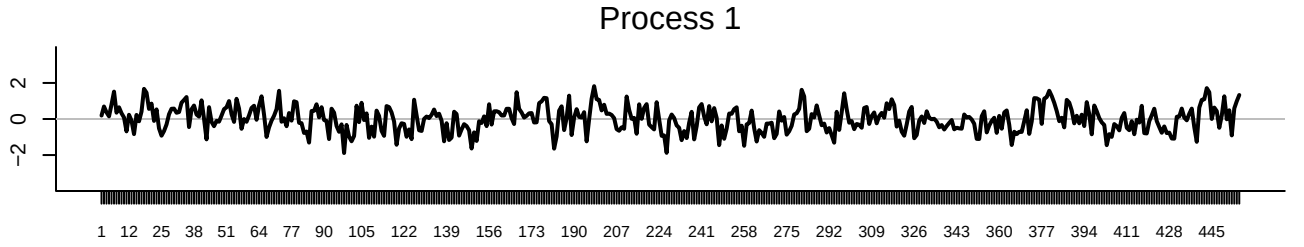
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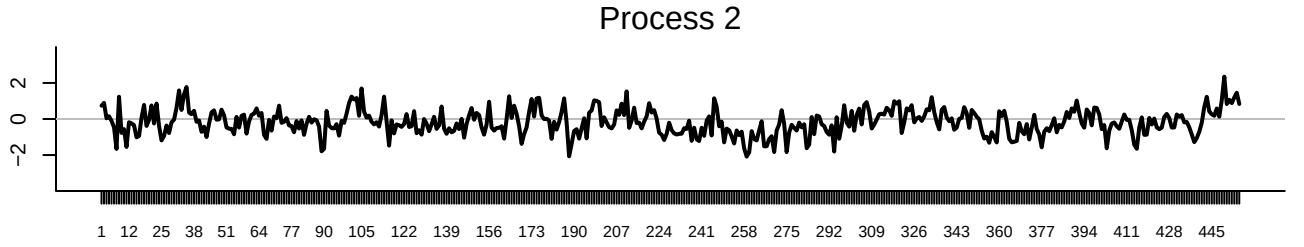
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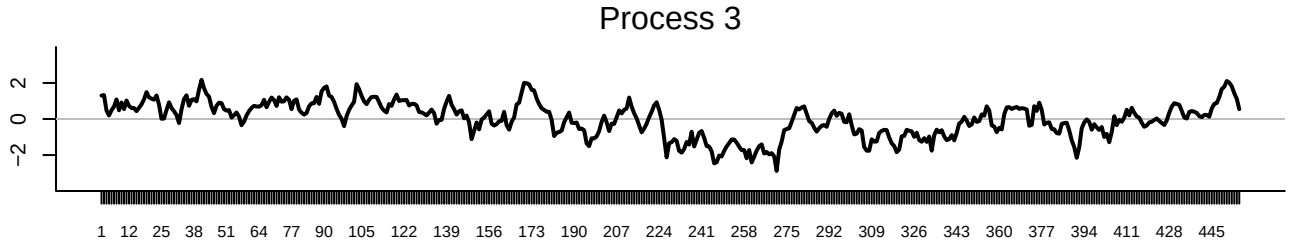
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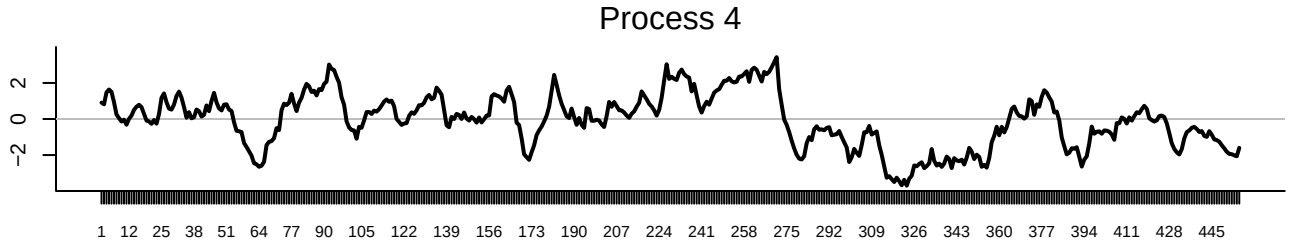
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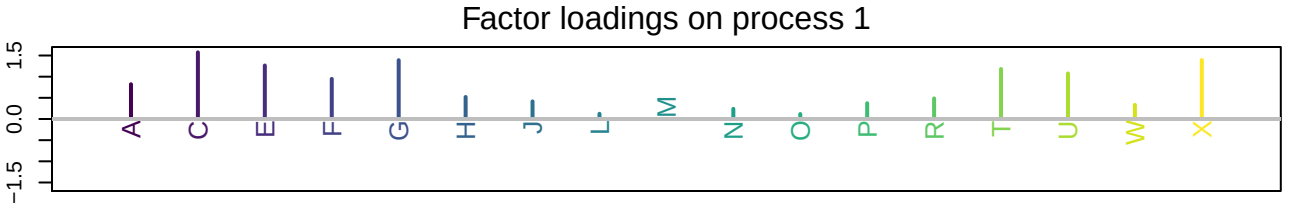
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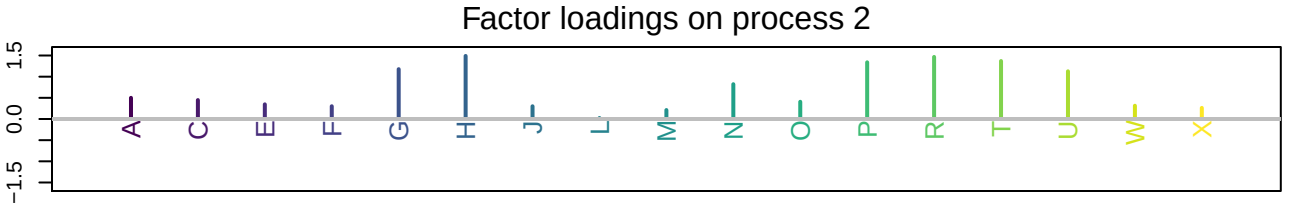
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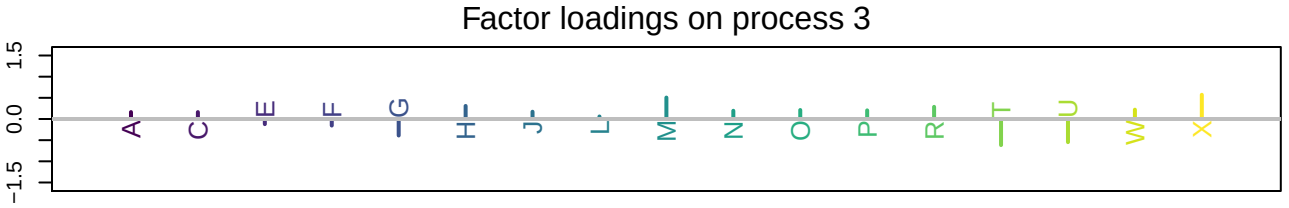
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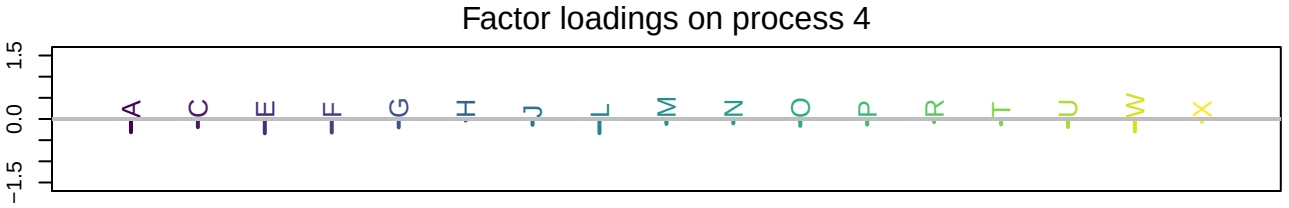
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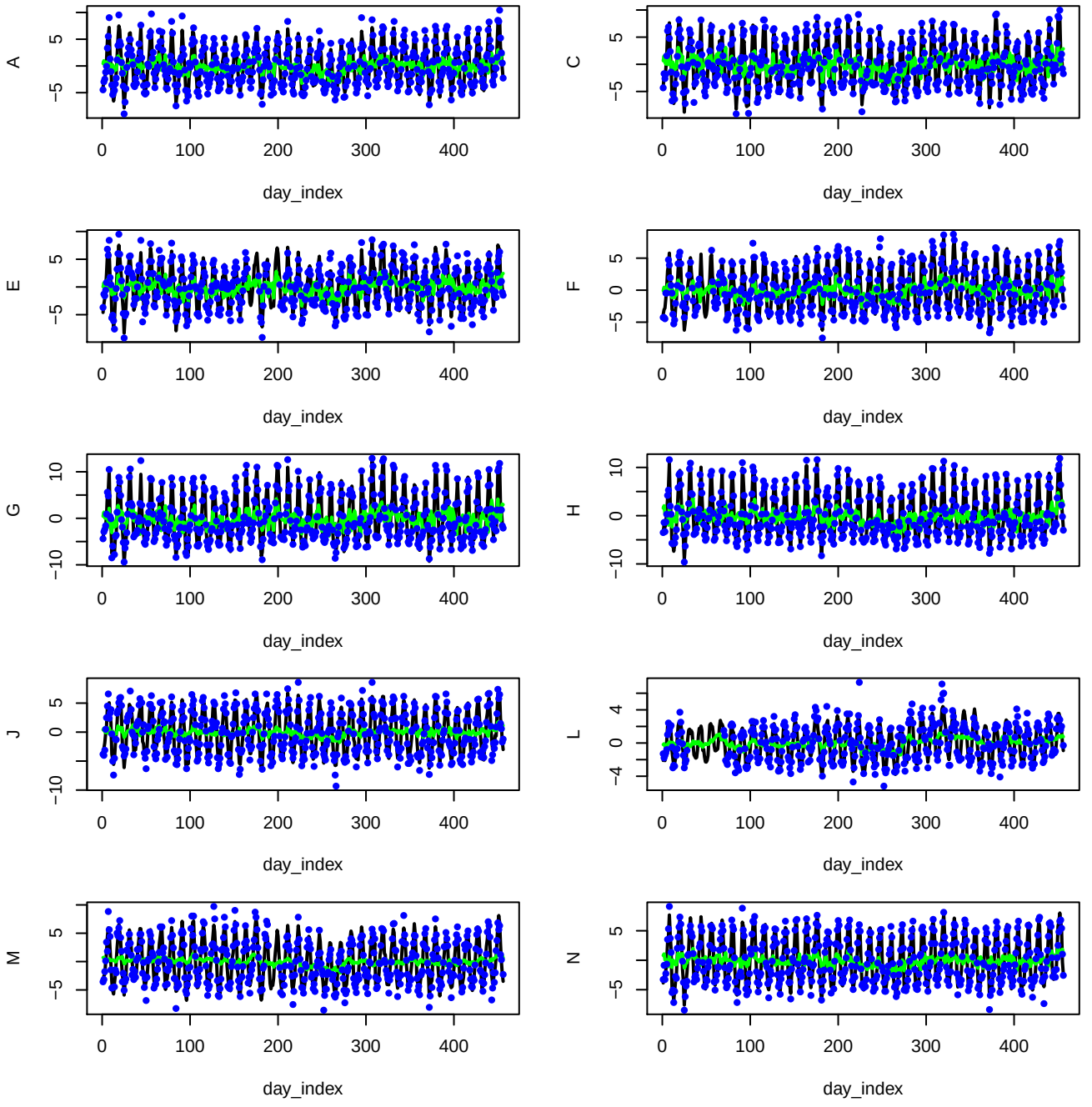
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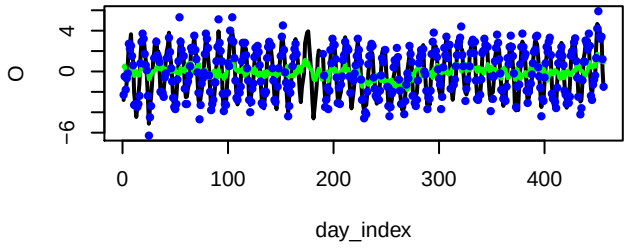
