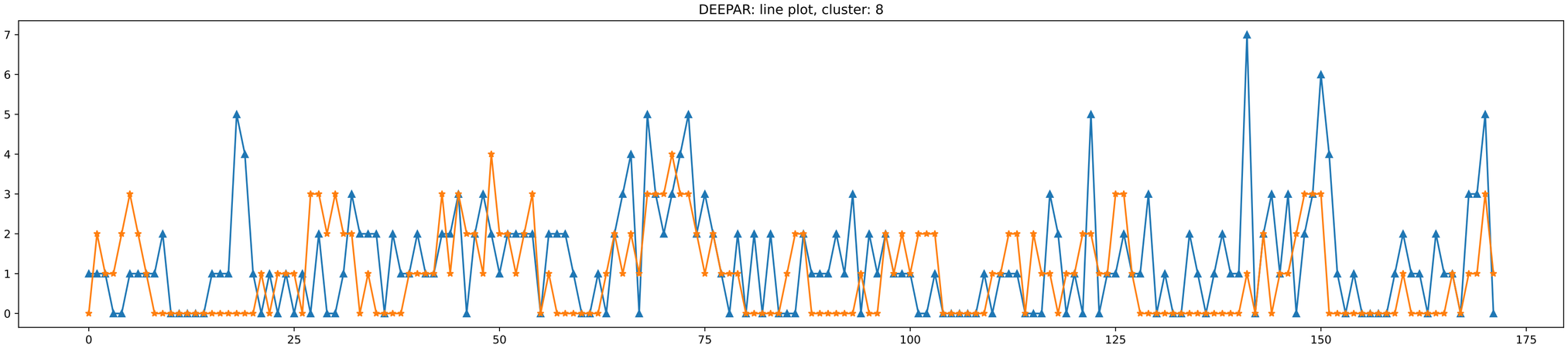
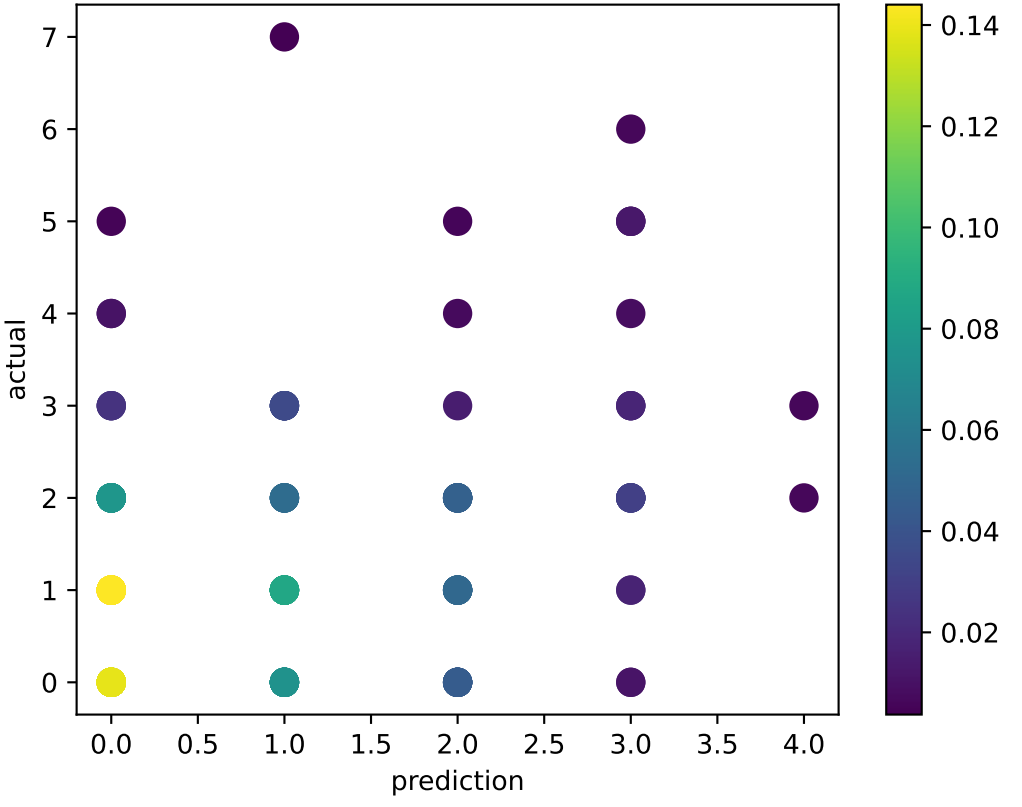
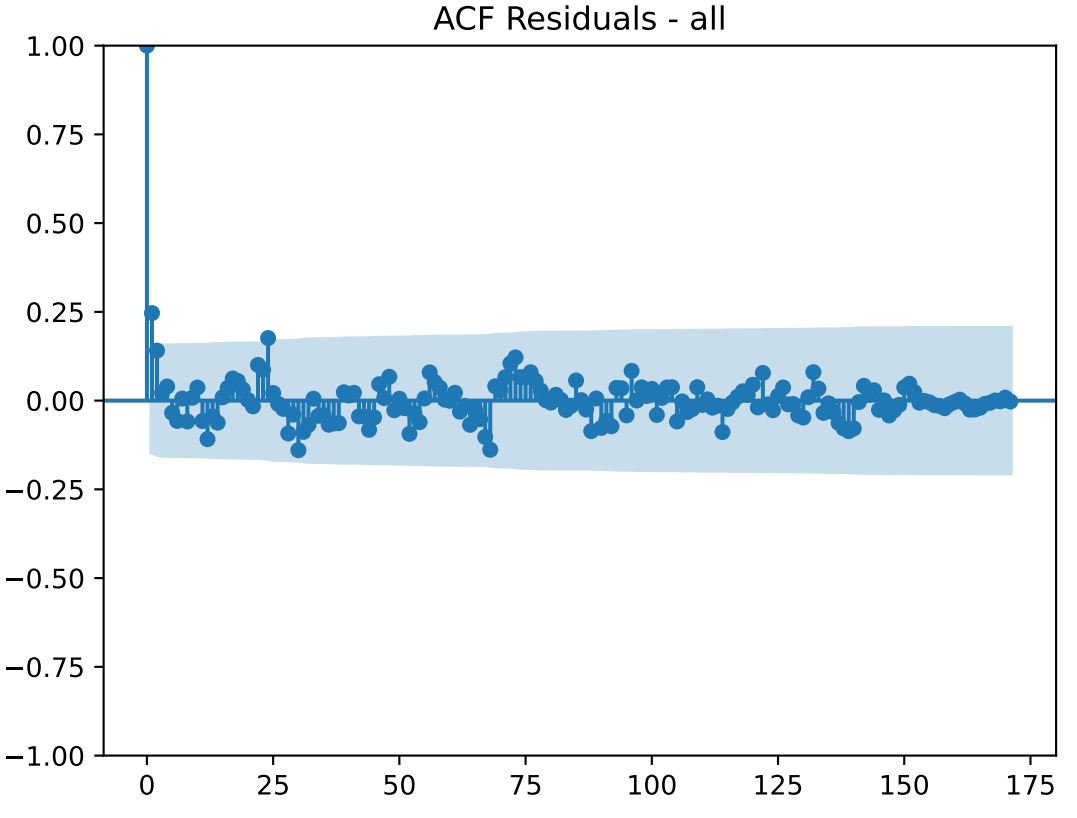
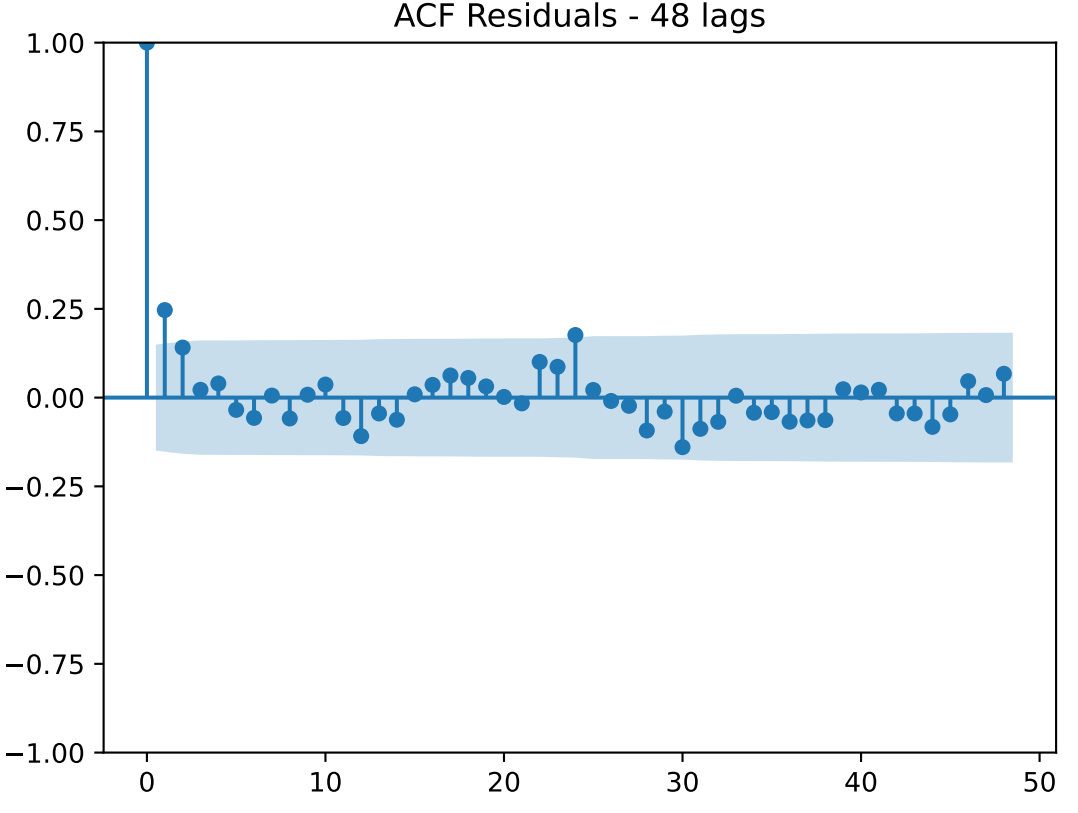
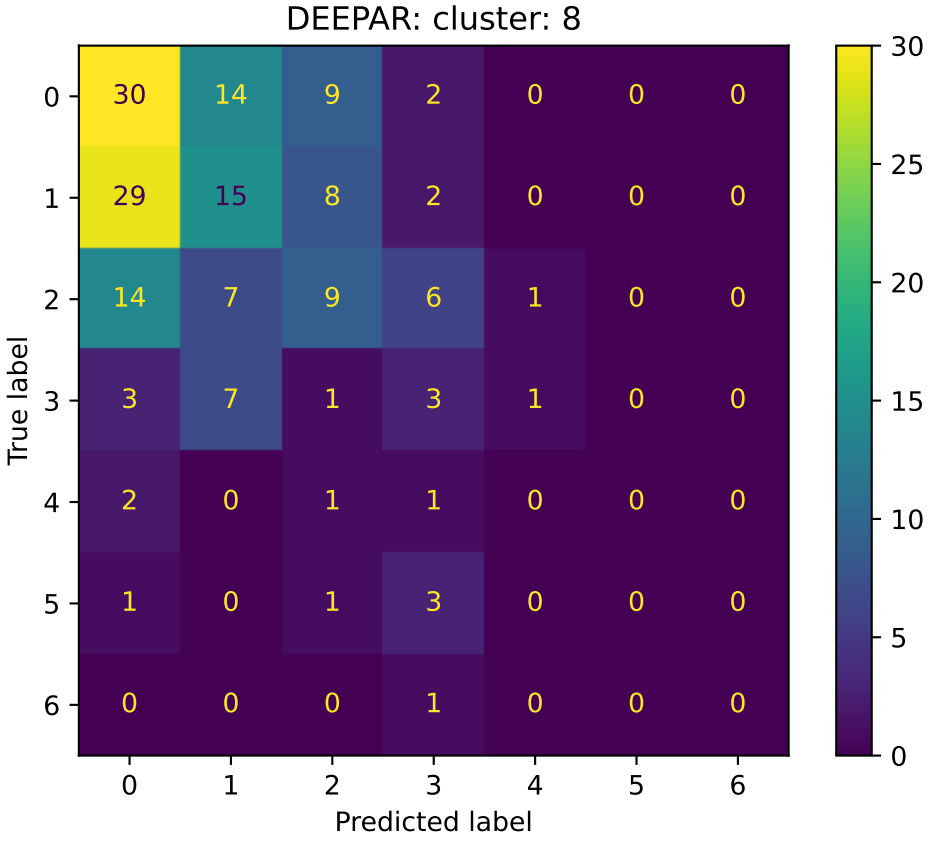
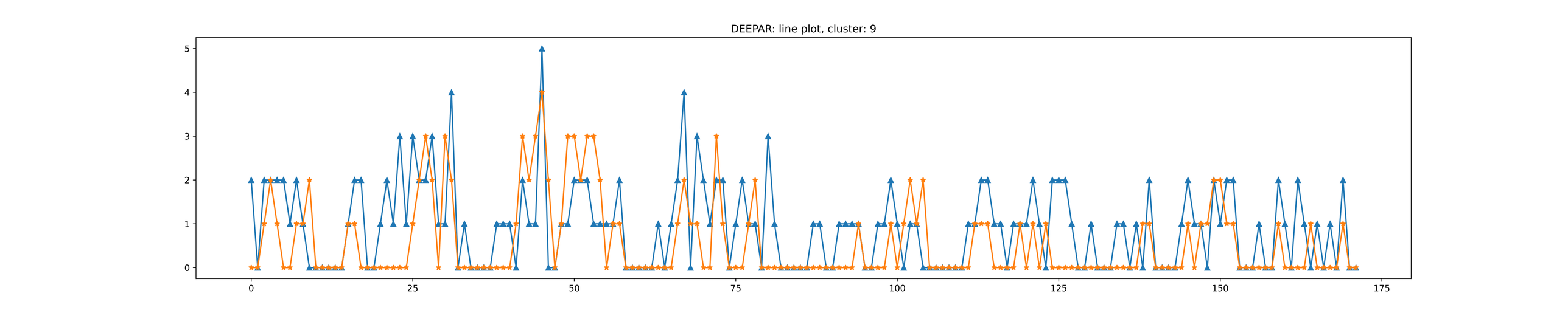

DEEPAR: line plot, cluster: 8
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

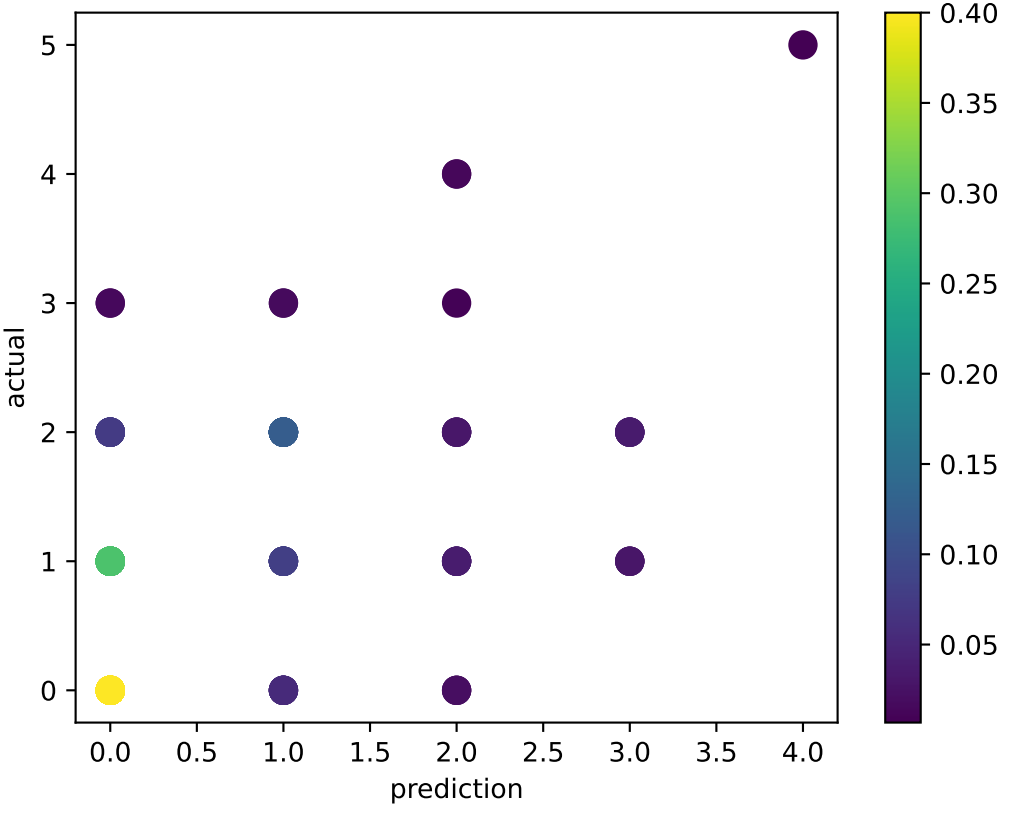

actual
prediction
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
1
2
3
4
5
6
7
0.14
0.12
0.10
0.08
0.06
0.04
0.02

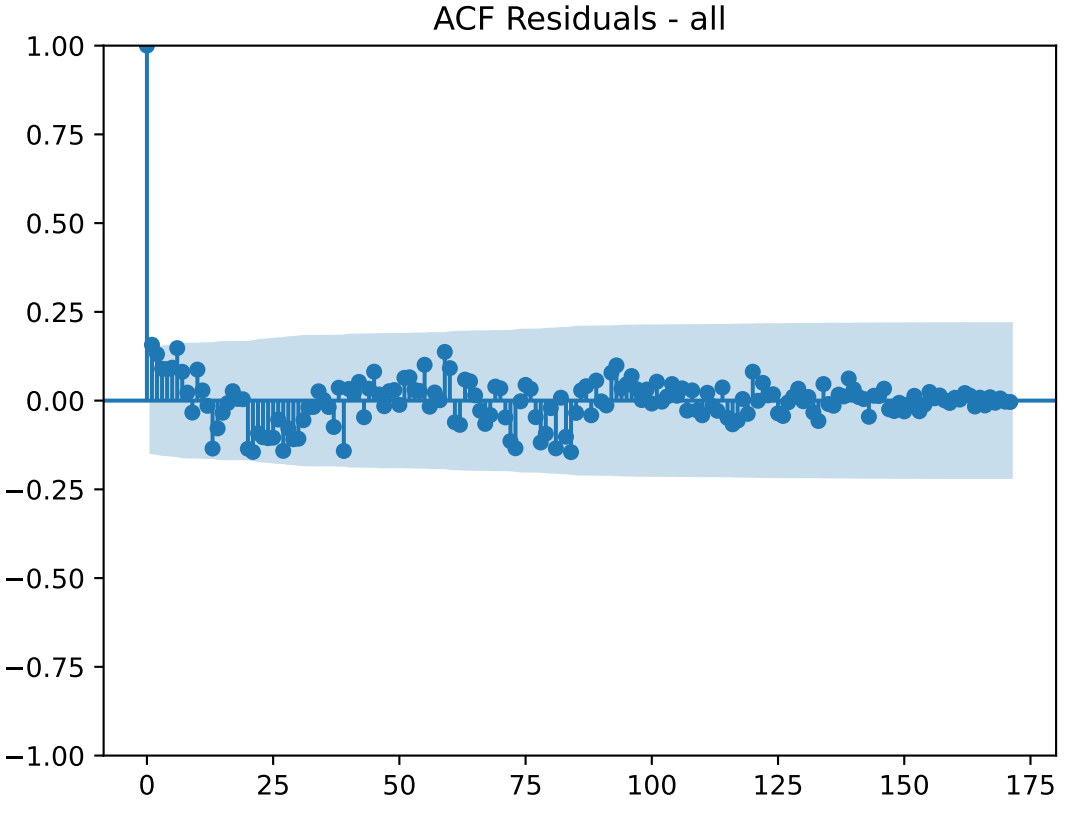

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

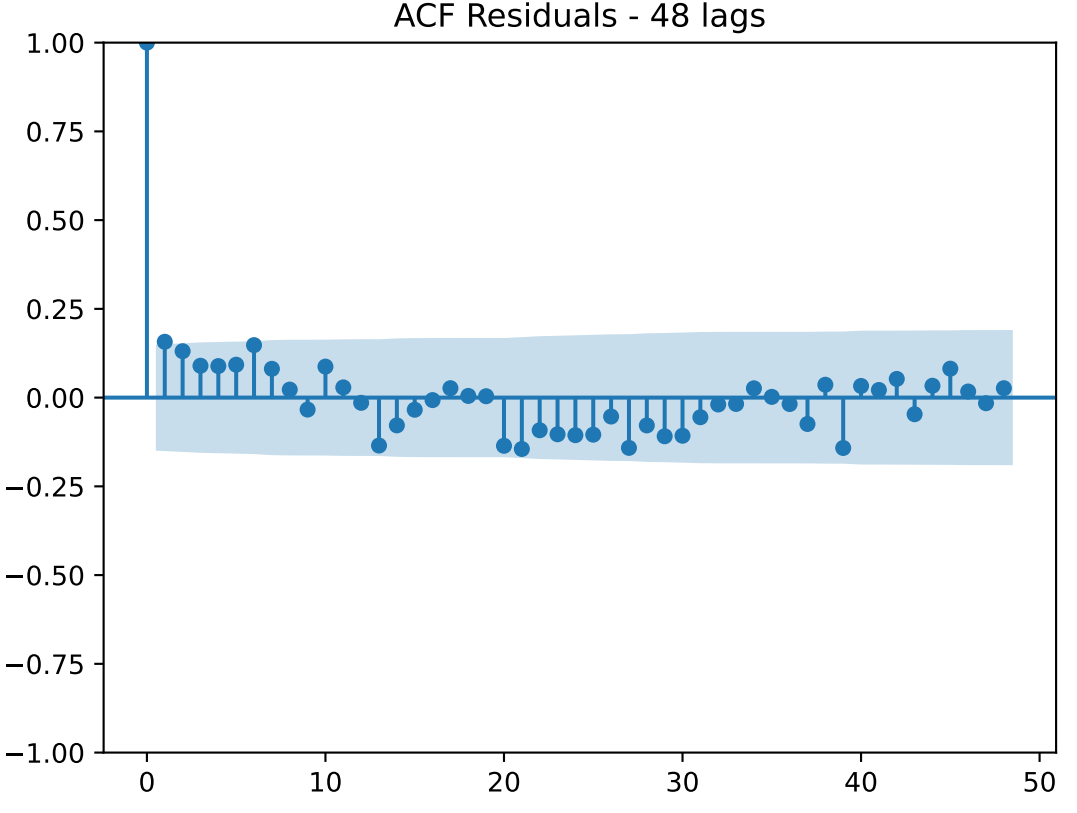

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

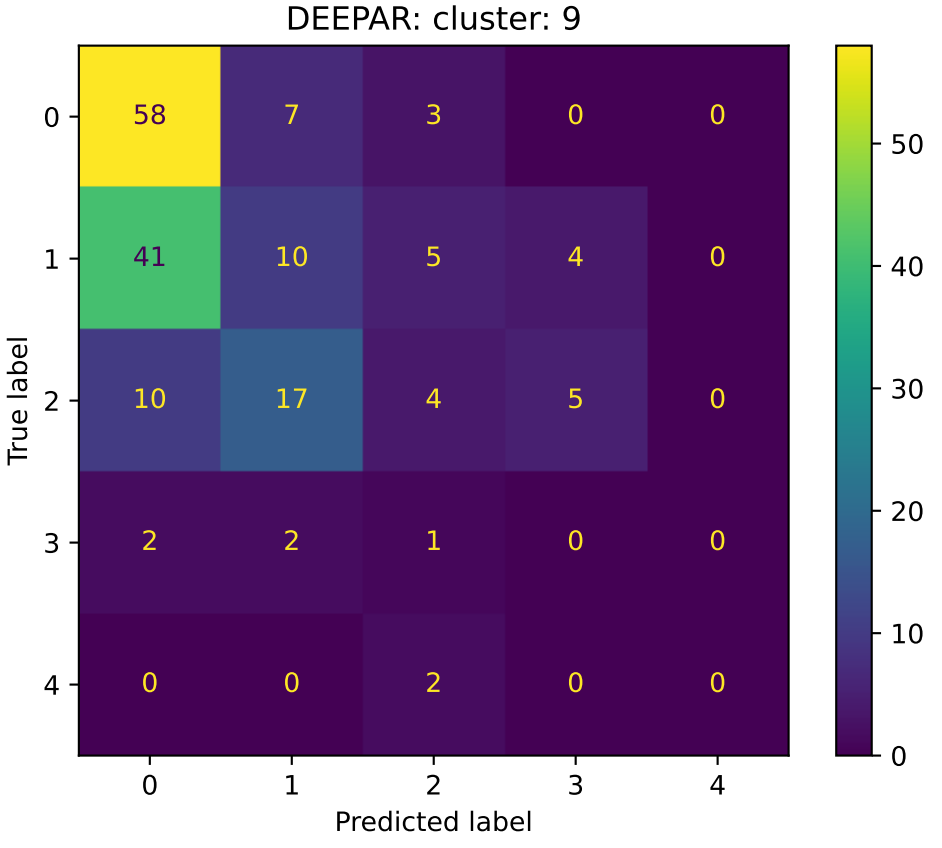

DEEPAR: cluster: 8
True label
Predicted label
0 1 2 3 4 5 6
30 14 9 2 0 0 0
29 15 8 2 0 0 0
14 7 9 6 1 0 0
3 7 1 3 1 0 0
2 0 1 1 0 0 0
1 0 1 3 0 0 0
0 0 0 1 0 0 0
30 25 20 15 10 5 0

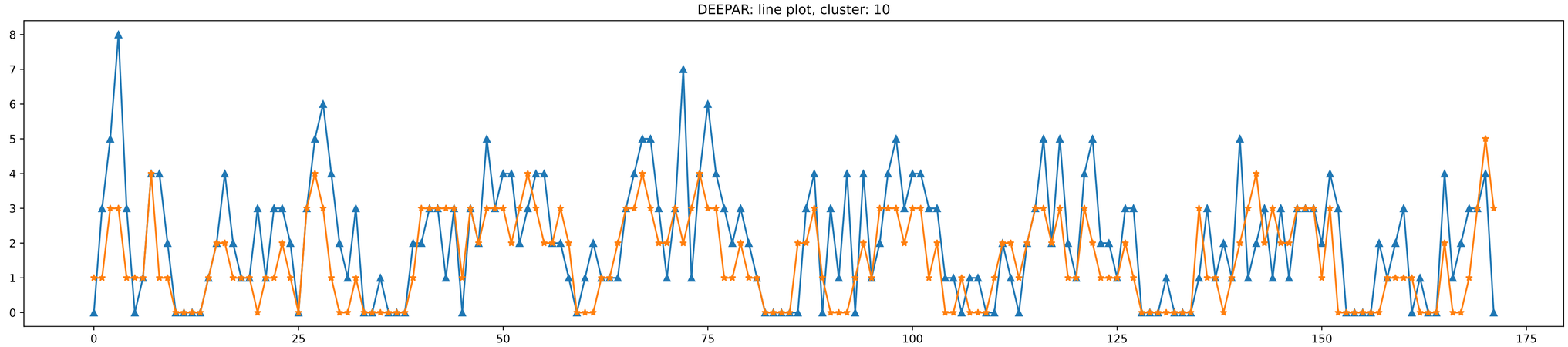

DEEPAR: line plot, cluster: 9
0
1
2
3
4
5
0
25
50
75
100
125
150
175

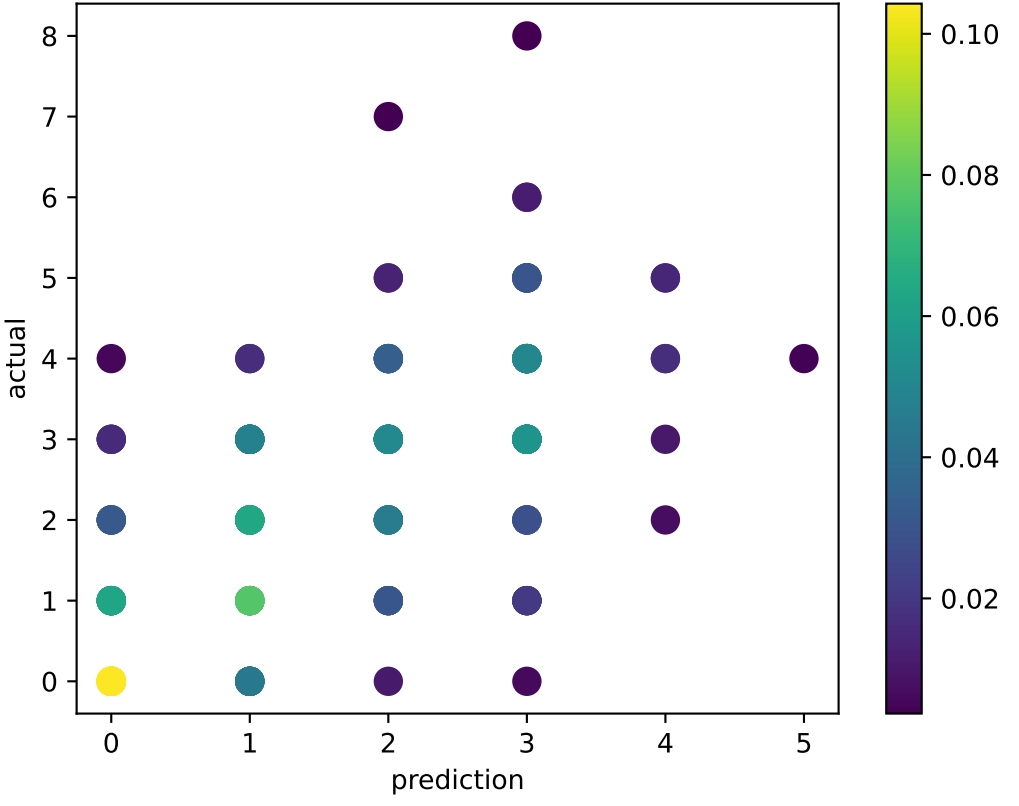

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

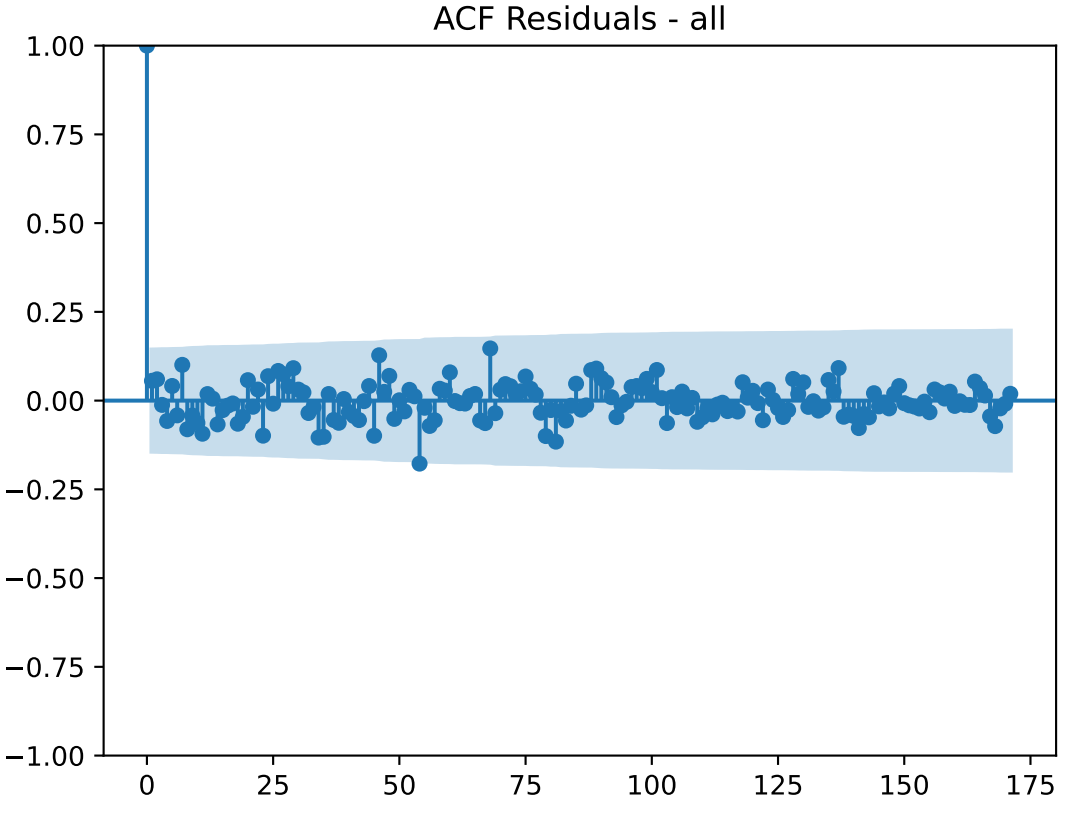

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

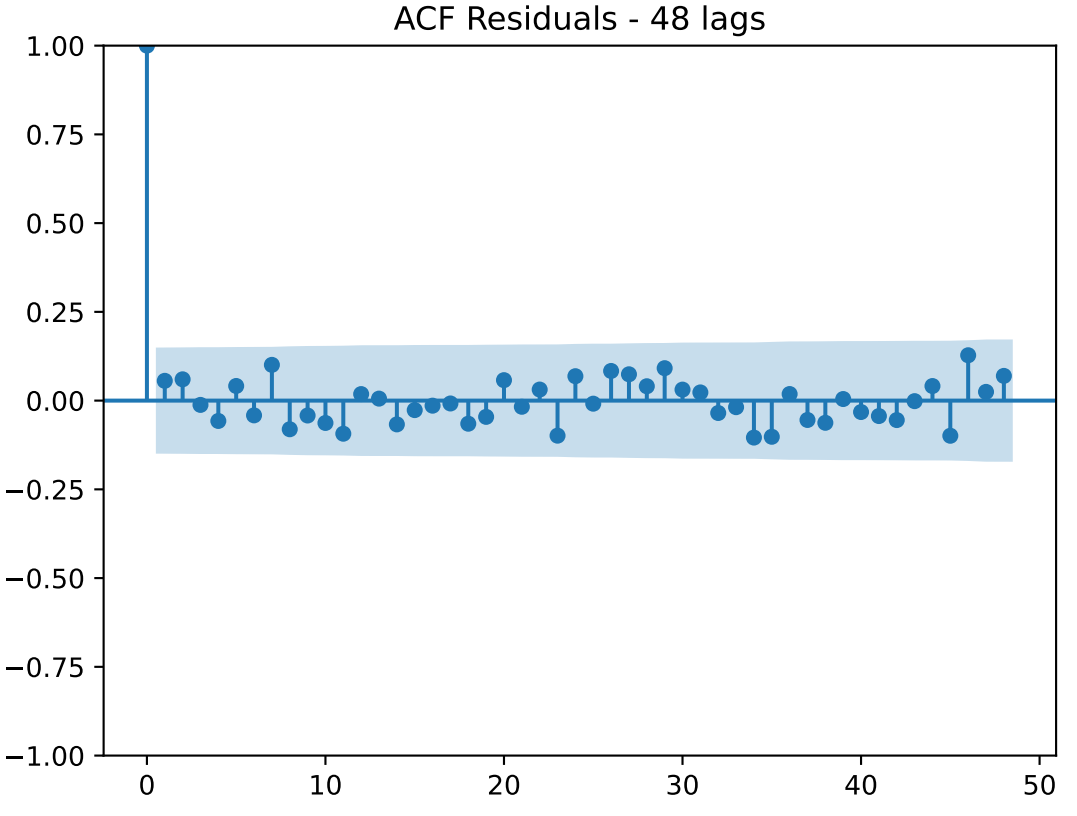

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

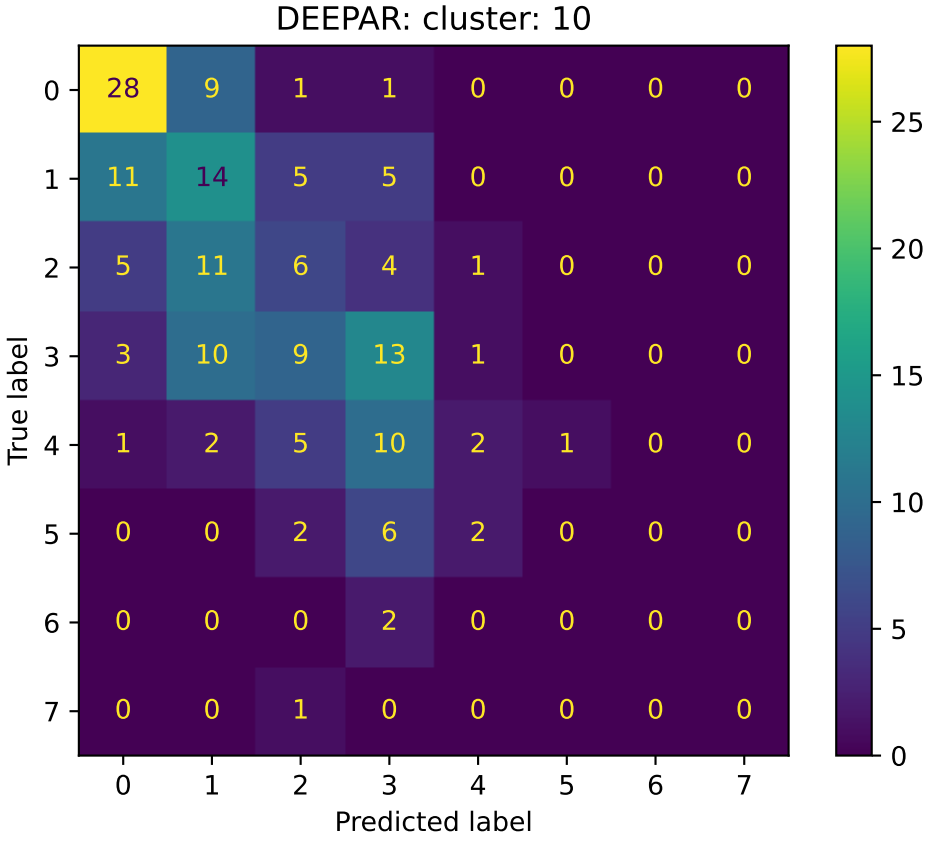

DEEPAR: cluster: 9
True label
Predicted label
0
1
2
3
4
58
7
3
0
0
41
10
5
4
0
10
17
4
5
0
2
2
1
0
0
0
0
2
0
0
50
40
30
20
10
0

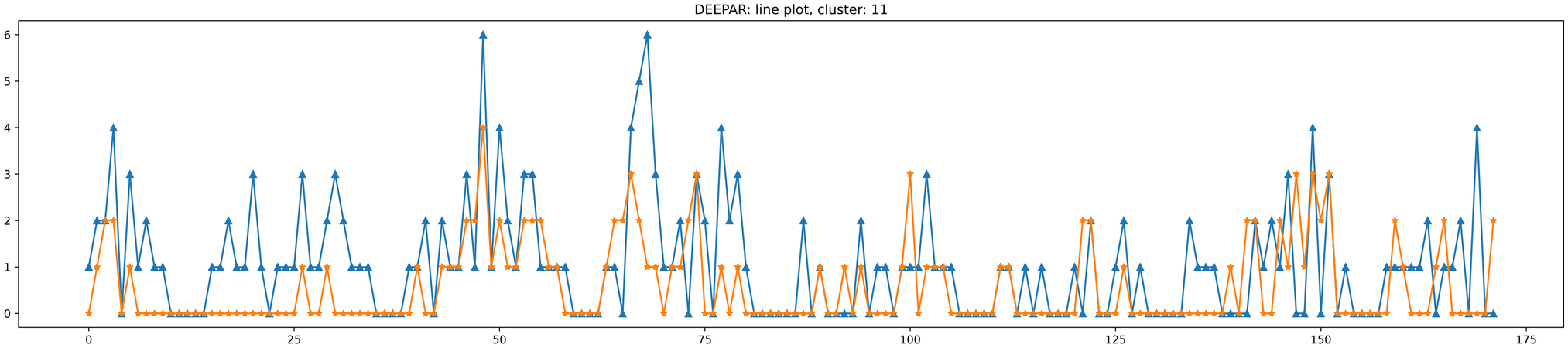

DEEPAR: line plot, cluster: 10
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

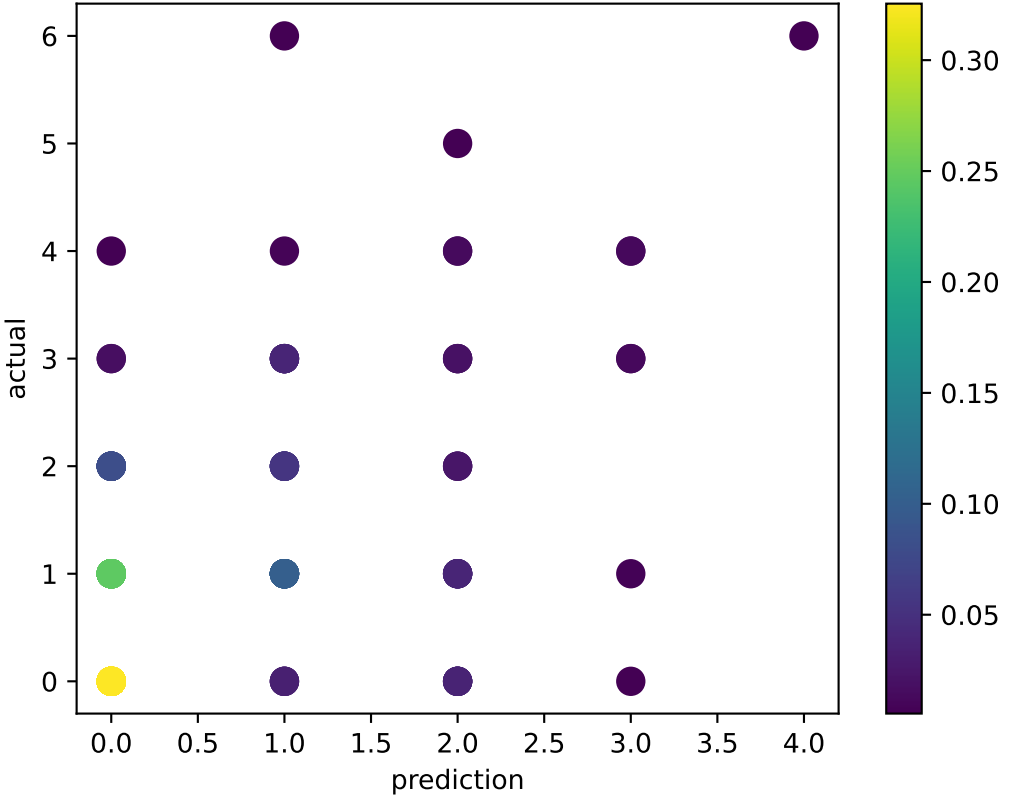

actual
prediction
0
1
2
3
4
5
6
7
8
0.10
0.08
0.06
0.04
0.02

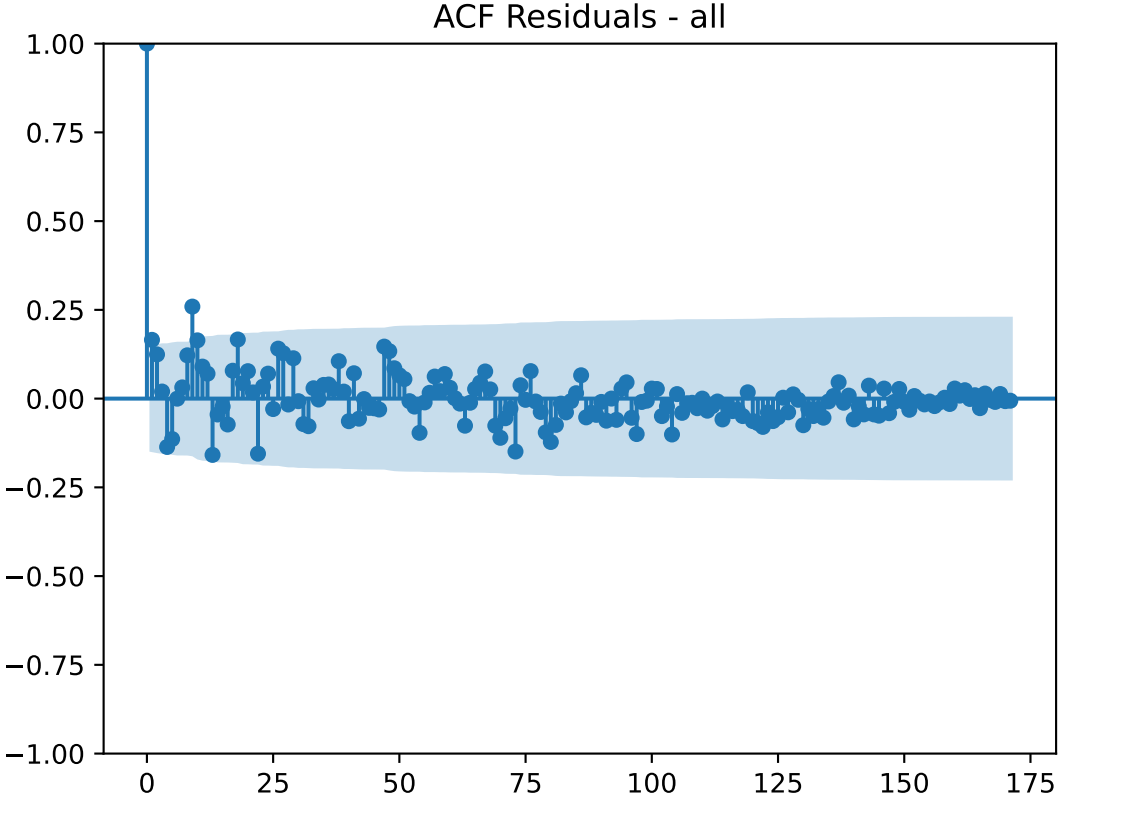

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

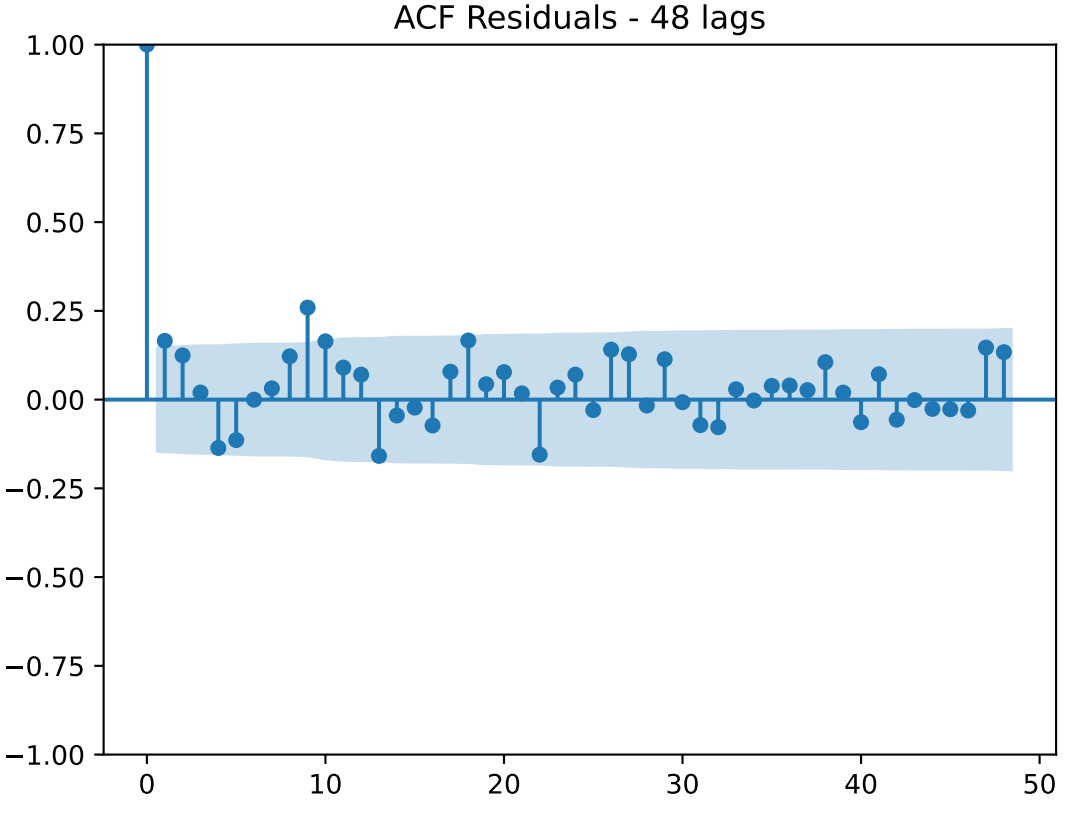

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

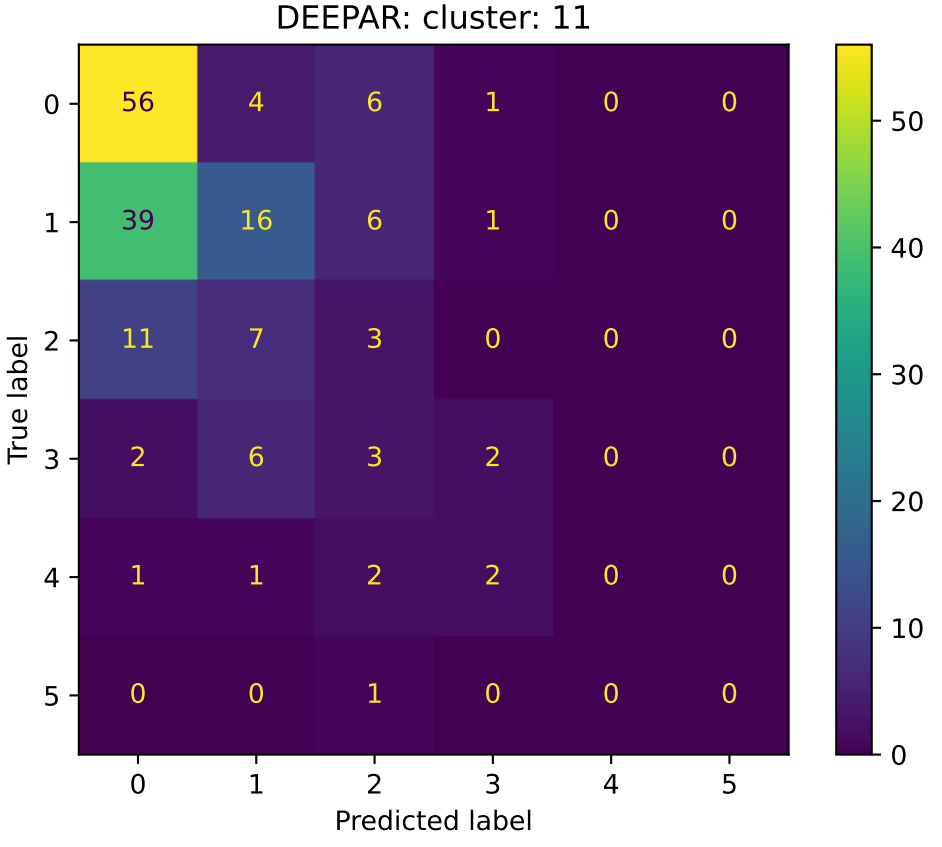

DEEPAR: cluster: 10
True label
Predicted label
0 28 9 1 1 0 0 0 0
1 11 14 5 5 0 0 0 0
2 5 11 6 4 1 0 0 0
3 3 10 9 13 1 0 0 0
4 1 2 5 10 2 1 0 0
5 0 0 2 6 2 0 0 0
6 0 0 0 2 0 0 0 0
7 0 0 1 0 0 0 0 0
0 1 2 3 4 5 6 7
25
20
15
10
5
0

