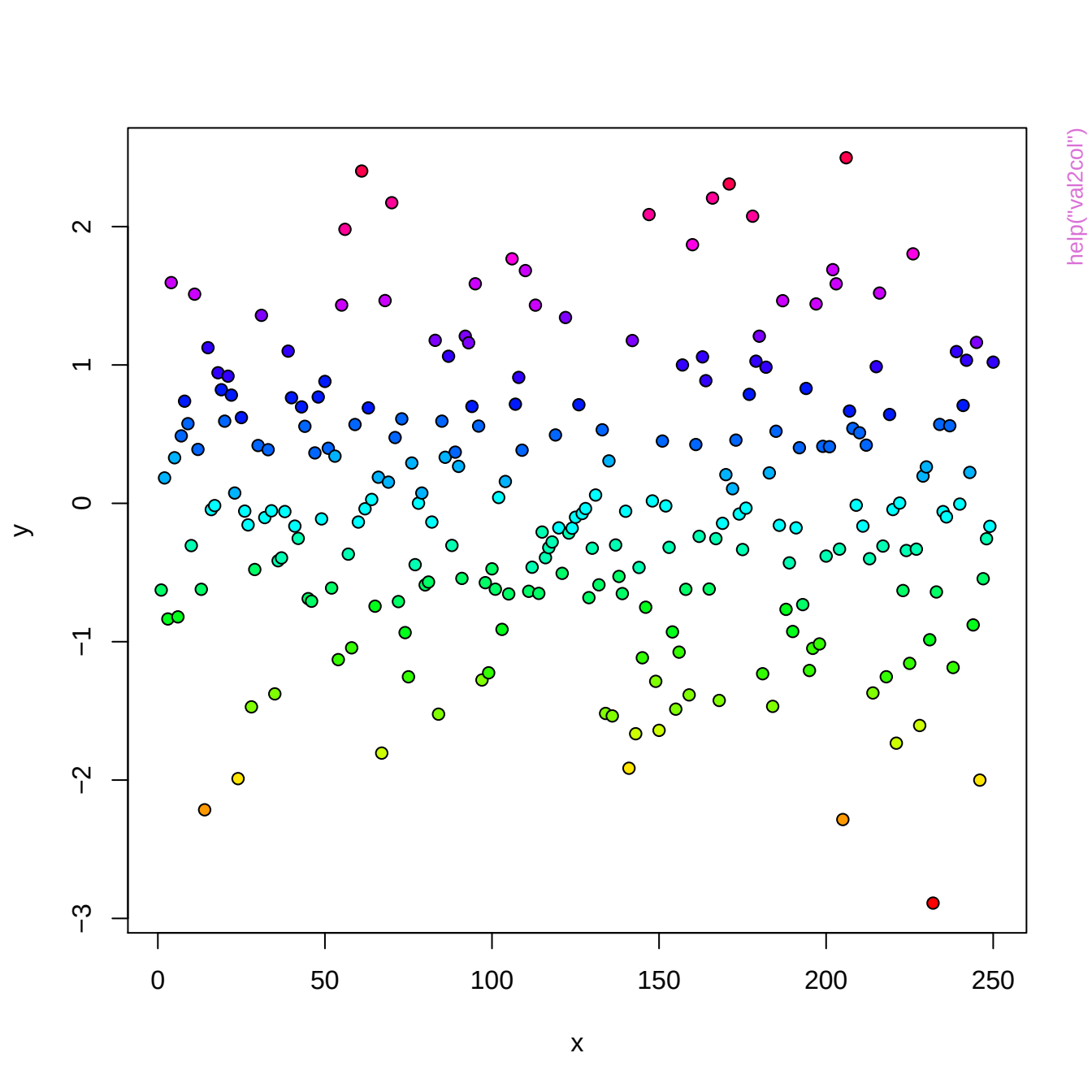
help("spirographR")

help("spirographR")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0
−1
−2
−3
0
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100