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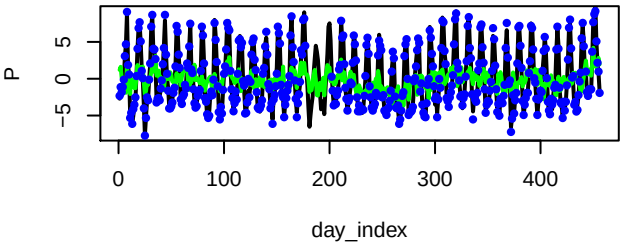
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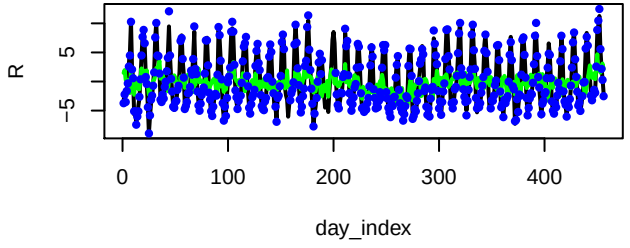
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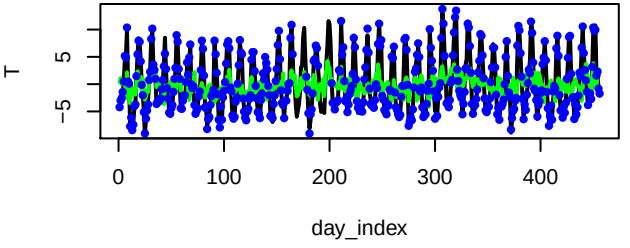
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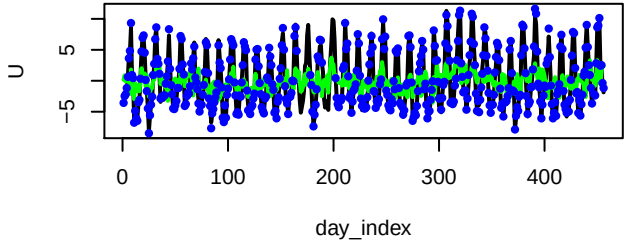
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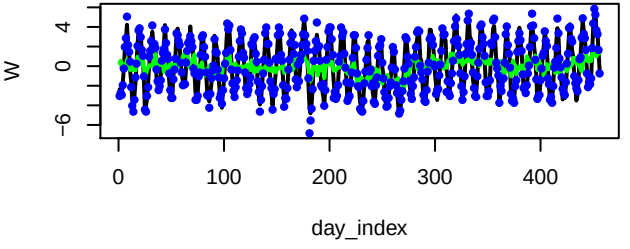
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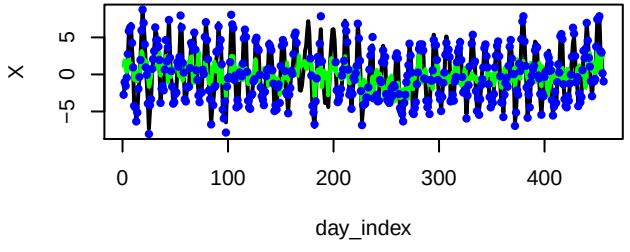
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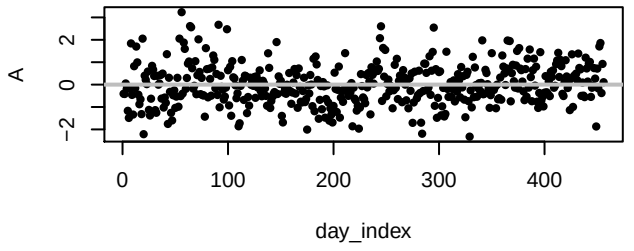
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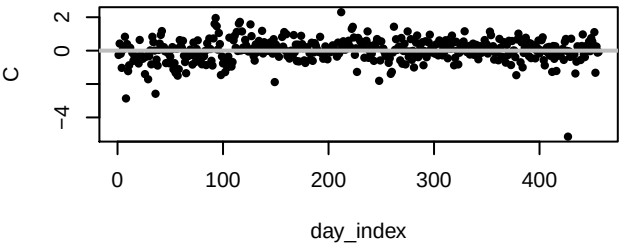
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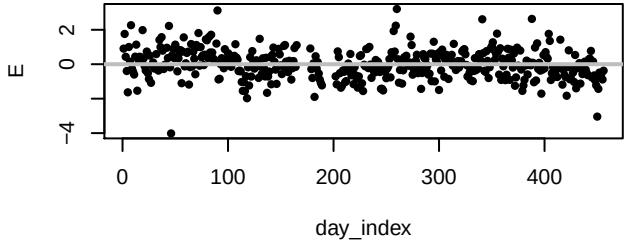
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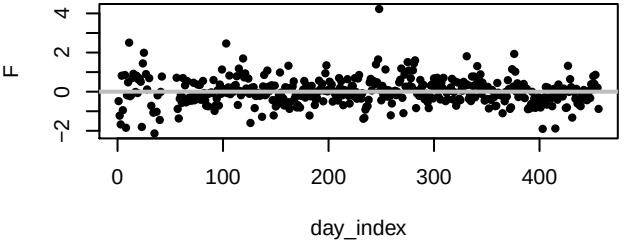