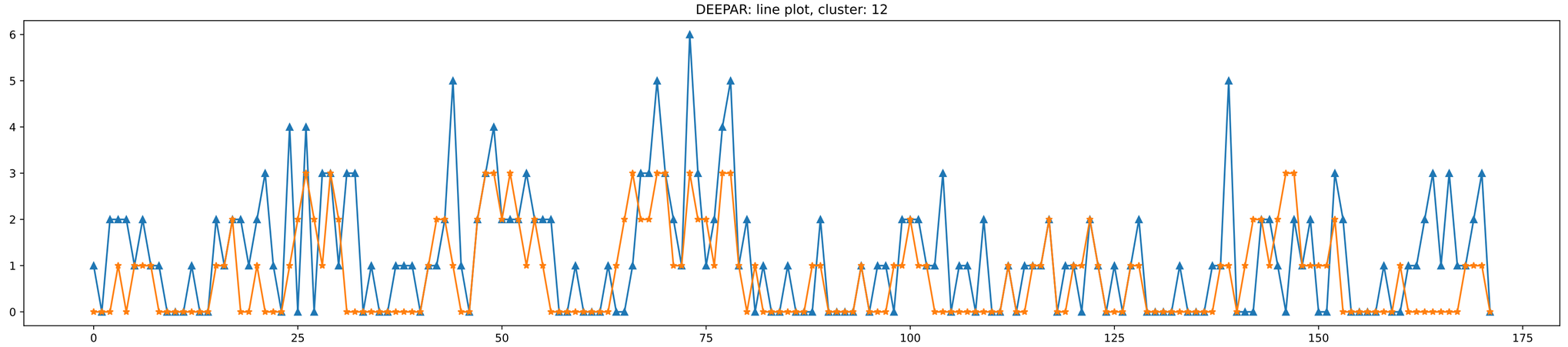

DEEPAR: line plot, cluster: 11
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

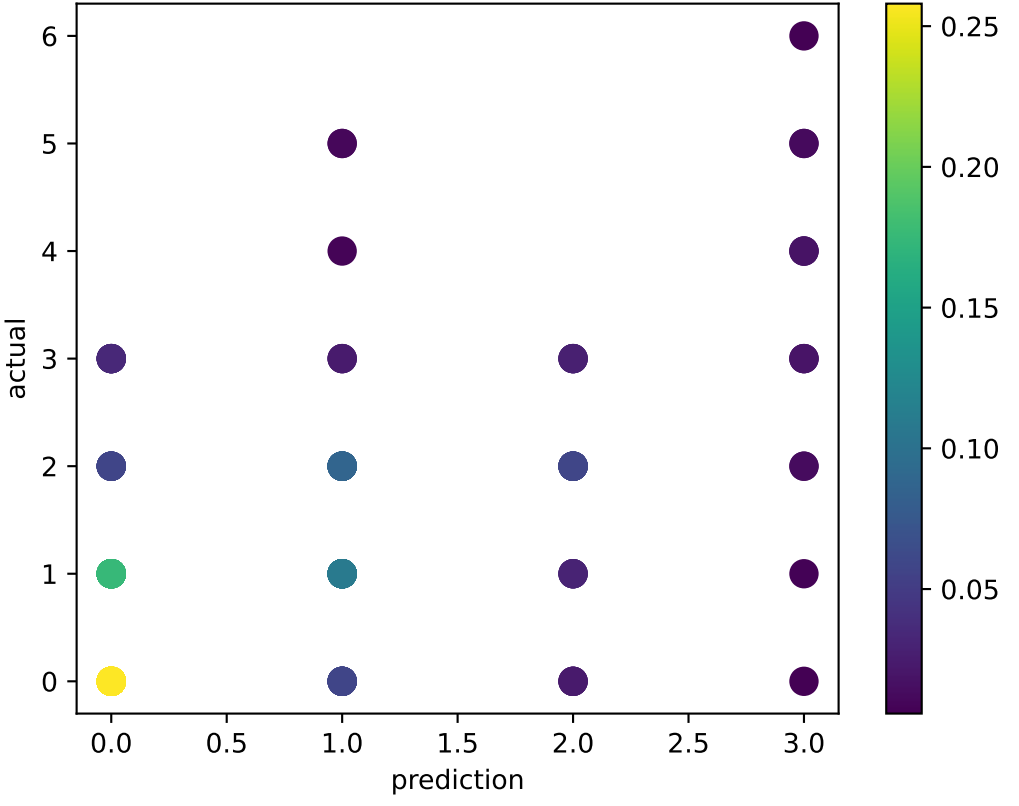

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.30
0.25
0.20
0.15
0.10
0.05

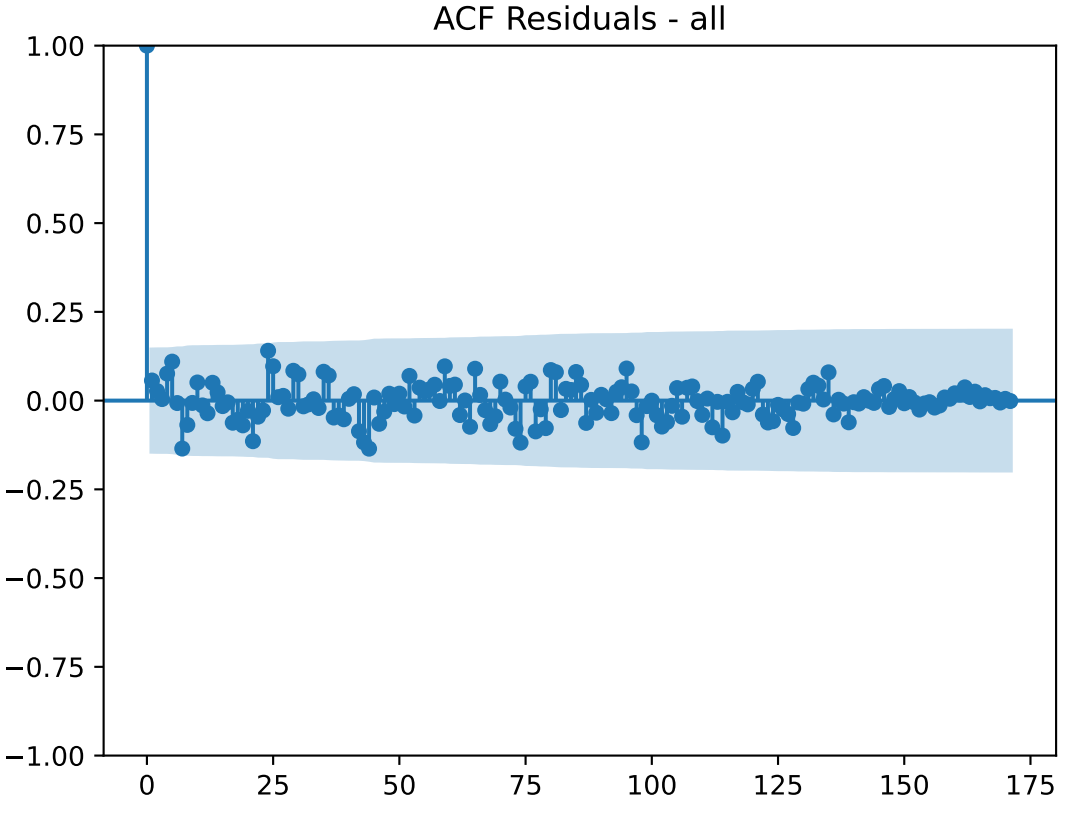

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

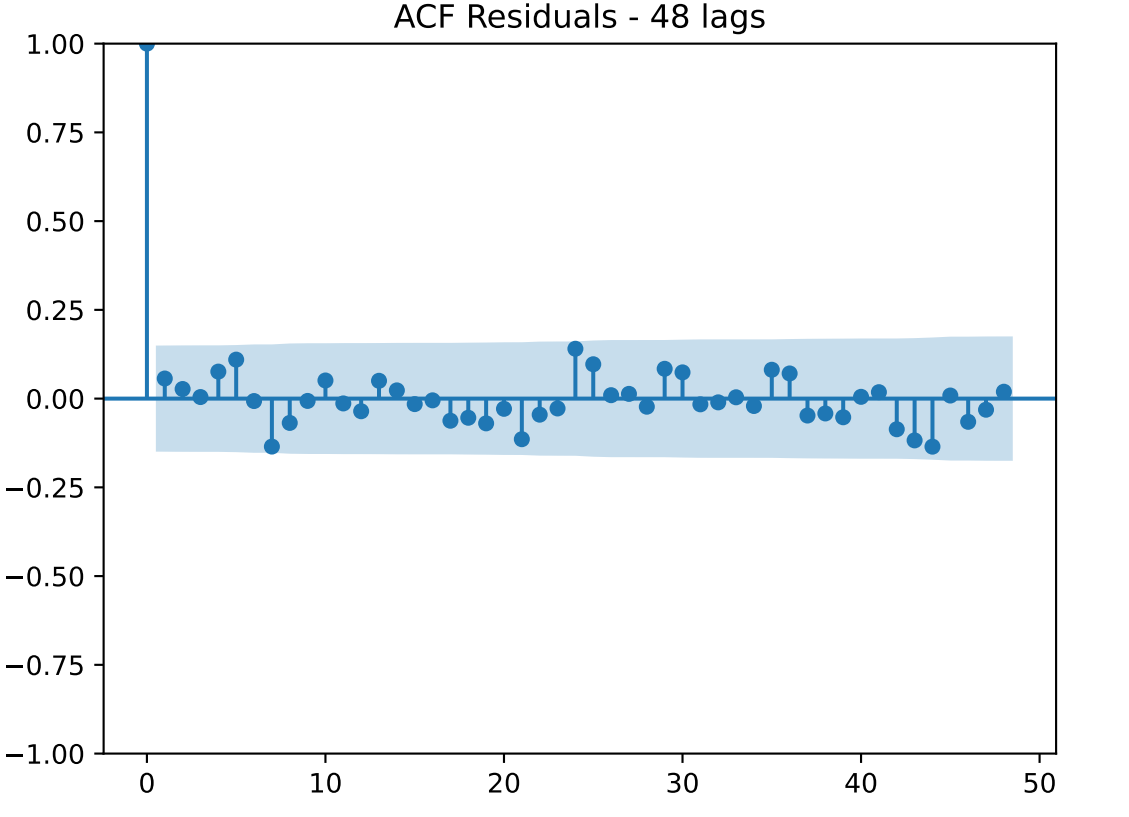

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

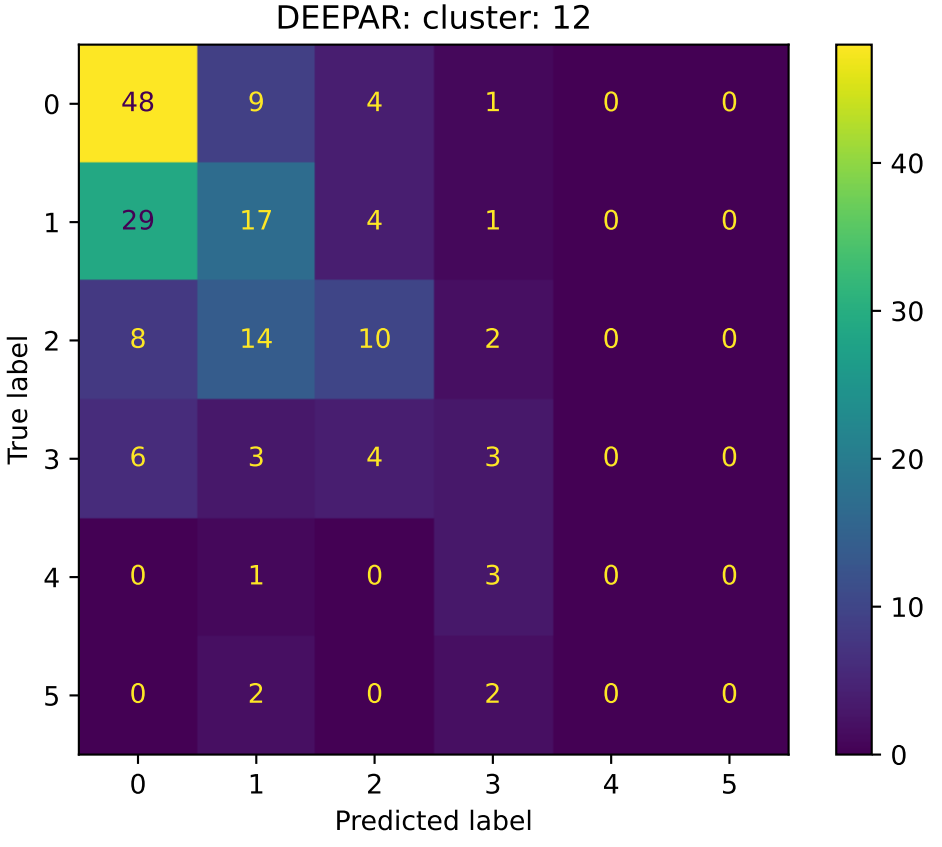

DEEPAR: cluster: 11
True label
Predicted label
0
1
2
3
4
5
56 4 6 1 0 0
39 16 6 1 0 0
11 7 3 0 0 0
2 6 3 2 0 0
1 1 2 2 0 0
0 0 1 0 0 0
50
40
30
20
10
0

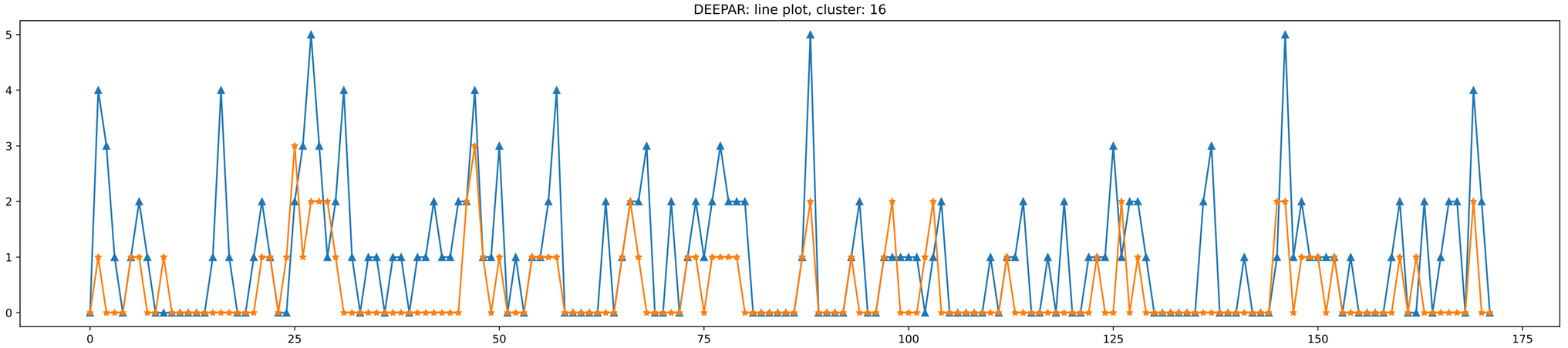

DEEPAR: line plot, cluster: 12
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

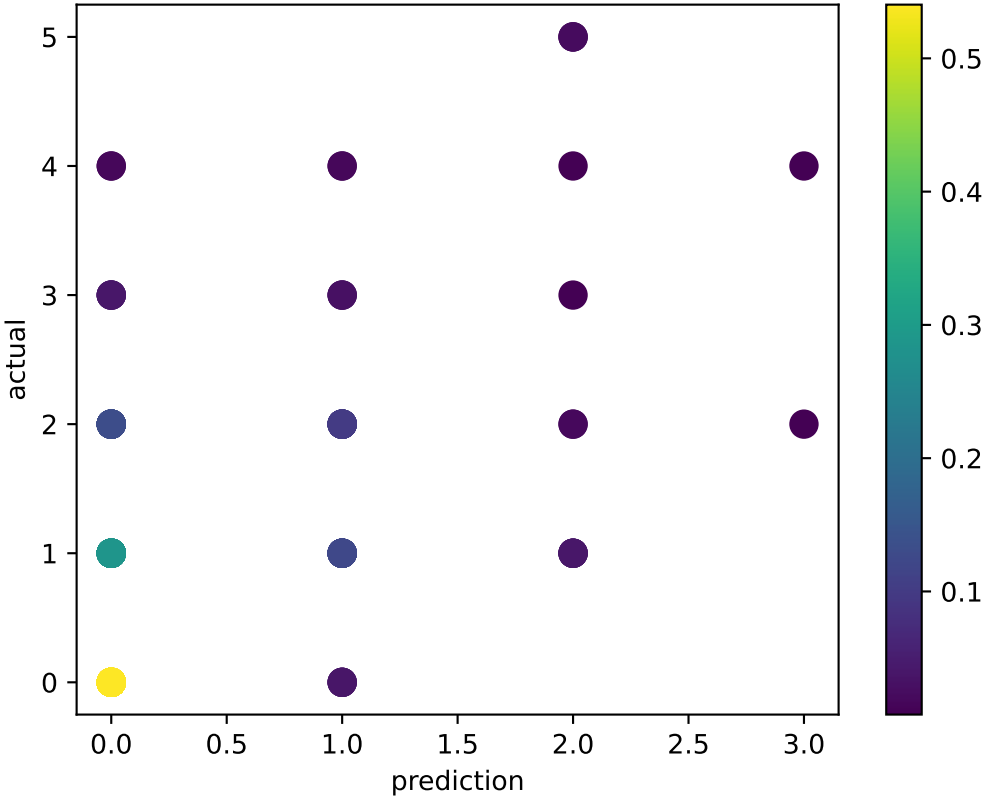

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.25
0.20
0.15
0.10
0.05

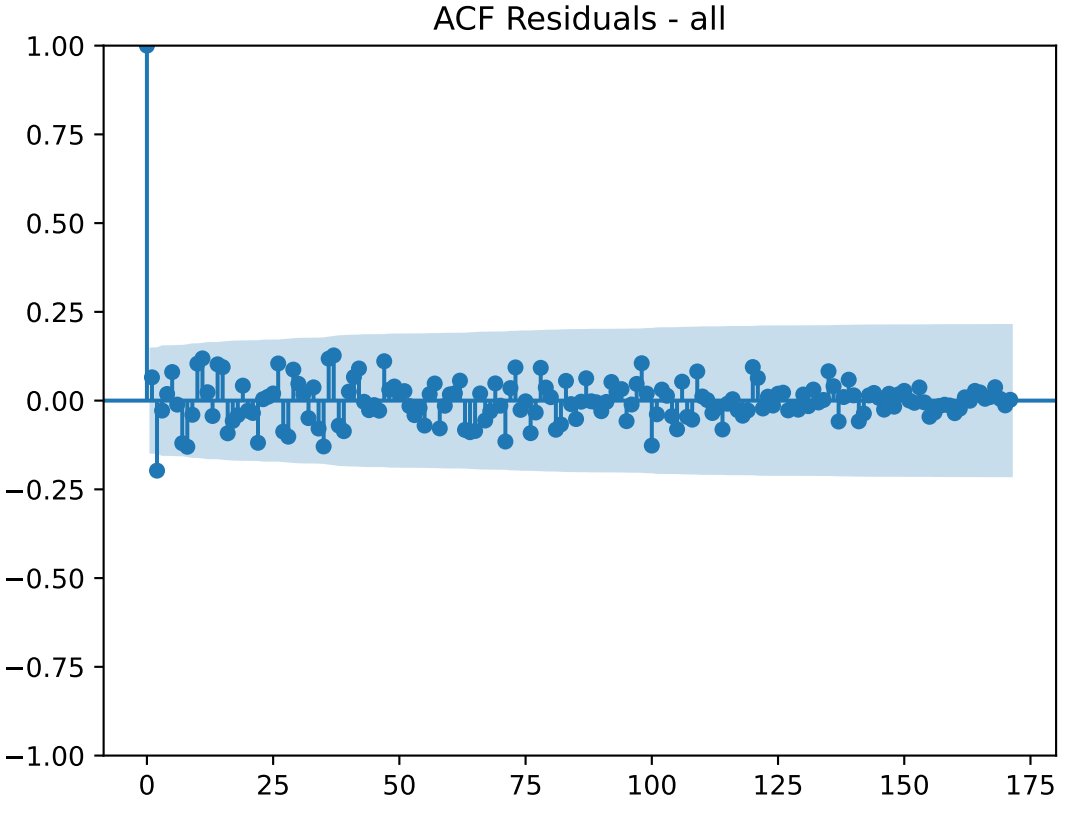

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

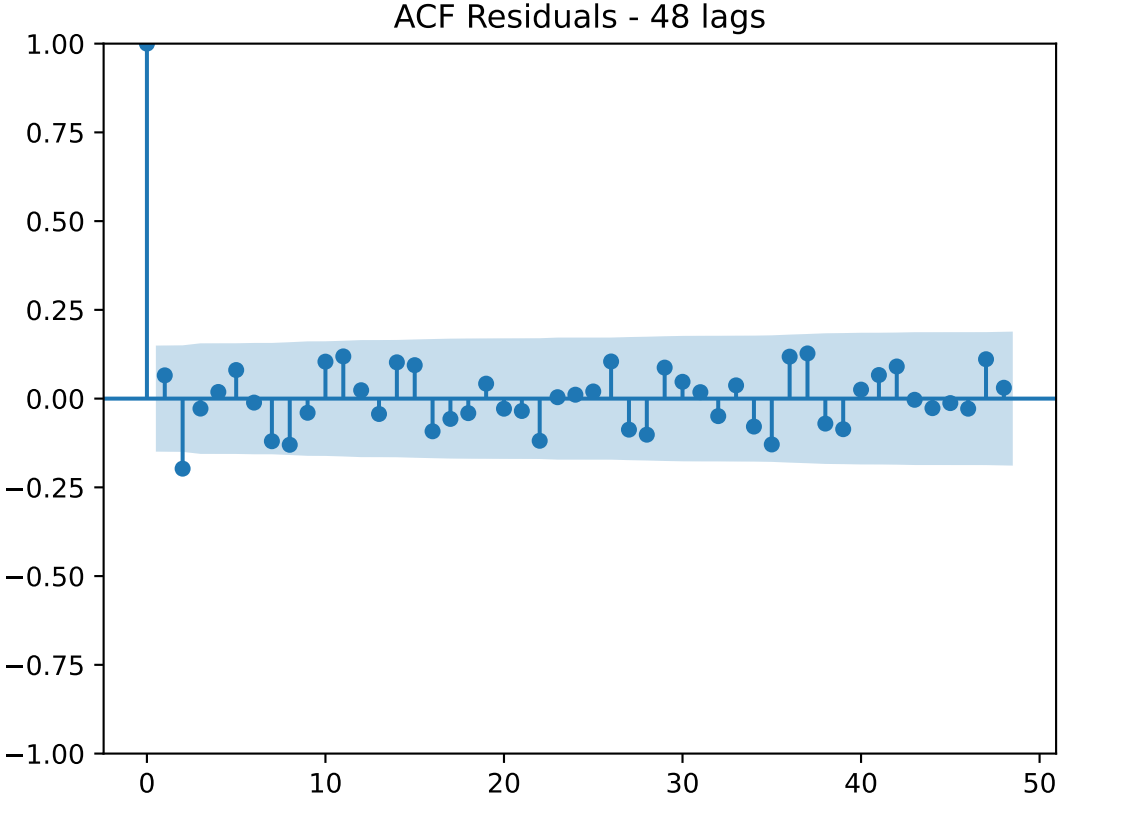

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

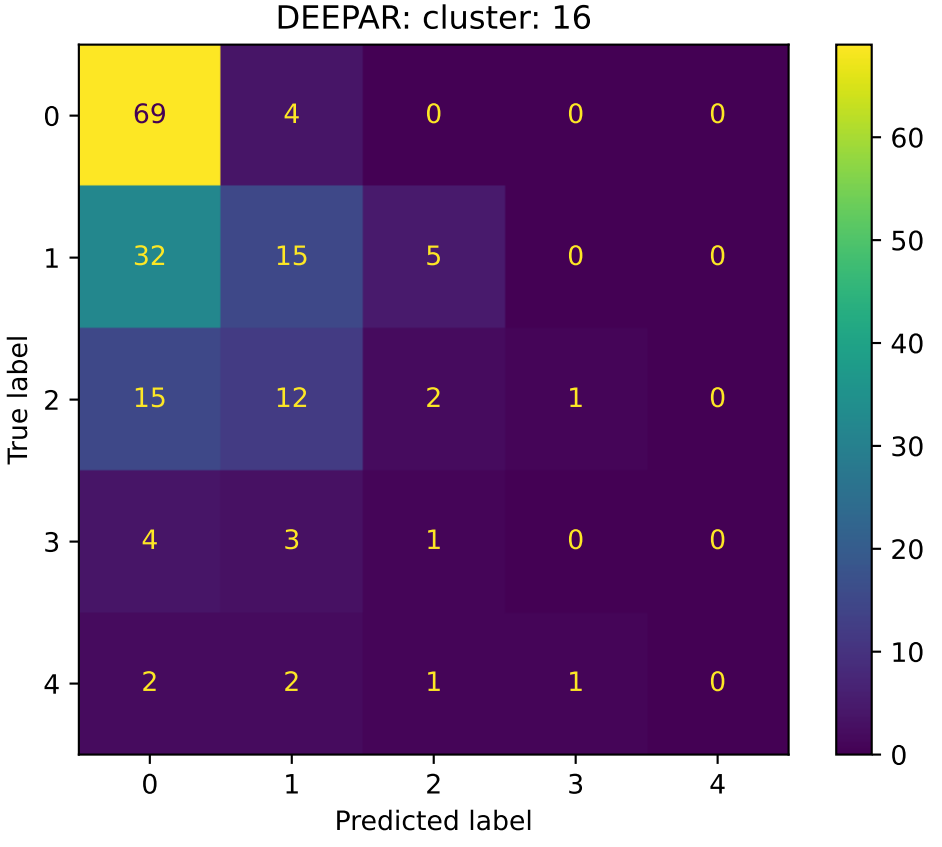

DEEPAR: cluster: 12
True label
Predicted label
0
1
2
3
4
5
48 9 4 1 0 0
29 17 4 1 0 0
8 14 10 2 0 0
6 3 4 3 0 0
0 1 0 3 0 0
0 2 0 2 0 0
40
30
20
10
0

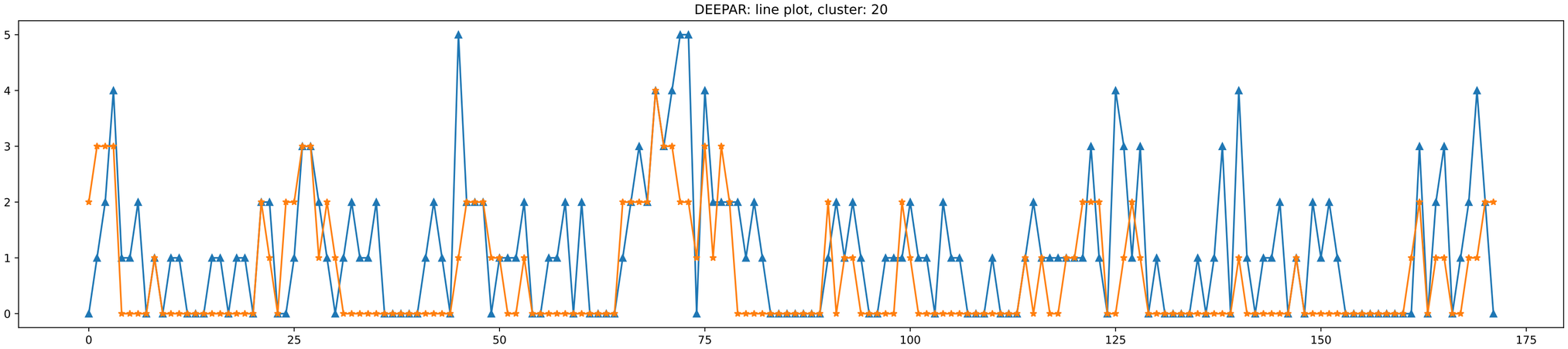

DEEPAR: line plot, cluster: 16
0
1
2
3
4
5
0
25
50
75
100
125
150
175

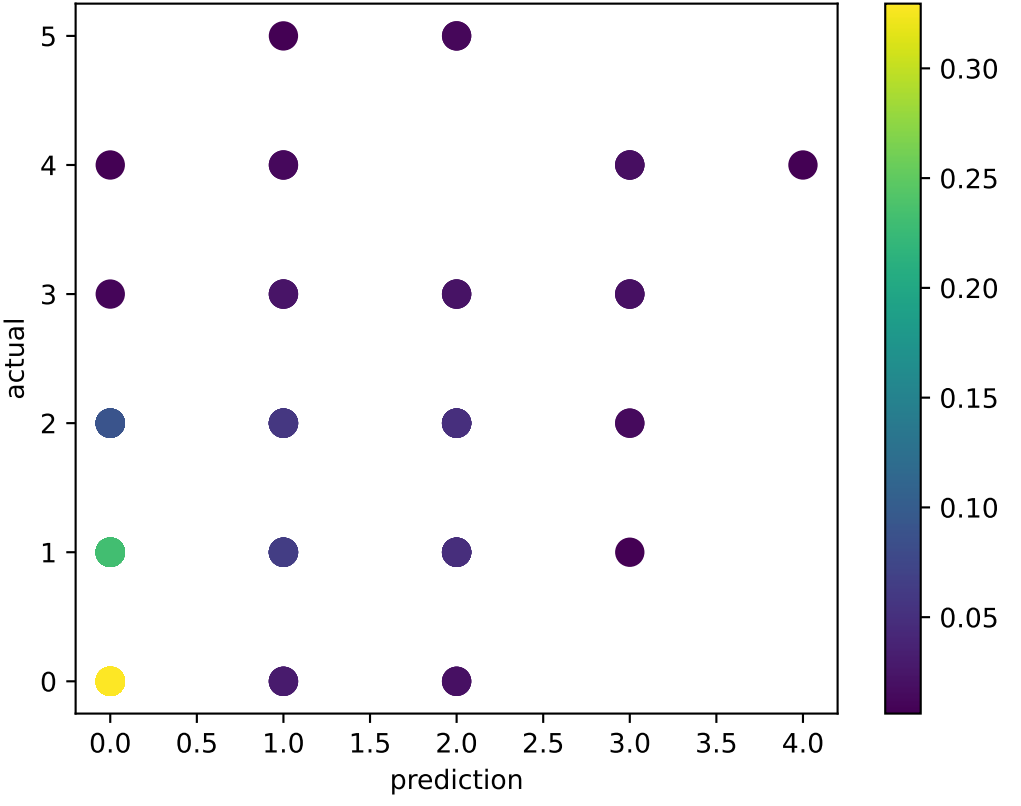

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.1
0.2
0.3
0.4
0.5

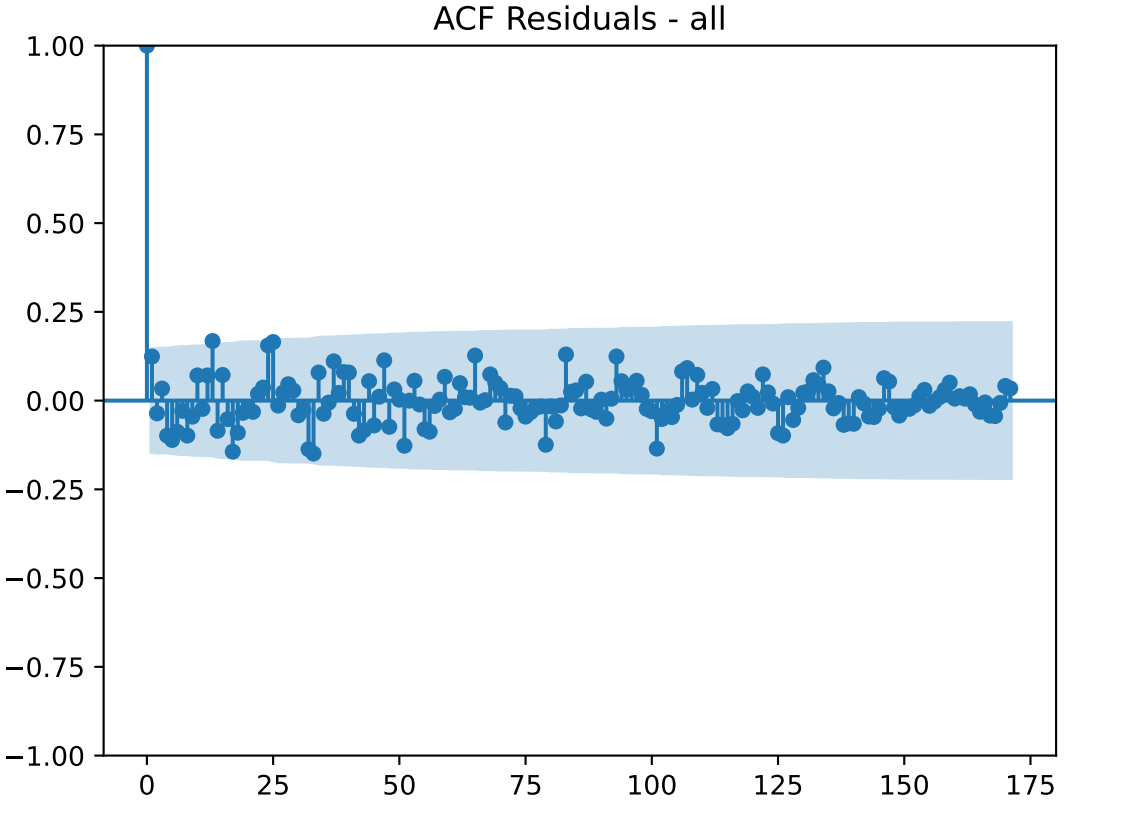

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

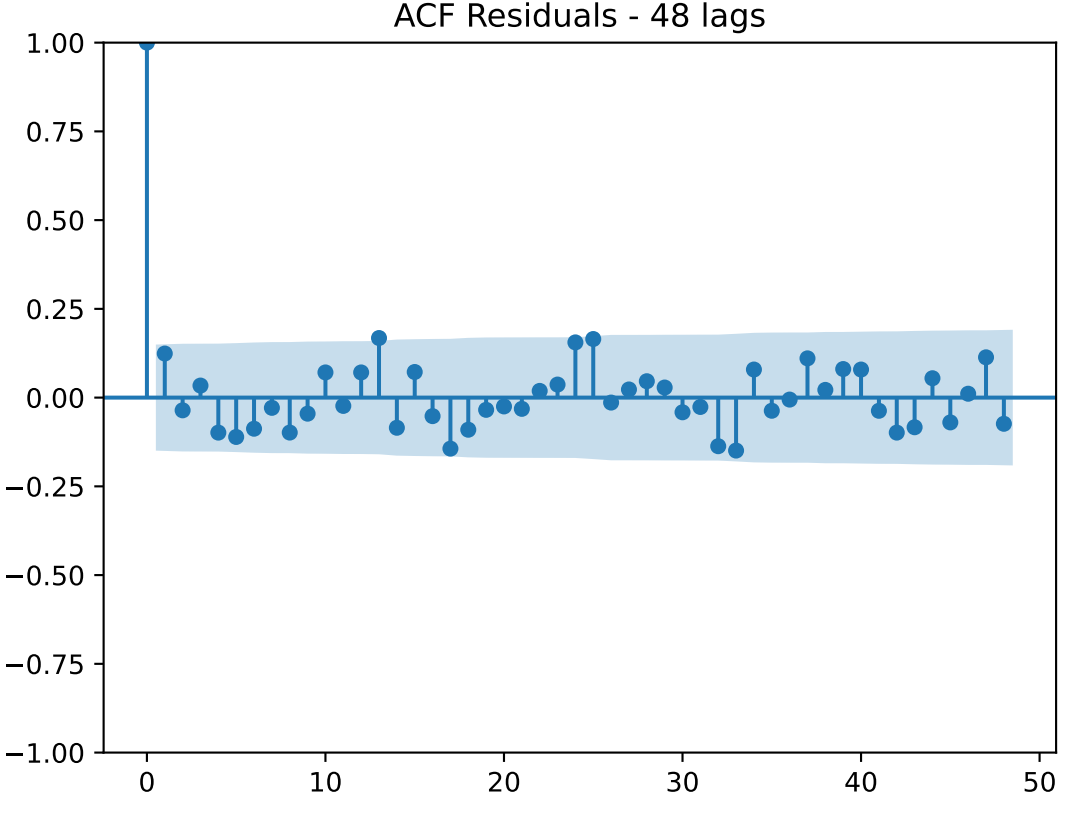

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

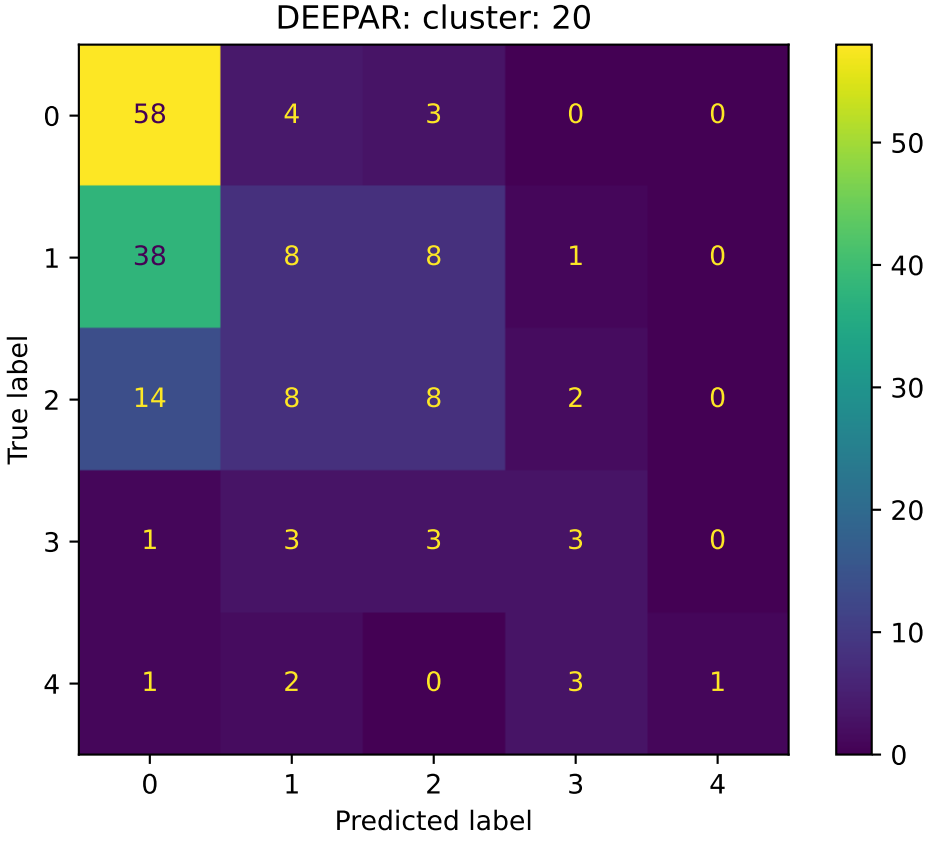

DEEPAR: cluster: 16
True label
Predicted label
0
1
2
3
4
69
4
0
0
0
32
15
5
0
0
15
12
2
1
0
4
3
1
0
0
2
2
1
1
0
60
50
40
30
20
10
0

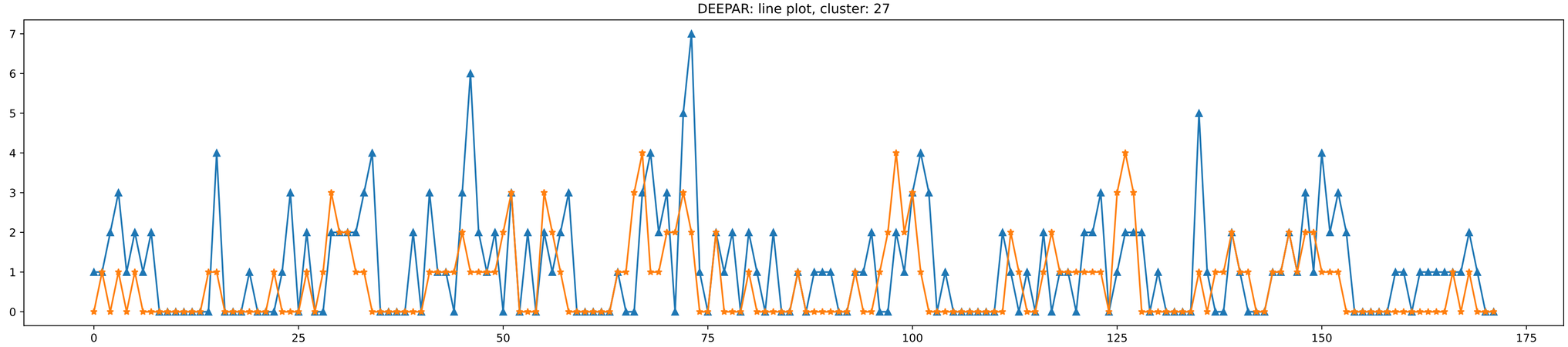

DEEPAR: line plot, cluster: 20
0
1
2
3
4
5
0
25
50
75
100
125
150
175

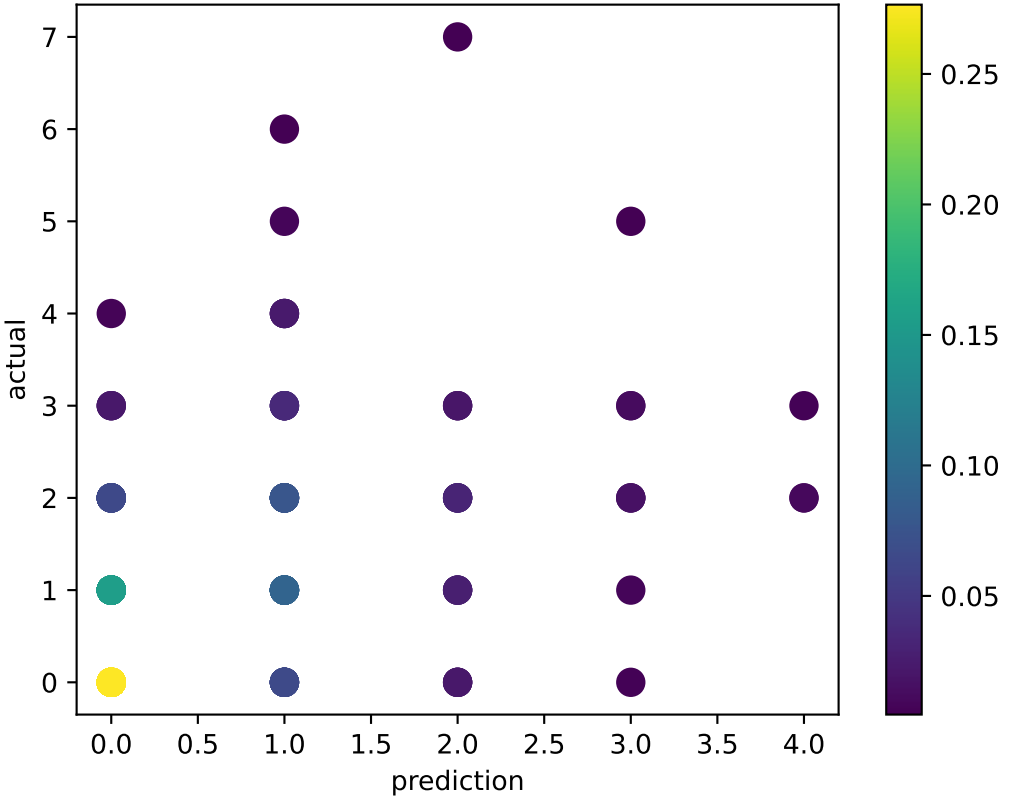

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.30
0.25
0.20
0.15
0.10
0.05