150
200
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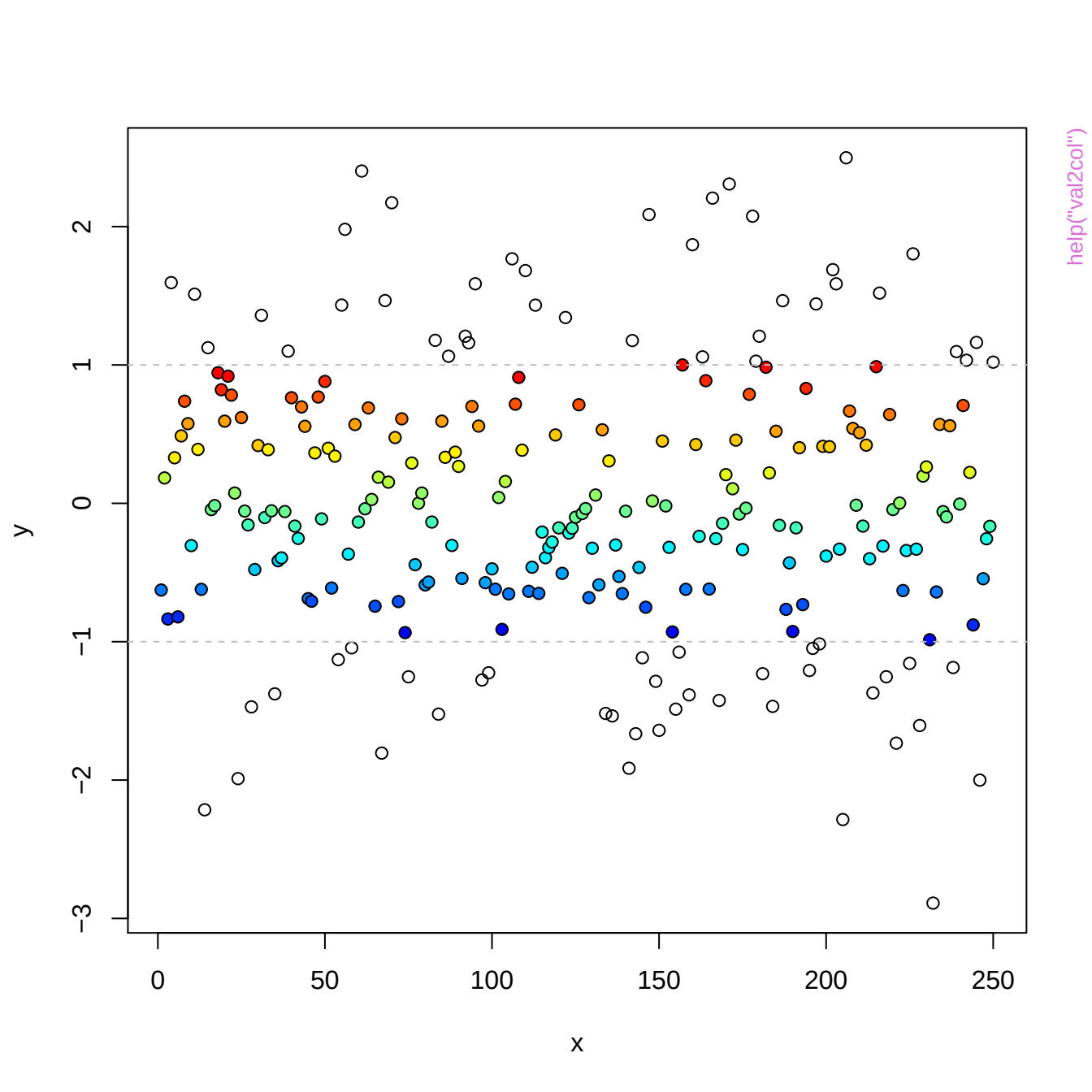
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−2
−3
0
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100