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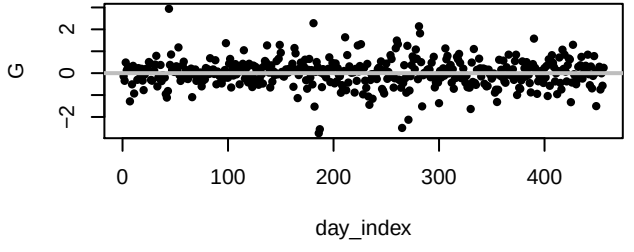
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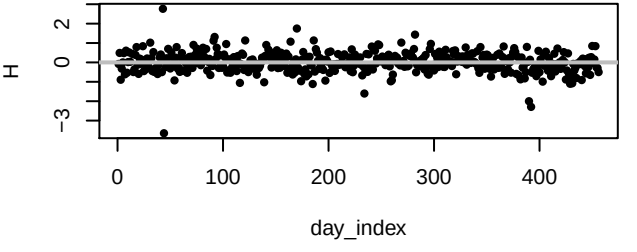
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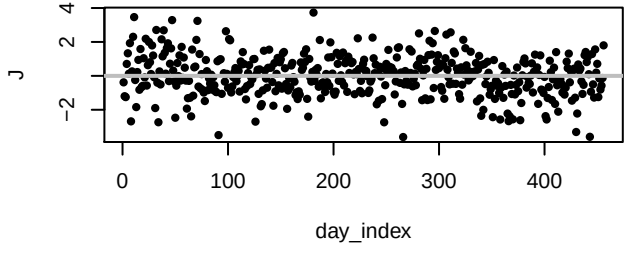
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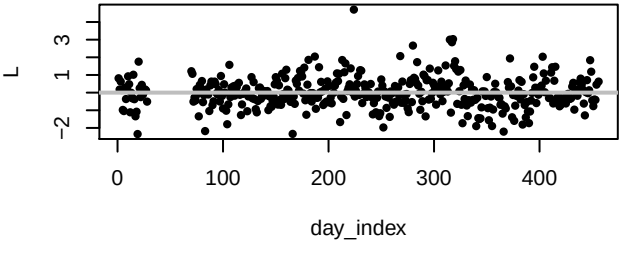
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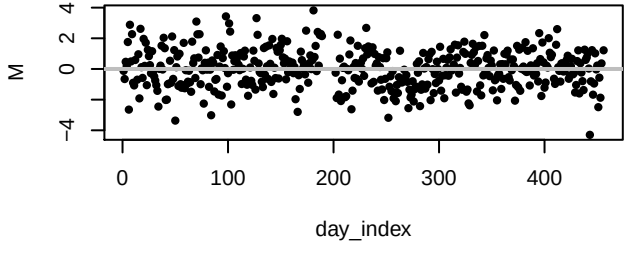
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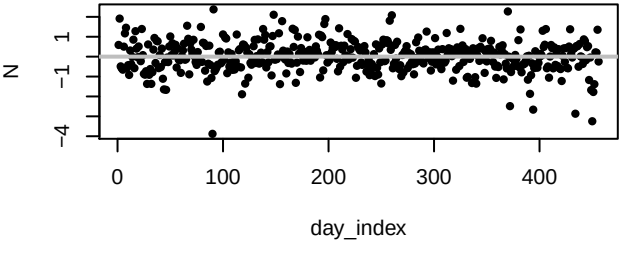
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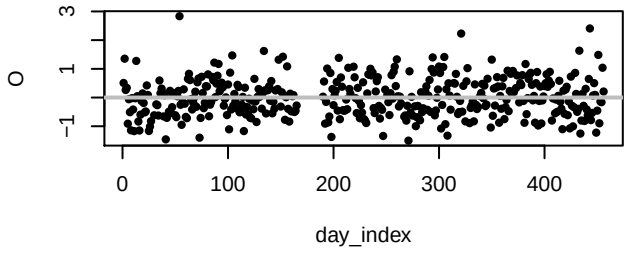
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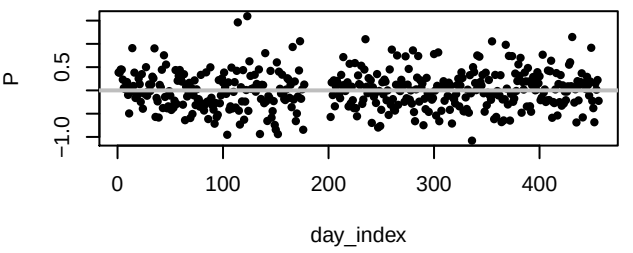
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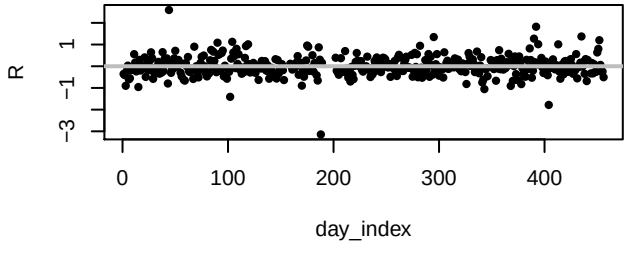