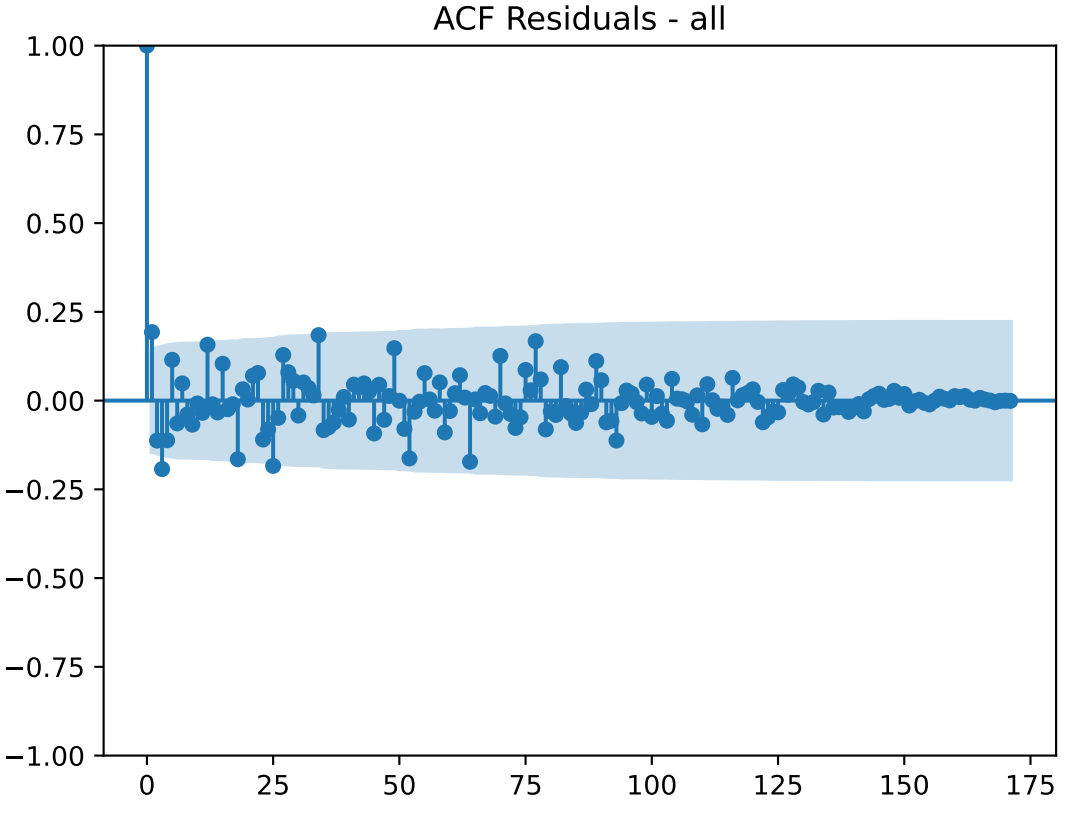

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

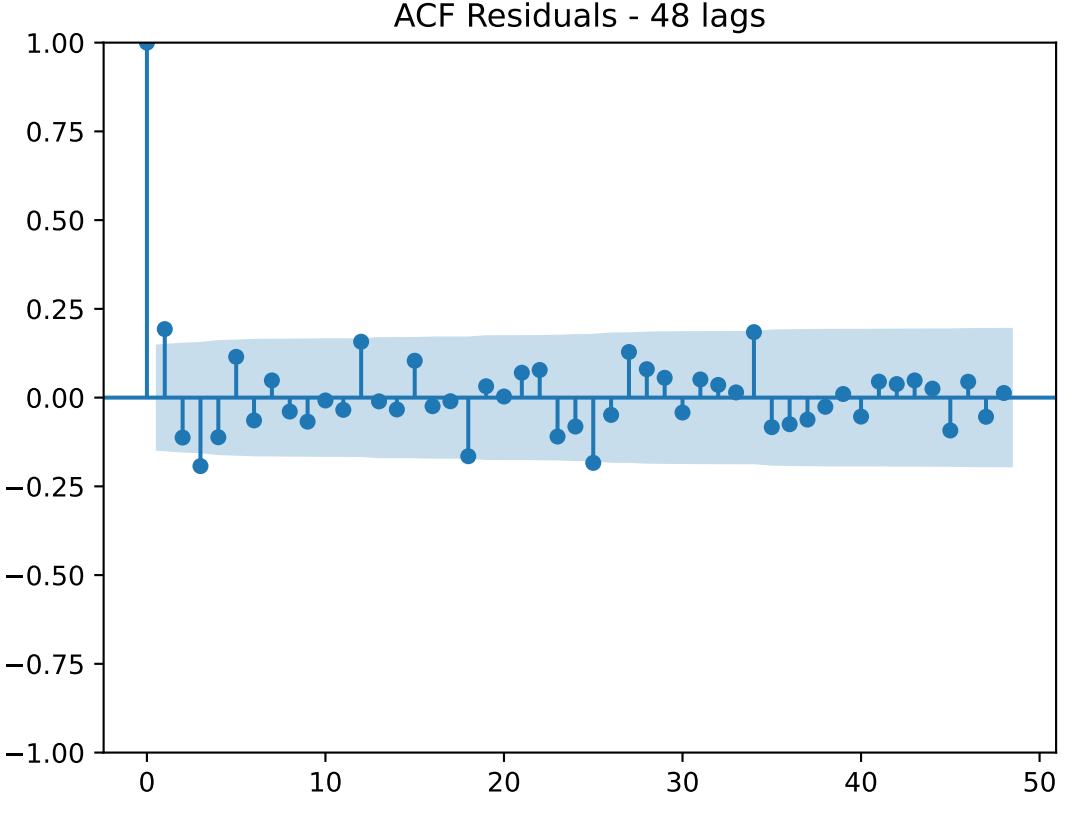

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

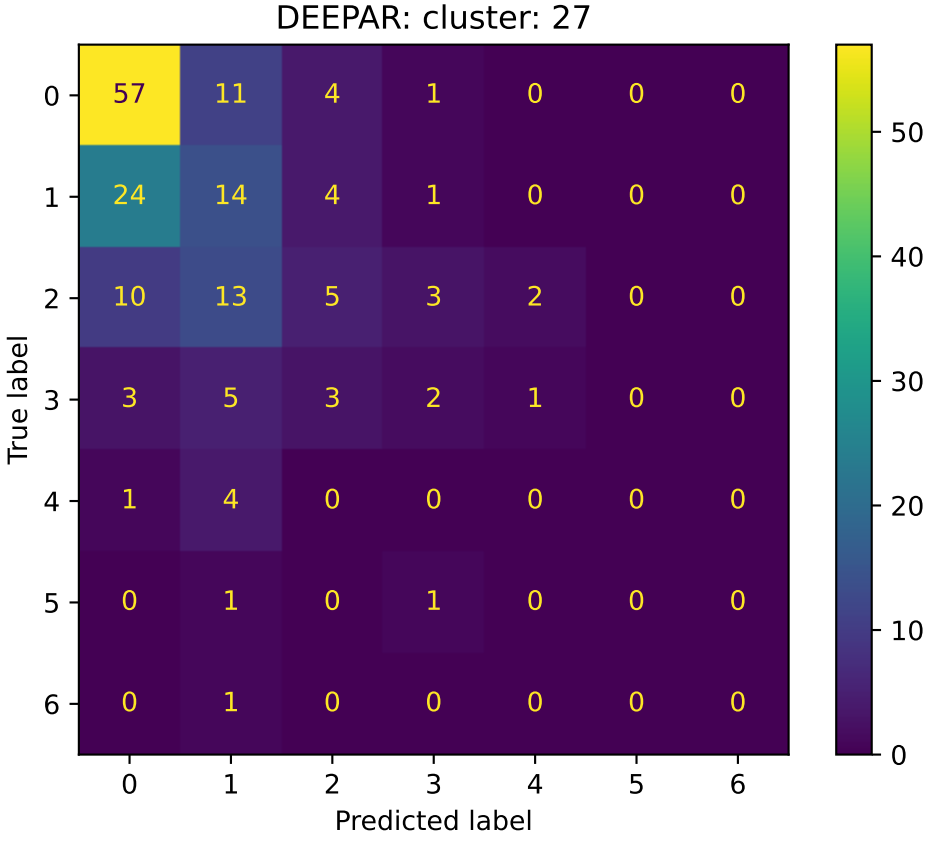

DEEPAR: cluster: 20
True label
Predicted label
0
1
2
3
4
58
4
3
0
0
38
8
8
1
0
14
8
8
2
0
1
3
3
3
0
1
2
0
3
1
50
40
30
20
10
0

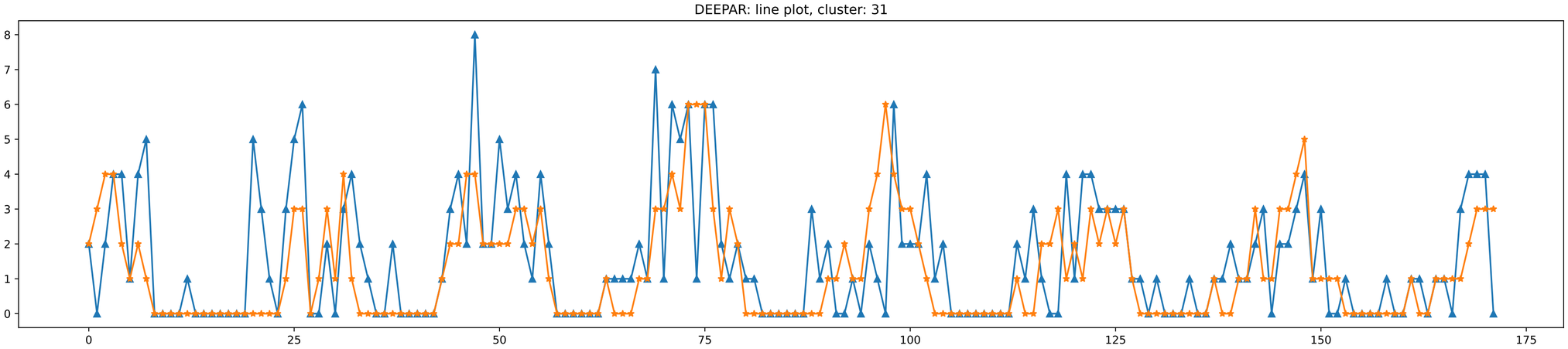

DEEPAR: line plot, cluster: 27
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

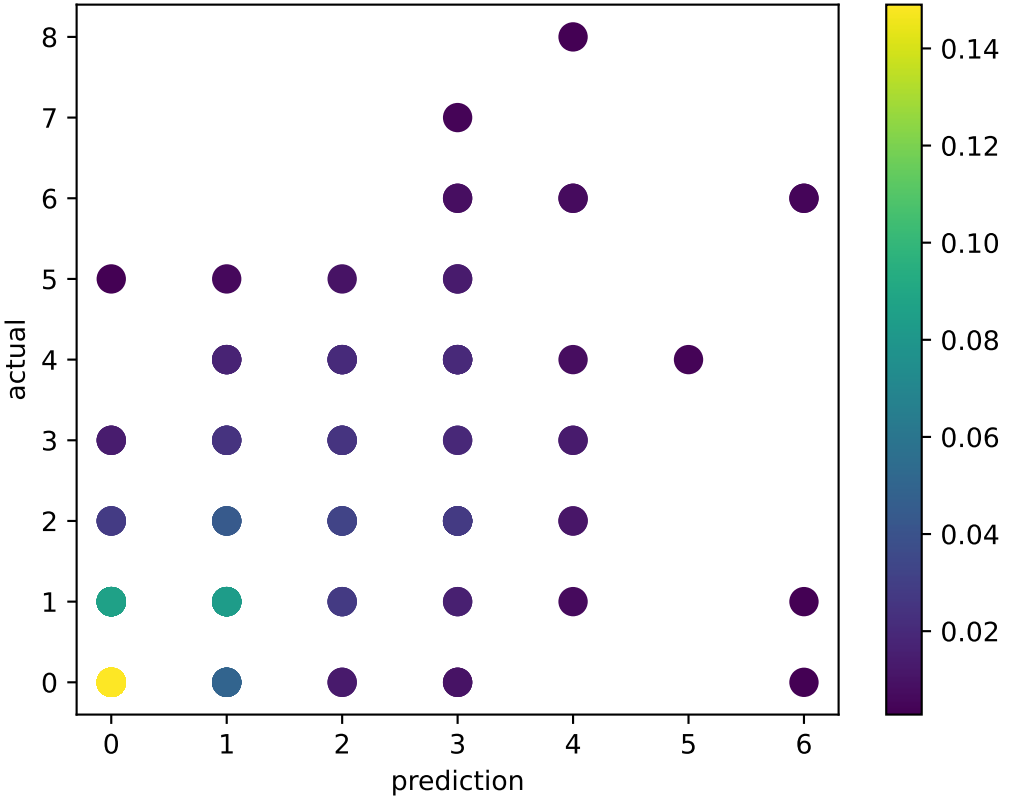

actual
prediction
0
1
2
3
4
5
6
7
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.25
0.20
0.15
0.10
0.05

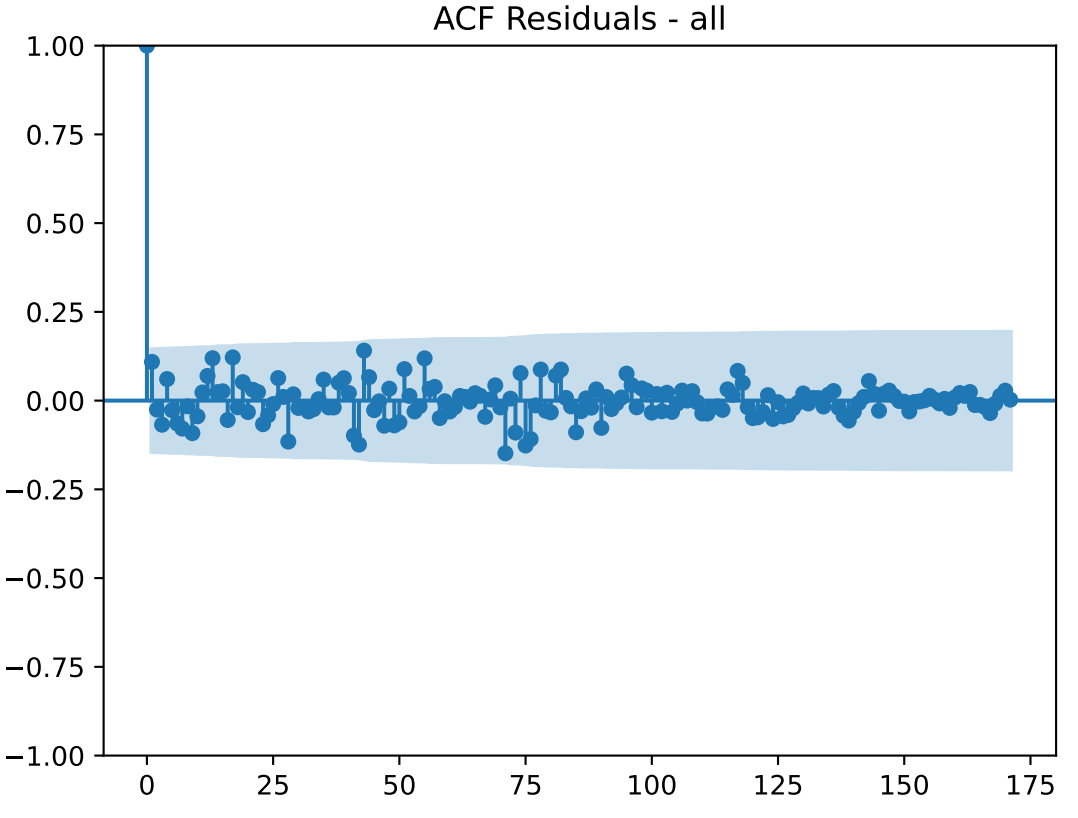

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

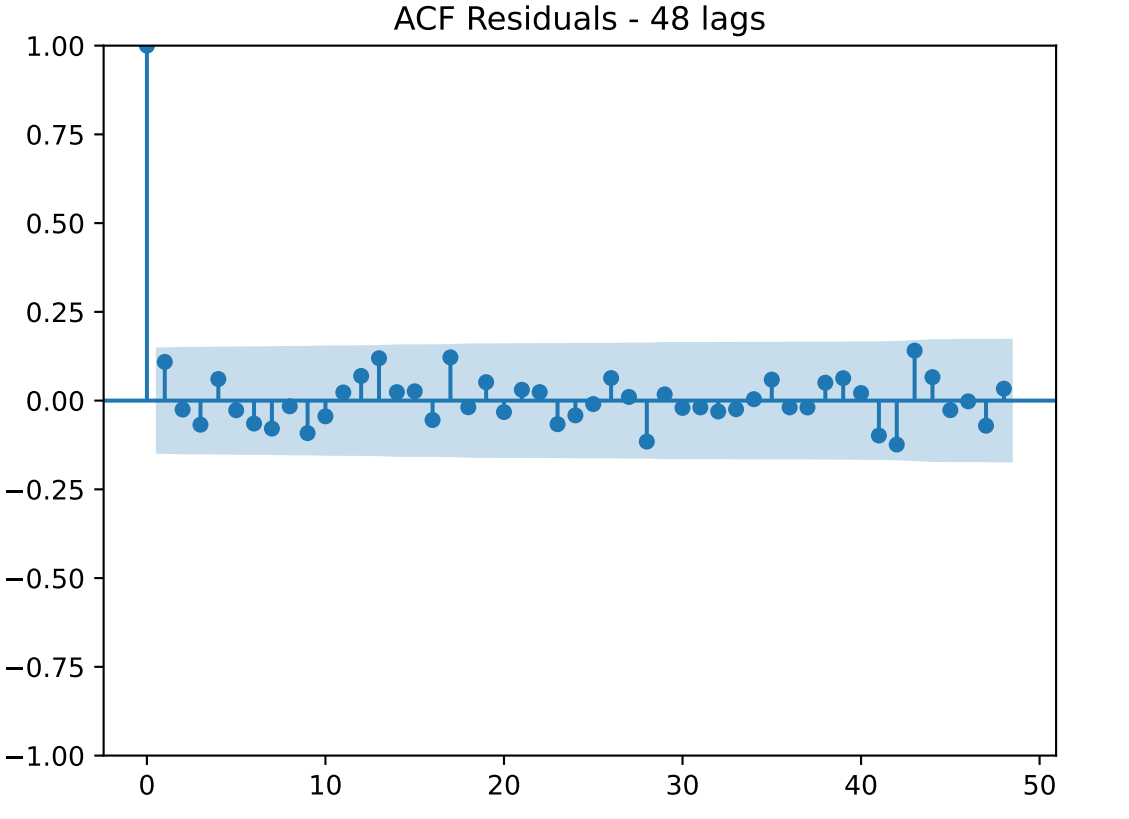

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

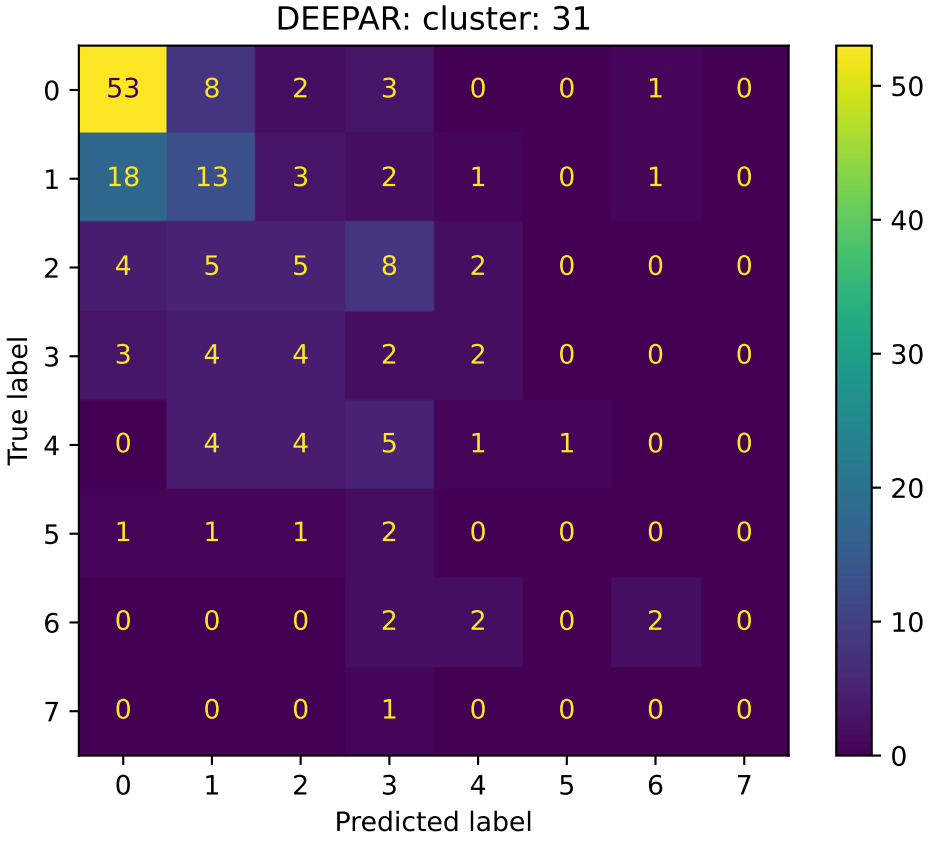

DEEPAR: cluster: 27
True label
Predicted label
0 1 2 3 4 5 6
57 11 4 1 0 0 0
24 14 4 1 0 0 0
10 13 5 3 2 0 0
3 5 3 2 1 0 0
1 4 0 0 0 0 0
0 1 0 1 0 0 0
0 1 0 0 0 0 0
0 10 20 30 40 50

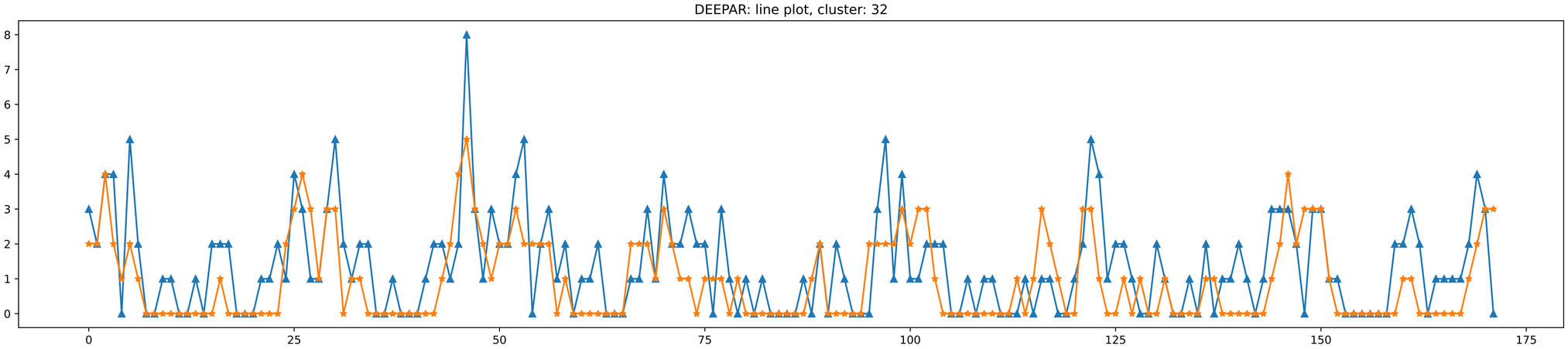

DEEPAR: line plot, cluster: 31
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

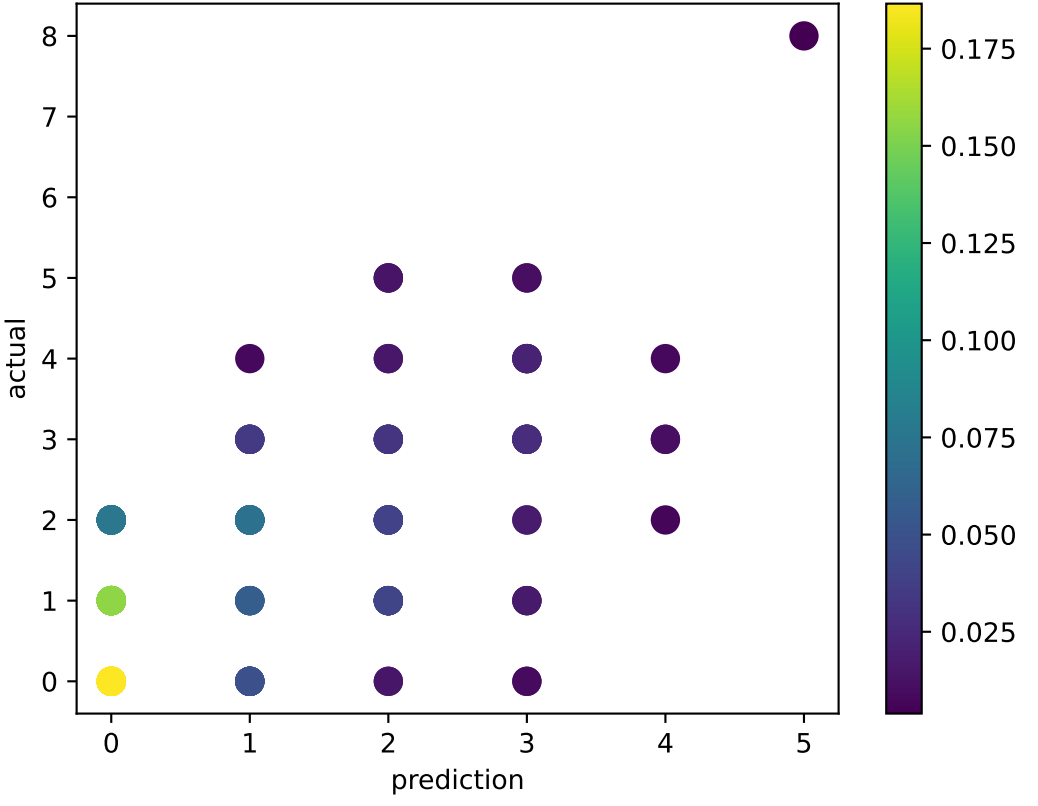

actual
prediction
0
1
2
3
4
5
6
7
8
0.14
0.12
0.10
0.08
0.06
0.04
0.02

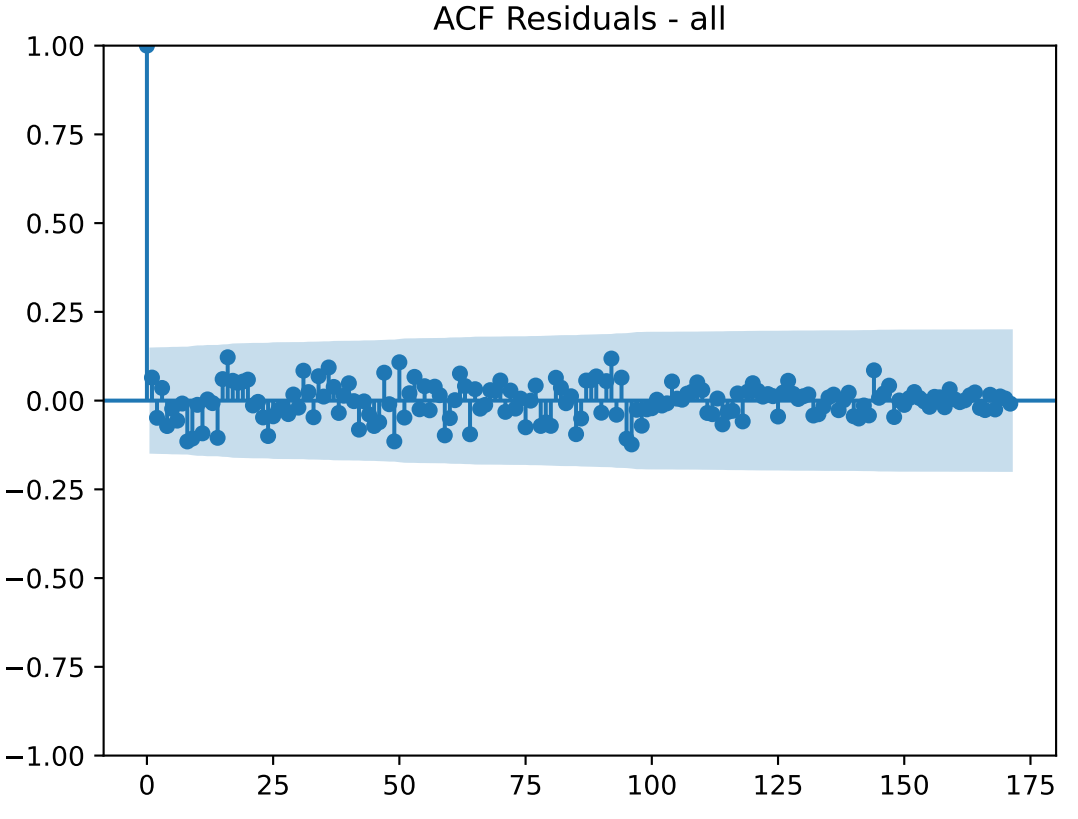

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

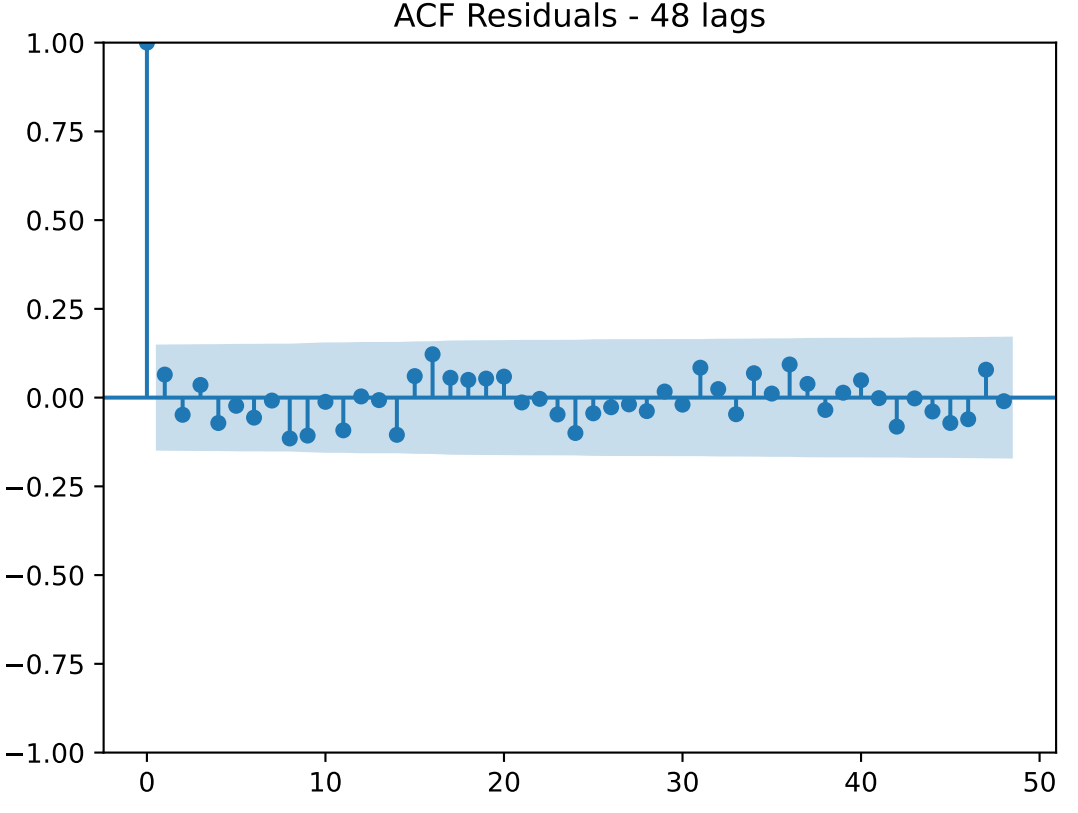

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

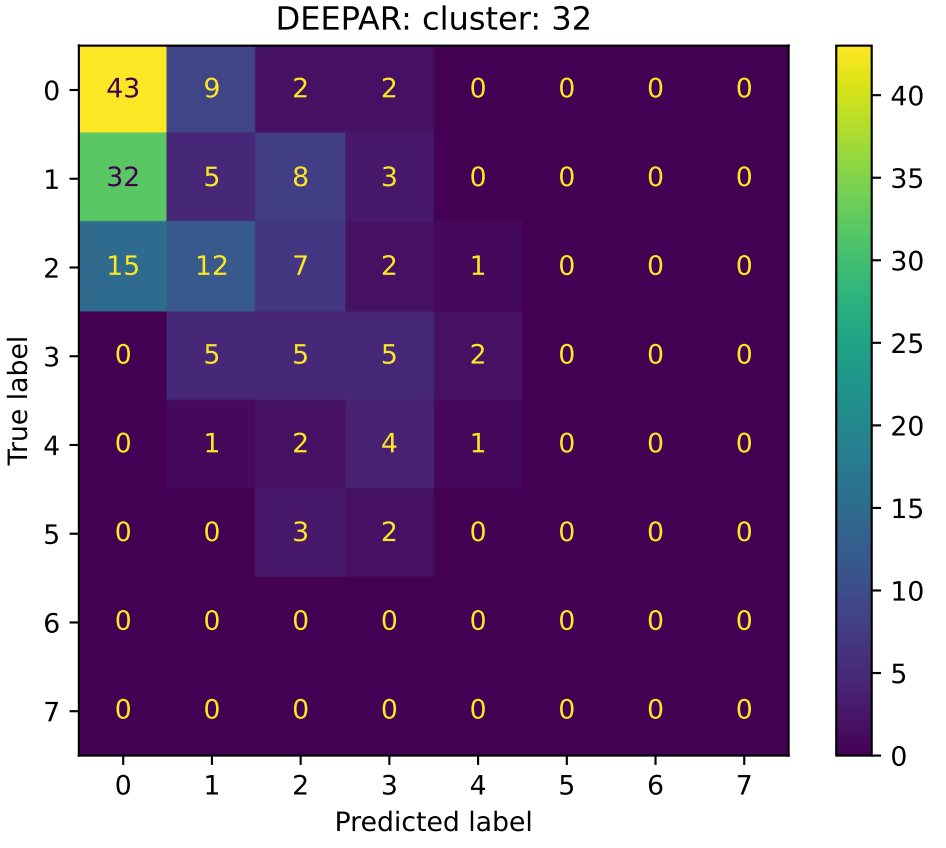

DEEPAR: cluster: 31
True label
Predicted label
0 1 2 3 4 5 6 7
53 8 2 3 0 0 1 0
18 13 3 2 1 0 1 0
4 5 5 8 2 0 0 0
3 4 4 2 2 0 0 0
0 4 4 5 1 1 0 0
1 1 1 2 0 0 0 0
0 0 0 2 2 0 2 0
0 0 0 1 0 0 0 0
50 40 30 20 10 0

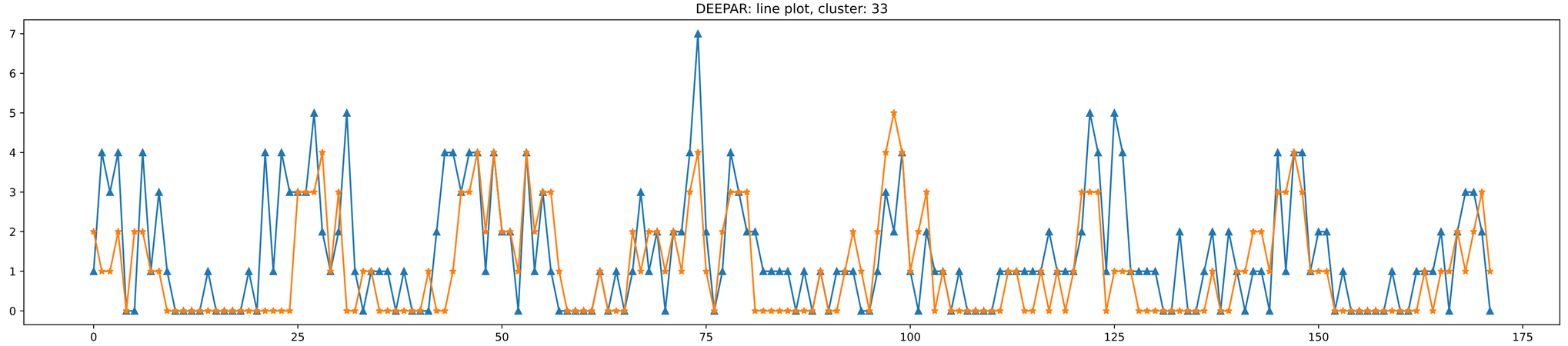

DEEPAR: line plot, cluster: 32
0
1
2
3
4
5
6
7
8
0
25
50
75
100
125
150
175

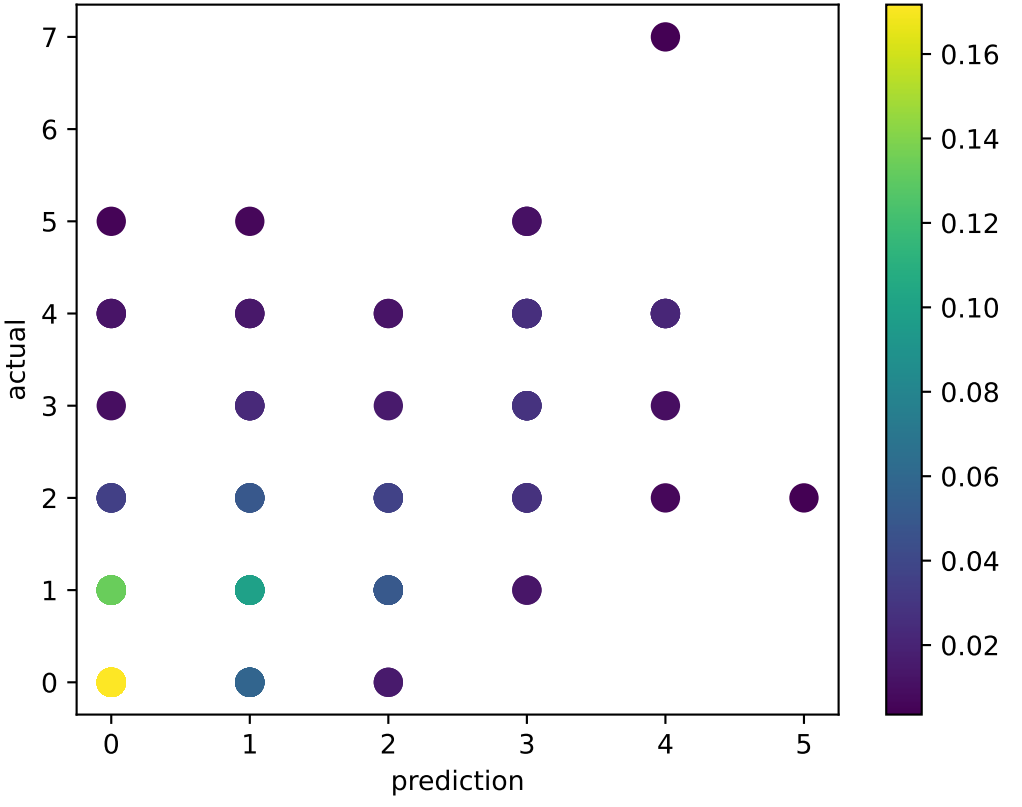

actual
prediction
0
1
2
3
4
5
6
7
8
0.175
0.150
0.125
0.100
0.075
0.050
0.025

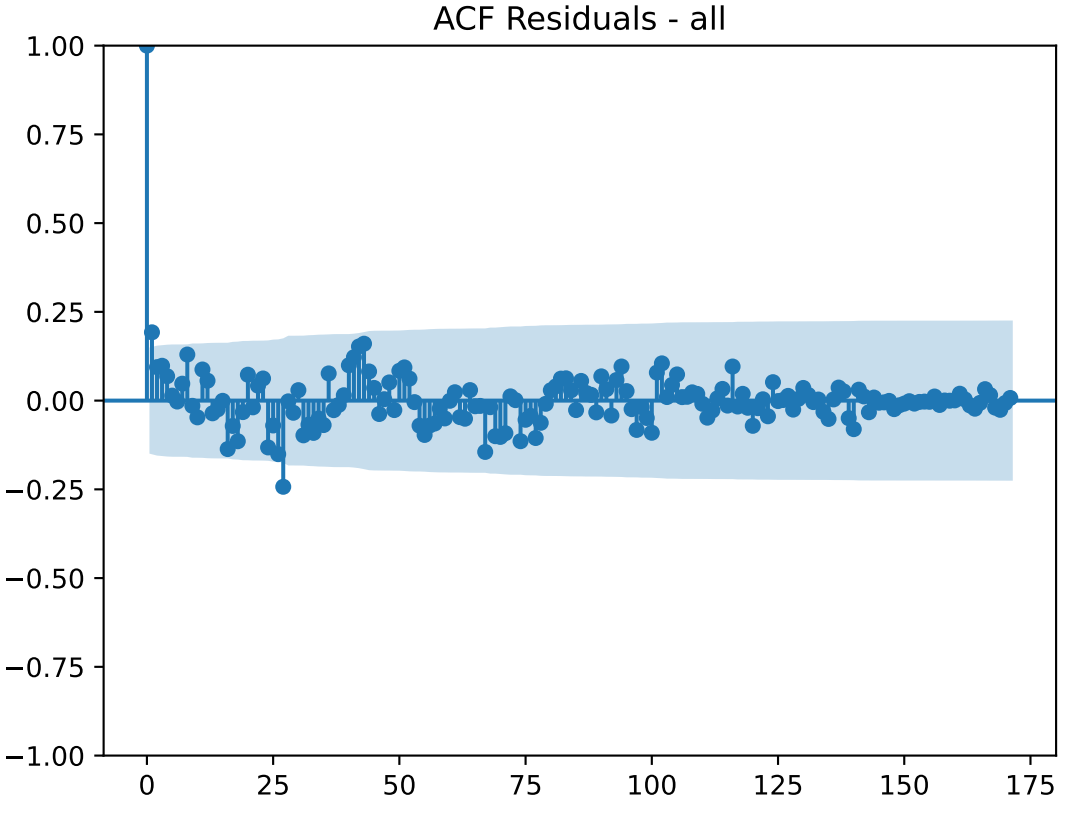

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

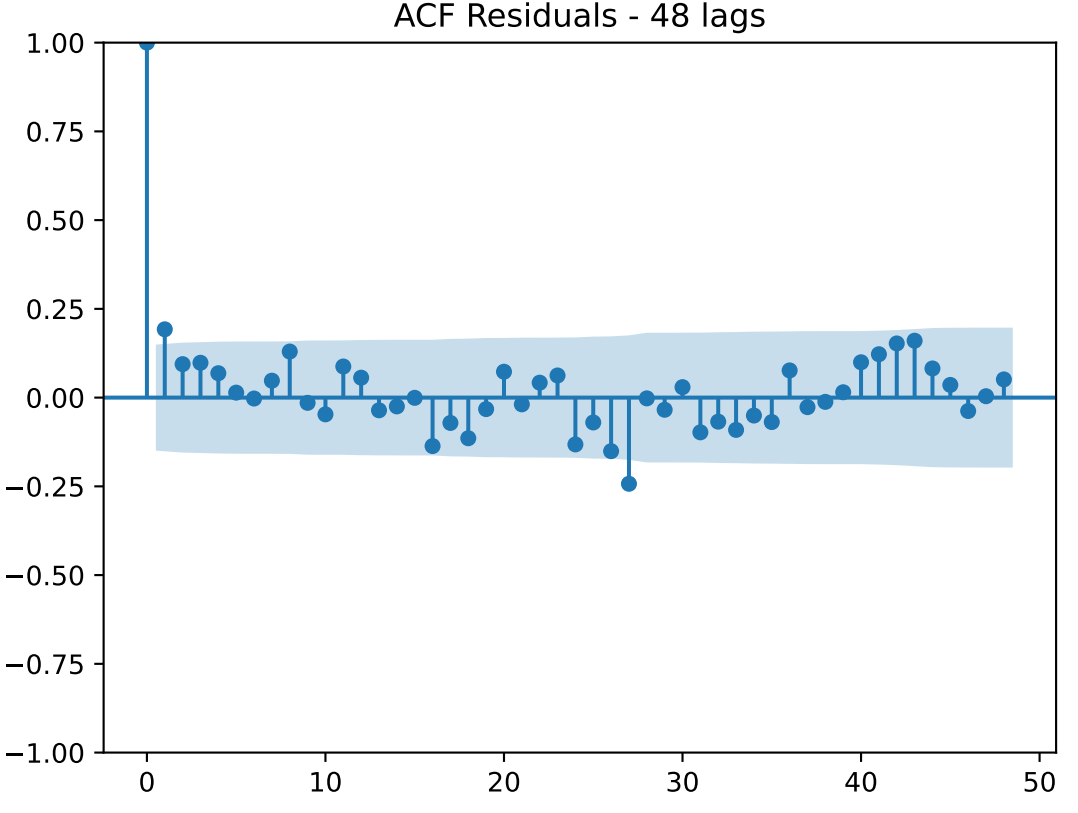

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

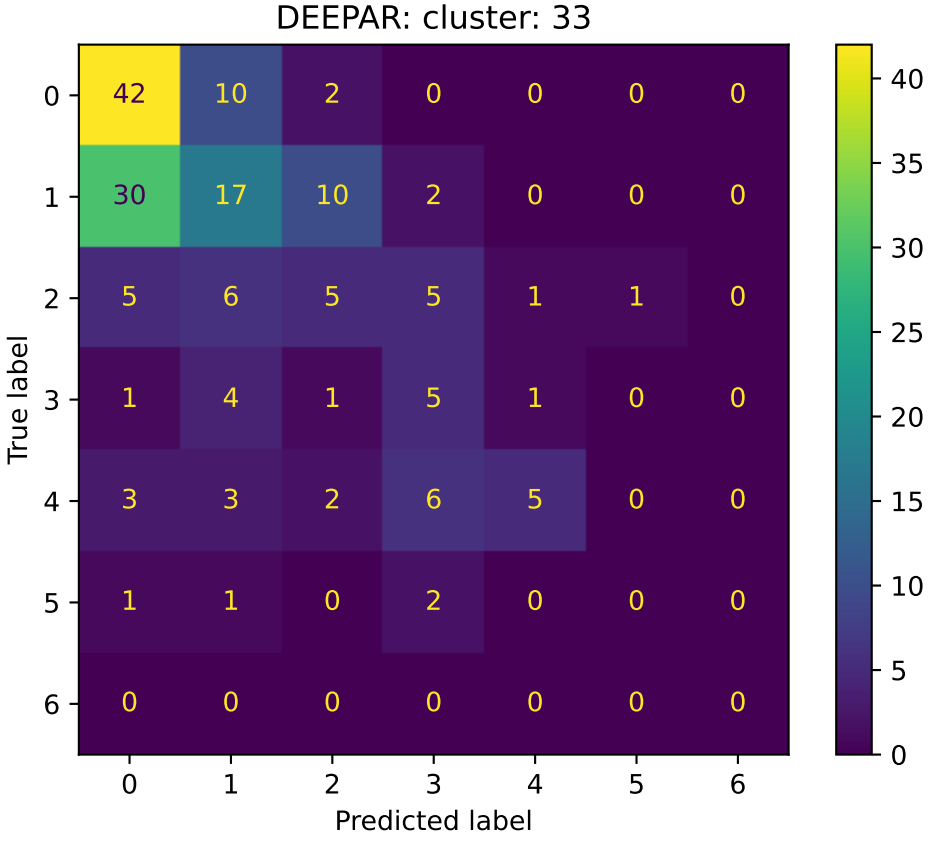

DEEPAR: cluster: 32
True label
Predicted label
0 1 2 3 4 5 6 7
43 9 2 2 0 0 0 0
32 5 8 3 0 0 0 0
15 12 7 2 1 0 0 0
0 5 5 5 2 0 0 0
0 1 2 4 1 0 0 0
0 0 3 2 0 0 0 0
0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0
0 5 10 15 20 25 30 35 40

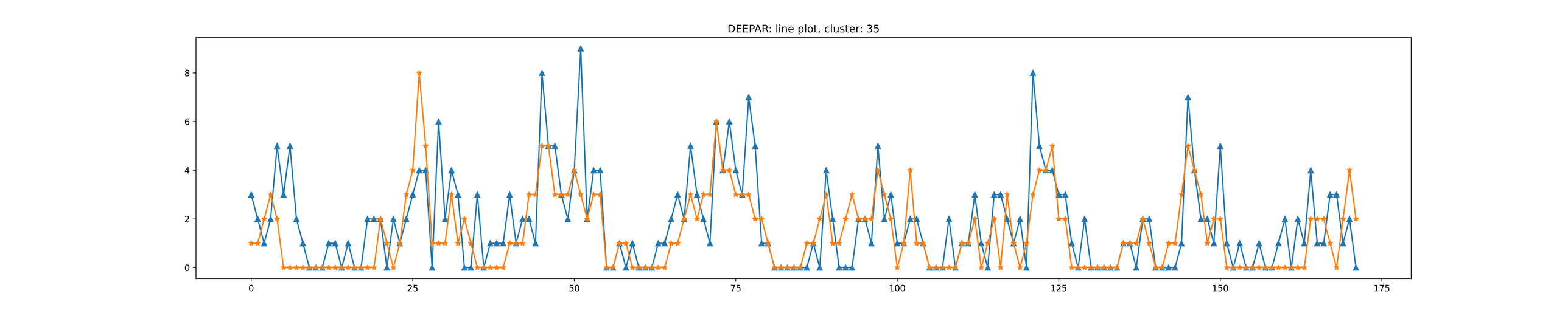

DEEPAR: line plot, cluster: 33
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