150
200
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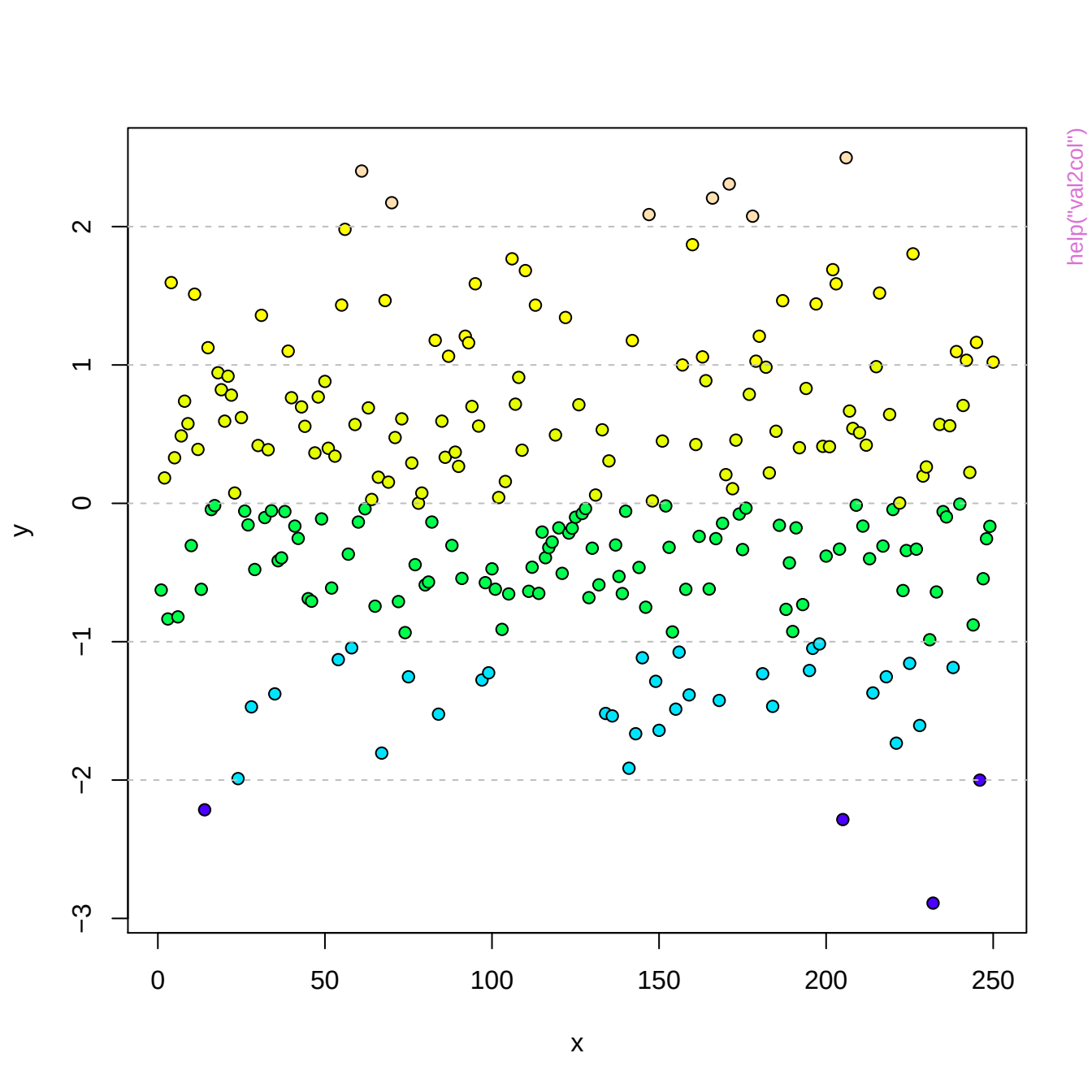
help("val2col")
y
x
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