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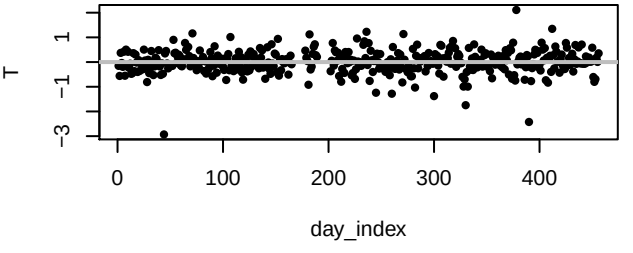
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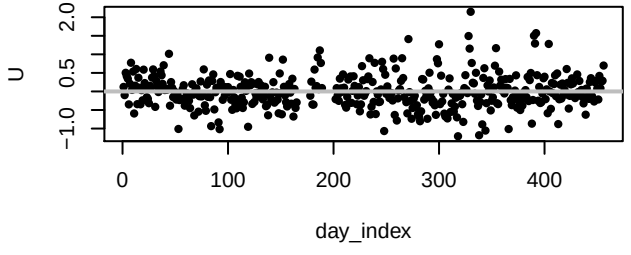
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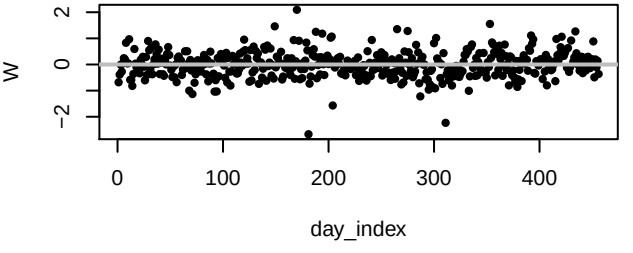
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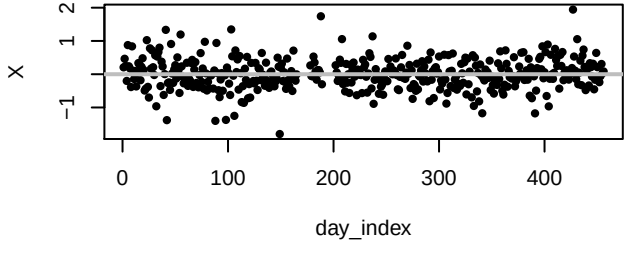
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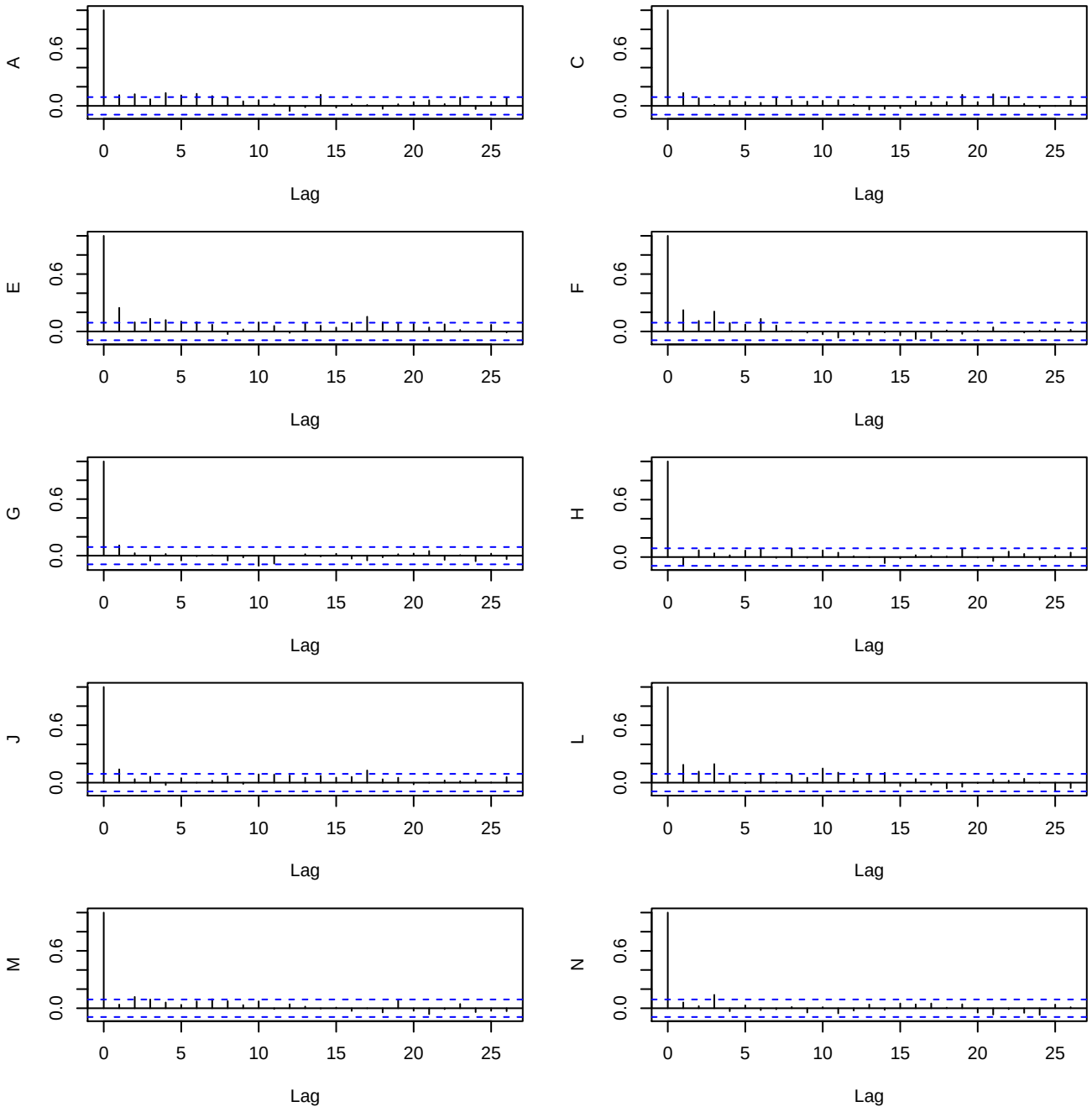
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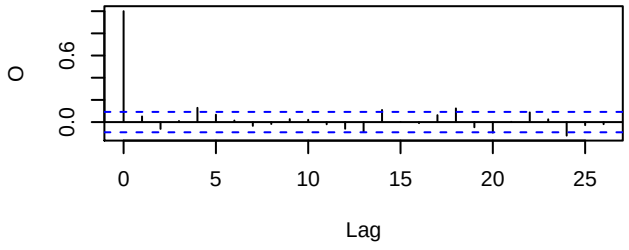
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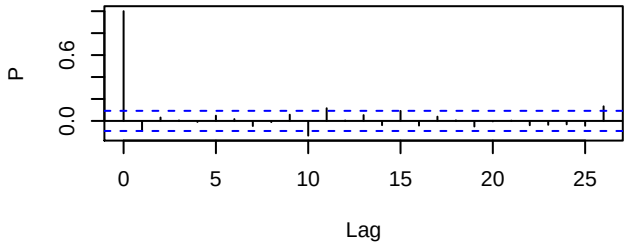
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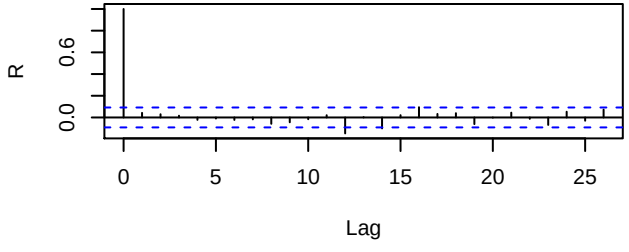
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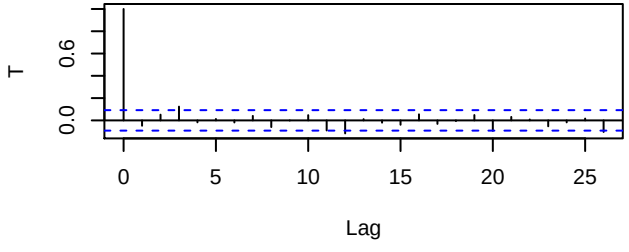
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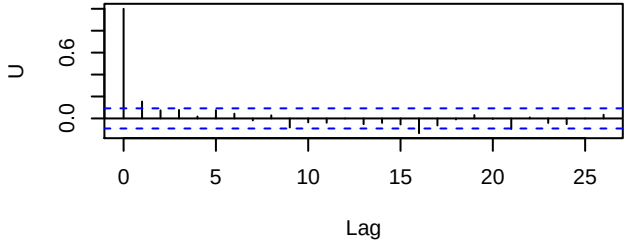