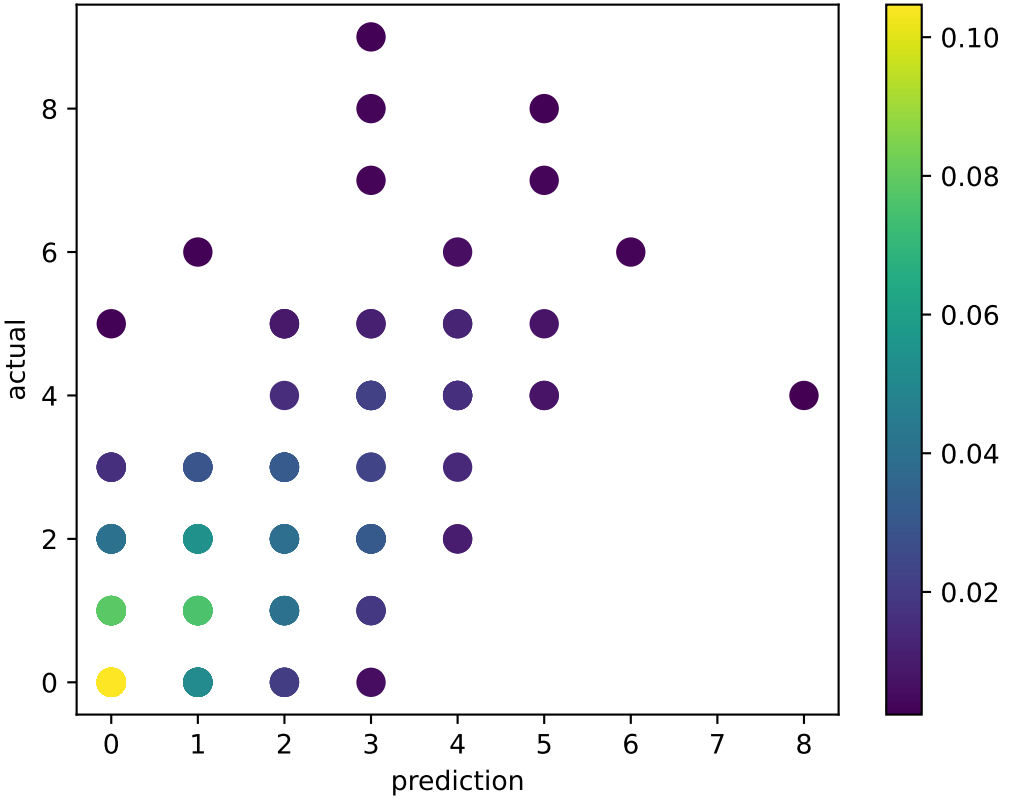

actual
prediction
0
1
2
3
4
5
6
7
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02

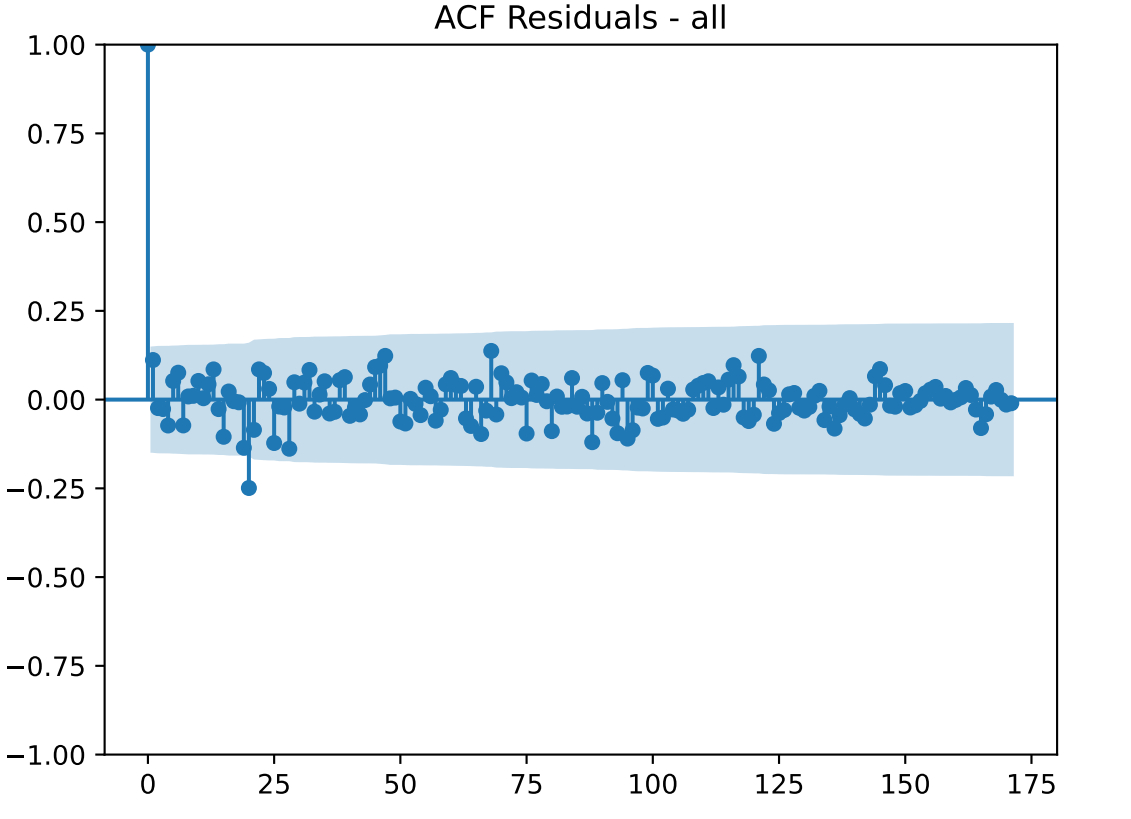

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

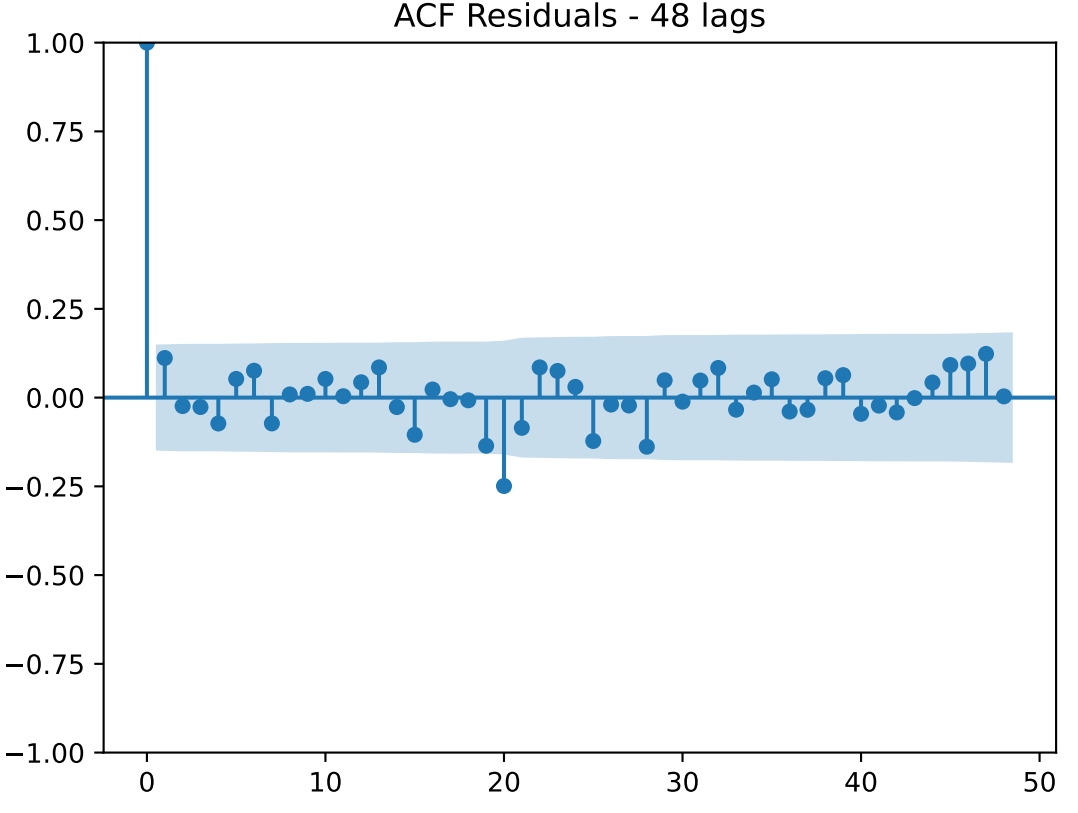

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

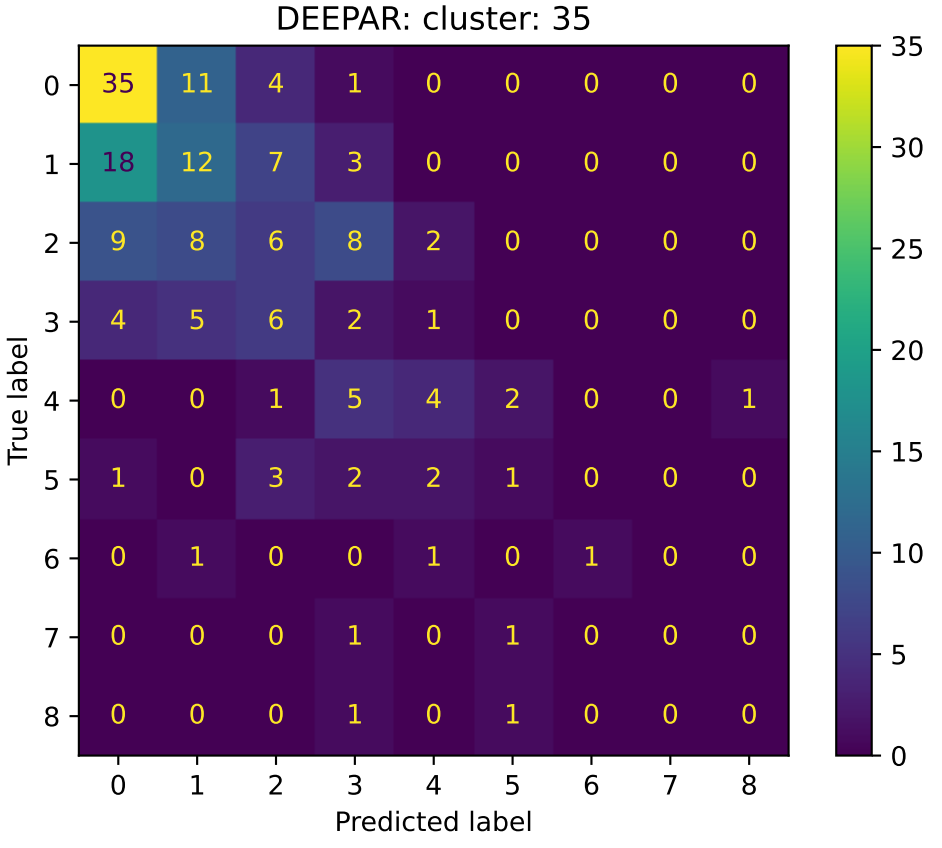

DEEPAR: cluster: 33
True label
Predicted label
0 1 2 3 4 5 6
42 10 2 0 0 0 0
30 17 10 2 0 0 0
5 6 5 5 1 1 0
1 4 1 5 1 0 0
3 3 2 6 5 0 0
1 1 0 2 0 0 0
0 0 0 0 0 0 0
40 35 30 25 20 15 10 5 0

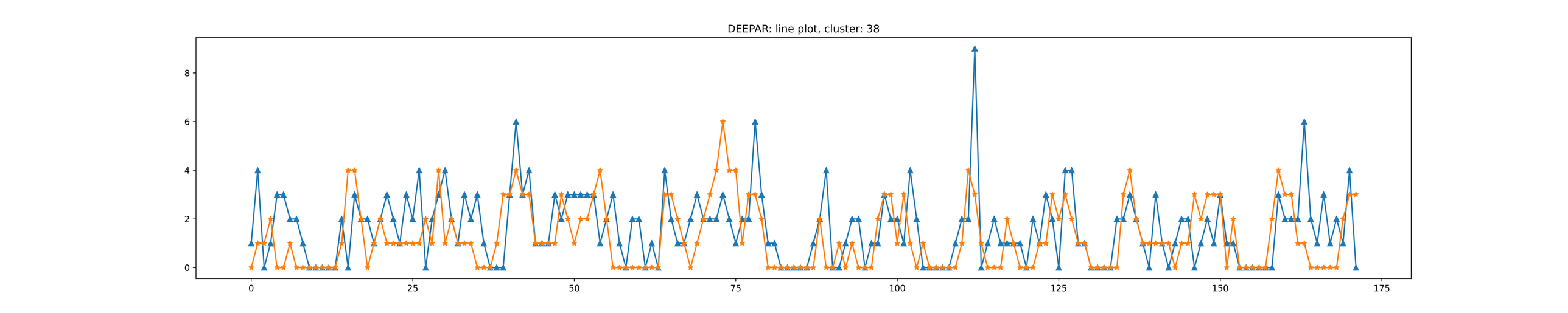

DEEPAR: line plot, cluster: 35
0
2
4
6
8
0
25
50
75
100
125
150
175

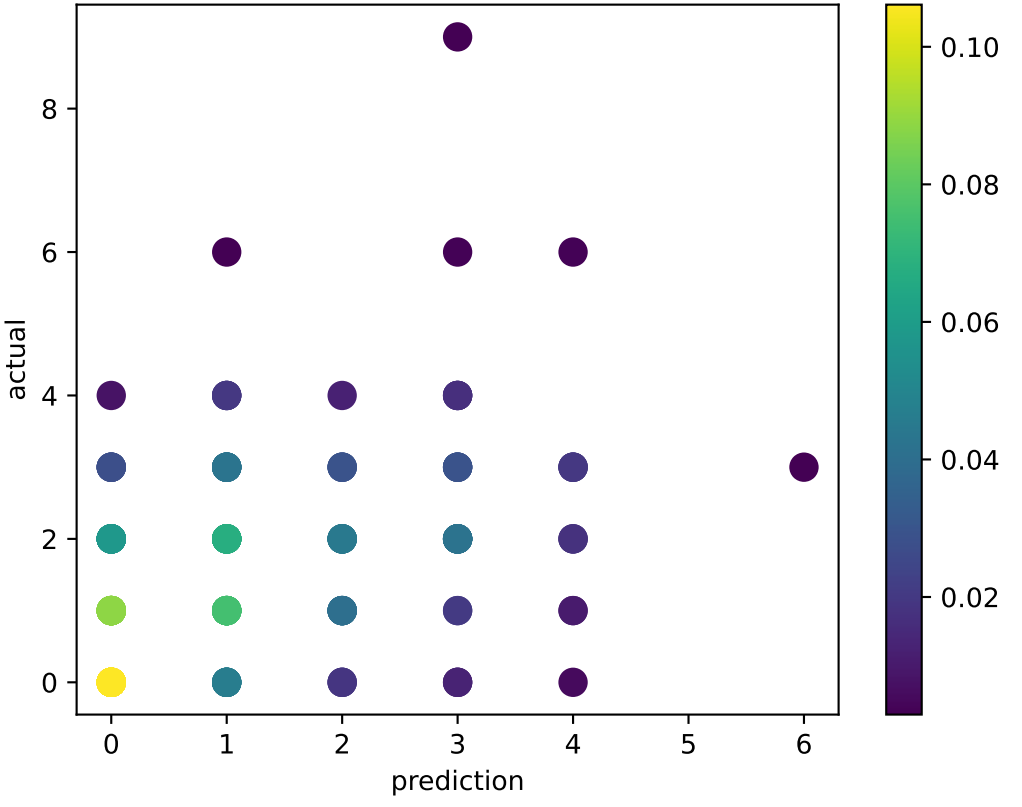

actual
prediction
0
1
2
3
4
5
6
7
8
0.10
0.08
0.06
0.04
0.02

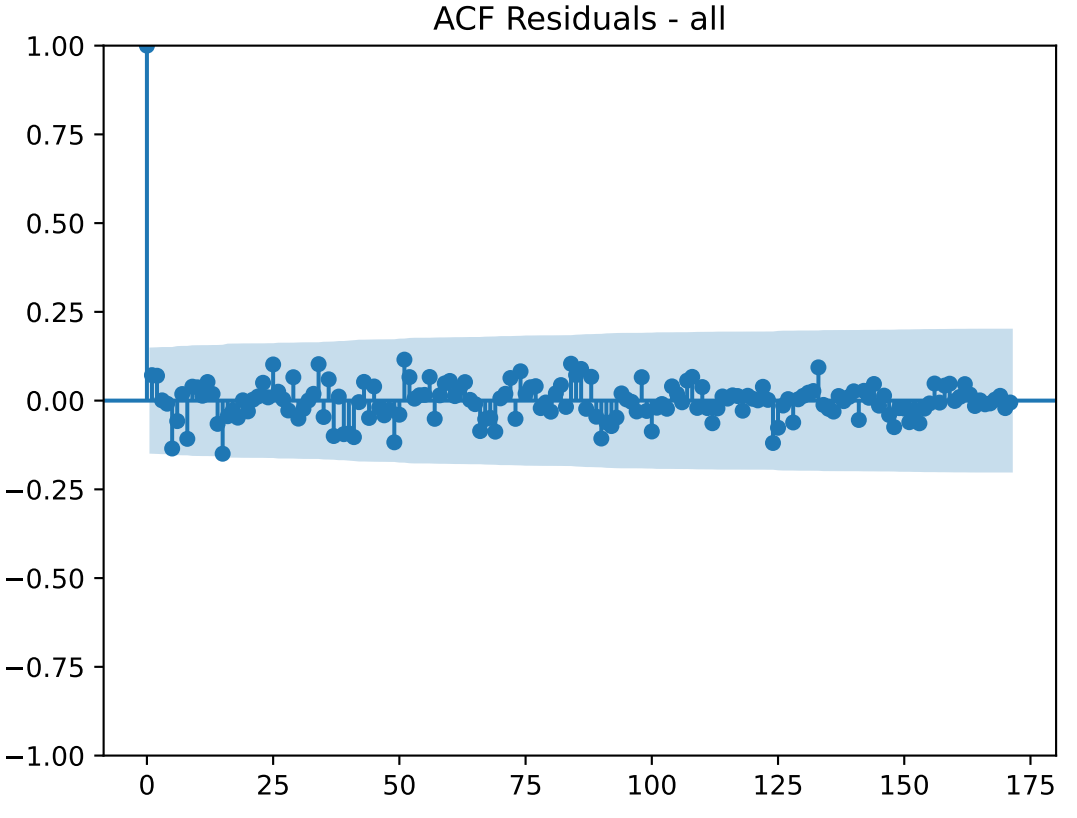

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

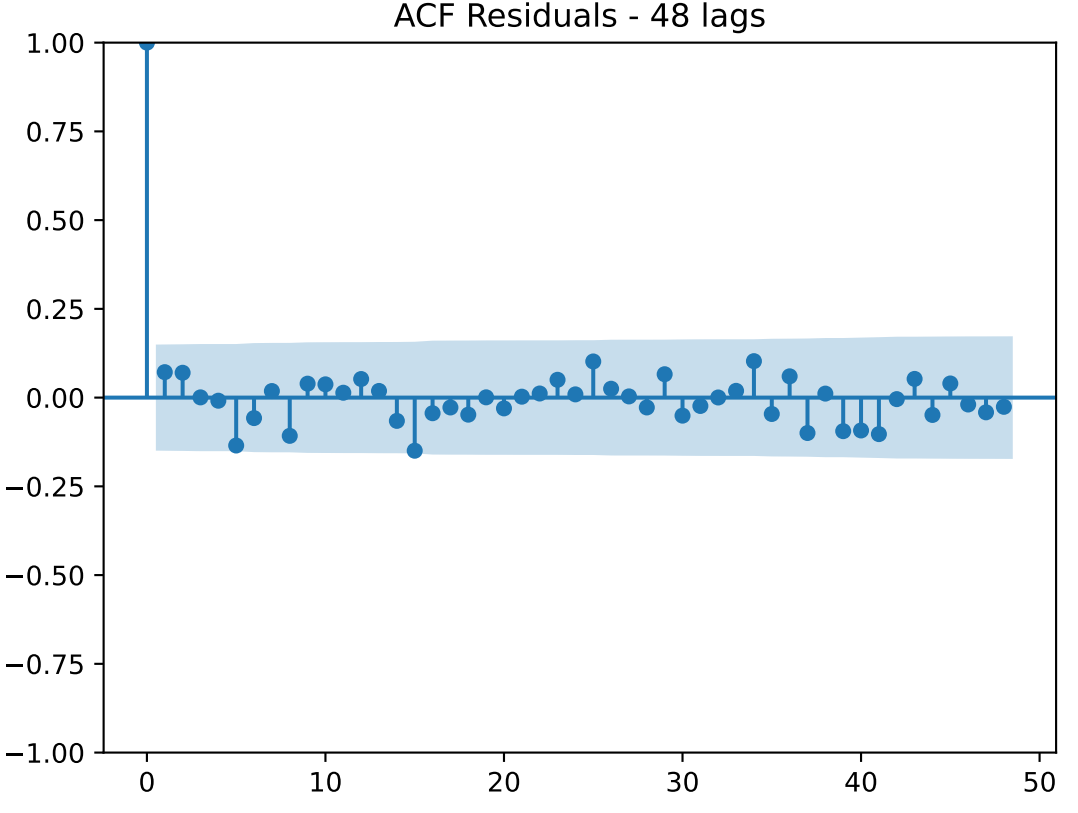

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

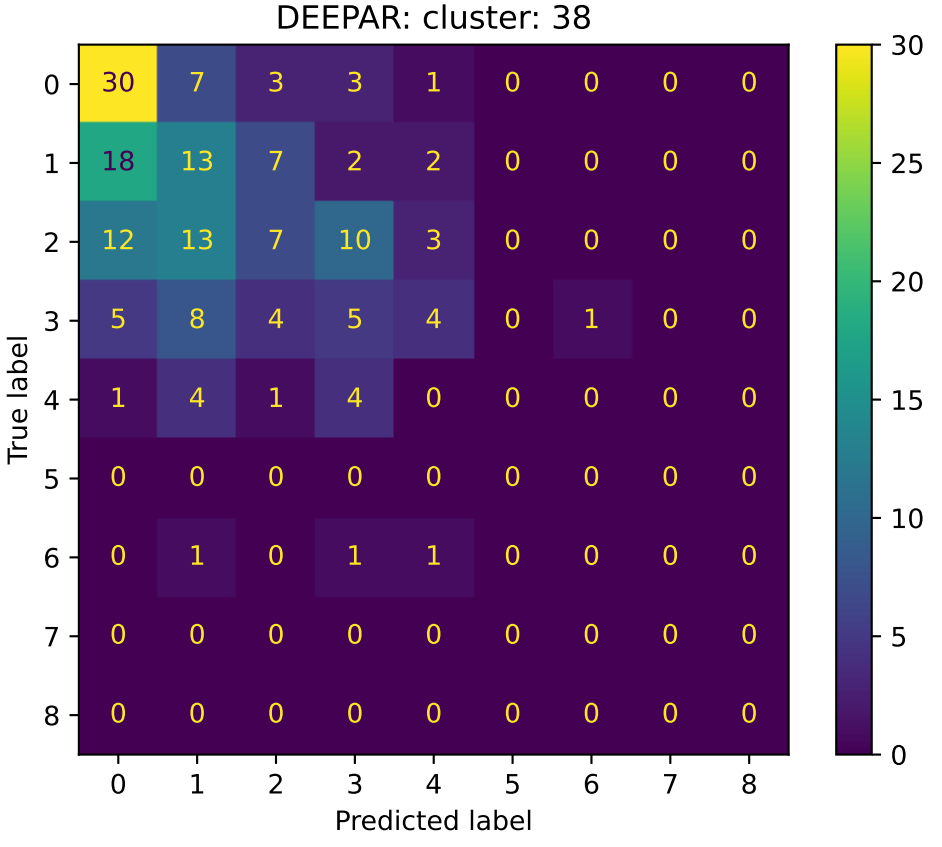

DEEPAR: cluster: 35
True label
Predicted label
0 1 2 3 4 5 6 7 8
35 11 4 1 0 0 0 0 0
18 12 7 3 0 0 0 0 0
9 8 6 8 2 0 0 0 0
4 5 6 2 1 0 0 0 0
0 0 1 5 4 2 0 0 1
1 0 3 2 2 1 0 0 0
0 1 0 0 1 0 1 0 0
0 0 0 1 0 1 0 0 0
0 0 0 1 0 1 0 0 0
35 30 25 20 15 10 5 0

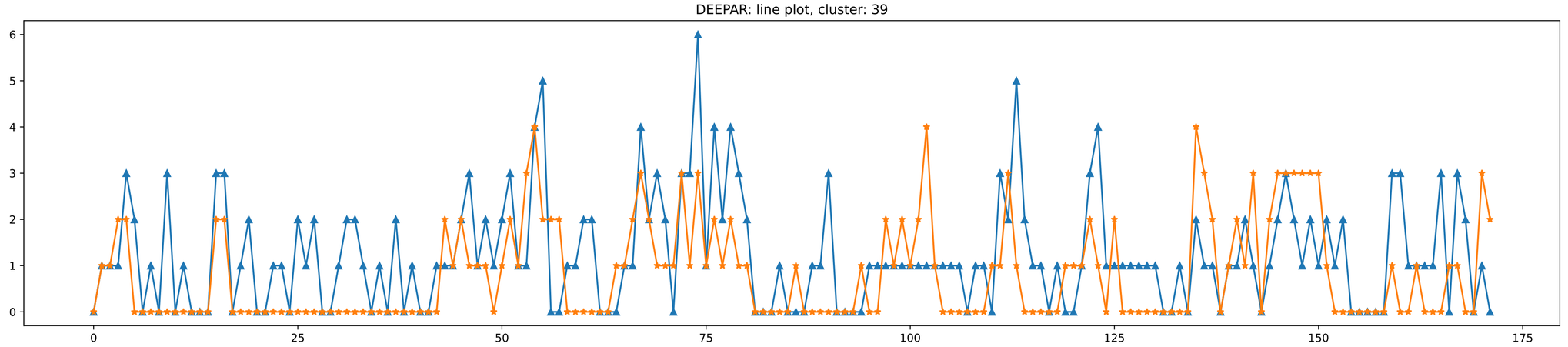

DEEPAR: line plot, cluster: 38
0
2
4
6
8
0
25
50
75
100
125
150
175

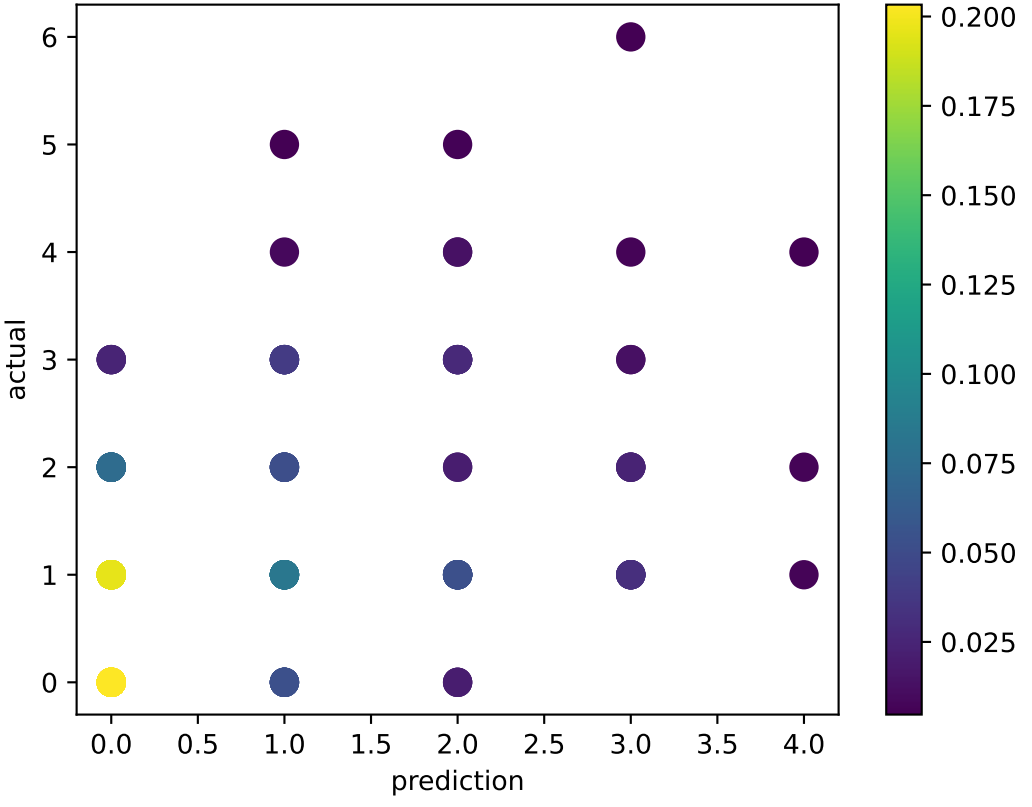

actual
prediction
0
1
2
3
4
5
6
8
0.10
0.08
0.06
0.04
0.02

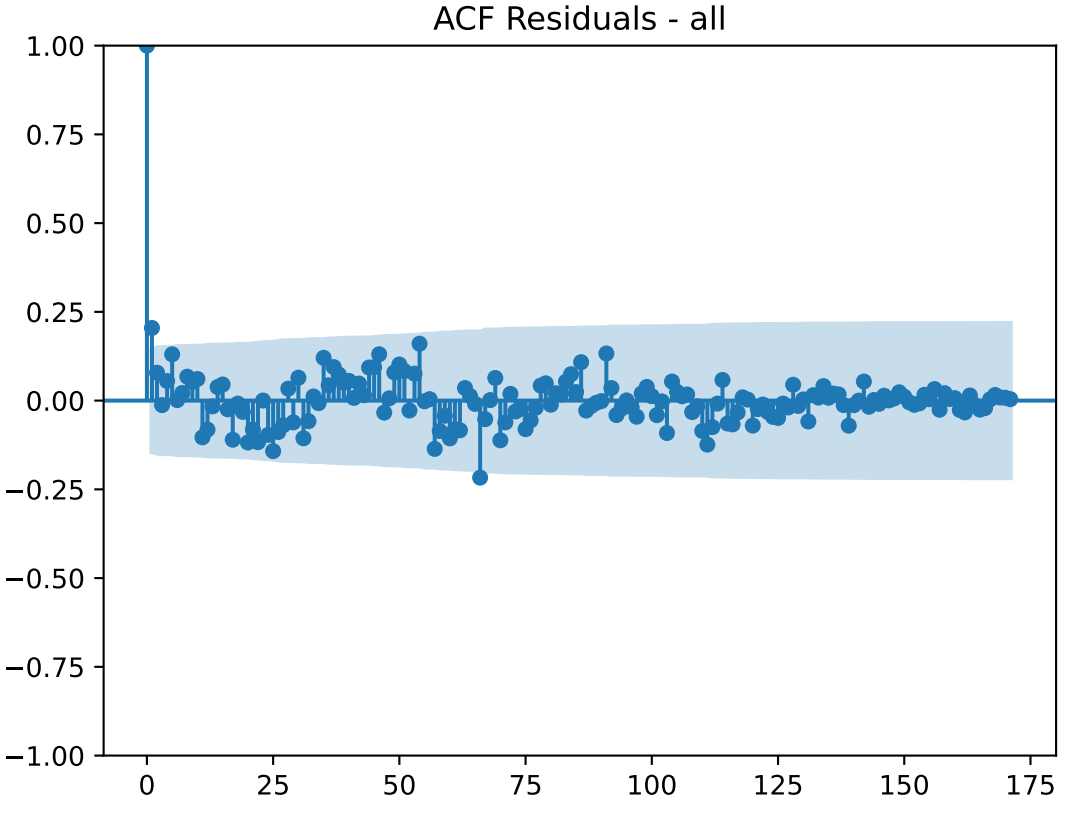

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

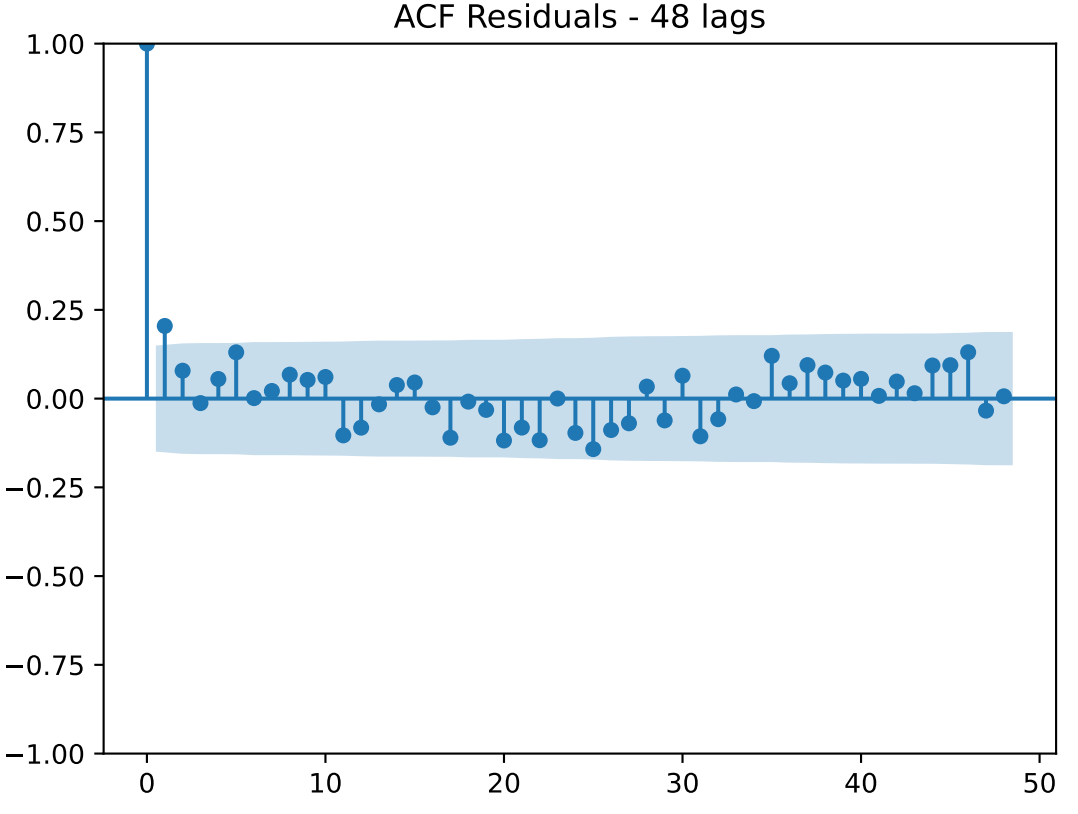

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

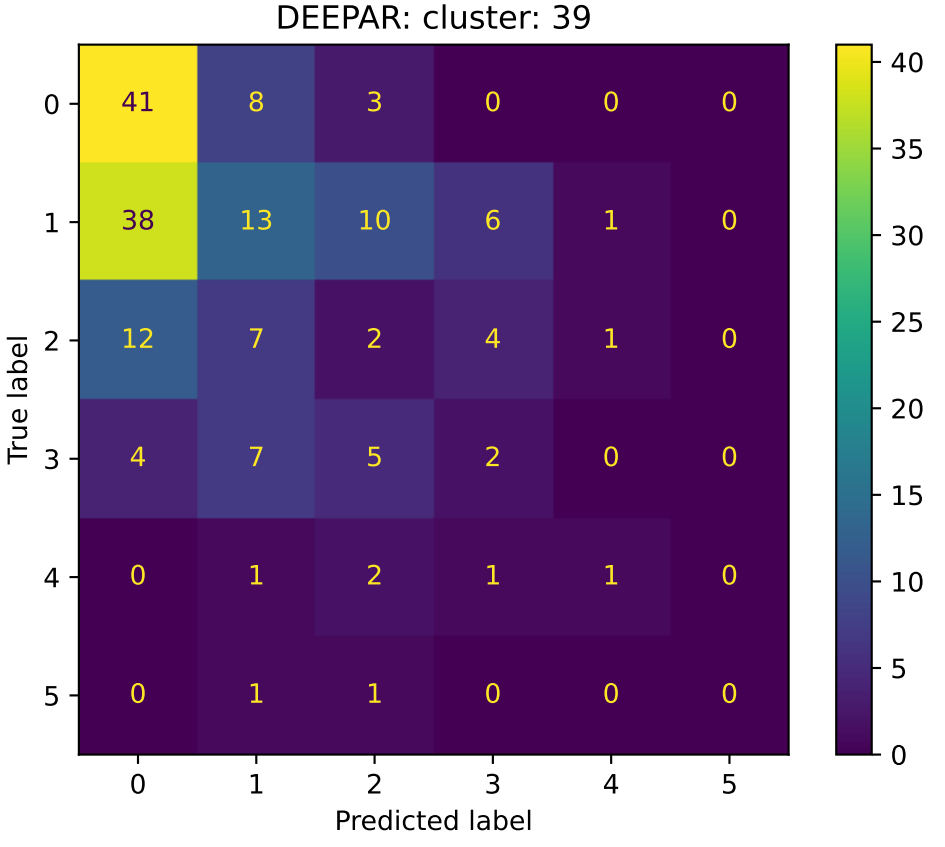

DEEPAR: cluster: 38
True label
Predicted label
0 1 2 3 4 5 6 7 8
30 7 3 3 1 0 0 0 0
18 13 7 2 2 0 0 0 0
12 13 7 10 3 0 0 0 0
5 8 4 5 4 0 1 0 0
1 4 1 4 0 0 0 0 0
0 0 0 0 0 0 0 0 0
0 1 0 1 1 0 0 0 0
0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0
30
25
20
15
10
5
0

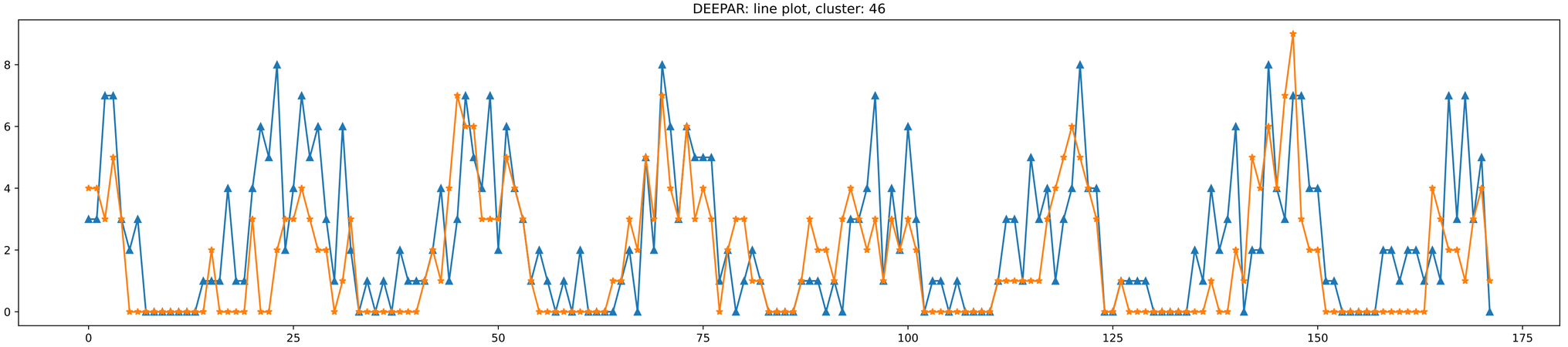

DEEPAR: line plot, cluster: 39
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

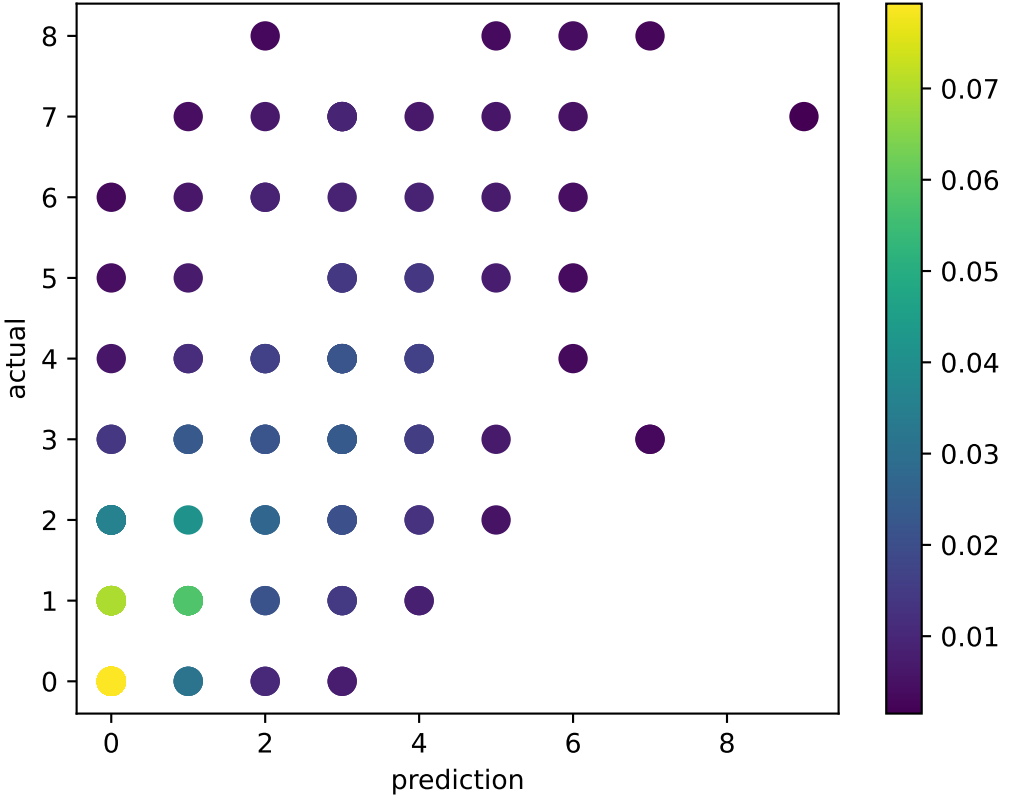

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025

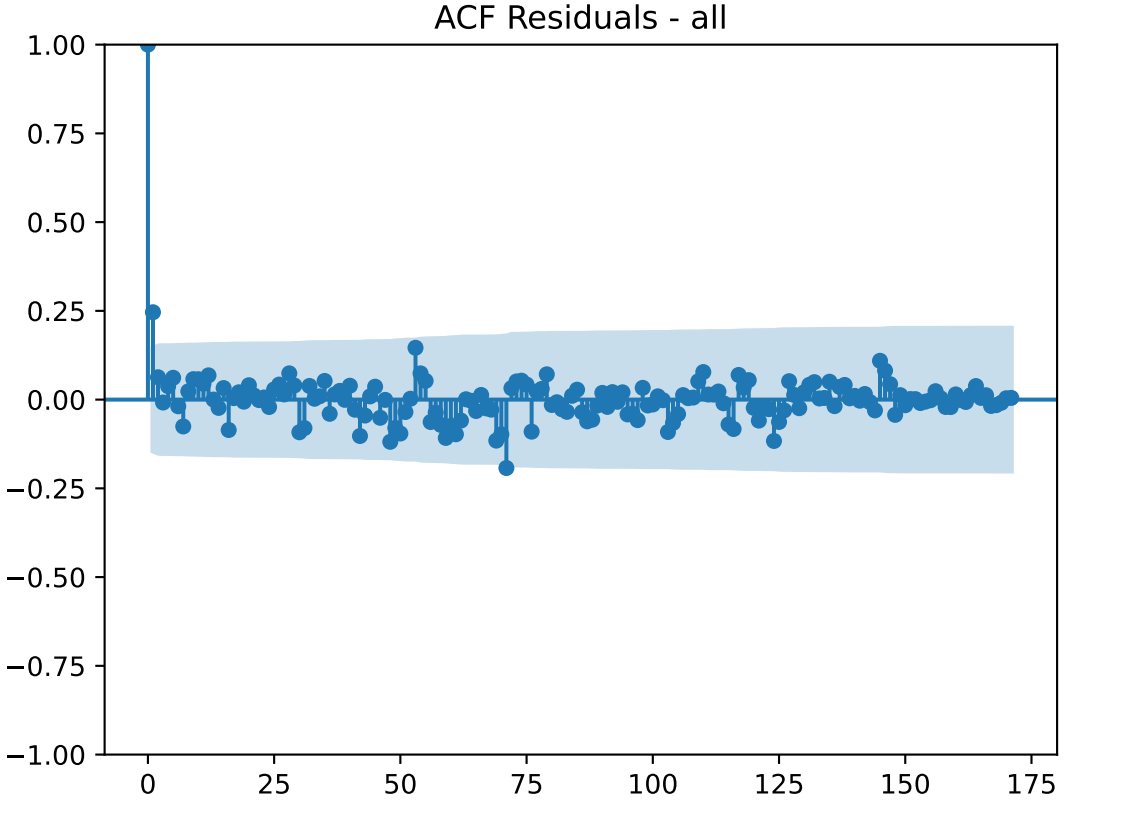

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

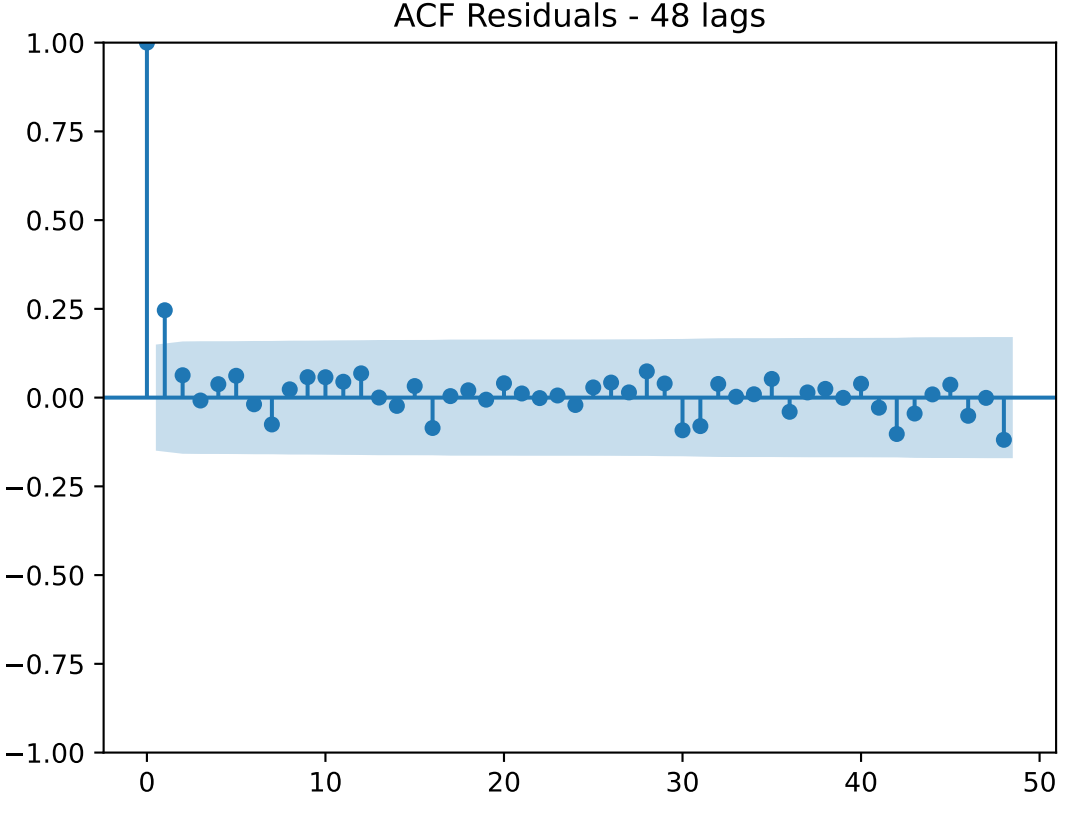

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

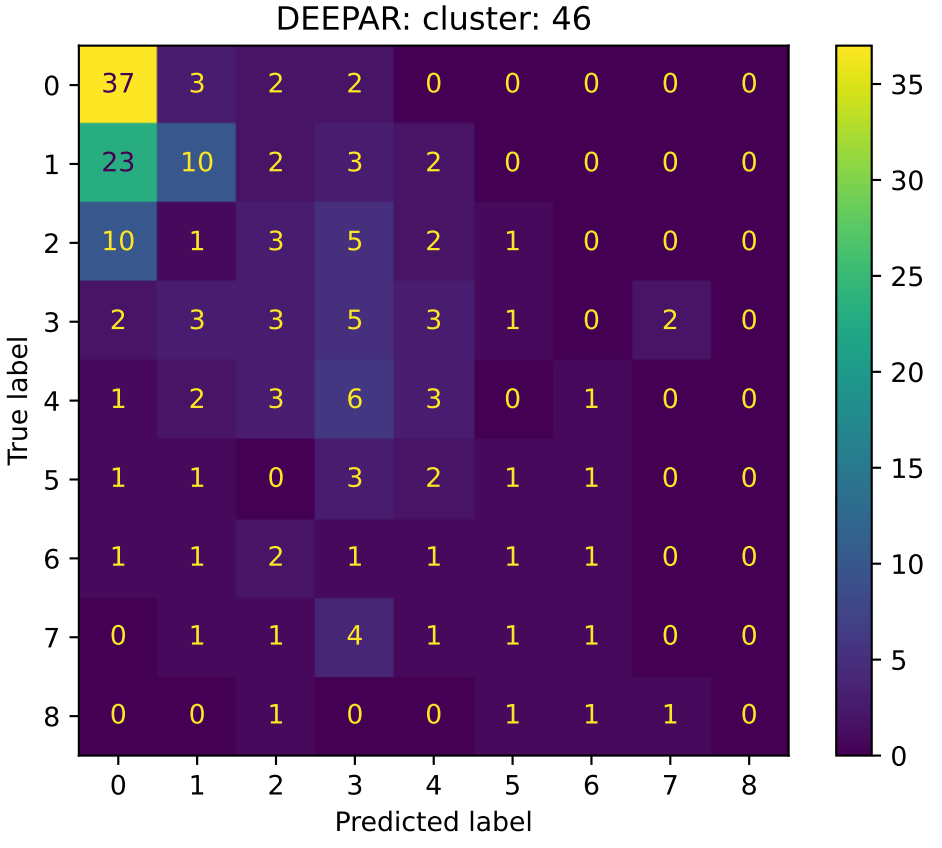

DEEPAR: cluster: 39
True label
Predicted label
0
1
2
3
4
5
41 8 3 0 0 0
38 13 10 6 1 0
12 7 2 4 1 0
4 7 5 2 0 0
0 1 2 1 1 0
0 1 1 0 0 0
40
35
30
25
20
15
10
5
0

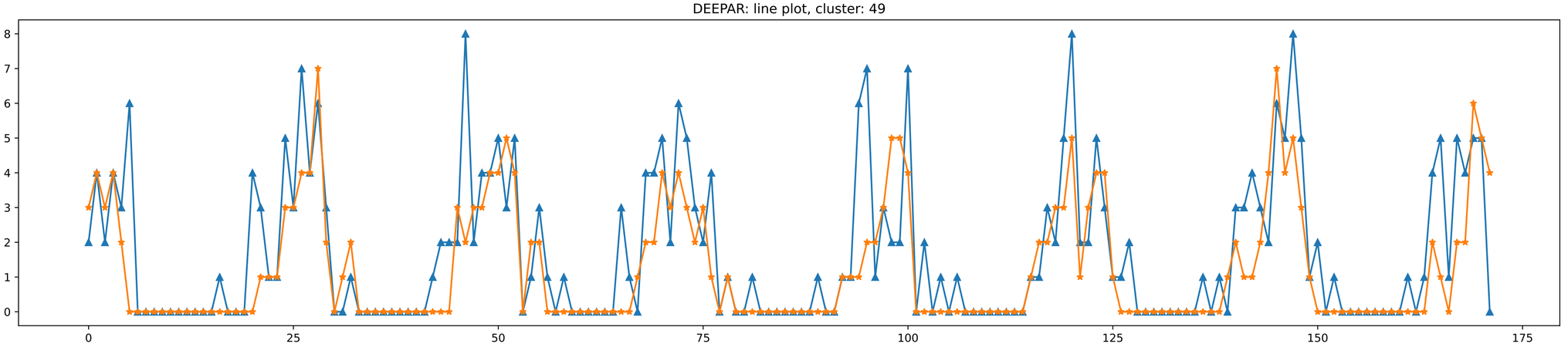

DEEPAR: line plot, cluster: 46
0
2
4
6
8
0
25
50
75
100
125
150
175

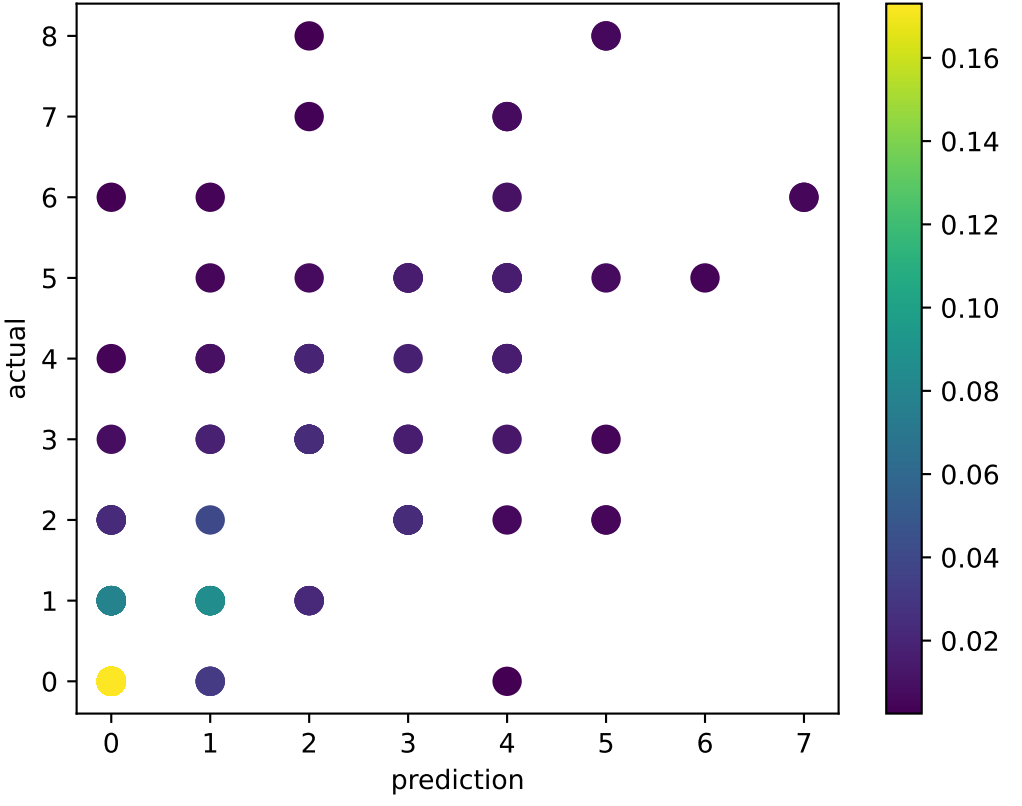

actual
prediction
0
2
4
6
8
0.07
0.06
0.05
0.04
0.03
0.02
0.01

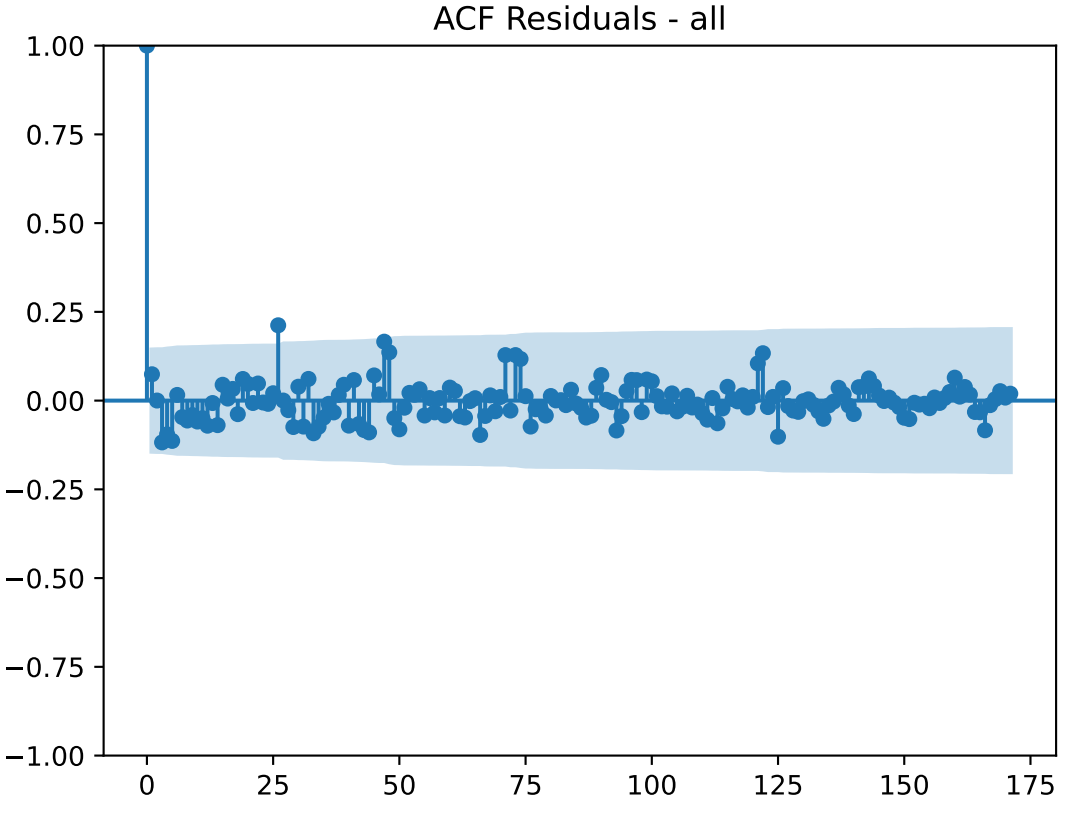

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

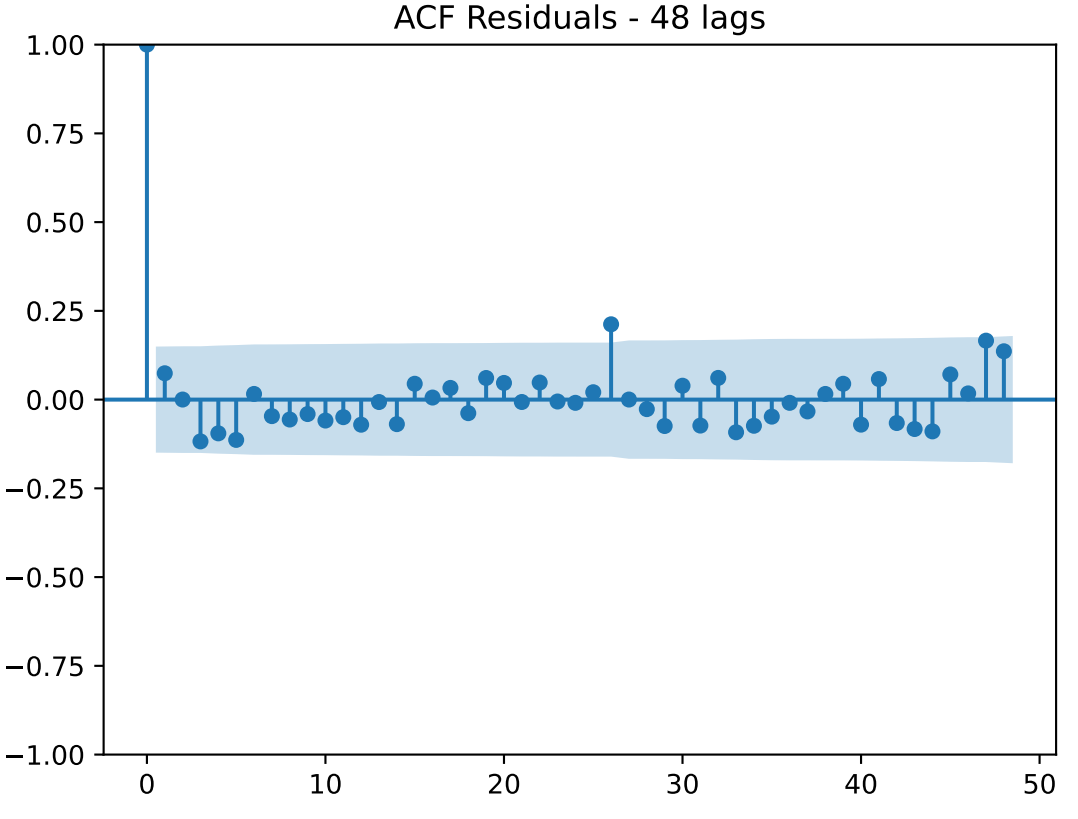

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

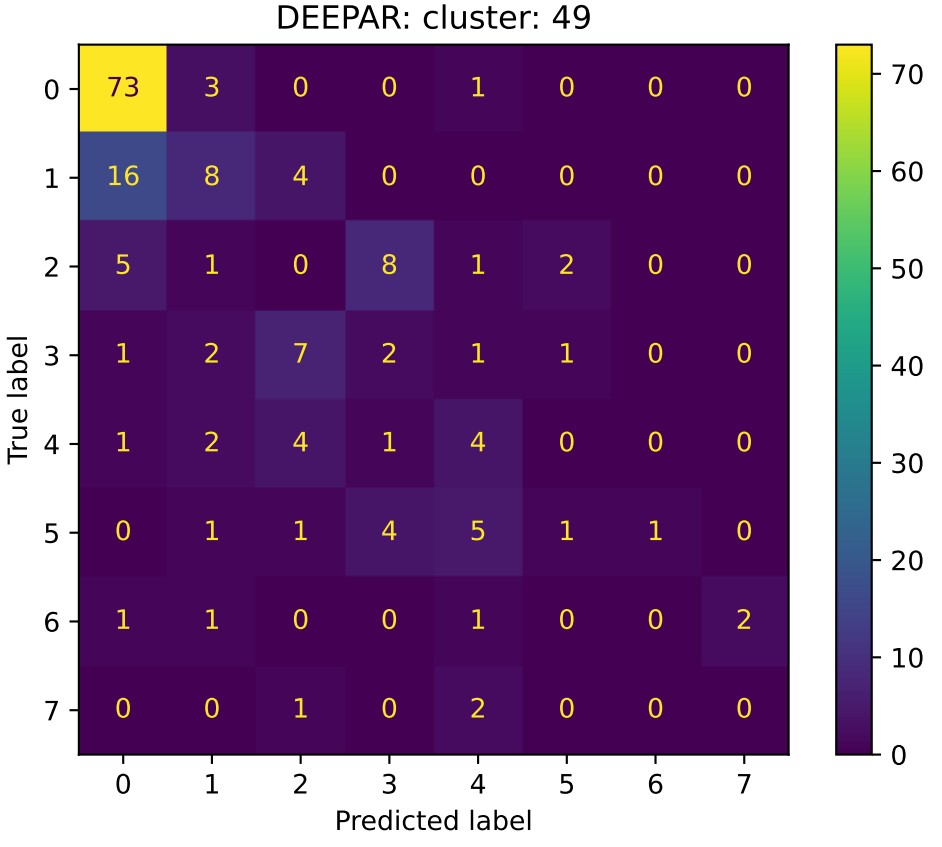

DEEPAR: cluster: 46
True label
Predicted label
0 37 3 2 2 0 0 0 0 0
1 23 10 2 3 2 0 0 0 0
2 10 1 3 5 2 1 0 0 0
3 2 3 3 5 3 1 0 2 0
4 1 2 3 6 3 0 1 0 0
5 1 1 0 3 2 1 1 0 0
6 1 1 2 1 1 1 1 0 0
7 0 1 1 4 1 1 1 0 0
8 0 0 1 0 0 1 1 1 0
0 1 2 3 4 5 6 7 8
35 30 25 20 15 10 5 0

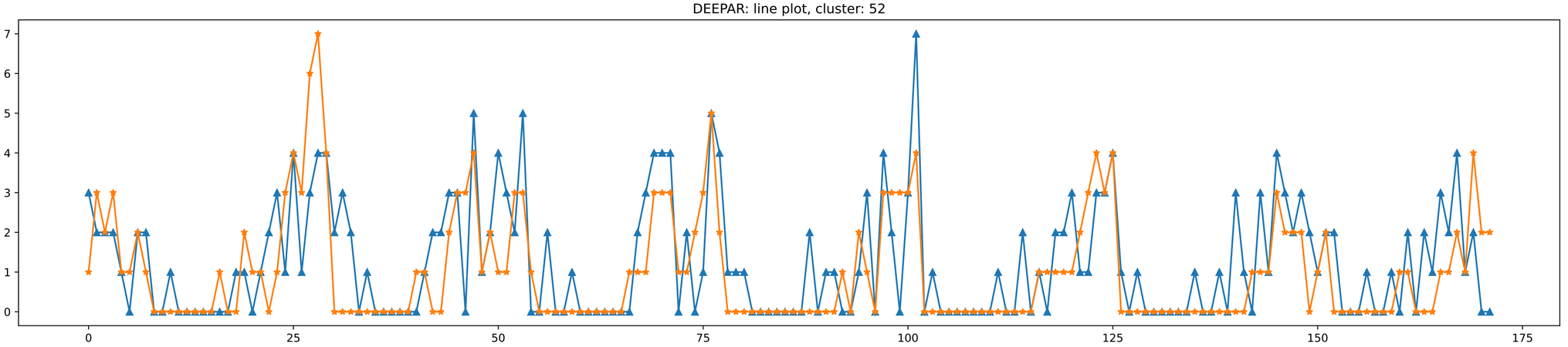

DEEPAR: line plot, cluster: 49
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

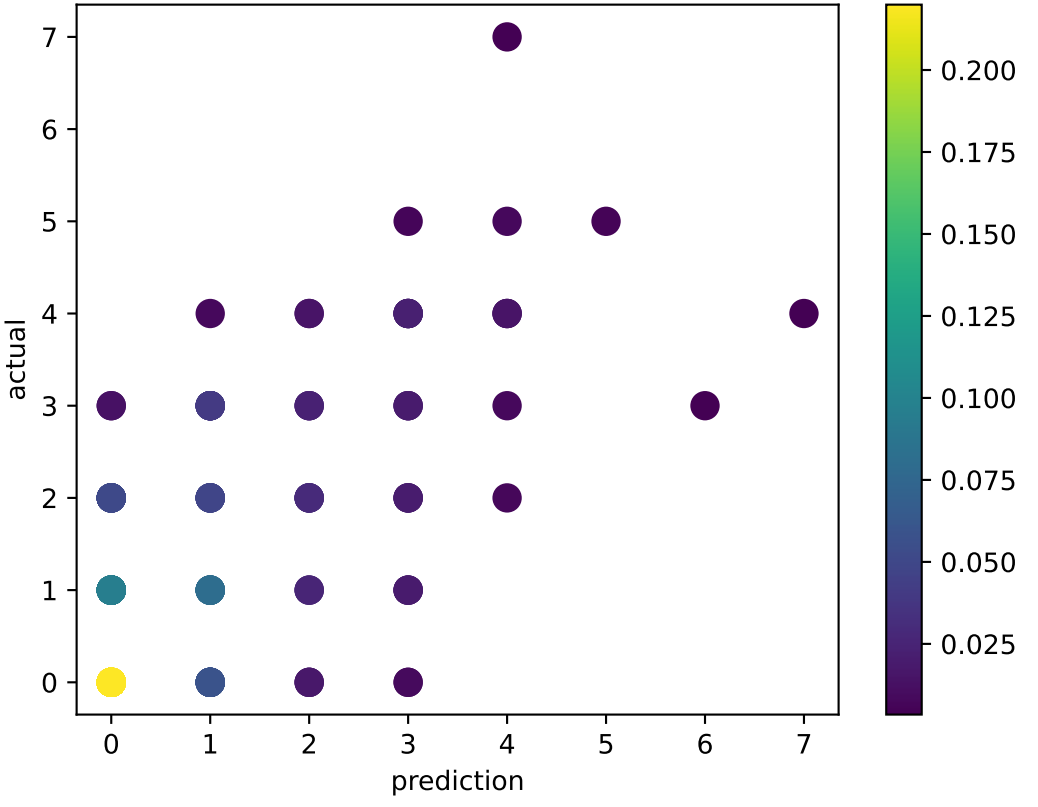

actual
prediction
0
1
2
3
4
5
6
7
8
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02

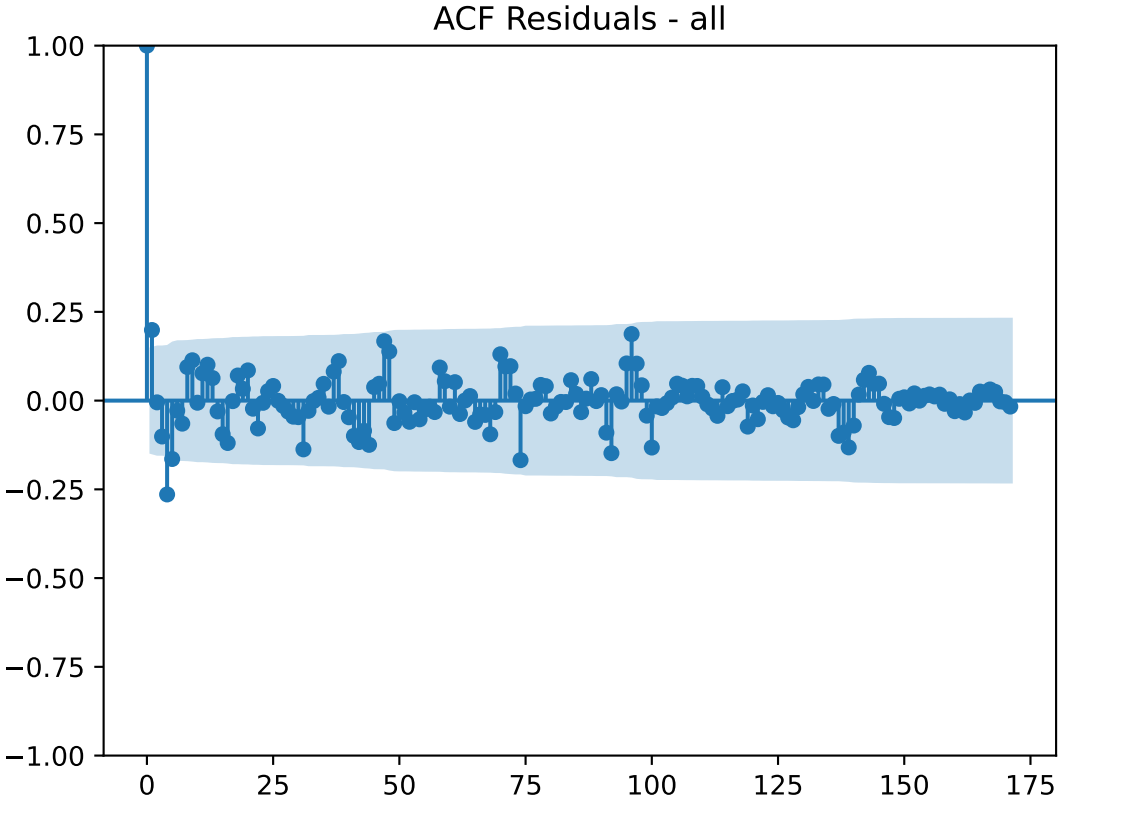

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

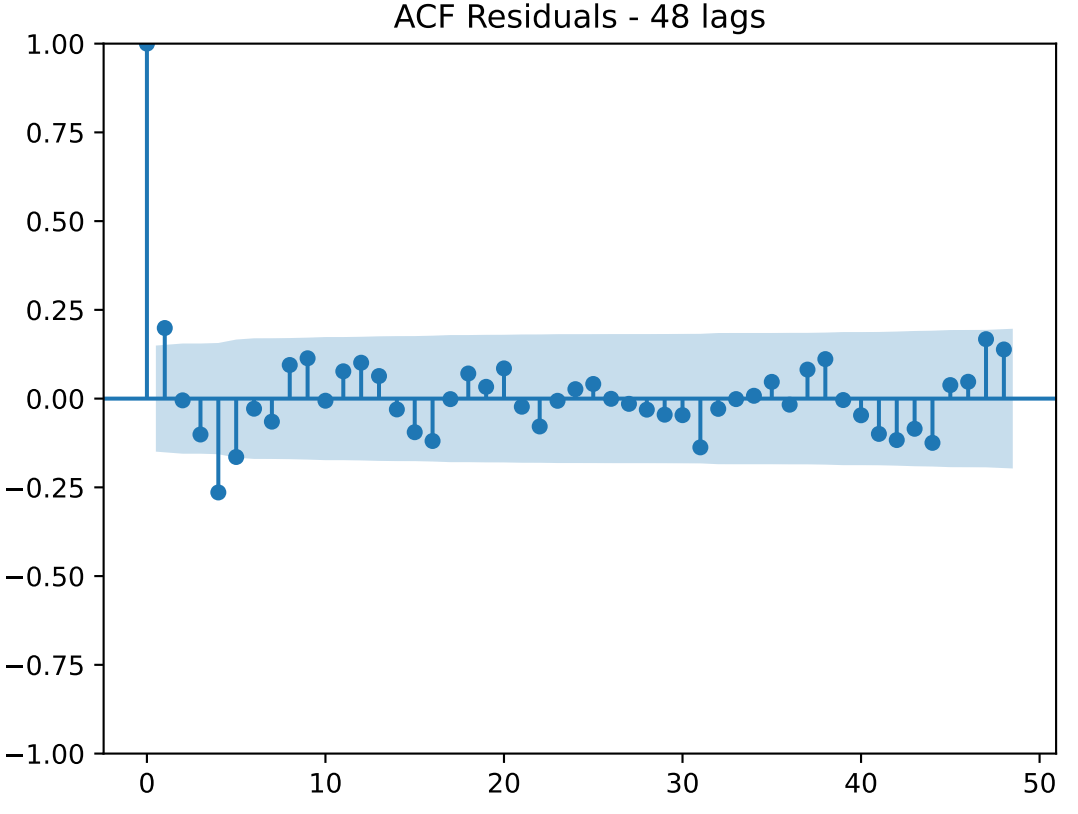

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

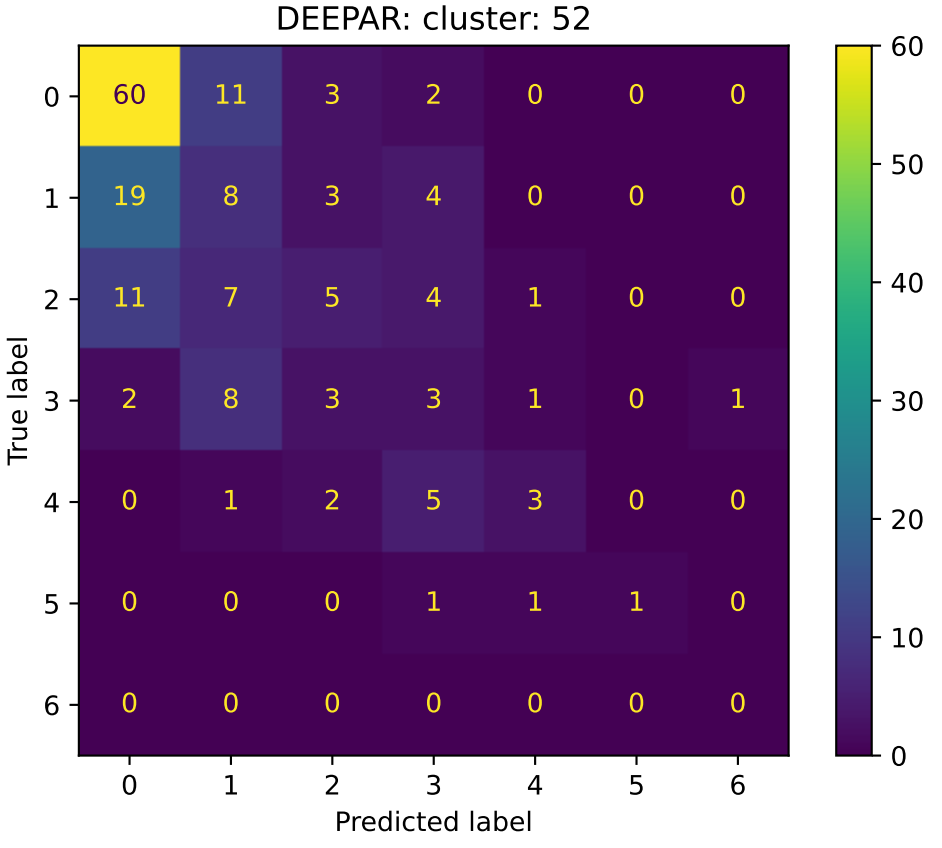

DEEPAR: cluster: 49
True label
Predicted label
0 1 2 3 4 5 6 7
73 3 0 0 1 0 0 0
16 8 4 0 0 0 0 0
5 1 0 8 1 2 0 0
1 2 7 2 1 1 0 0
1 2 4 1 4 0 0 0
0 1 1 4 5 1 1 0
1 1 0 0 1 0 0 2
0 0 1 0 2 0 0 0
70 60 50 40 30 20 10 0

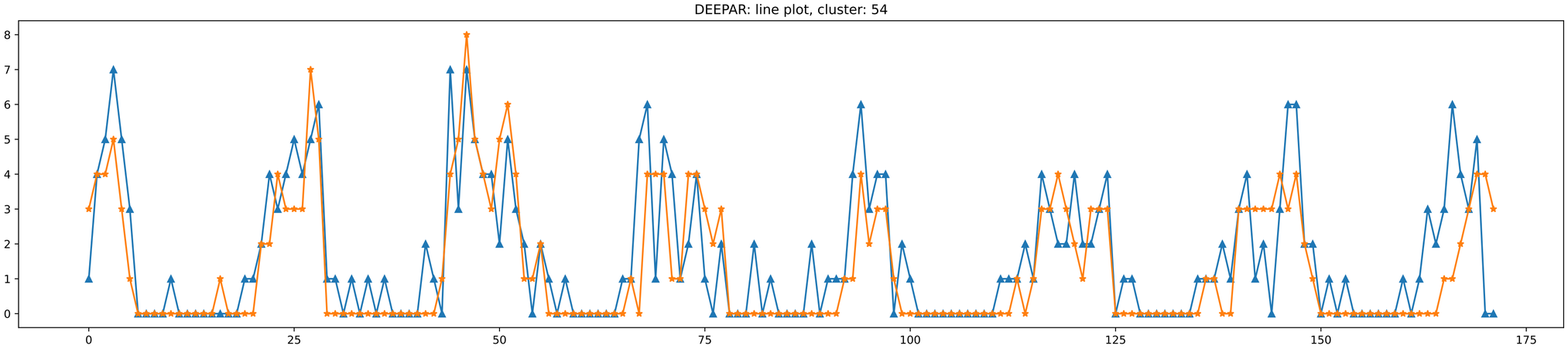

DEEPAR: line plot, cluster: 52
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

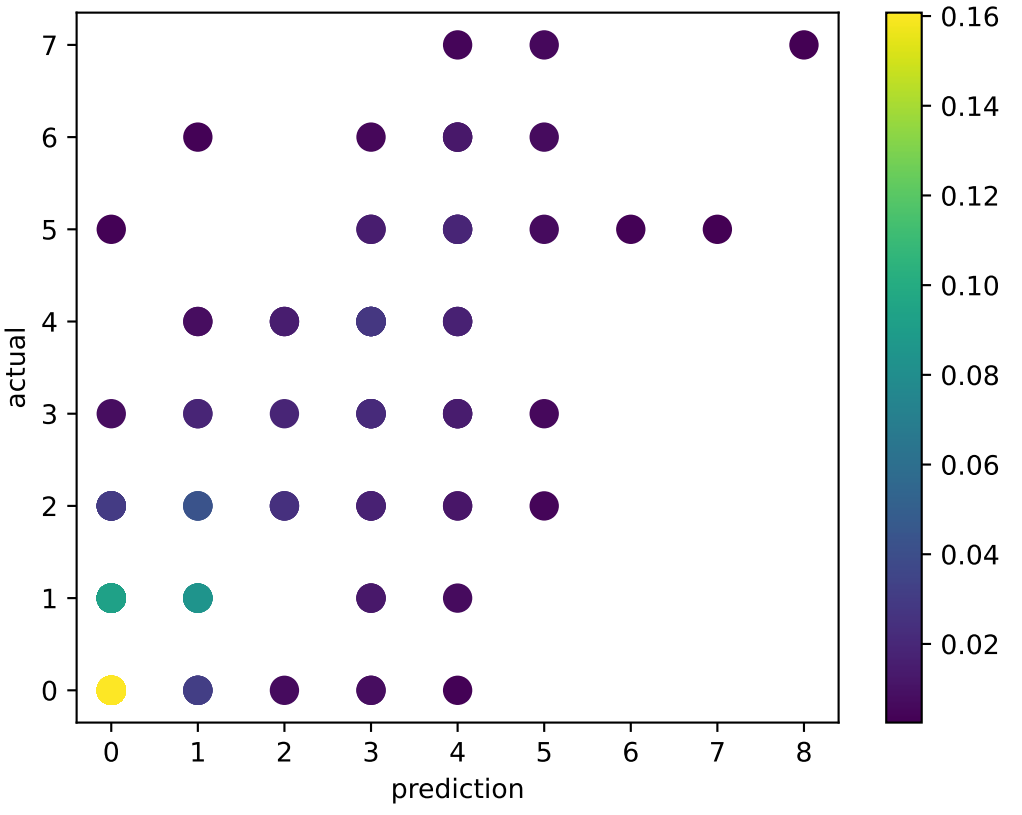

actual
prediction
0
1
2
3
4
5
6
7
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025

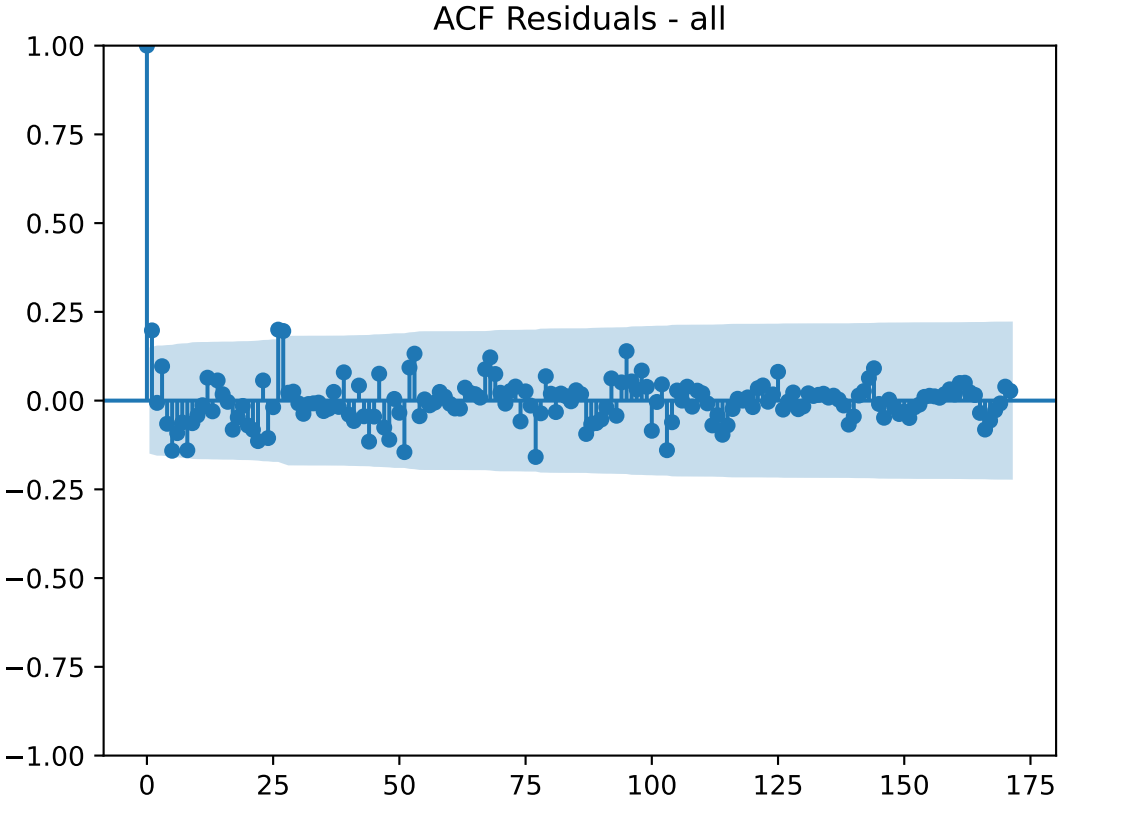

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

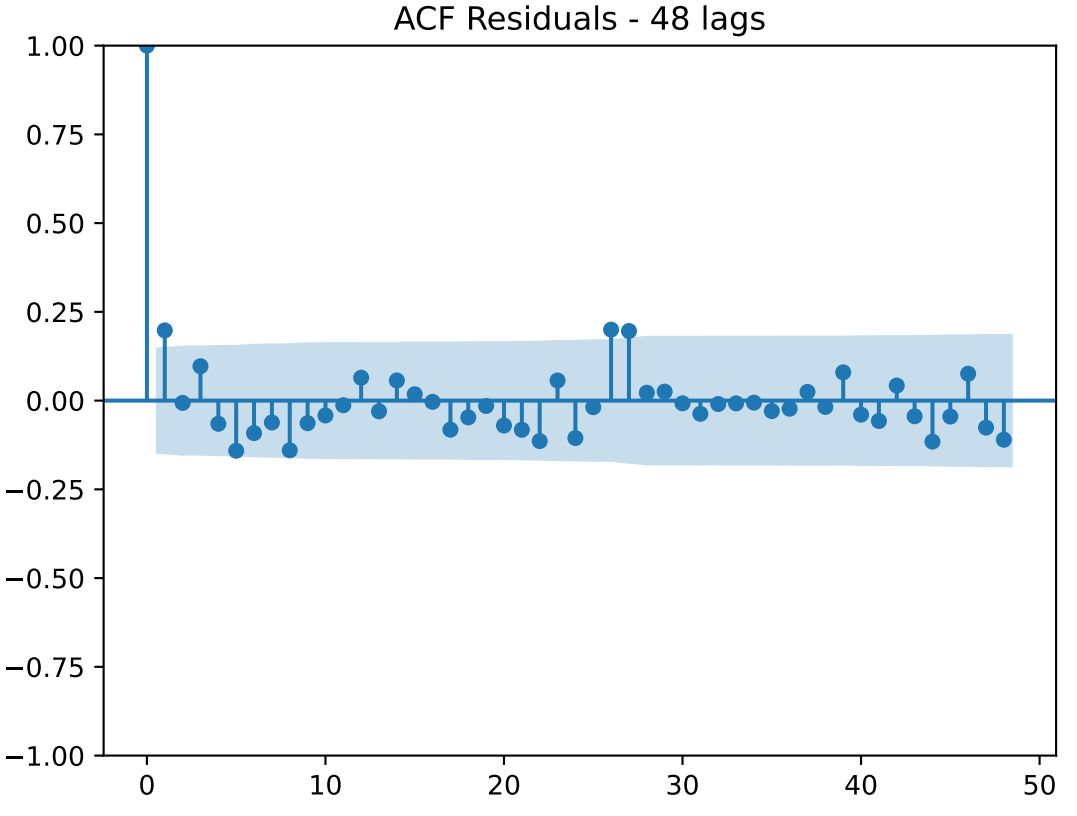

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

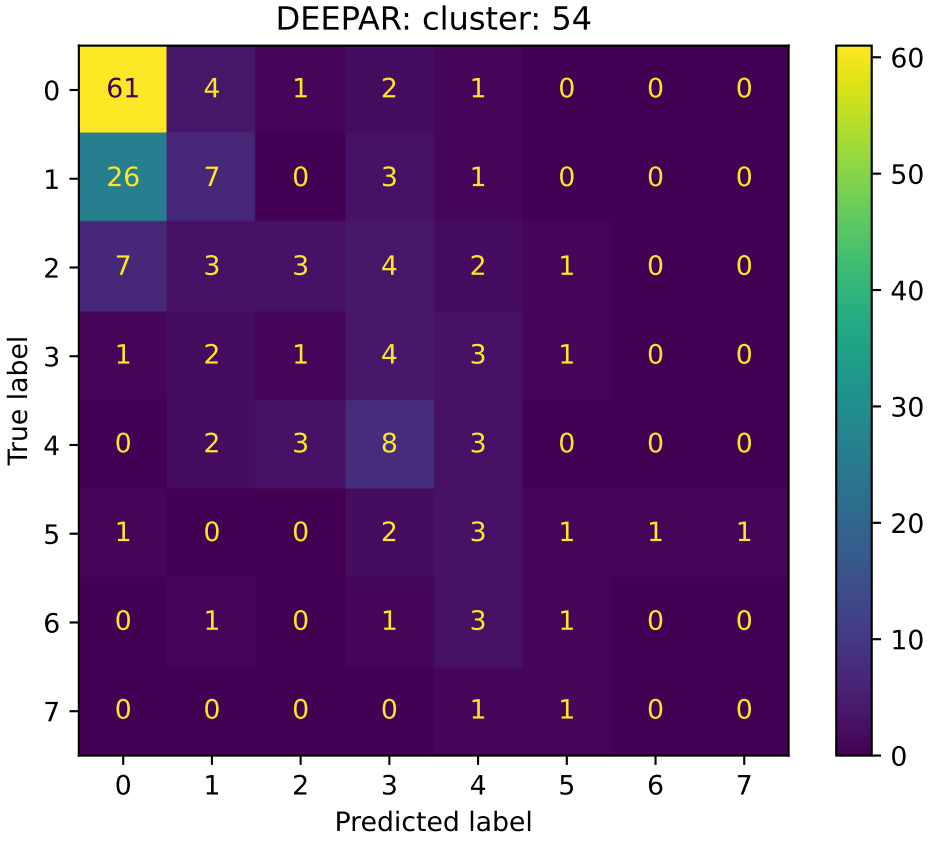

DEEPAR: cluster: 52
True label
Predicted label
0 1 2 3 4 5 6
60 11 3 2 0 0 0
19 8 3 4 0 0 0
11 7 5 4 1 0 0
2 8 3 3 1 0 1
0 1 2 5 3 0 0
0 0 0 1 1 1 0
0 0 0 0 0 0 0
60 50 40 30 20 10 0

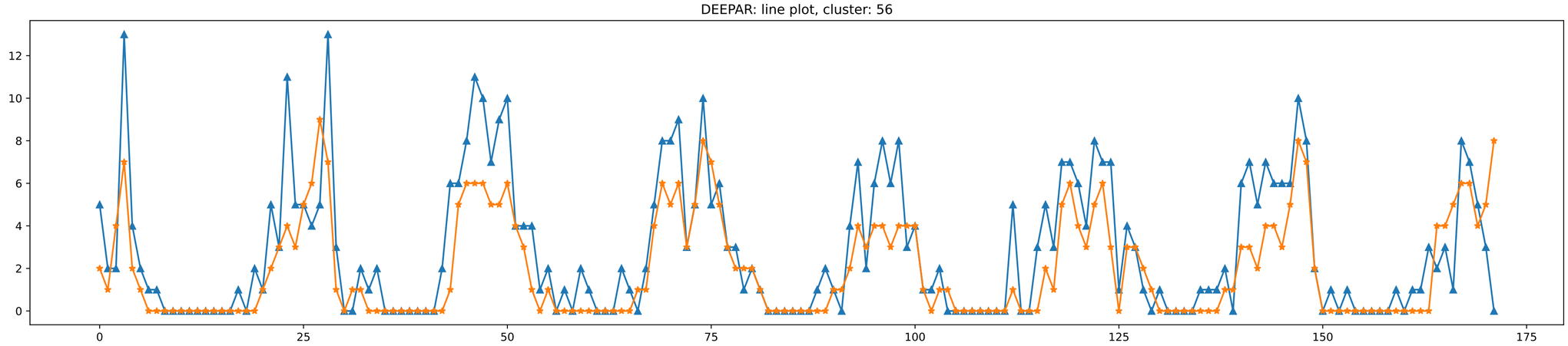

DEEPAR: line plot, cluster: 54
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

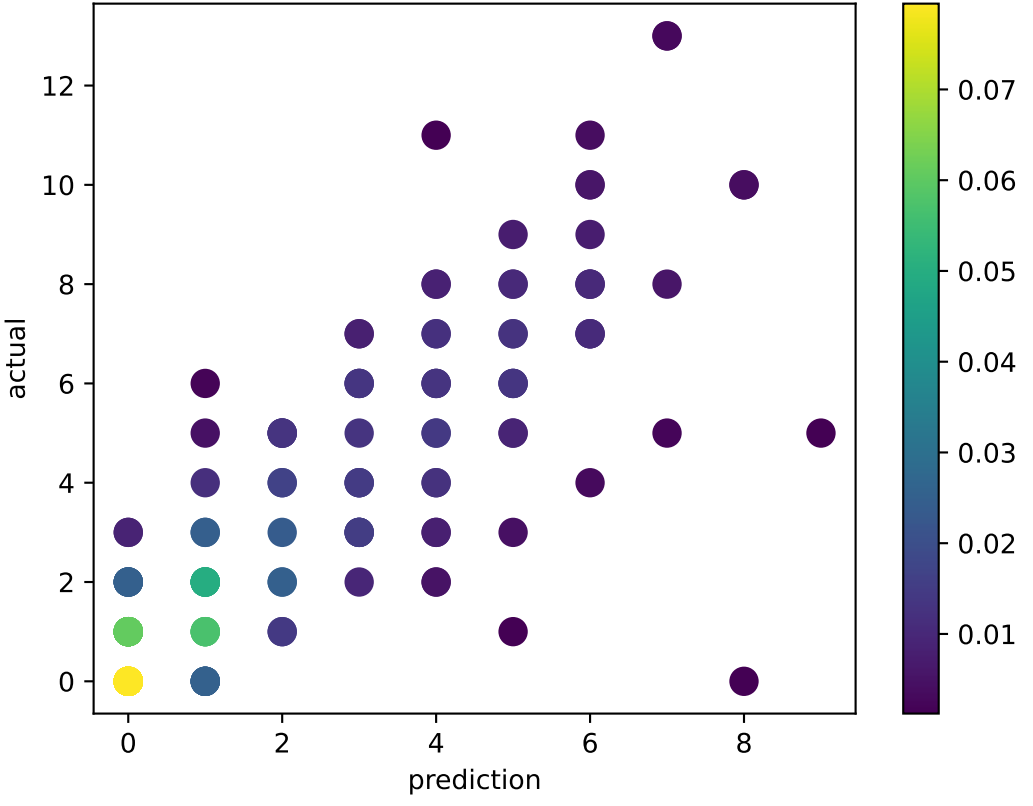

actual
prediction
0
1
2
3
4
5
6
7
8
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02