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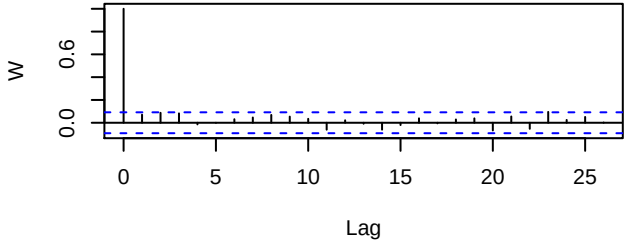
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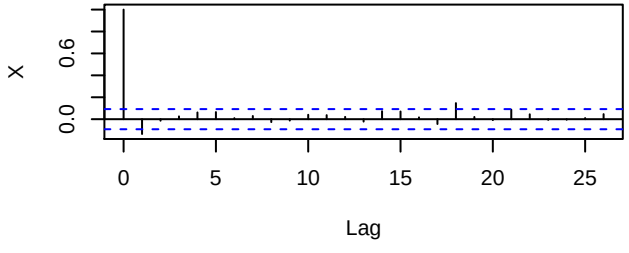
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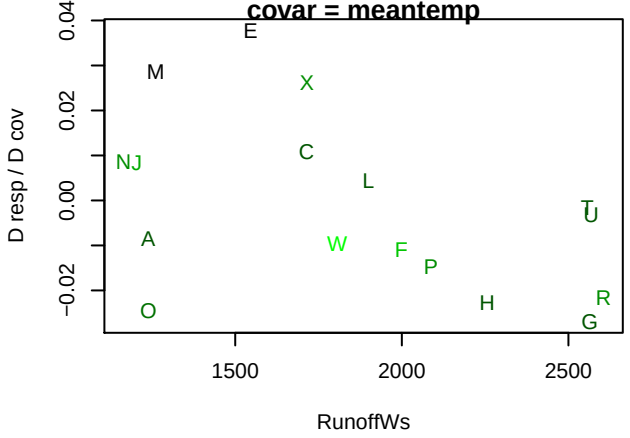
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D resp / D cov
RunoffWs
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0.02
0.00
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2000
2500
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X
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NJ
L
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A
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R
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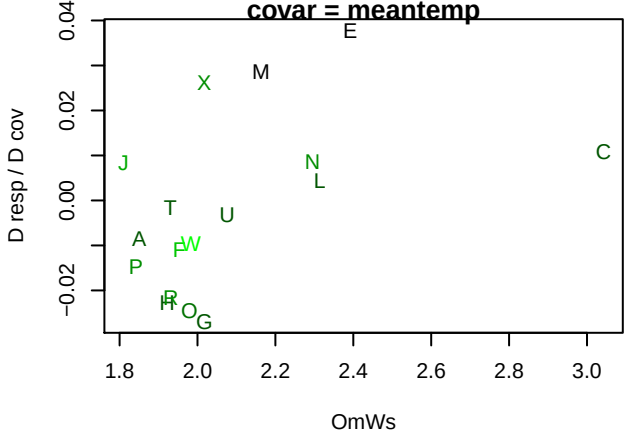
G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D resp / D cov
OmWs
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0.02
0.00
−0.02
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2.0
2.2
2.4
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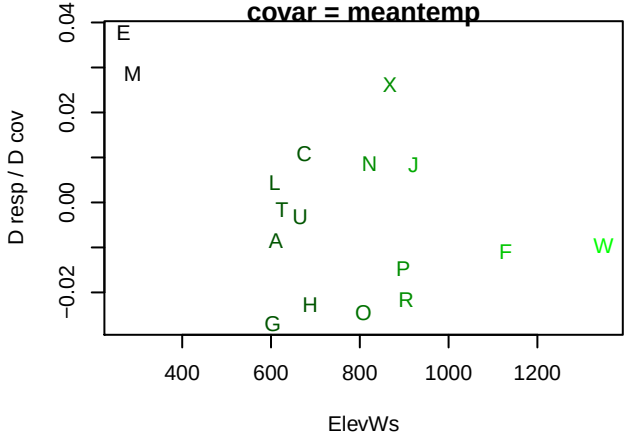
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D resp / D cov
ElevWs
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0.00
−0.02
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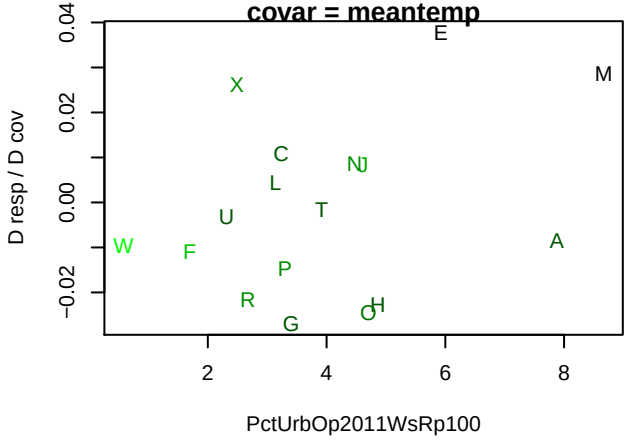
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D resp / D cov
PctUrbOp2011WsRp100
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0.02
0.00
−0.02
2
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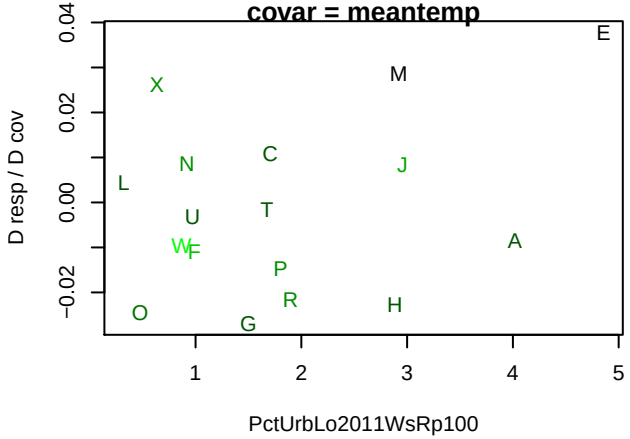
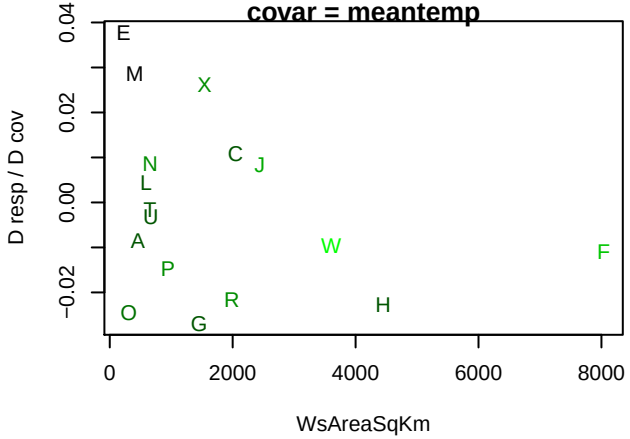
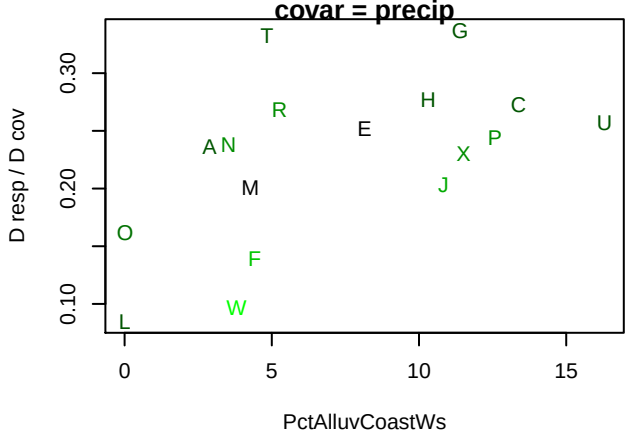
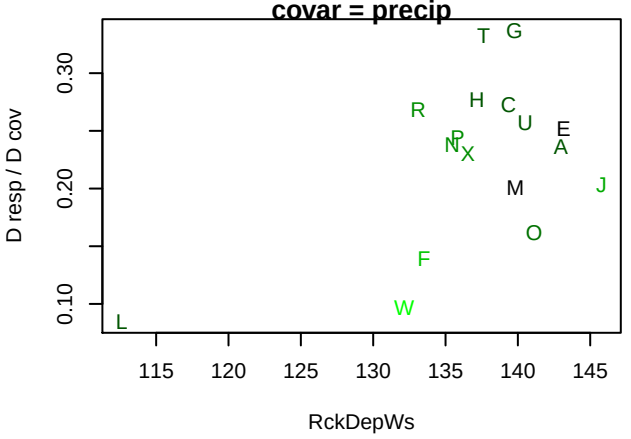
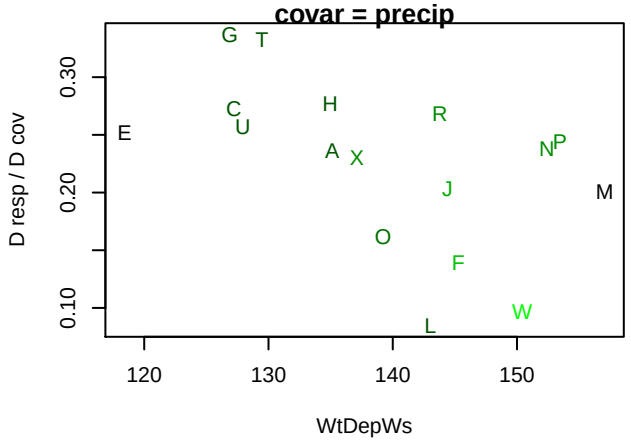
6
8
E
M
X
C
NJ
L
U
T
W
F
A
P
R
G
H
O