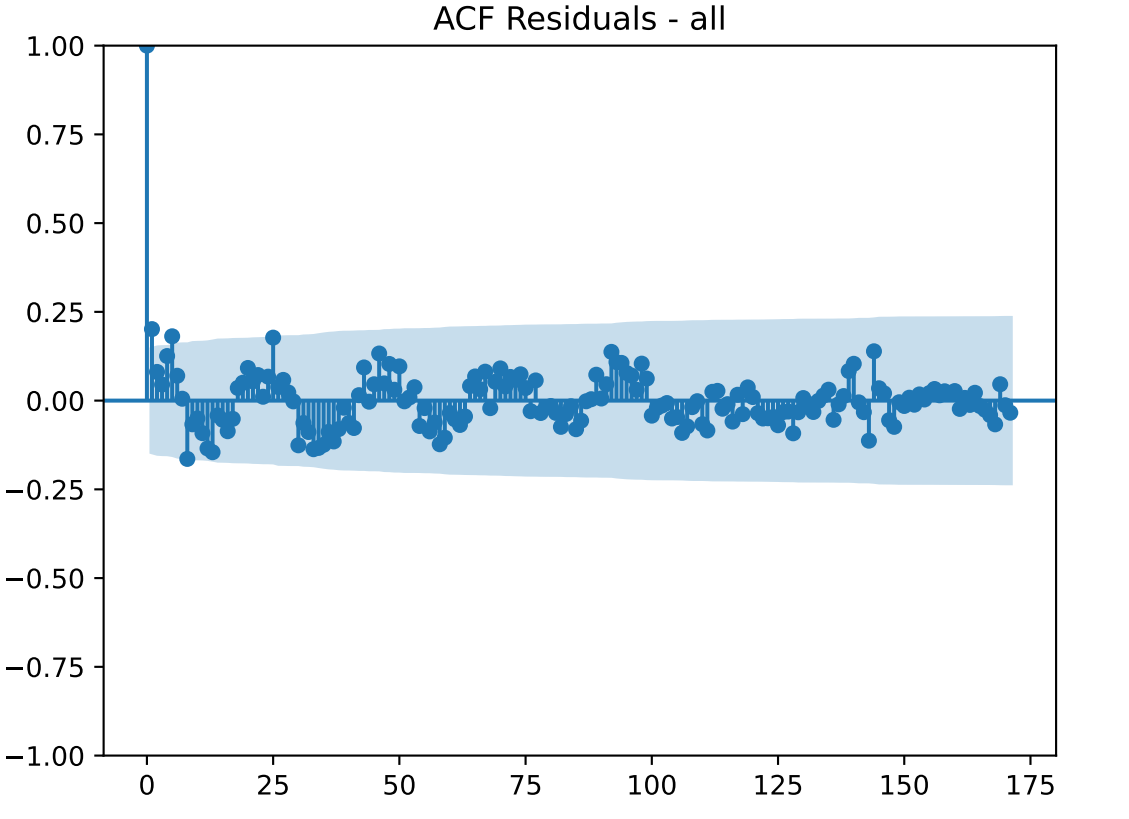

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

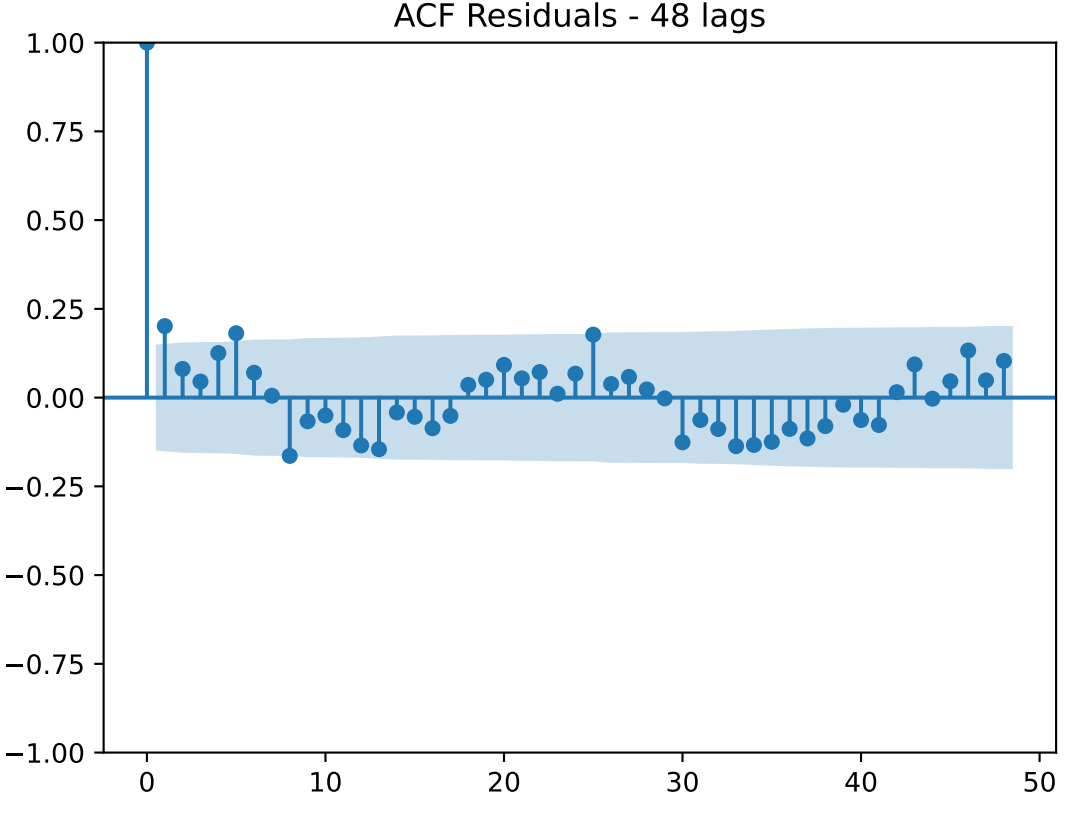

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

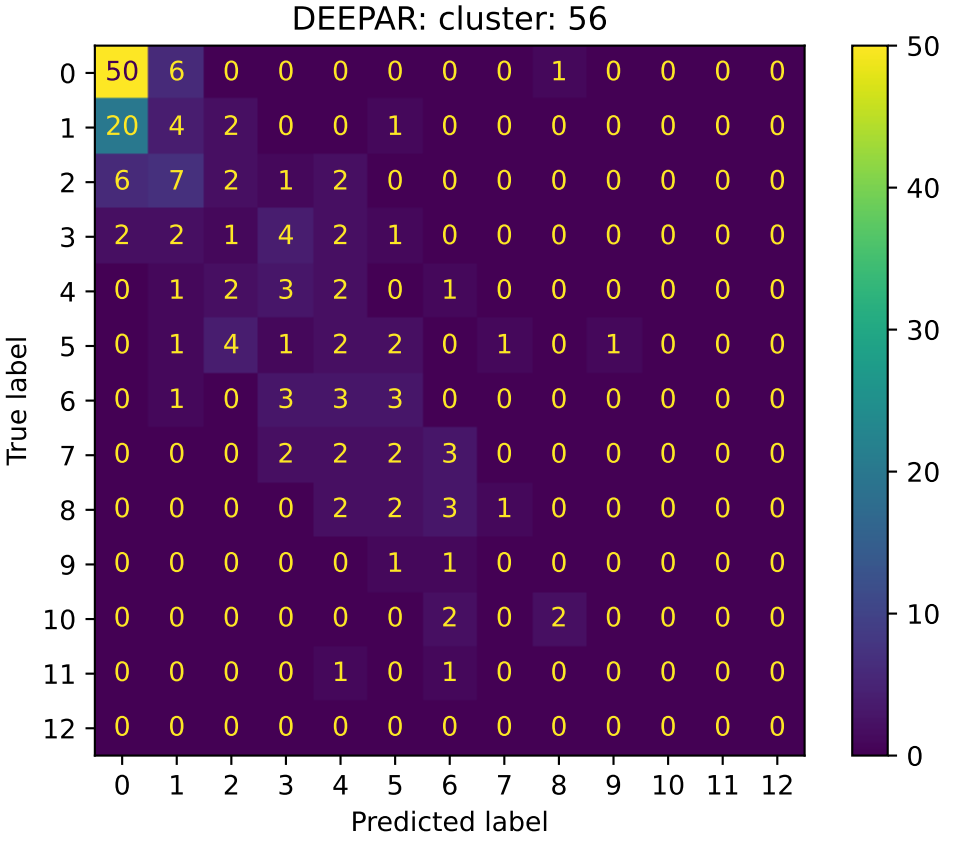

DEEPAR: cluster: 54
True label
Predicted label
0 61 4 1 2 1 0 0 0
1 26 7 0 3 1 0 0 0
2 7 3 3 4 2 1 0 0
3 1 2 1 4 3 1 0 0
4 0 2 3 8 3 0 0 0
5 1 0 0 2 3 1 1 1
6 0 1 0 1 3 1 0 0
7 0 0 0 0 1 1 0 0
0 1 2 3 4 5 6 7
60 50 40 30 20 10 0

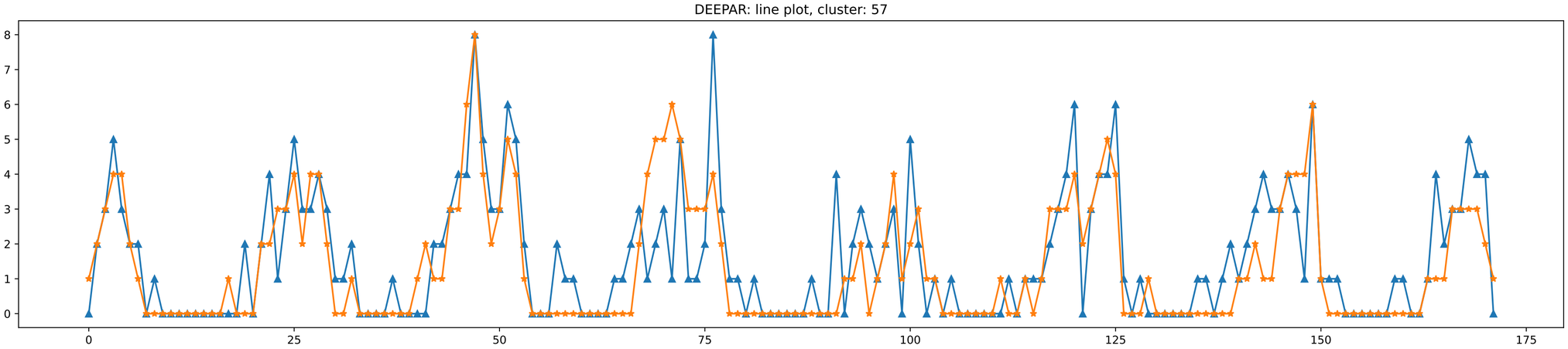

DEEPAR: line plot, cluster: 56
0
2
4
6
8
10
12
0
25
50
75
100
125
150
175

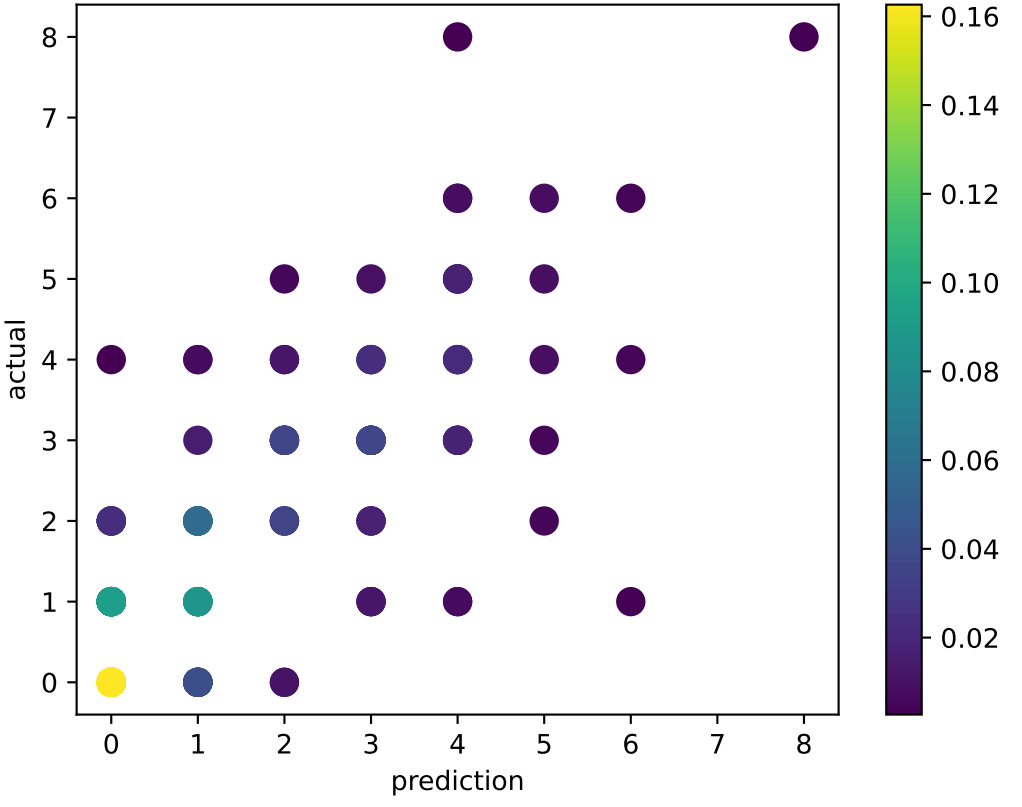

actual
prediction
0
2
4
6
8
10
12
0.07
0.06
0.05
0.04
0.03
0.02
0.01

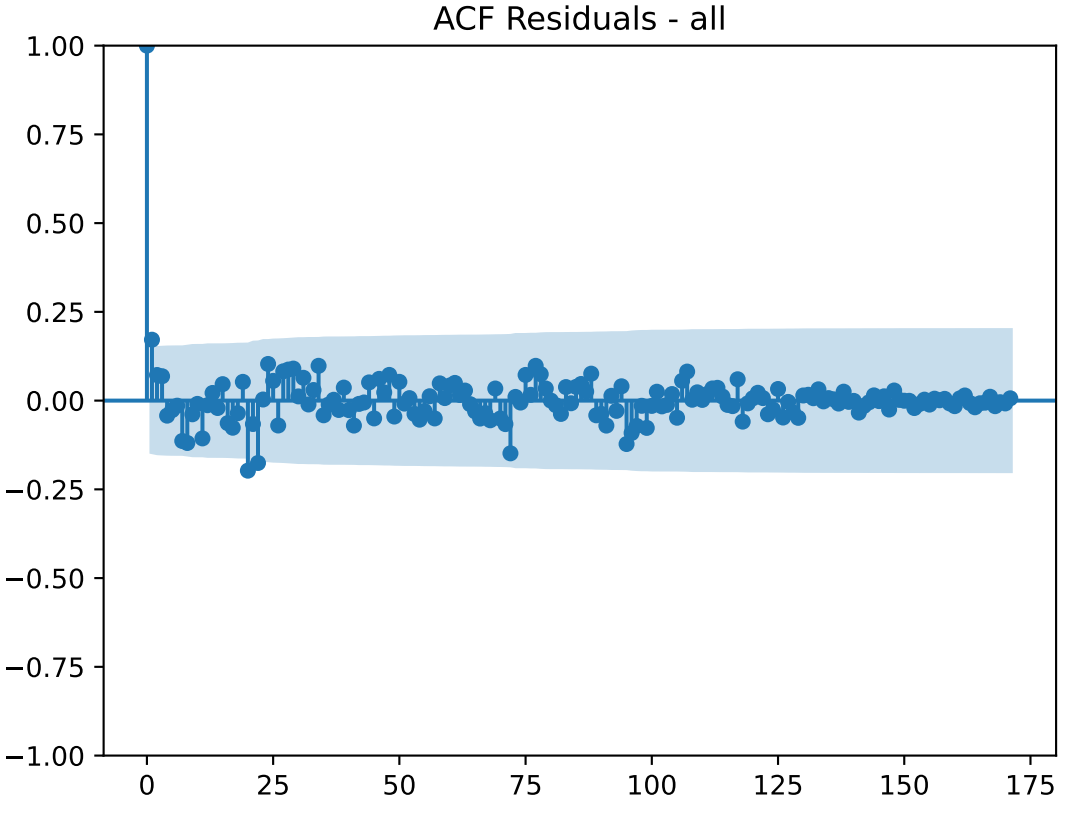

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

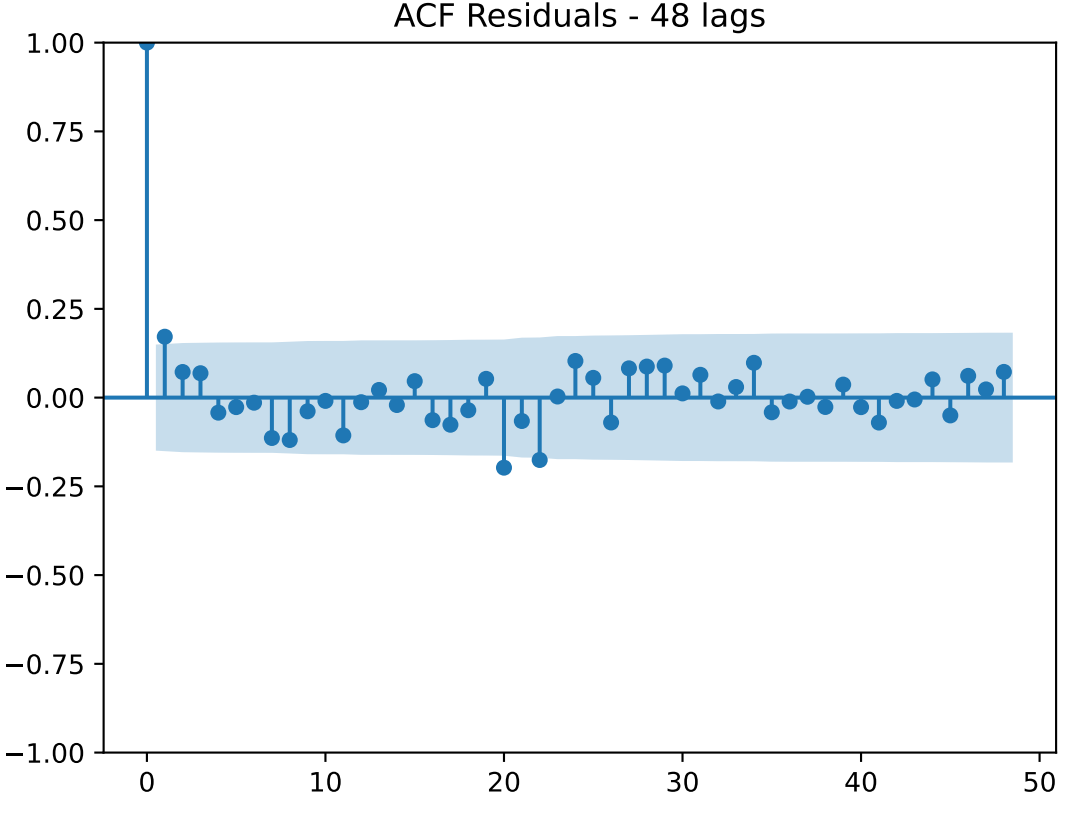

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

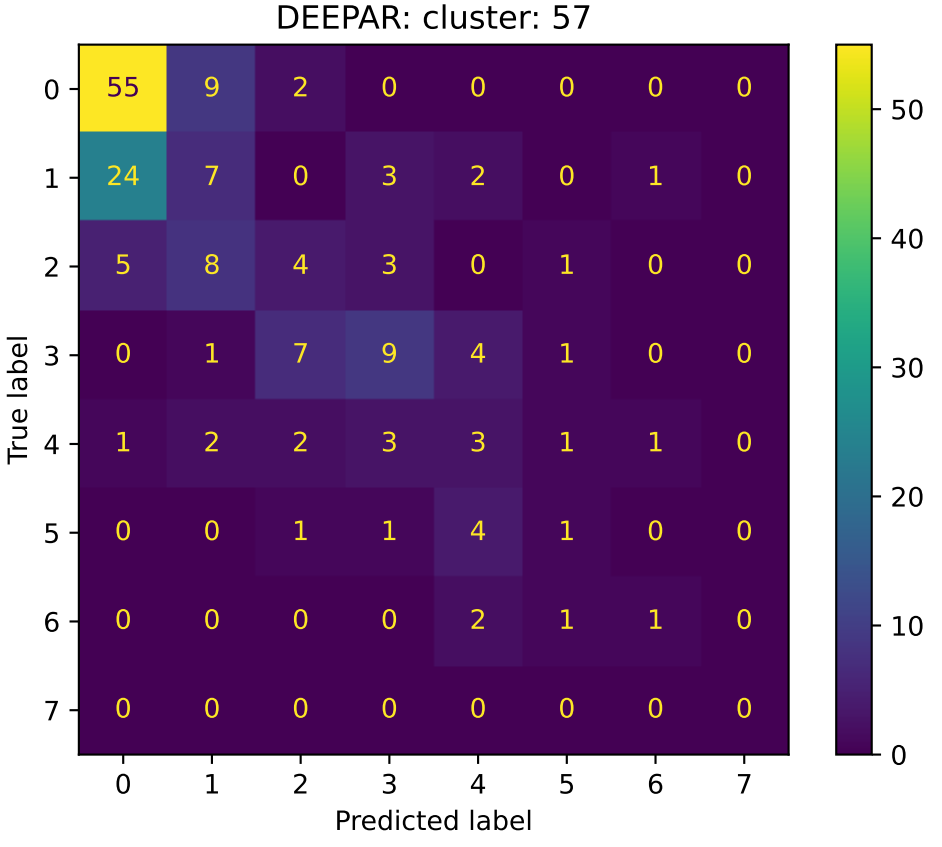

DEEPAR: cluster: 56
True label
Predicted label
0 50 6 0 0 0 0 0 0 1 0 0 0 0
1 20 4 2 0 0 1 0 0 0 0 0 0 0
2 6 7 2 1 2 0 0 0 0 0 0 0 0
3 2 2 1 4 2 1 0 0 0 0 0 0 0
4 0 1 2 3 2 0 1 0 0 0 0 0 0
5 0 1 4 1 2 2 0 1 0 1 0 0 0
6 0 1 0 3 3 3 0 0 0 0 0 0 0
7 0 0 0 2 2 2 3 0 0 0 0 0 0
8 0 0 0 0 2 2 3 1 0 0 0 0 0
9 0 0 0 0 0 1 1 0 0 0 0 0 0
10 0 0 0 0 0 0 2 0 2 0 0 0 0
11 0 0 0 0 1 0 1 0 0 0 0 0 0
12 0 0 0 0 0 0 0 0 0 0 0 0 0
0 1 2 3 4 5 6 7 8 9 10 11 12
50
40
30
20
10
0

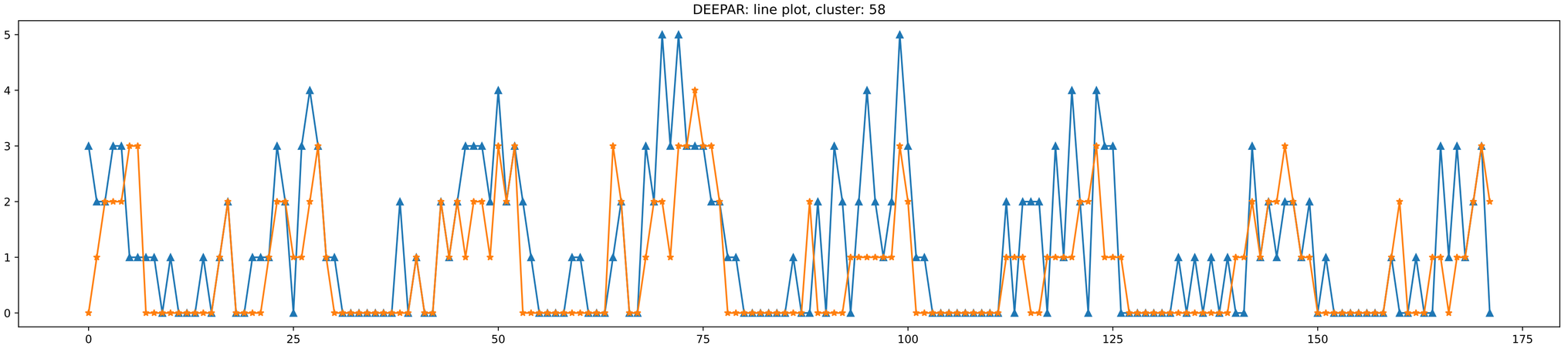

DEEPAR: line plot, cluster: 57
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

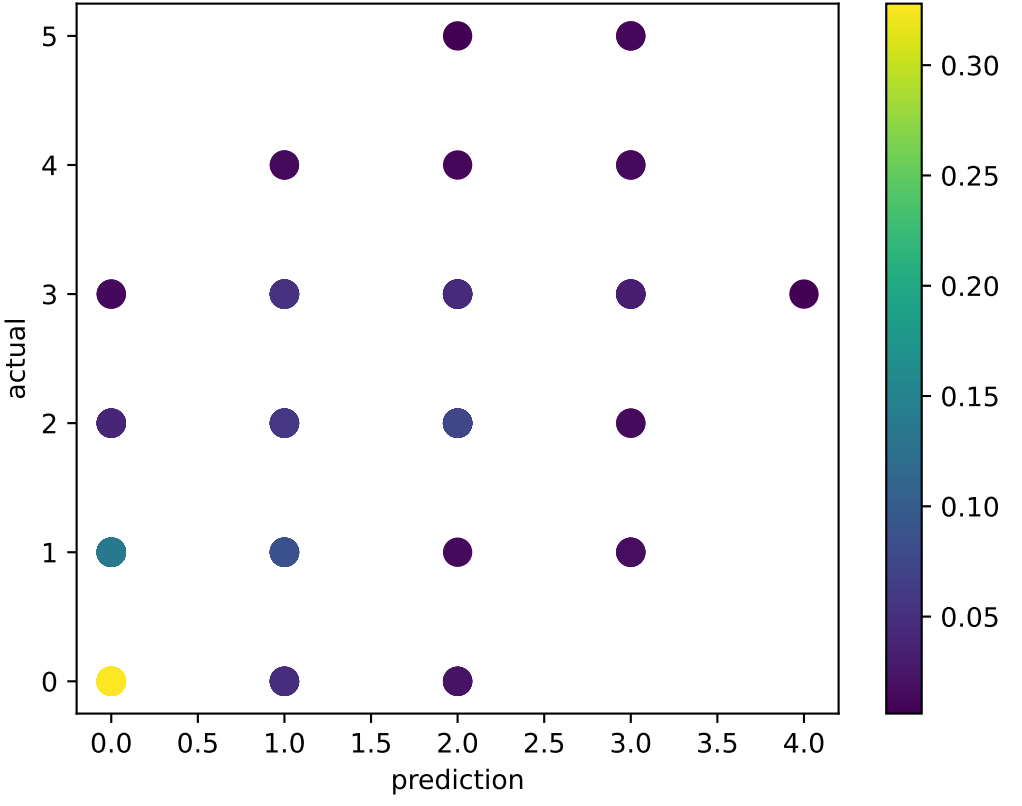

actual
prediction
0
1
2
3
4
5
6
7
8
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02

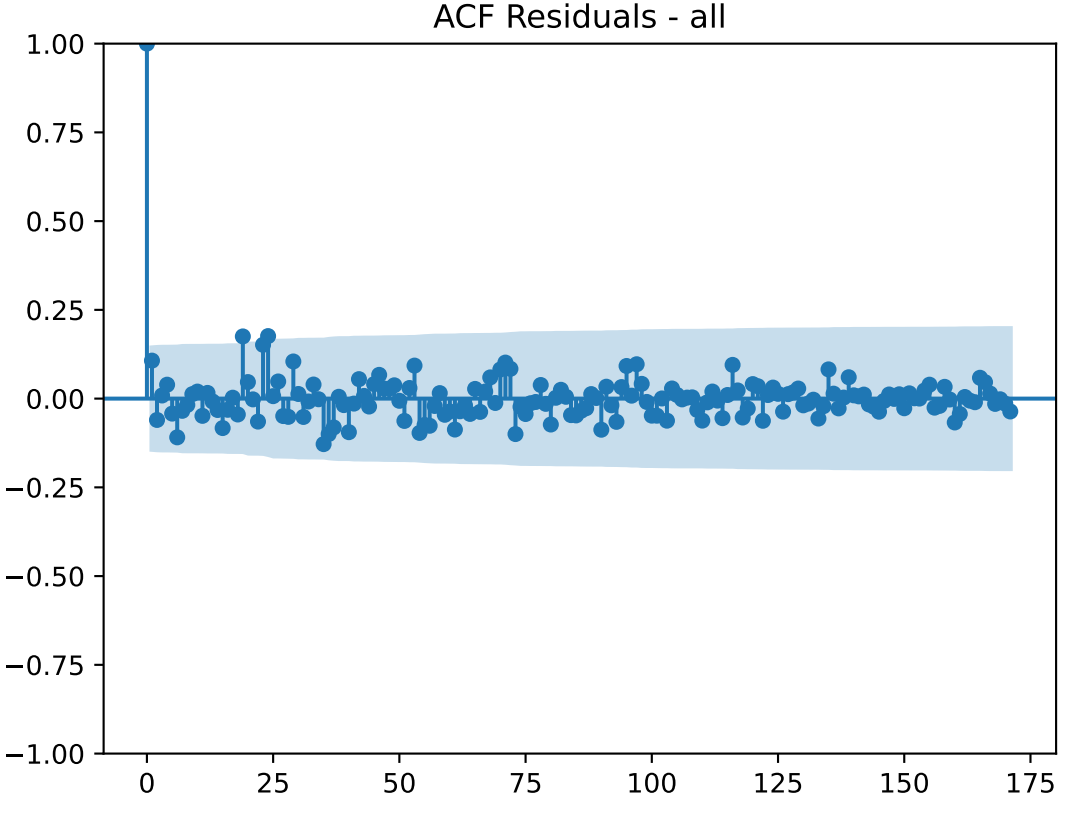

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

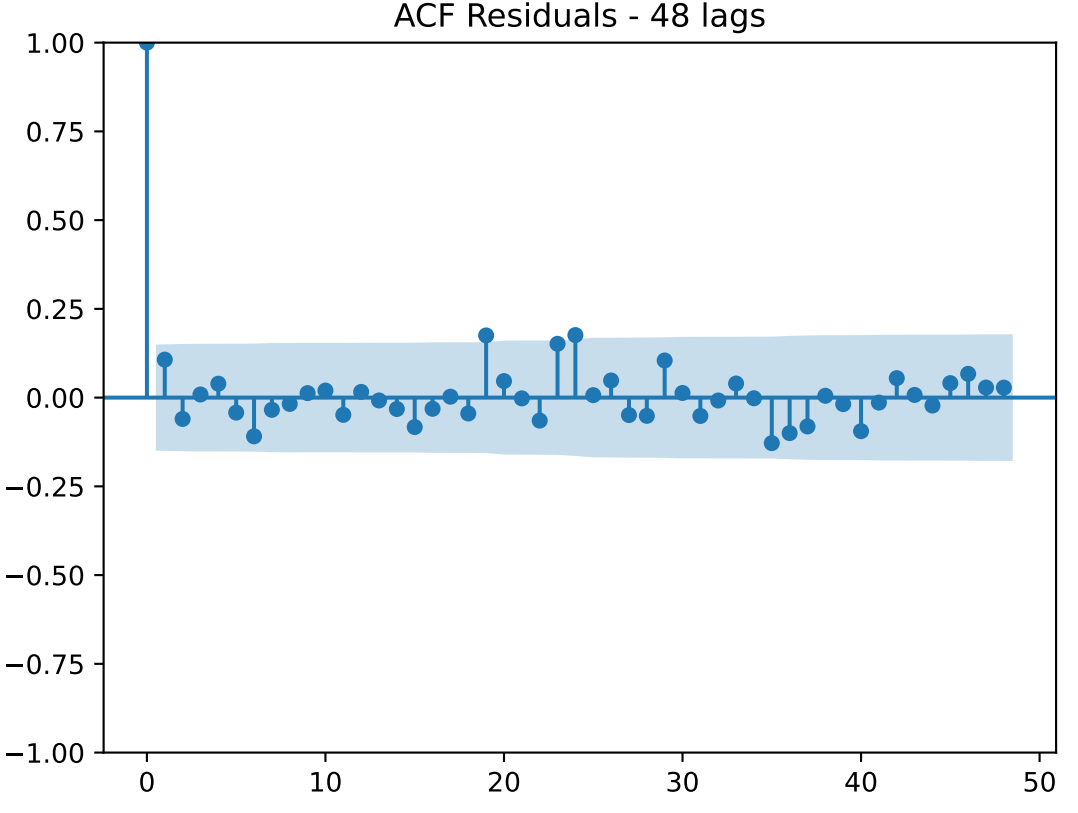

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

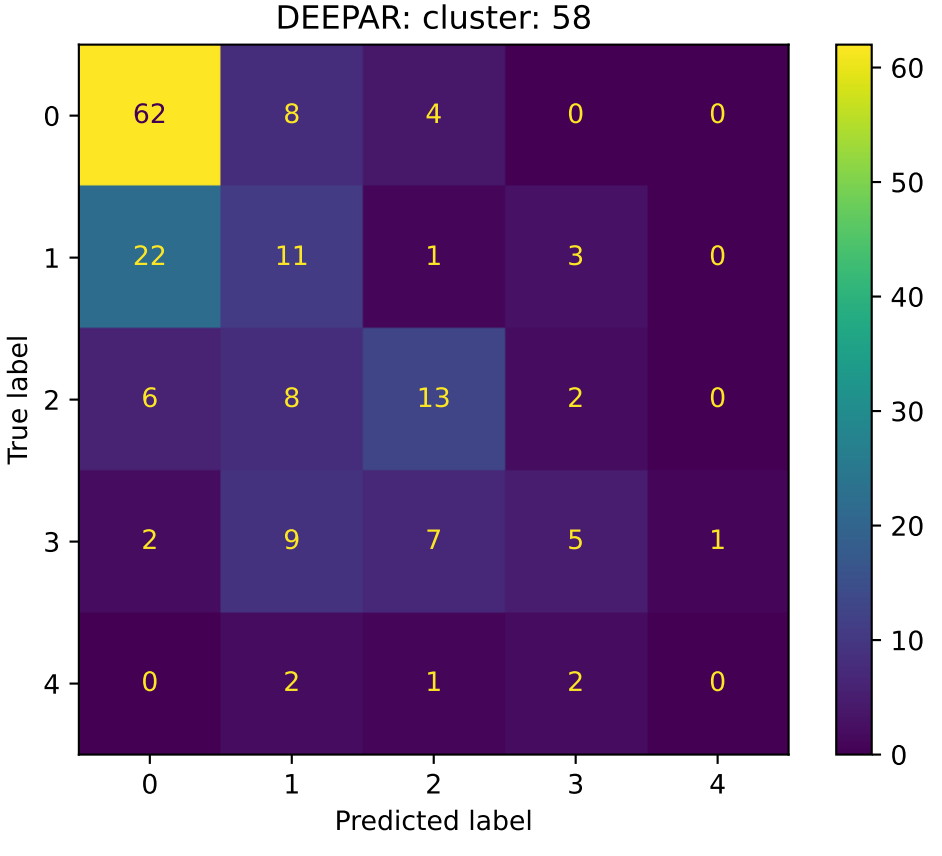

DEEPAR: cluster: 57
True label
Predicted label
0 1 2 3 4 5 6 7
55 9 2 0 0 0 0 0
24 7 0 3 2 0 1 0
5 8 4 3 0 1 0 0
0 1 7 9 4 1 0 0
1 2 2 3 3 1 1 0
0 0 1 1 4 1 0 0
0 0 0 0 2 1 1 0
0 0 0 0 0 0 0 0
50
40
30
20
10
0

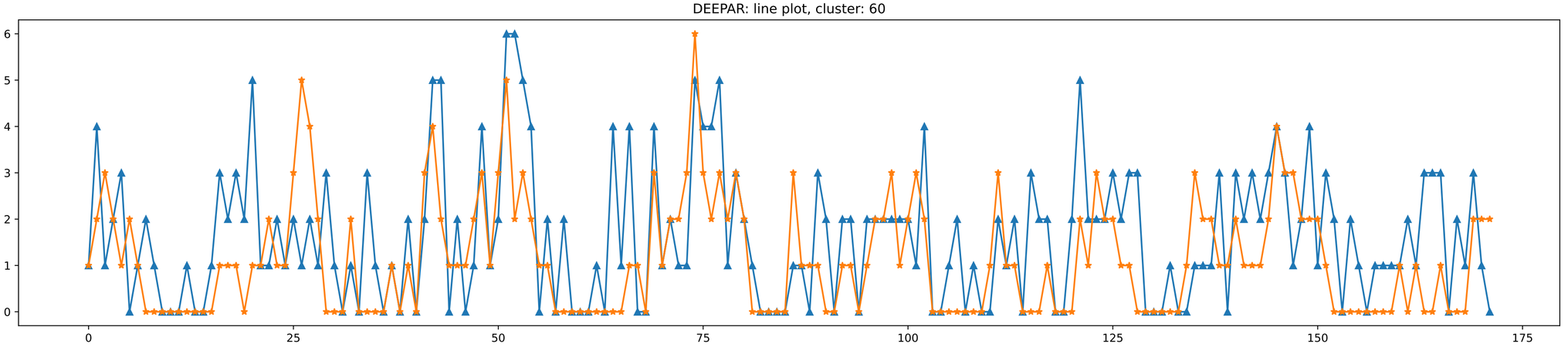

DEEPAR: line plot, cluster: 58
0
1
2
3
4
5
0
25
50
75
100
125
150
175

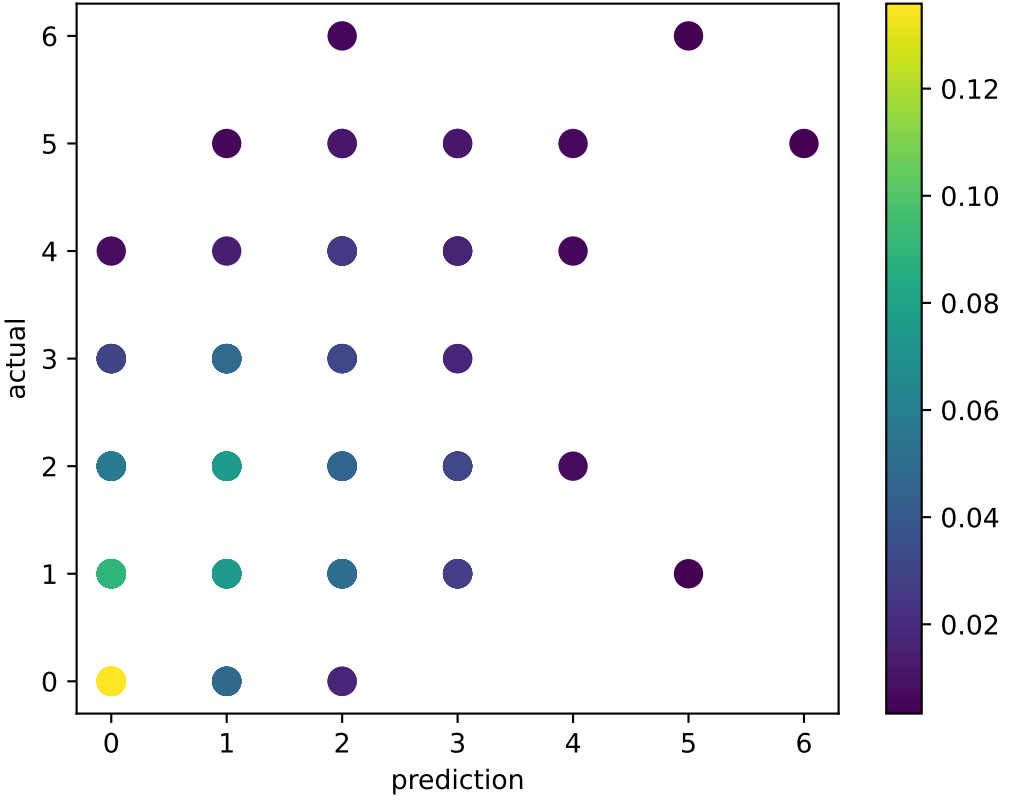

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.30
0.25
0.20
0.15
0.10
0.05

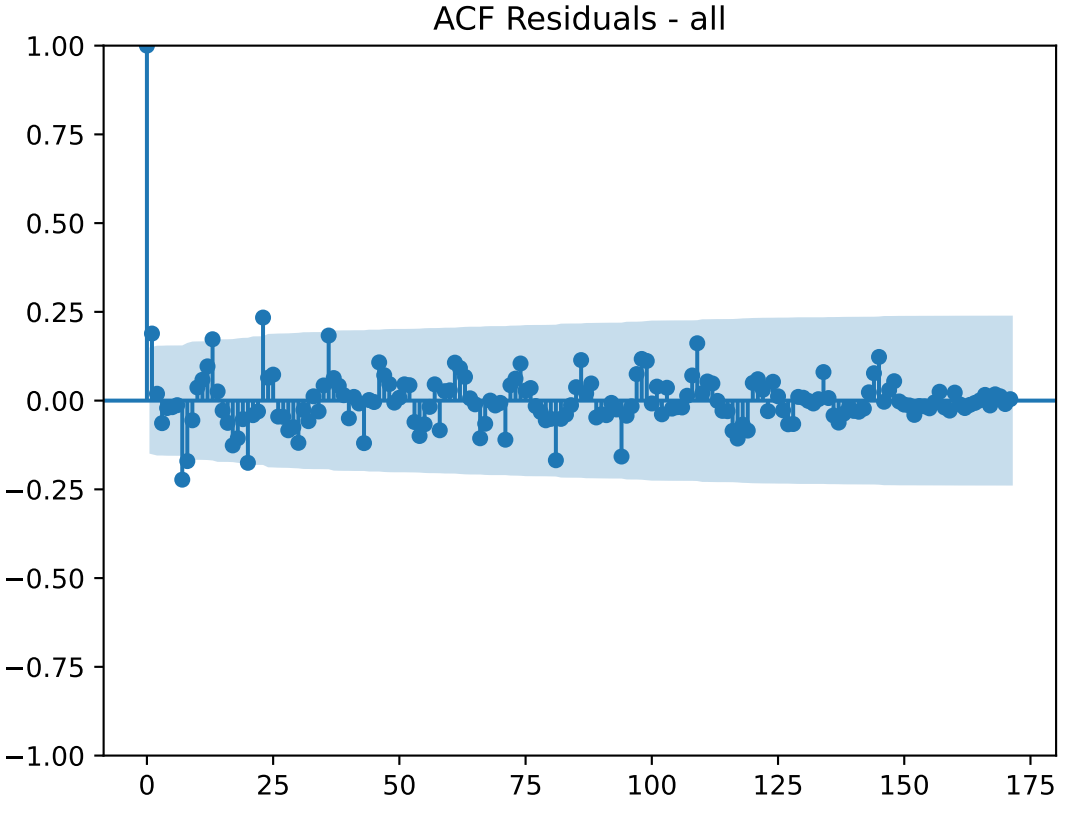

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

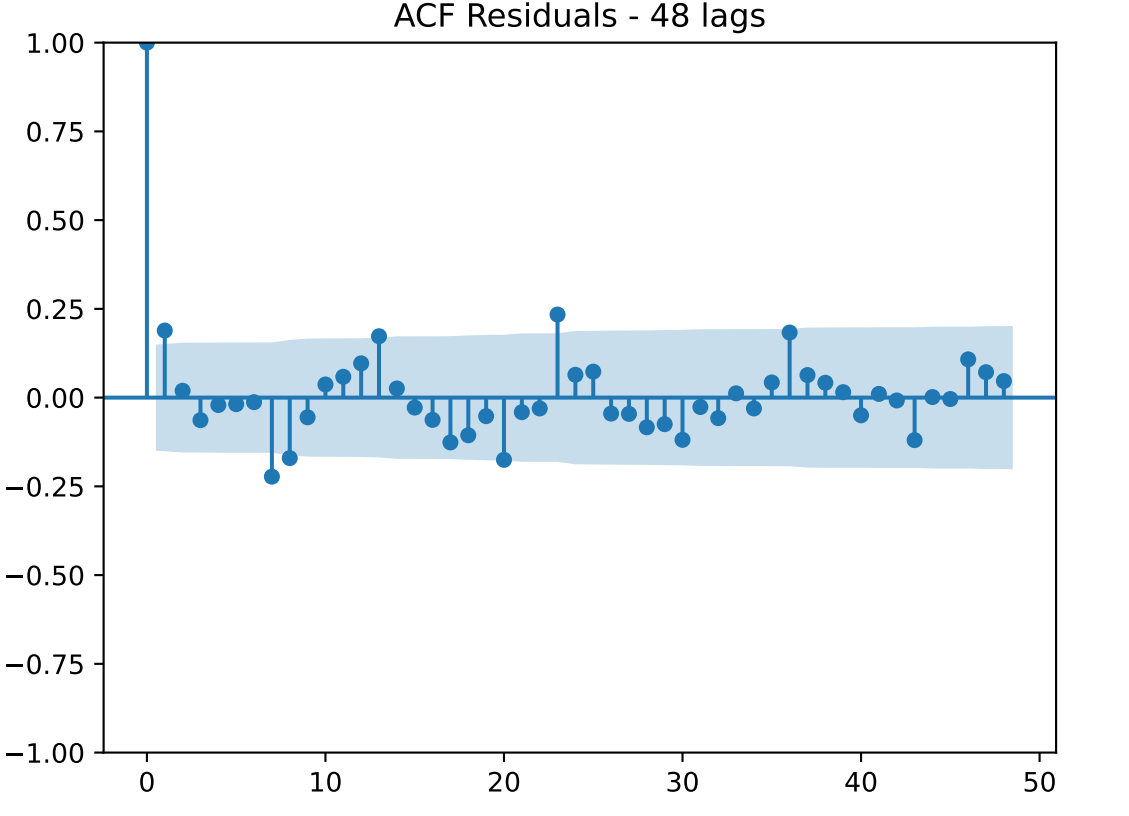

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

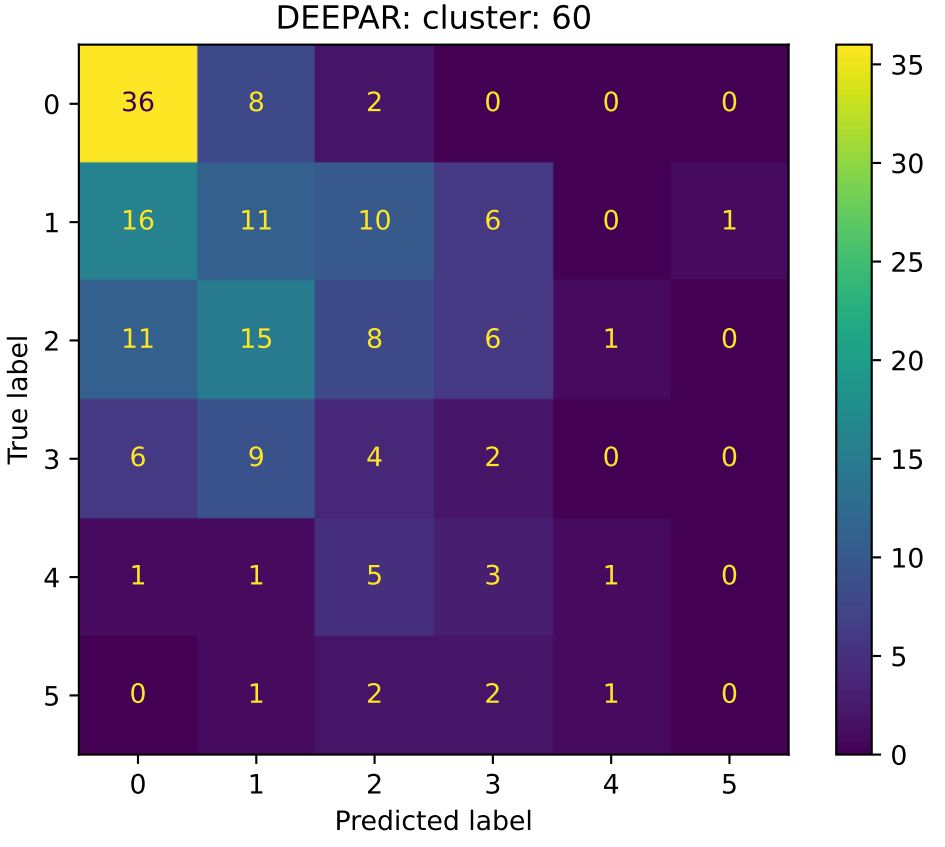

DEEPAR: cluster: 58
True label
Predicted label
0
1
2
3
4
62 8 4 0 0
22 11 1 3 0
6 8 13 2 0
2 9 7 5 1
0 2 1 2 0
60
50
40
30
20
10
0

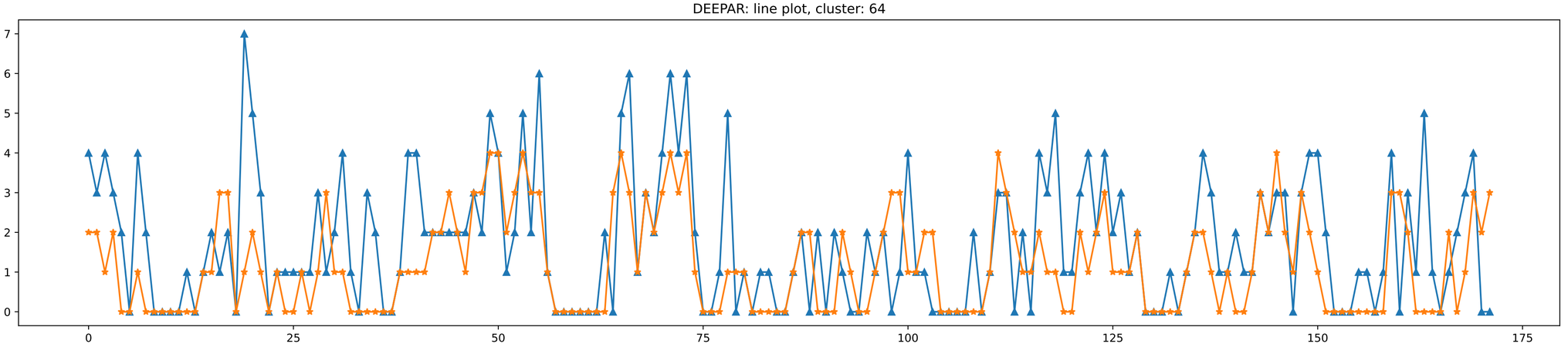

DEEPAR: line plot, cluster: 60
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

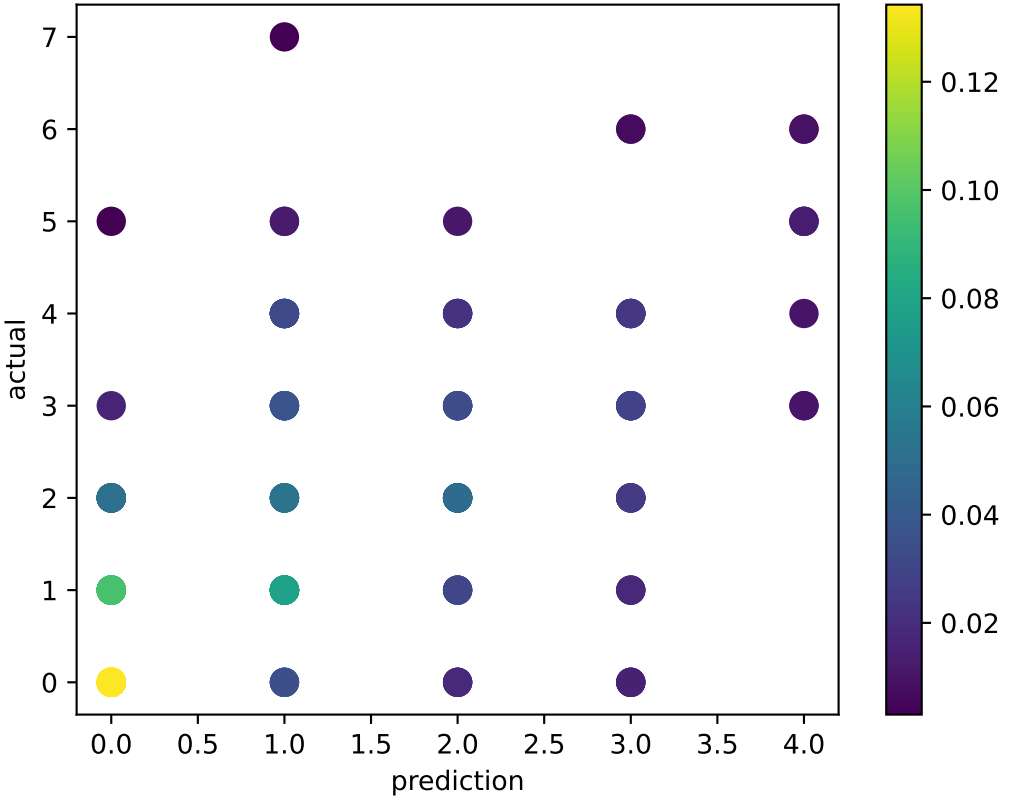

actual
prediction
0
1
2
3
4
5
6
0.12
0.10
0.08
0.06
0.04
0.02

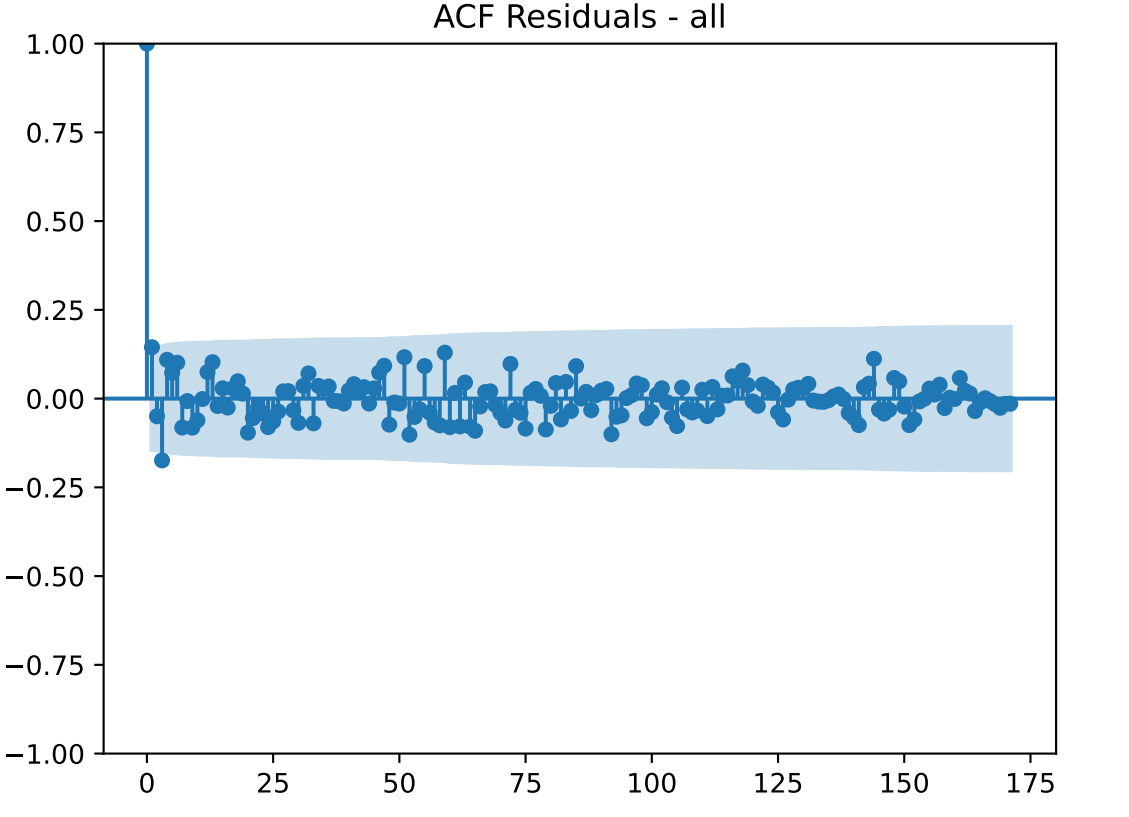

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

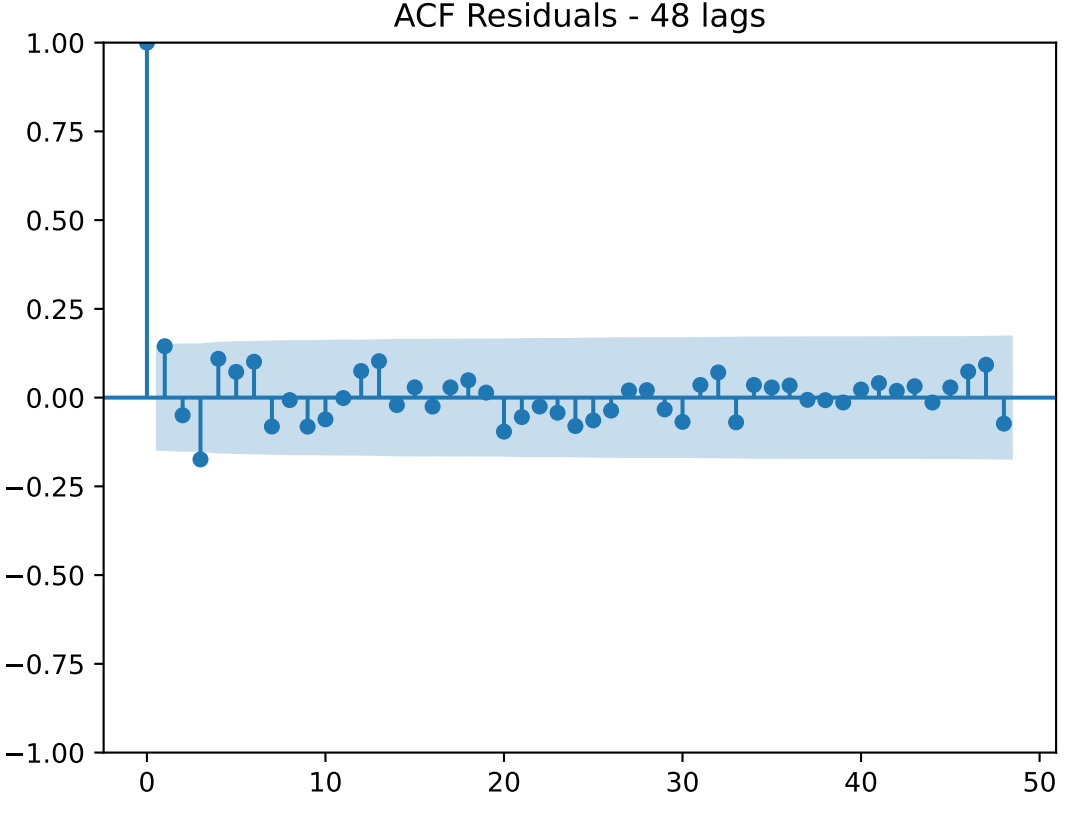

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

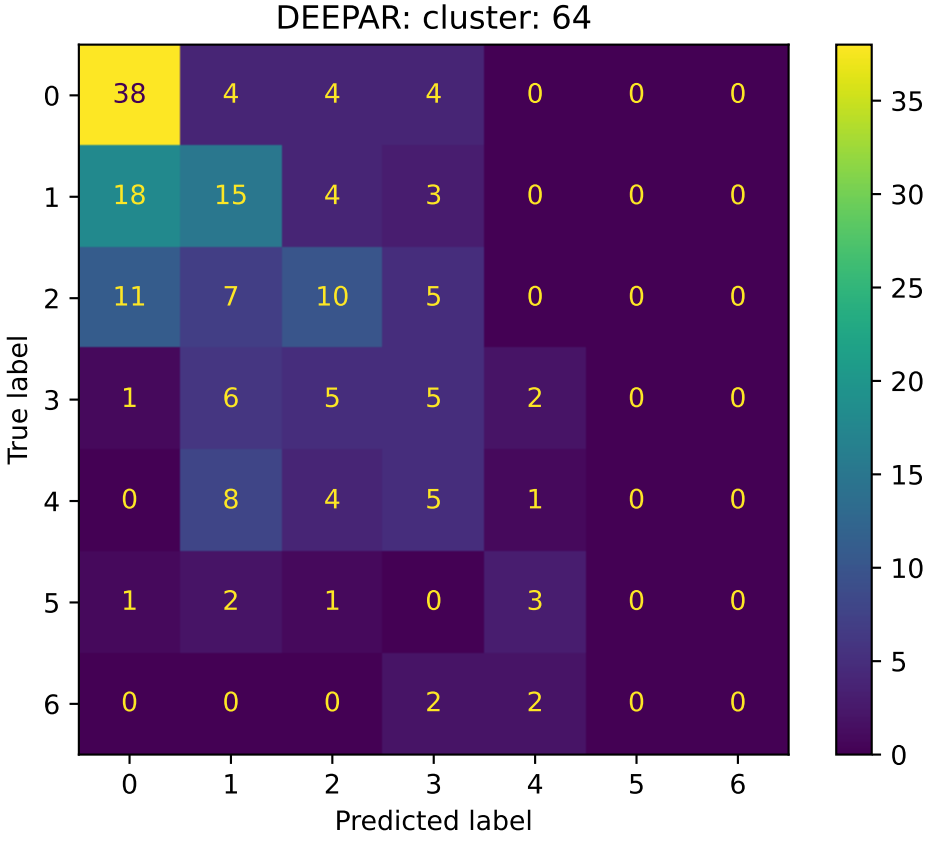

DEEPAR: cluster: 60
True label
Predicted label
0
1
2
3
4
5
36 8 2 0 0 0
16 11 10 6 0 1
11 15 8 6 1 0
6 9 4 2 0 0
1 1 5 3 1 0
0 1 2 2 1 0
35
30
25
20
15
10
5
0

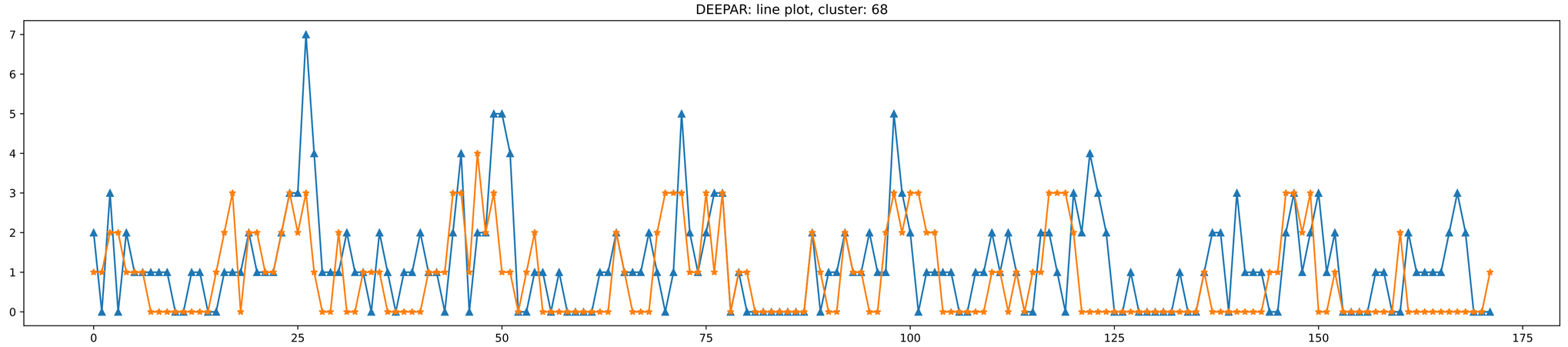

DEEPAR: line plot, cluster: 64
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

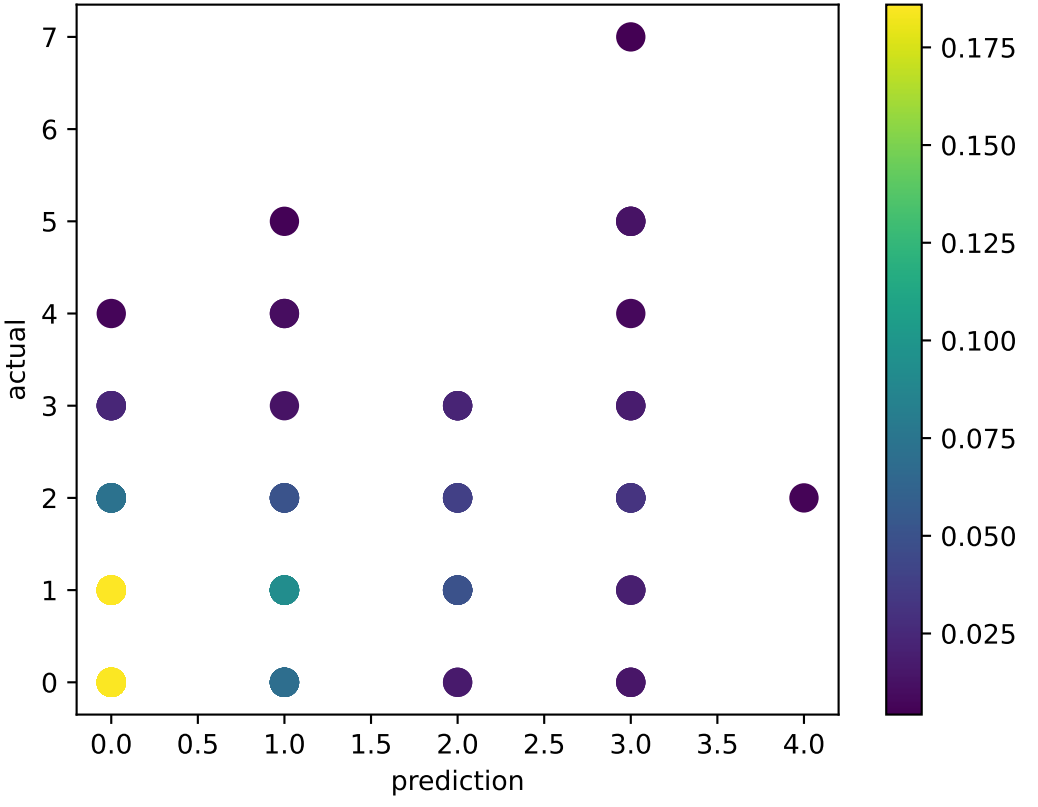

actual
prediction
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
1
2
3
4
5
6
7
0.12
0.10
0.08
0.06
0.04
0.02

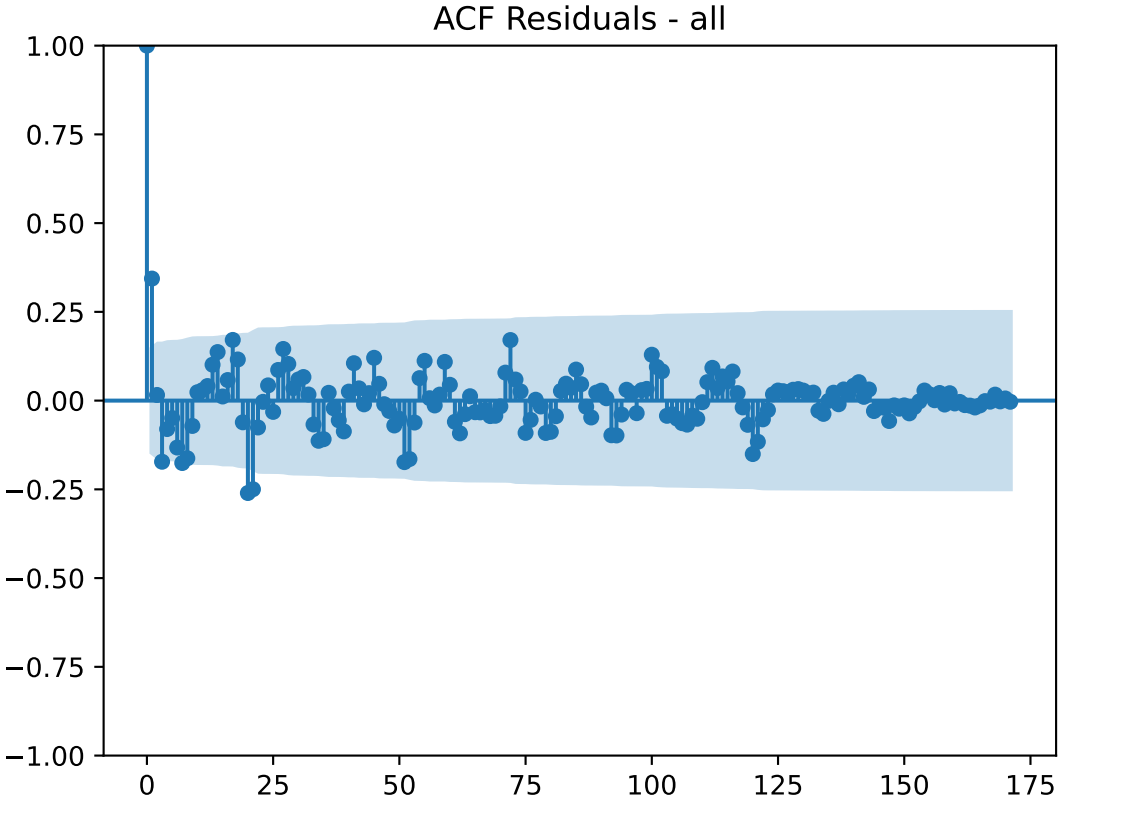

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

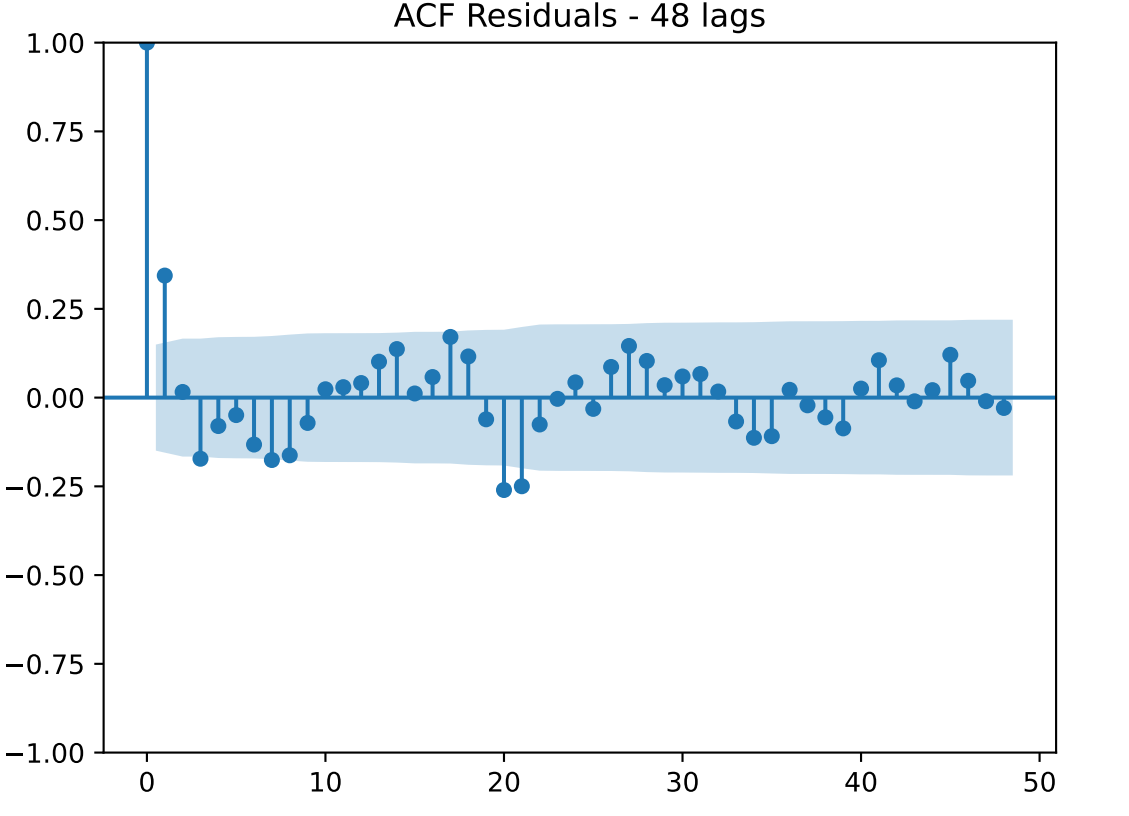

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

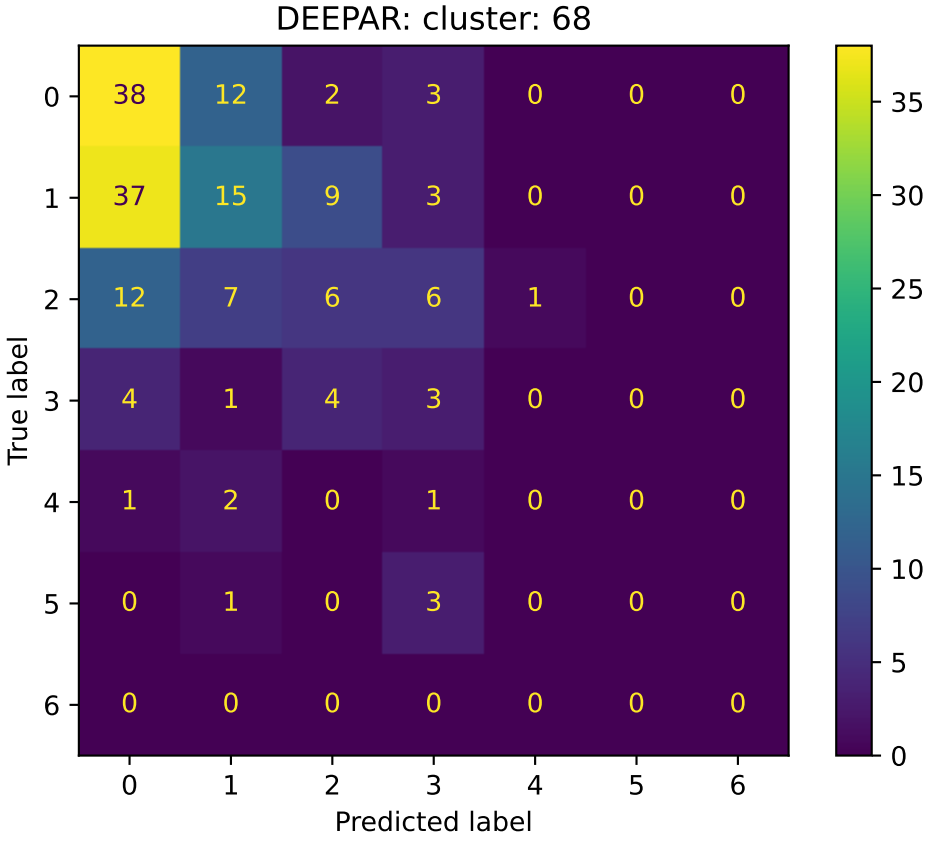

DEEPAR: cluster: 64
True label
Predicted label
0 1 2 3 4 5 6
38 4 4 4 0 0 0
18 15 4 3 0 0 0
11 7 10 5 0 0 0
1 6 5 5 2 0 0
0 8 4 5 1 0 0
1 2 1 0 3 0 0
0 0 0 2 2 0 0
35 30 25 20 15 10 5 0

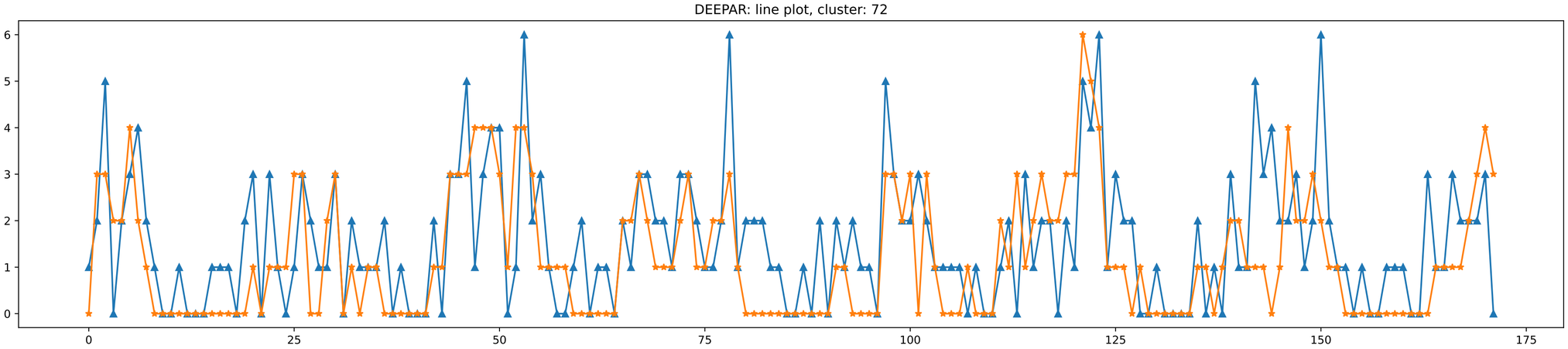

DEEPAR: line plot, cluster: 68
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

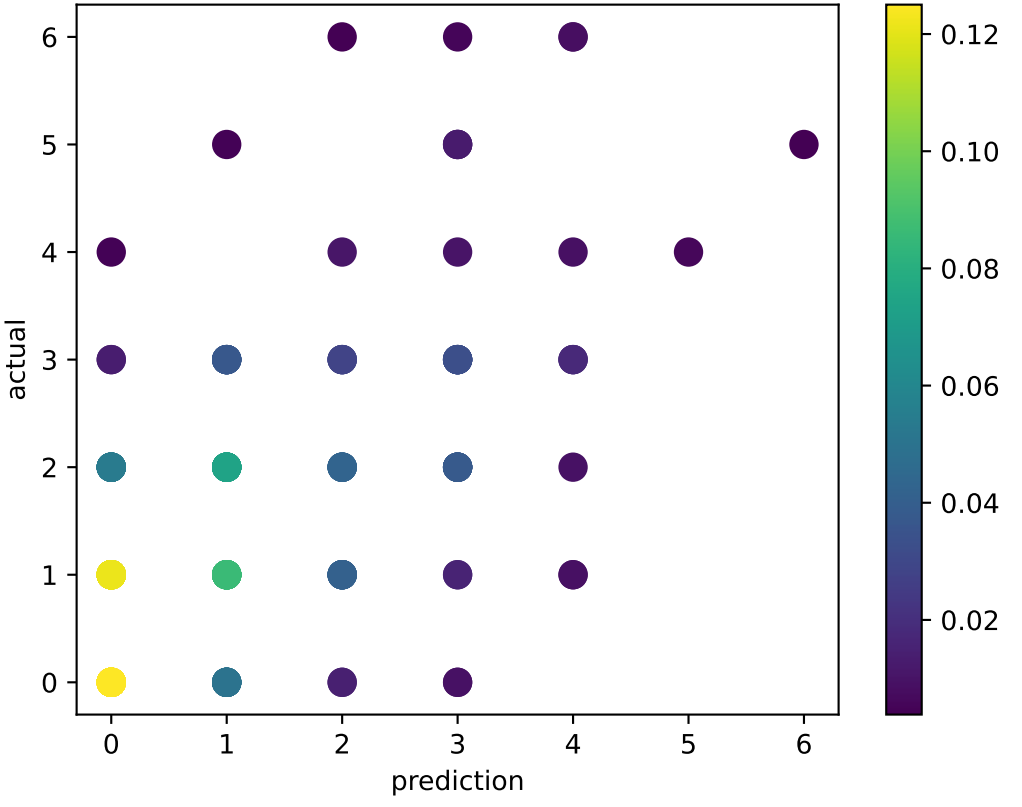

actual
prediction
0
1
2
3
4
5
6
7
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.175
0.150
0.125
0.100
0.075
0.050
0.025

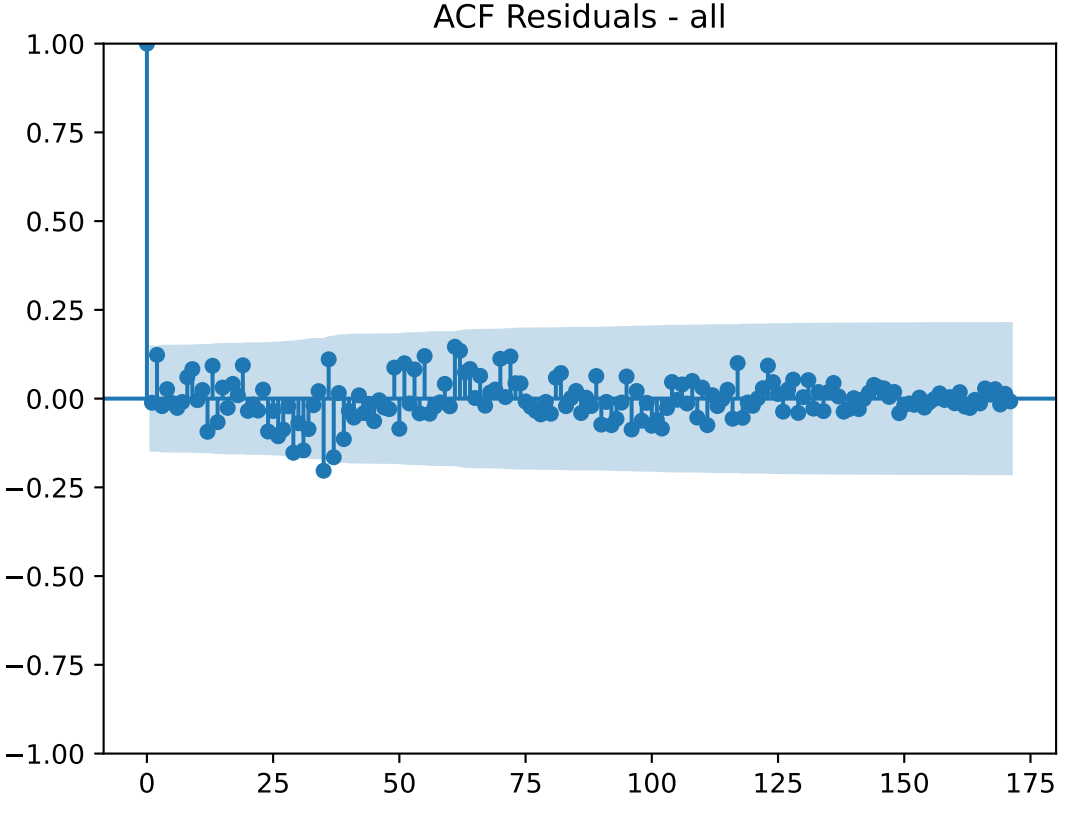

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

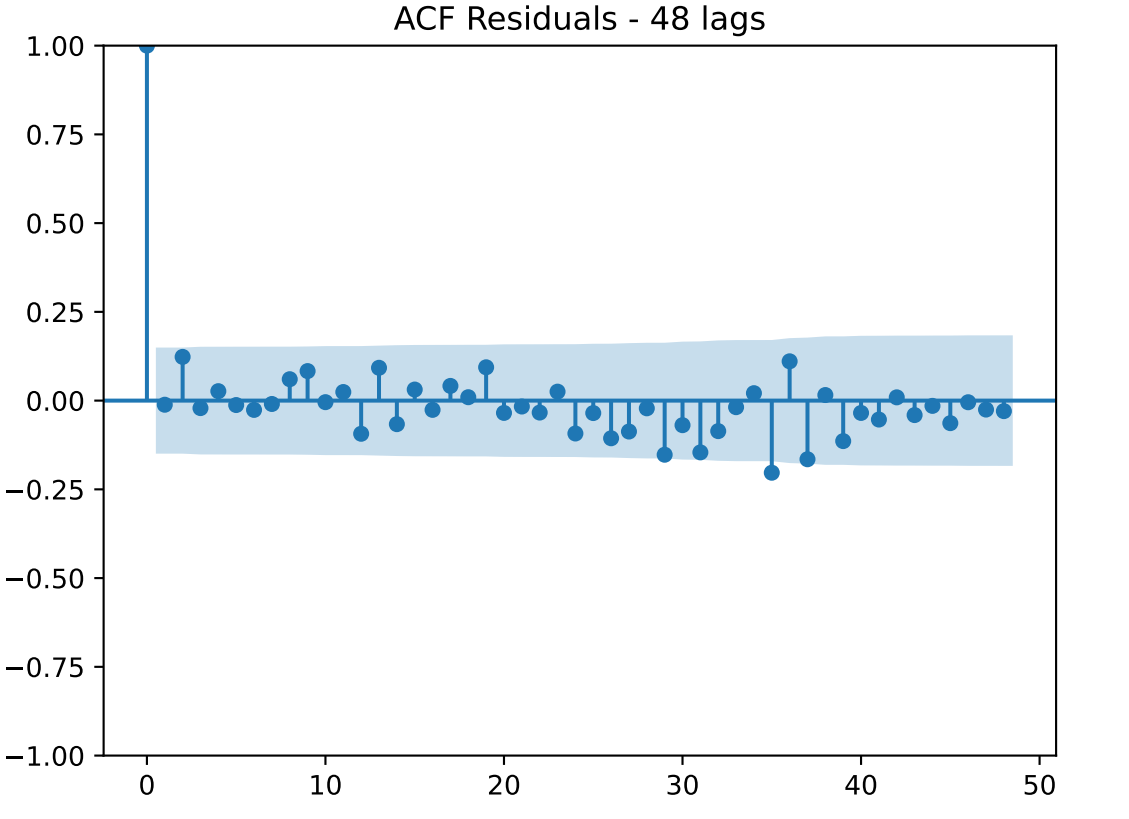

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

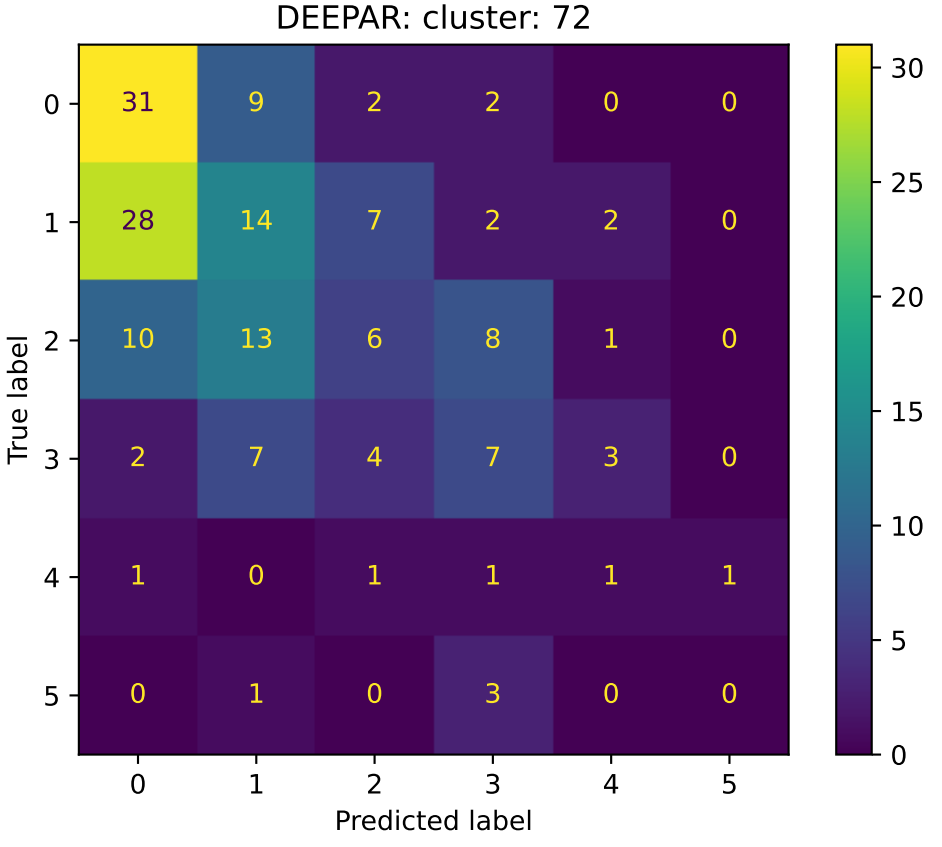

DEEPAR: cluster: 68
True label
Predicted label
0 1 2 3 4 5 6
38 12 2 3 0 0 0
37 15 9 3 0 0 0
12 7 6 6 1 0 0
4 1 4 3 0 0 0
1 2 0 1 0 0 0
0 1 0 3 0 0 0
0 0 0 0 0 0 0
35 30 25 20 15 10 5 0

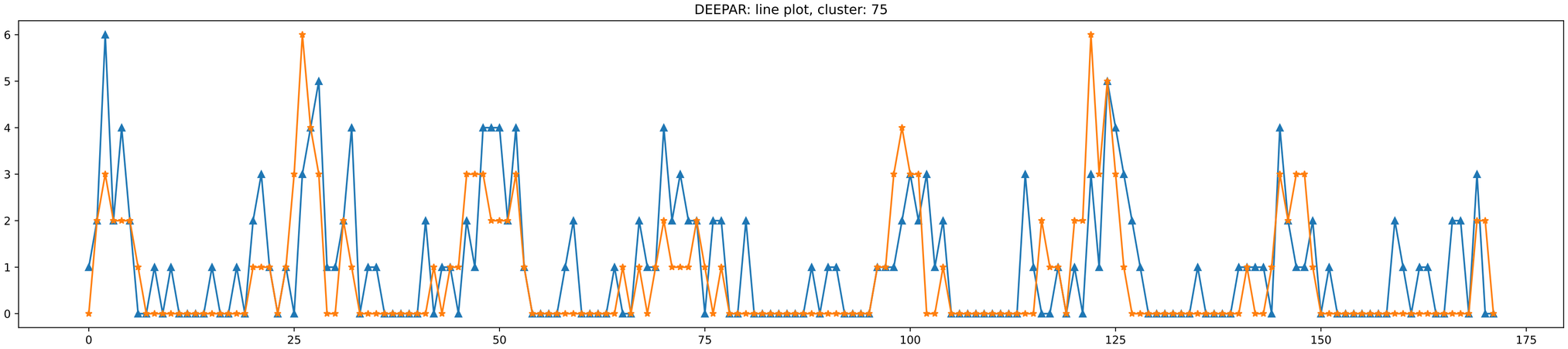

DEEPAR: line plot, cluster: 72
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

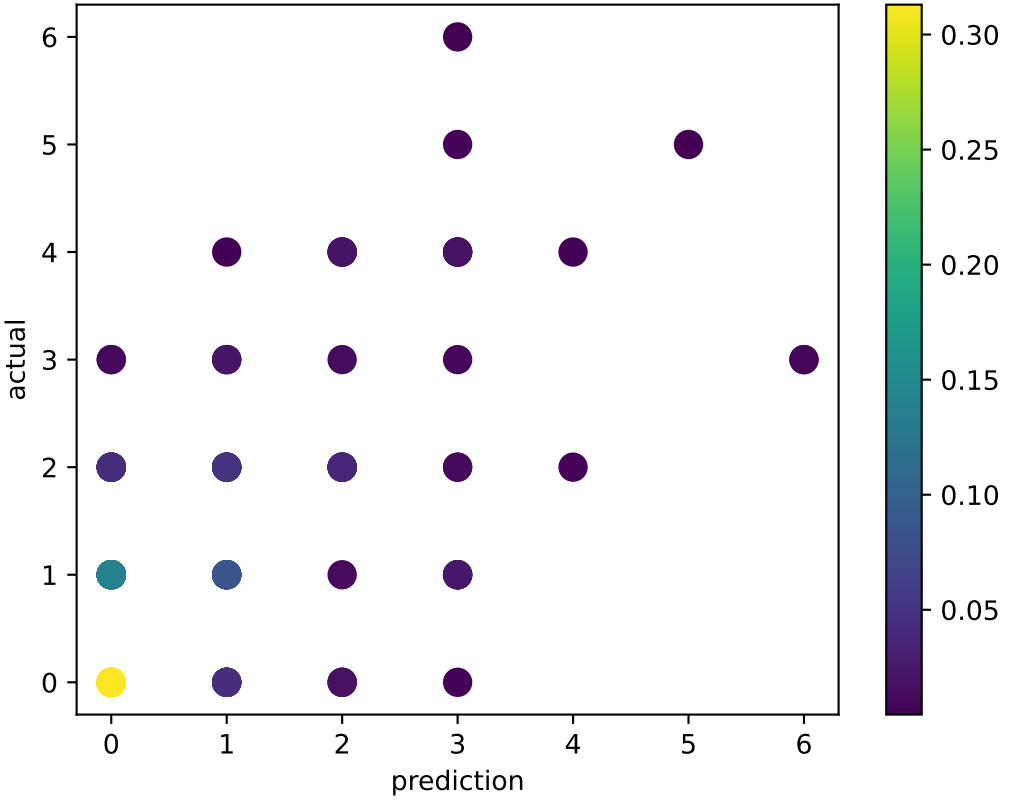

actual
prediction
0
1
2
3
4
5
6
0.12
0.10
0.08
0.06
0.04
0.02

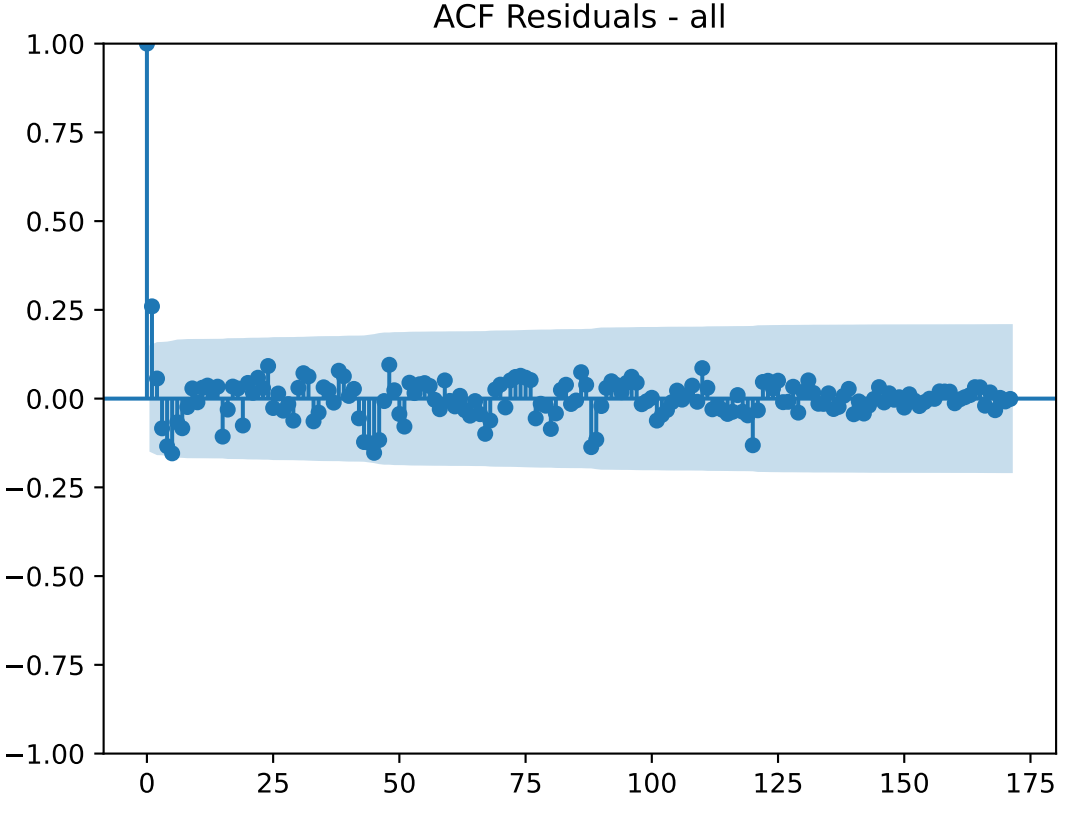

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

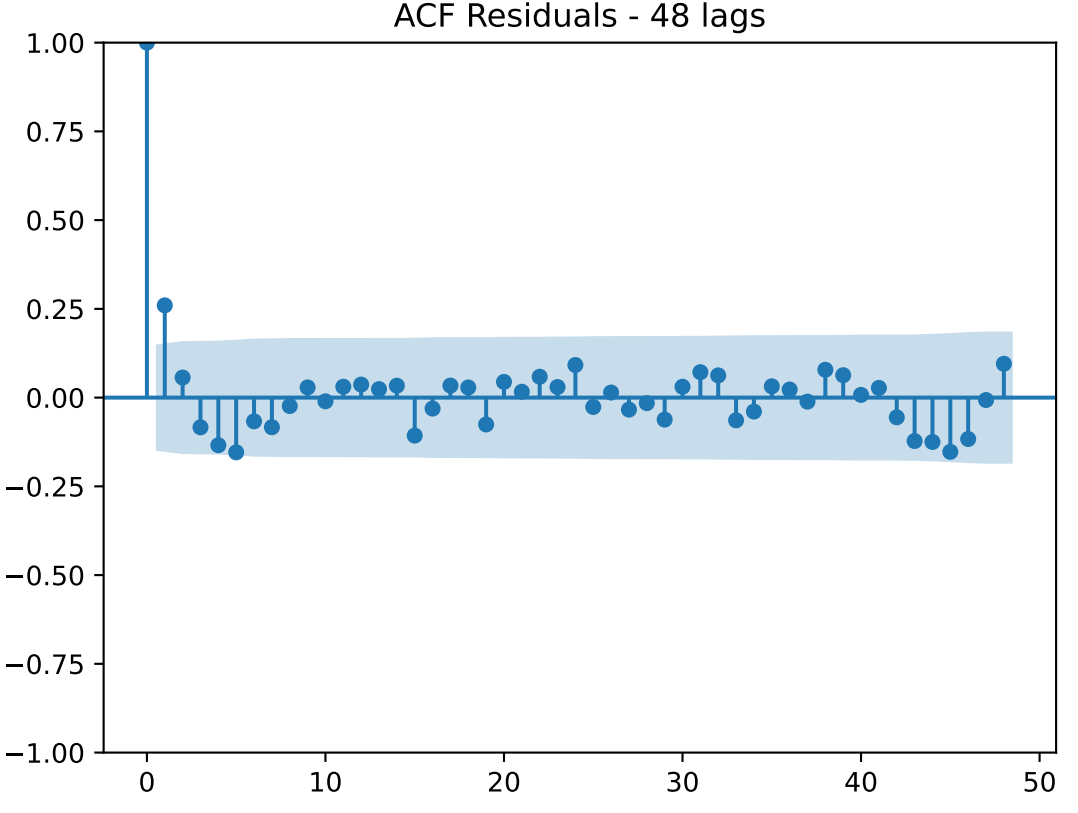

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

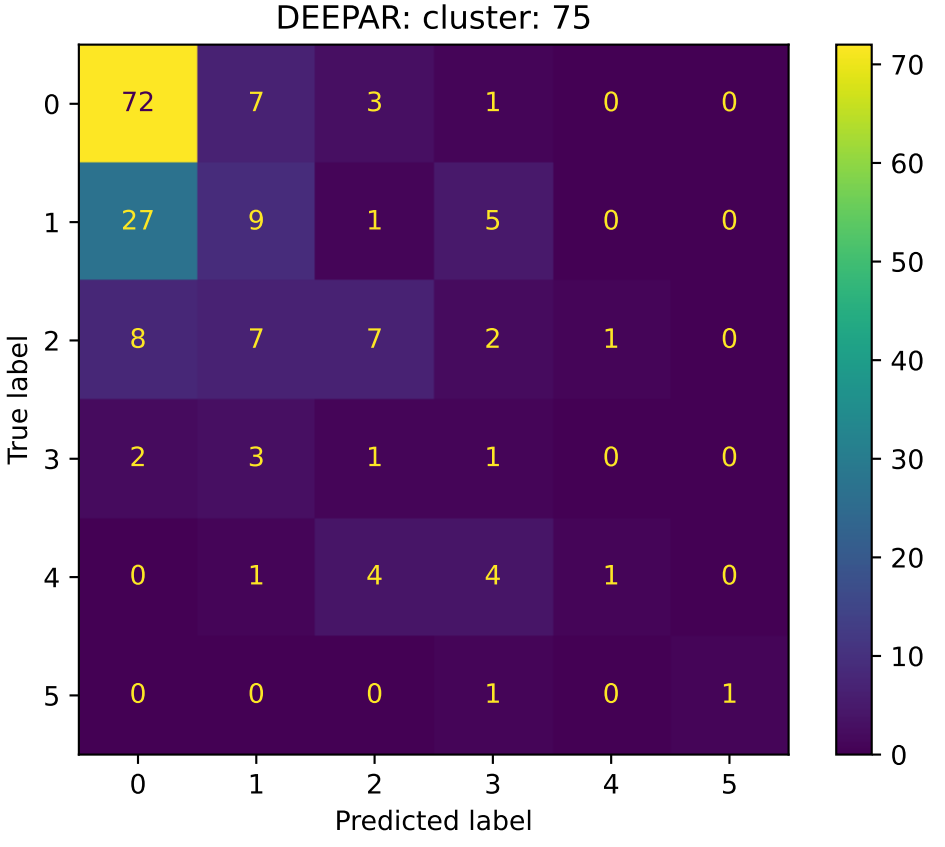

DEEPAR: cluster: 72
True label
Predicted label
0
1
2
3
4
5
31 9 2 2 0 0
28 14 7 2 2 0
10 13 6 8 1 0
2 7 4 7 3 0
1 0 1 1 1 1
0 1 0 3 0 0
30
25
20
15
10
5
0