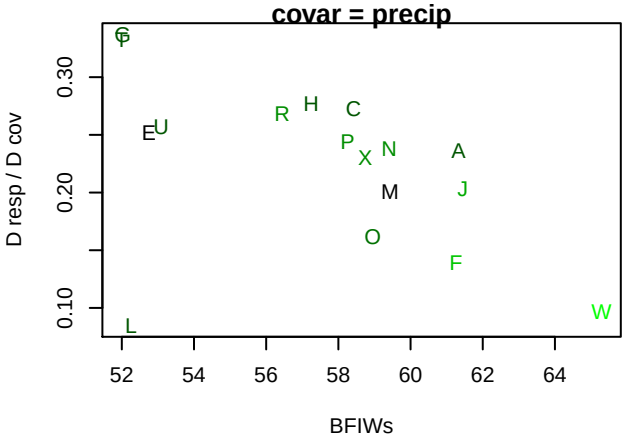

covar = meantemp
D resp / D cov
PctUrbLo2011WsRp100
0.04
0.02
0.00
−0.02
1
2
3
4
5
E
M
X
C
N
J
L
T
U
W
F
A
P
R
H
O
G

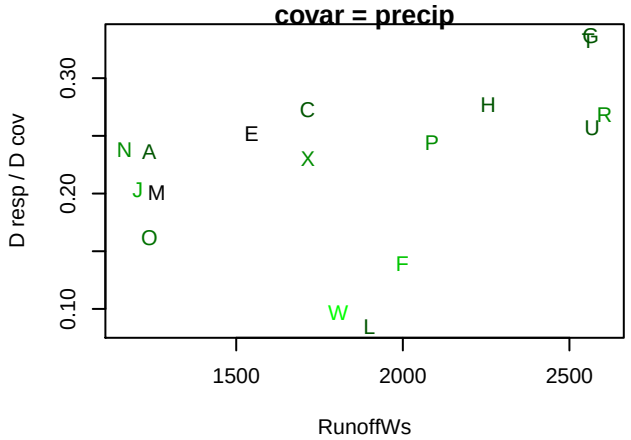

covar = meantemp
D resp / D cov
WsAreaSqKm
0.04
0.02
0.00
−0.02
0
2000
4000
6000
8000
E
M
X
C
J
N
L
T
U
A
W
F
P
R
H
O
G

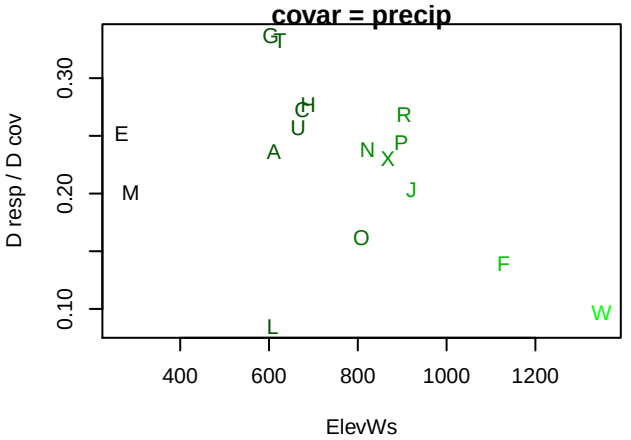

covar = precip
D resp / D cov
0.10
0.20
0.30
0
5
10
15
PctAlluvCoastWs
T
G
H
C
R
E
U
A
N
P
X
M
J
O
F
W
L

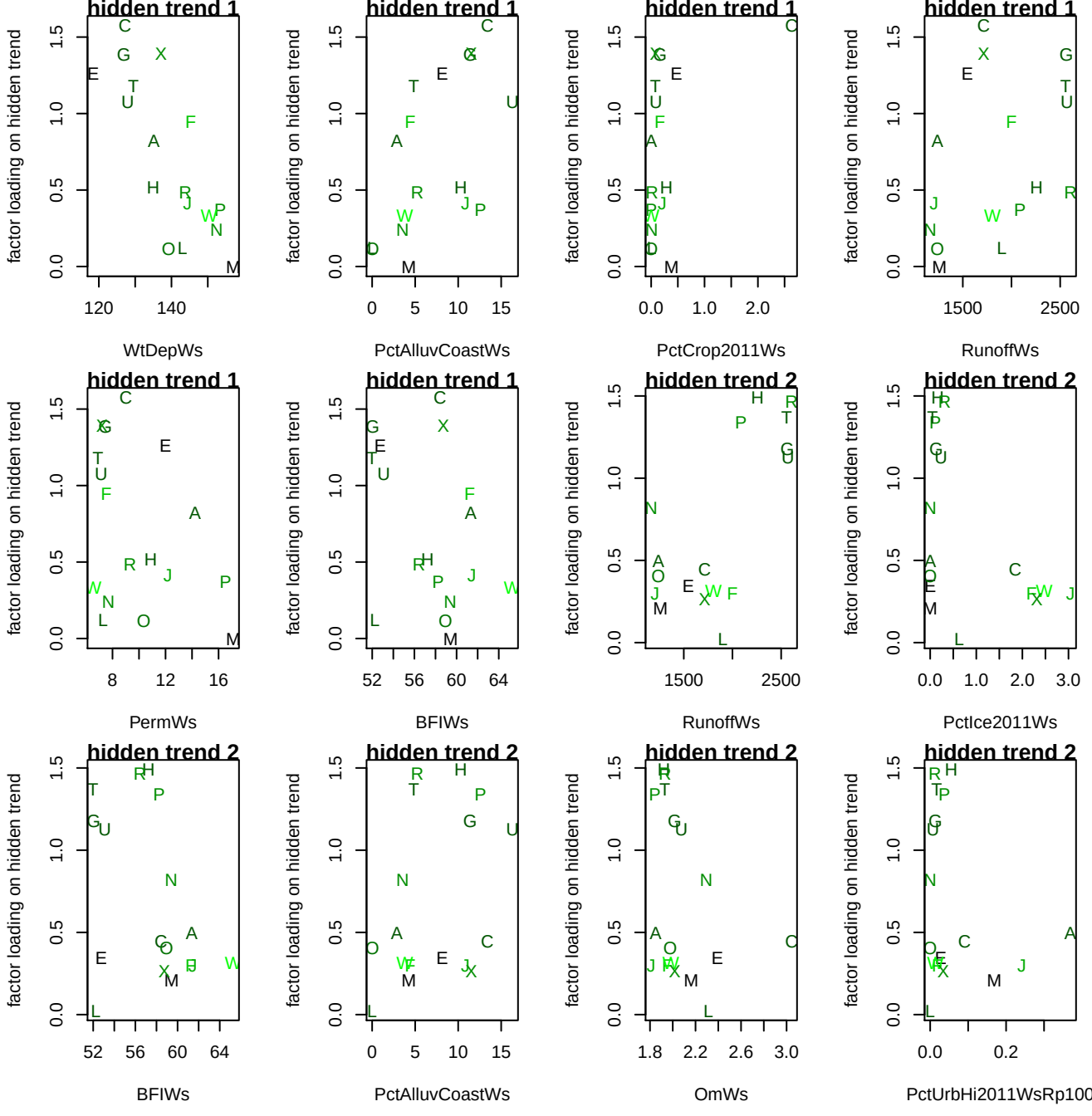

covar = precip
D resp / D cov
0.10
0.20
0.30
115
120
125
130
135
140
145
RckDepWs
T
G
H
C
R
U
E
A
N
P
X
M
J
O
F
W
L

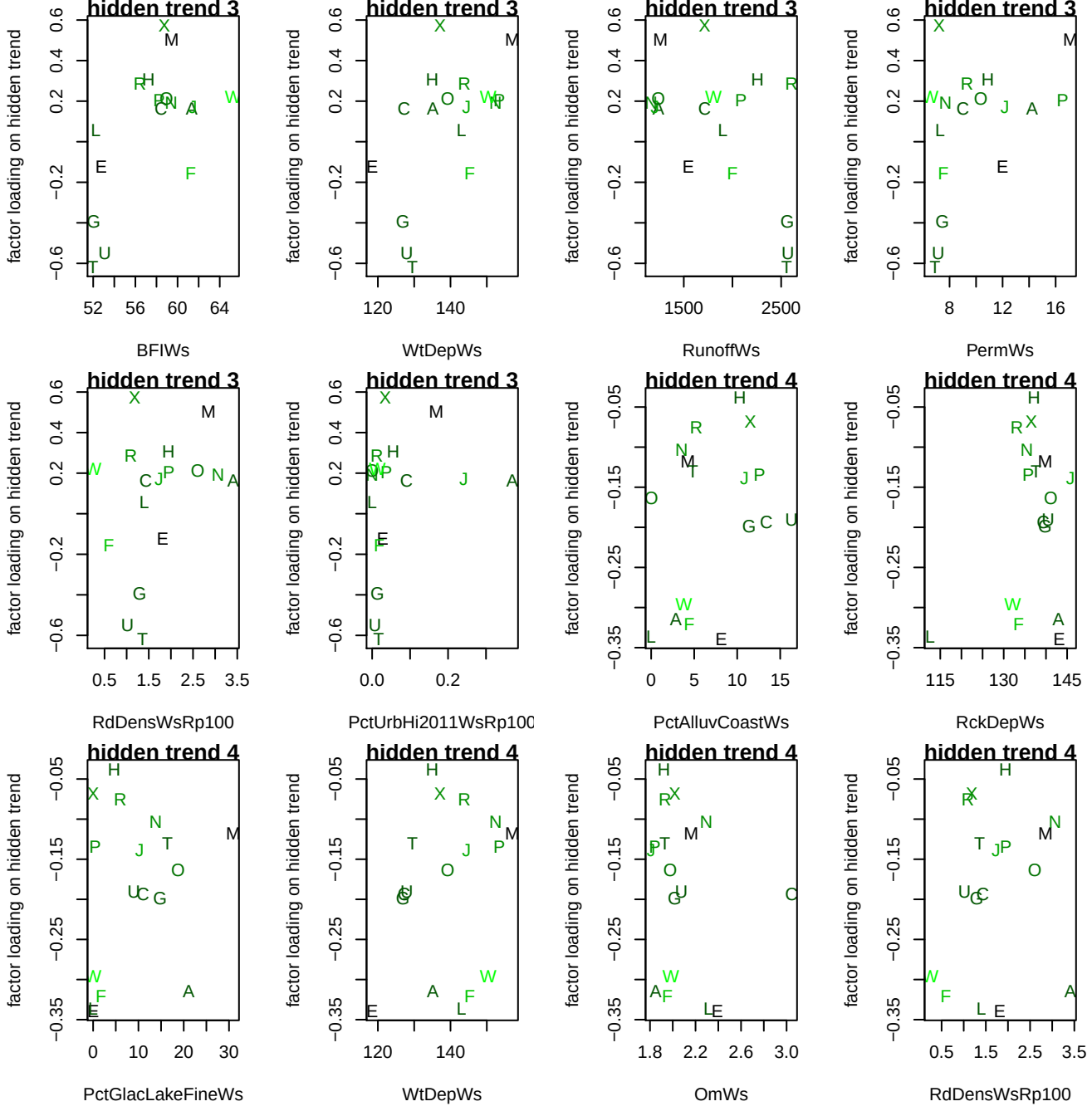

covar = precip
D resp / D cov
0.10
0.20
0.30
120
130
140
150
WtDepWs
G
T
C
U
H
R
E
A
X
N
P
J
M
O
F
W
L


covar = precip
D resp / D cov
0.10
0.20
0.30
52
54
56
58
60
62
64
BFIWs
G
T
R
H
C
E
U
P
X
N
A
M
J
O
F
W
L


covar = precip
D resp / D cov
0.10
0.20
0.30
1500
2000
2500
RunoffWs
G
T
C
H
R
E
U
N
A
P
X
J
M
O
F
W
L


covar = precip
D resp / D cov
0.10
0.20
0.30
400
600
800
1000
1200
ElevWs
G
T
H
C
R
E
U
A
N
P
X
J
M
O
F
W
L


hidden trend 1
factor loading on hidden trend
WtDepWs
hidden trend 1
PctAlluvCoastWs
hidden trend 1
PctCrop2011Ws
hidden trend 1
RunoffWs
hidden trend 1
PermWs
hidden trend 1
BFIWs
hidden trend 2
RunoffWs
hidden trend 2
PctIce2011Ws
hidden trend 2
BFIWs
hidden trend 2
PctAlluvCoastWs
hidden trend 2
OmWs
hidden trend 2
PctUrbHi2011WsRp100


hidden trend 3
factor loading on hidden trend
BFIWs
WtDepWs
RunoffWs
PermWs
hidden trend 4
RdDensWsRp100
PctUrbHi2011WsRp100
PctAlluvCoastWs
RckDepWs
PctGlacLakeFineWs
WtDepWs
OmWs
RdDensWsRp100