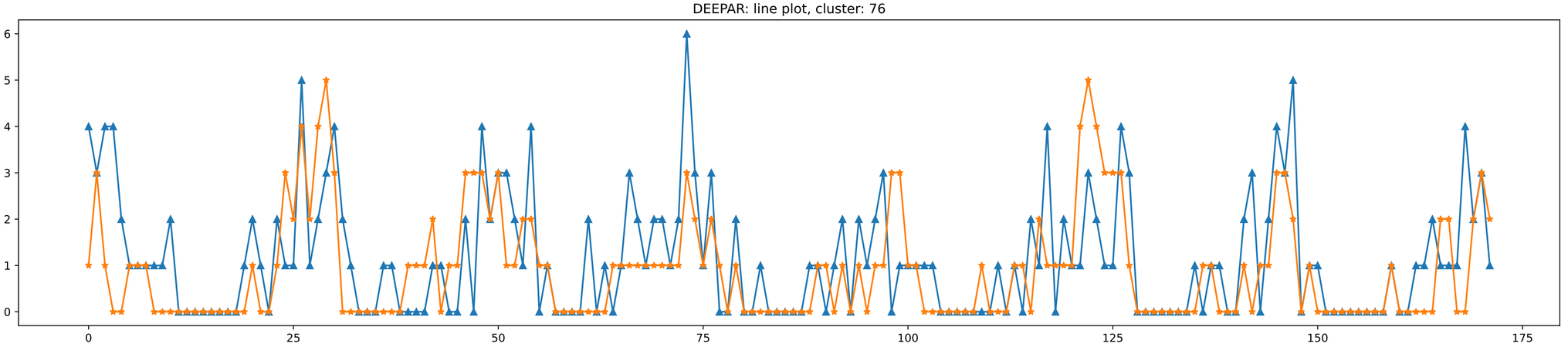

DEEPAR: line plot, cluster: 75
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

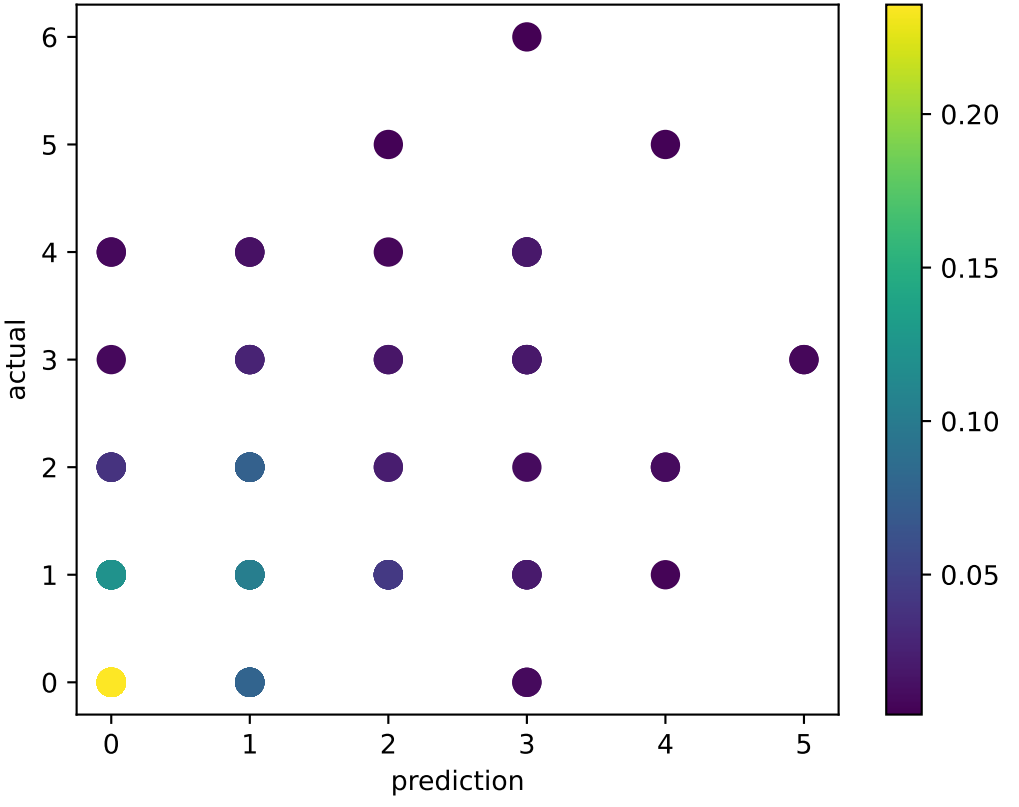

actual
prediction
0
1
2
3
4
5
6
0.30
0.25
0.20
0.15
0.10
0.05

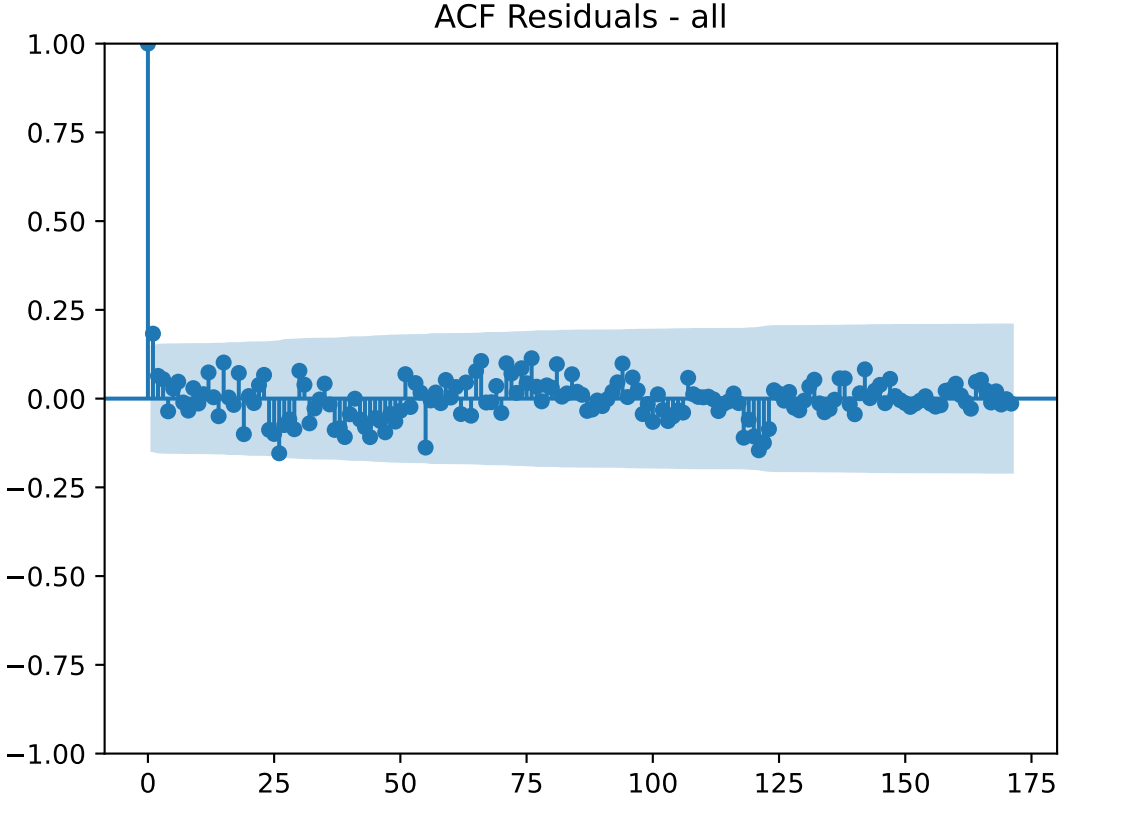

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

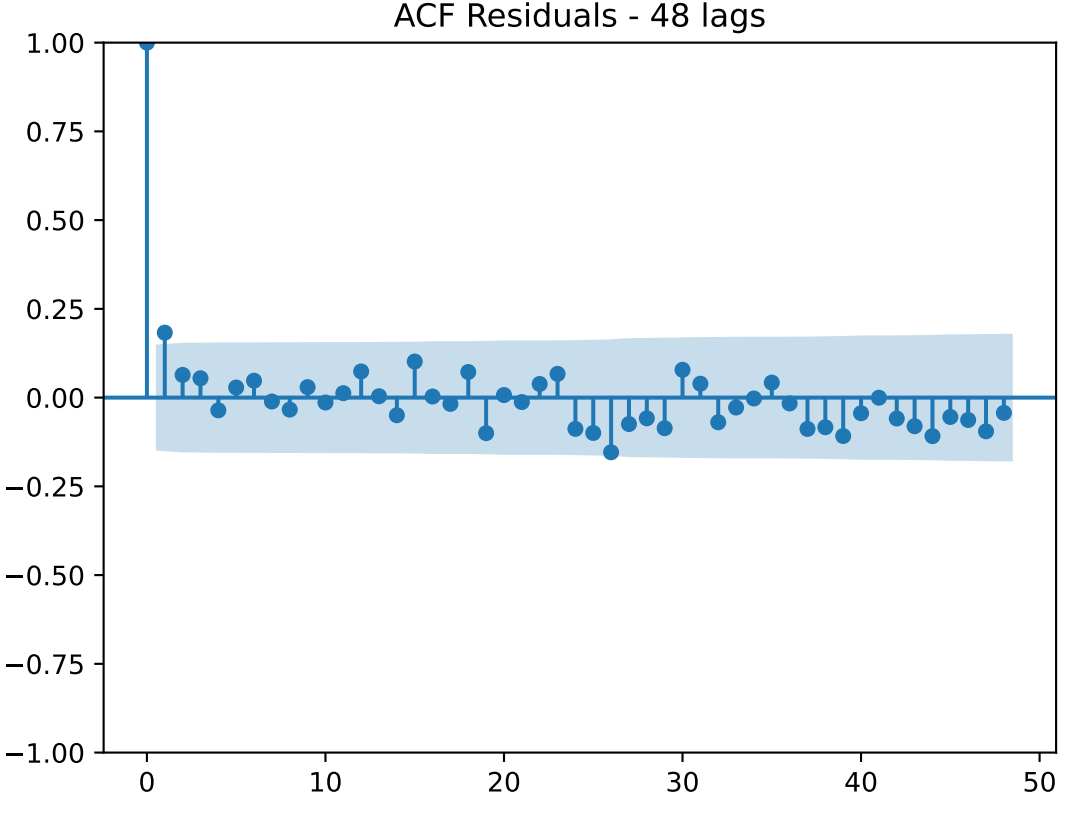

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

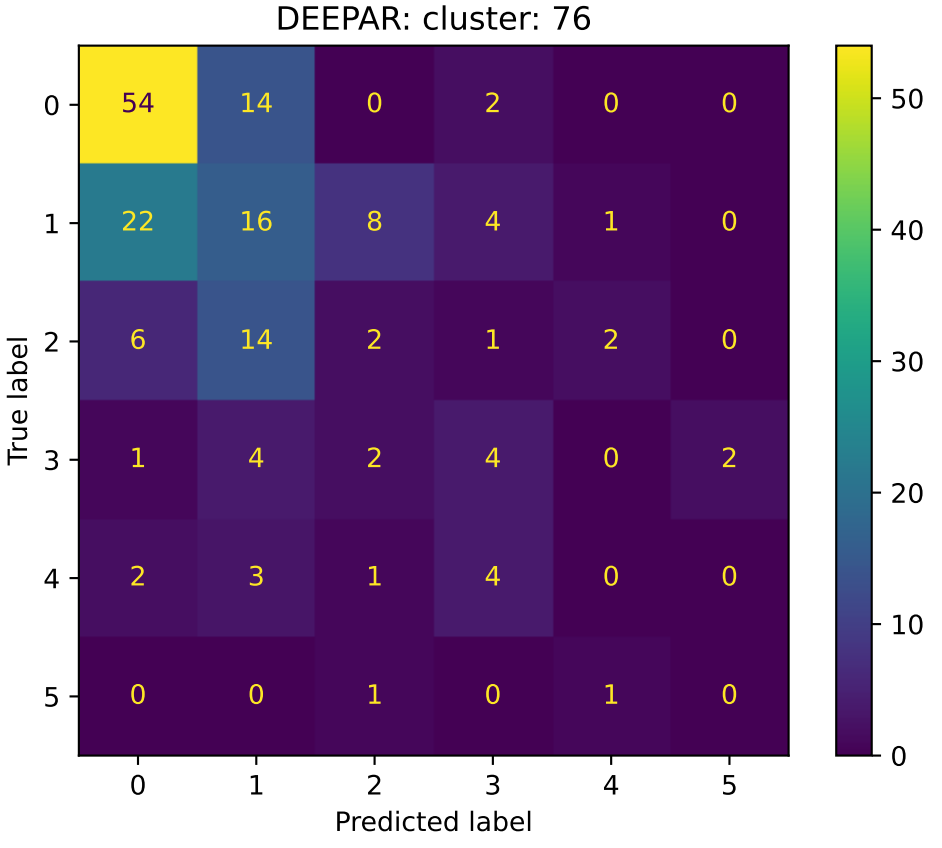

DEEPAR: cluster: 75
True label
Predicted label
0
1
2
3
4
5
72 7 3 1 0 0
27 9 1 5 0 0
8 7 7 2 1 0
2 3 1 1 0 0
0 1 4 4 1 0
0 0 0 1 0 1
70
60
50
40
30
20
10
0

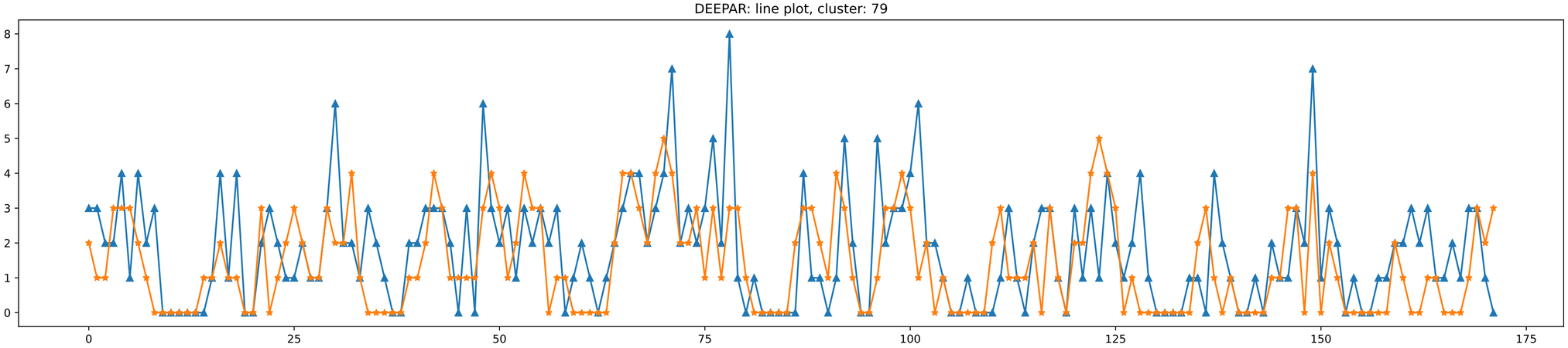

DEEPAR: line plot, cluster: 76
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

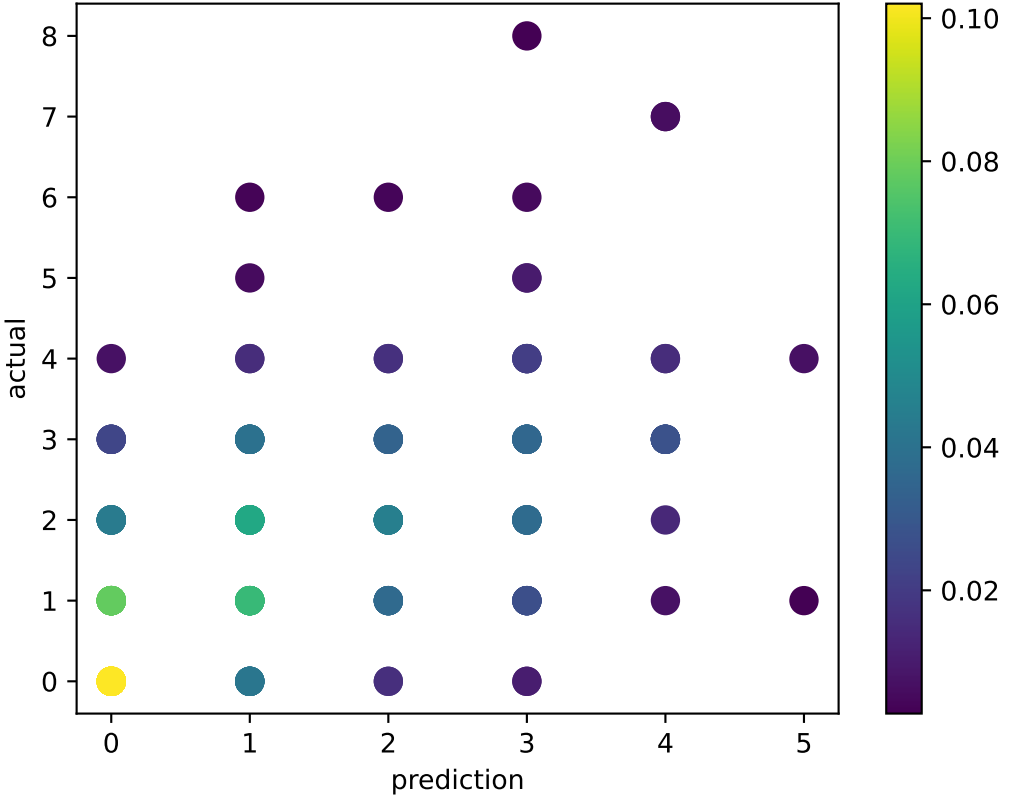

actual
prediction
0
1
2
3
4
5
6
0.20
0.15
0.10
0.05

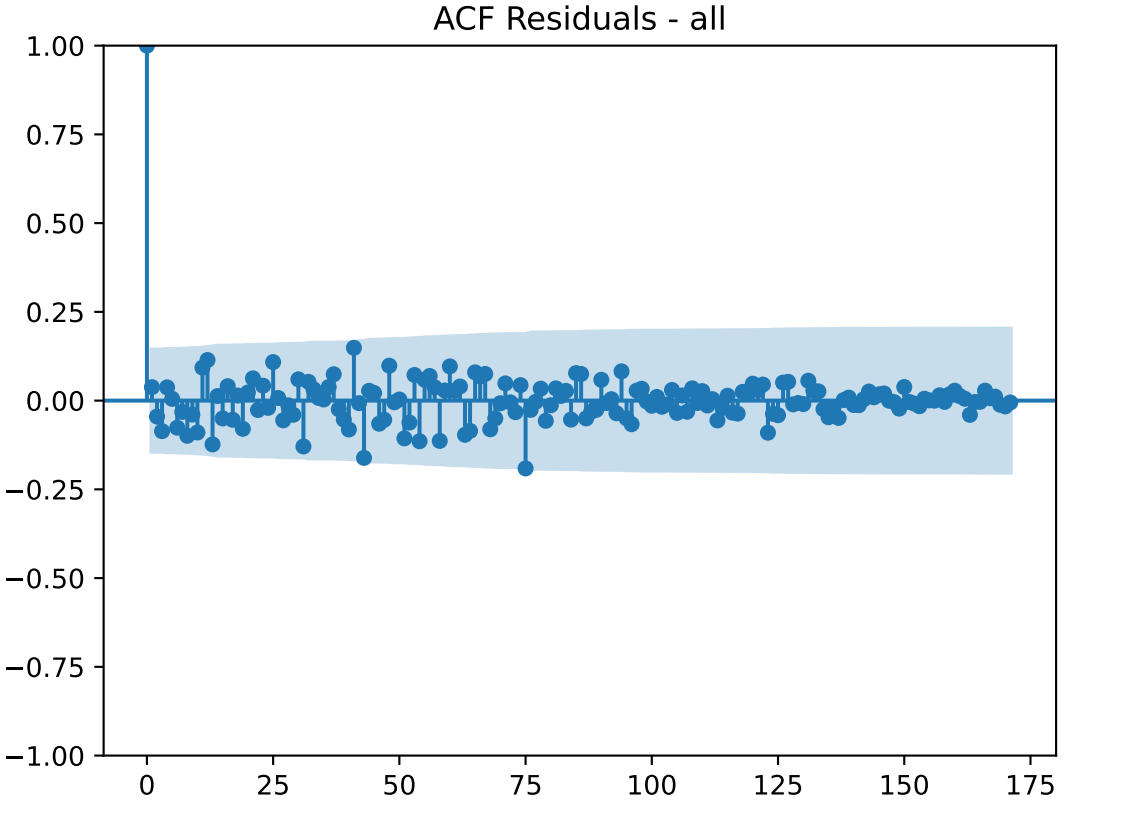

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

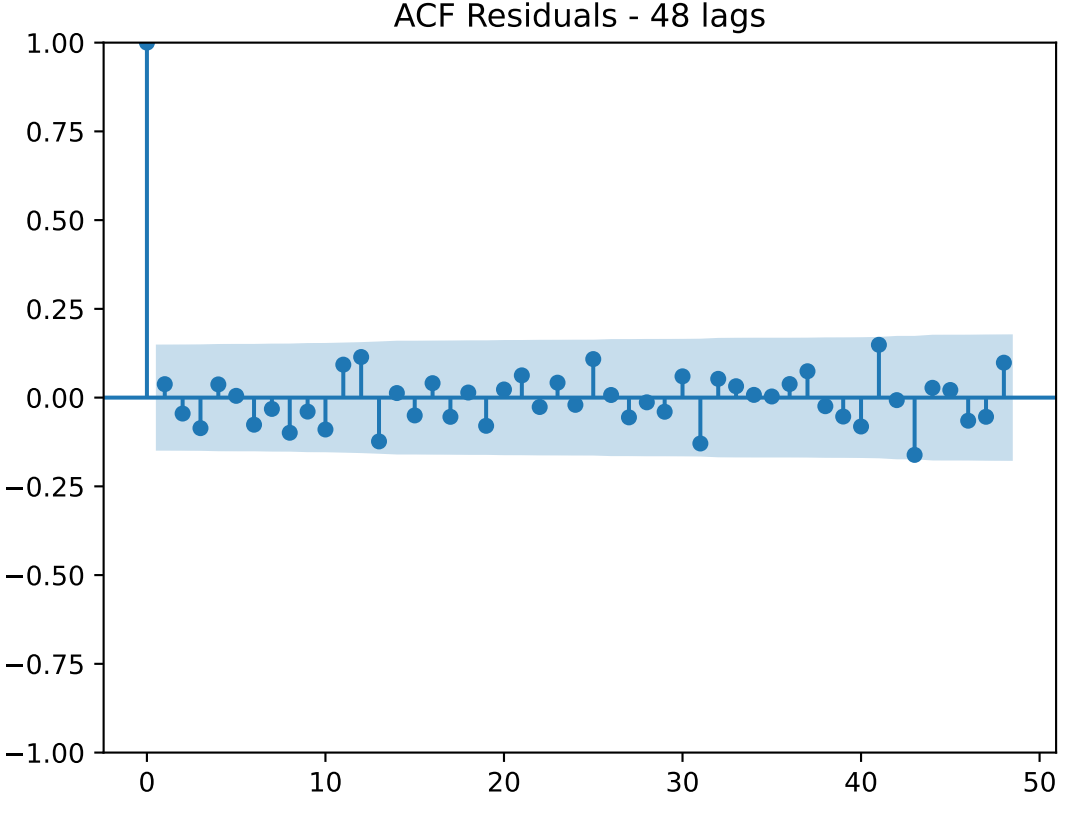

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

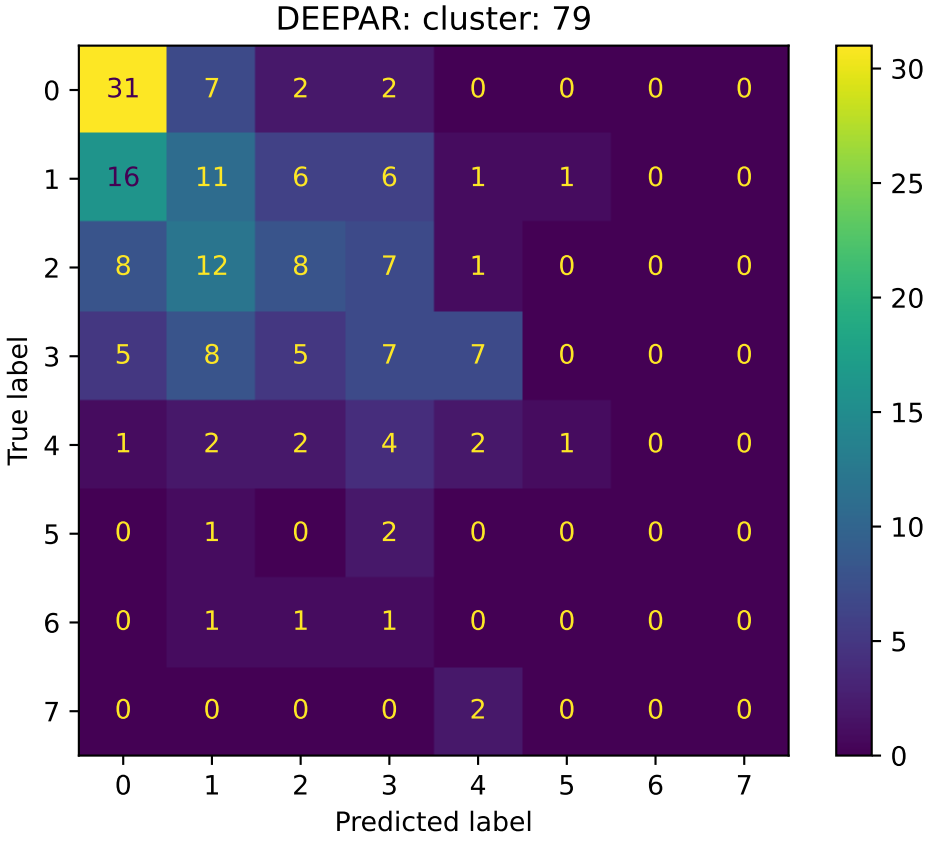

DEEPAR: cluster: 76
True label
Predicted label
0
1
2
3
4
5
54 14 0 2 0 0
22 16 8 4 1 0
6 14 2 1 2 0
1 4 2 4 0 2
2 3 1 4 0 0
0 0 1 0 1 0
50
40
30
20
10
0

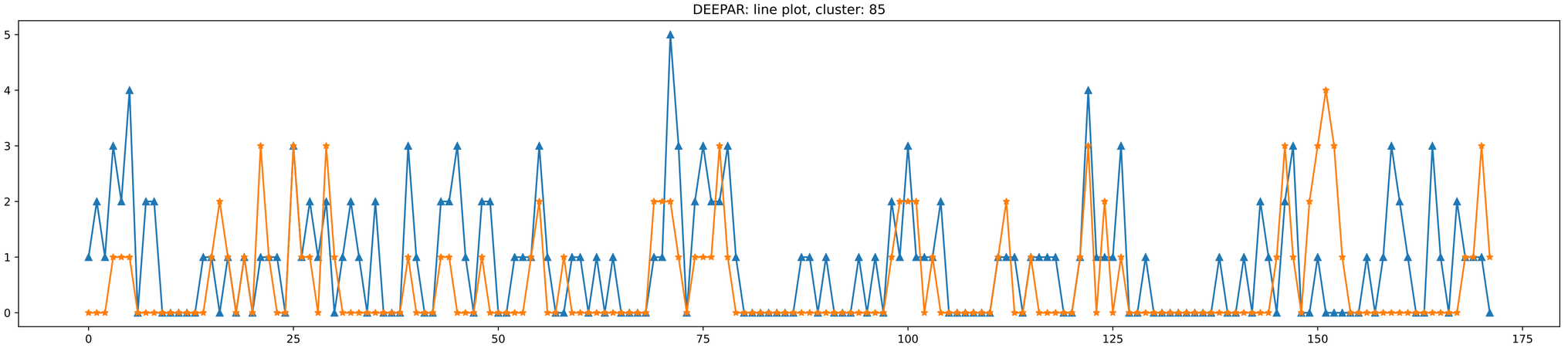

DEEPAR: line plot, cluster: 79
0
1
2
3
4
5
6
7
8
0
25
50
75
100
125
150
175

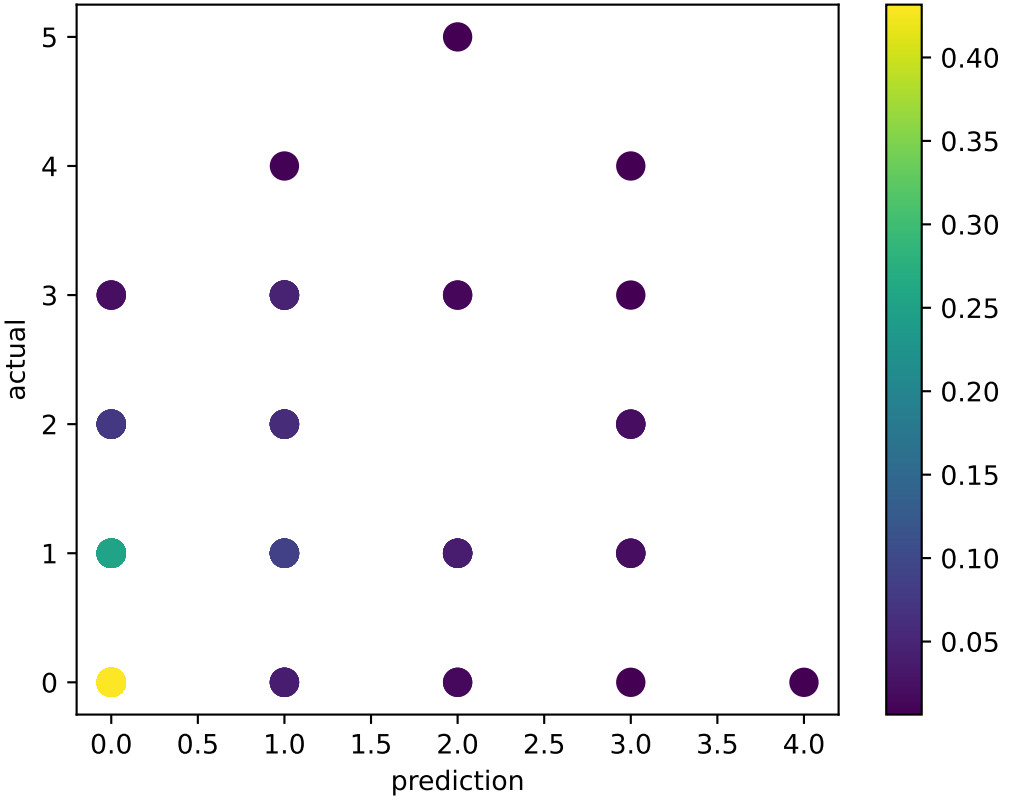

actual
prediction
0
1
2
3
4
5
6
7
8
0.10
0.08
0.06
0.04
0.02

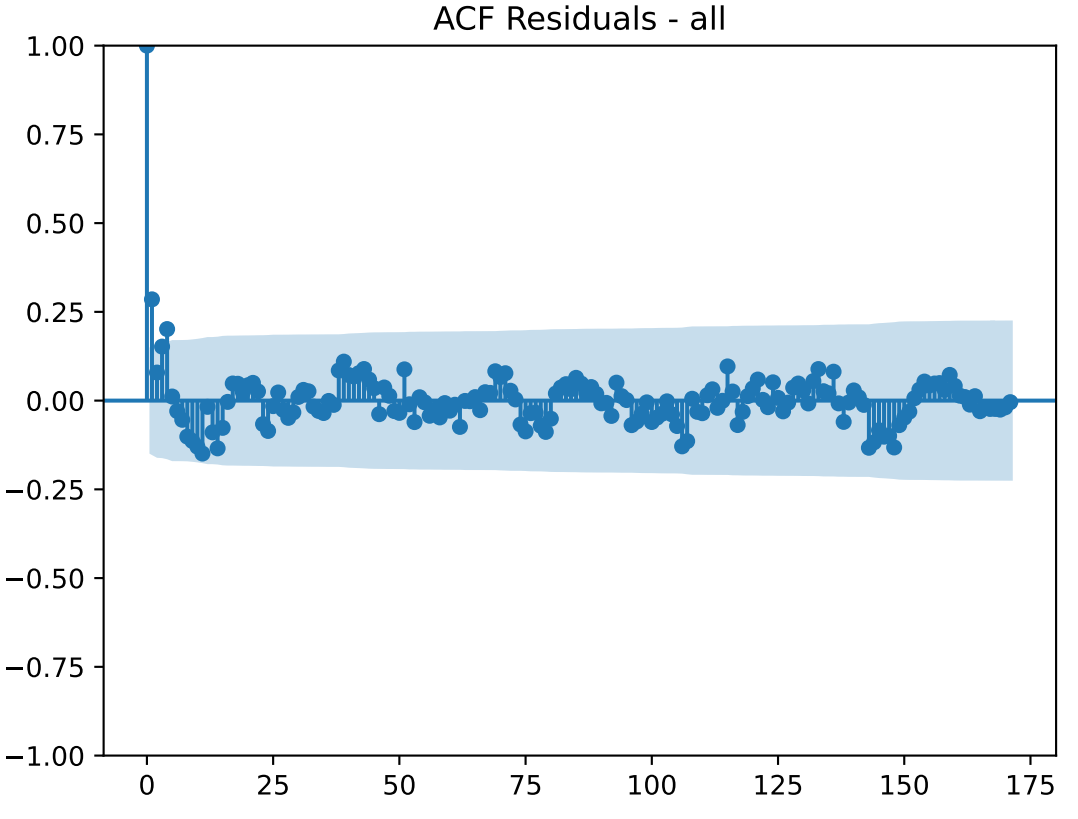

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

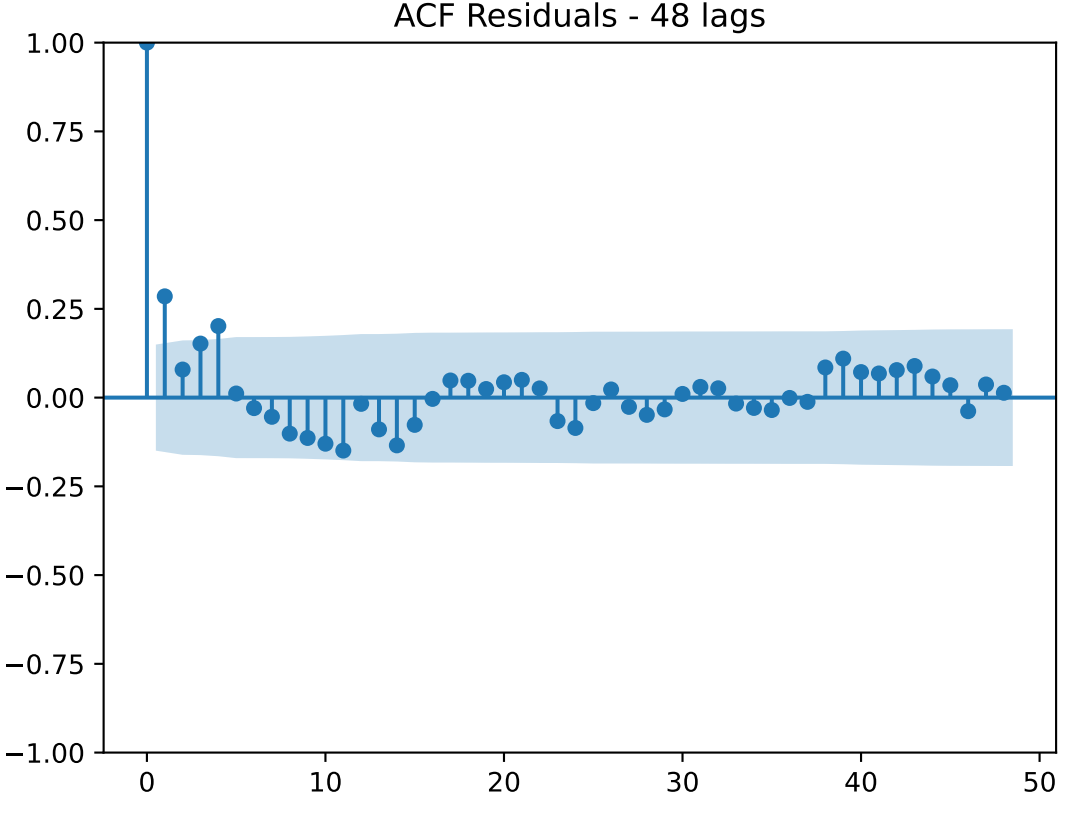

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

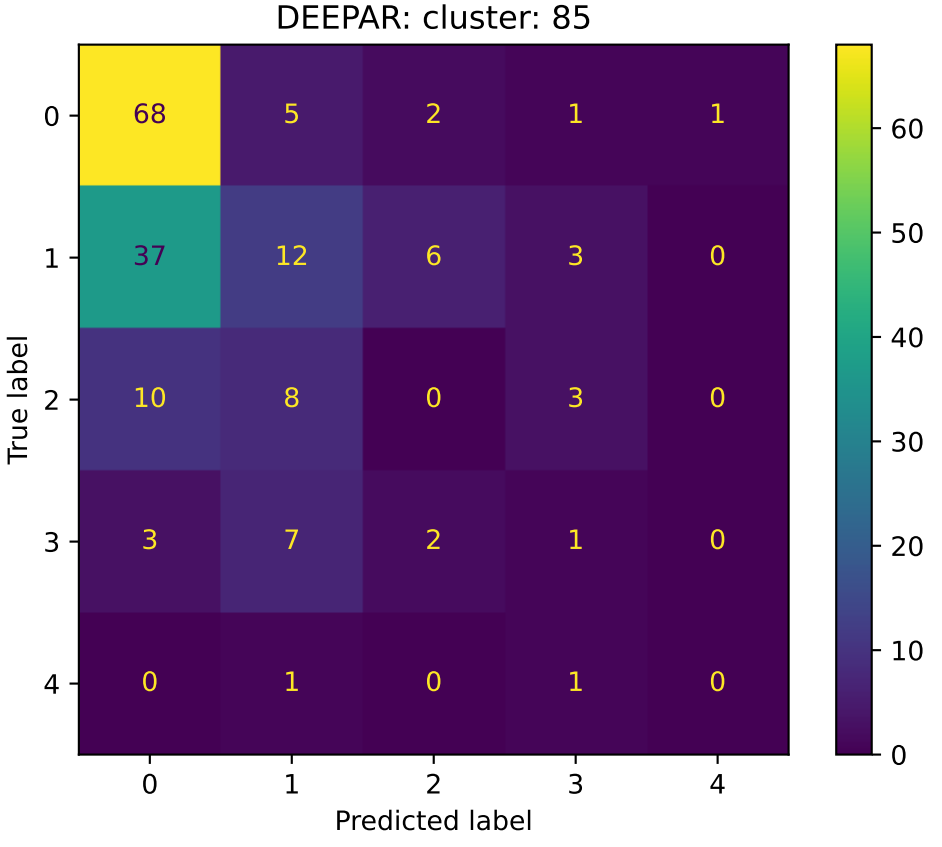

DEEPAR: cluster: 79
True label
Predicted label
0 31 7 2 2 0 0 0 0
1 16 11 6 6 1 1 0 0
2 8 12 8 7 1 0 0 0
3 5 8 5 7 7 0 0 0
4 1 2 2 4 2 1 0 0
5 0 1 0 2 0 0 0 0
6 0 1 1 1 0 0 0 0
7 0 0 0 0 2 0 0 0
0 1 2 3 4 5 6 7
30 25 20 15 10 5 0

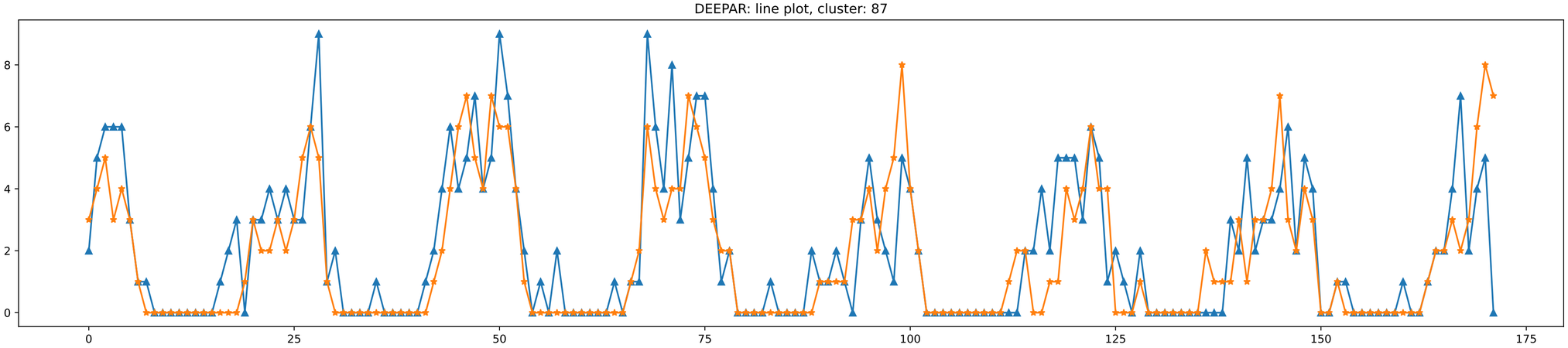

DEEPAR: line plot, cluster: 85
0
1
2
3
4
5
0
25
50
75
100
125
150
175

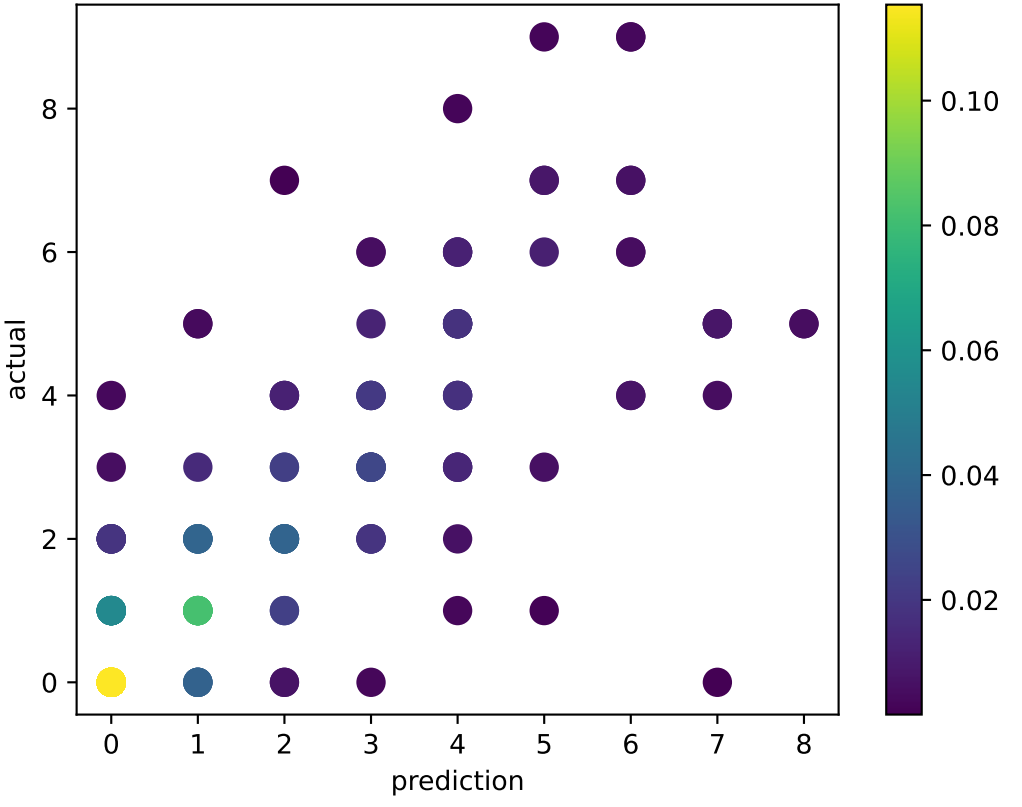

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

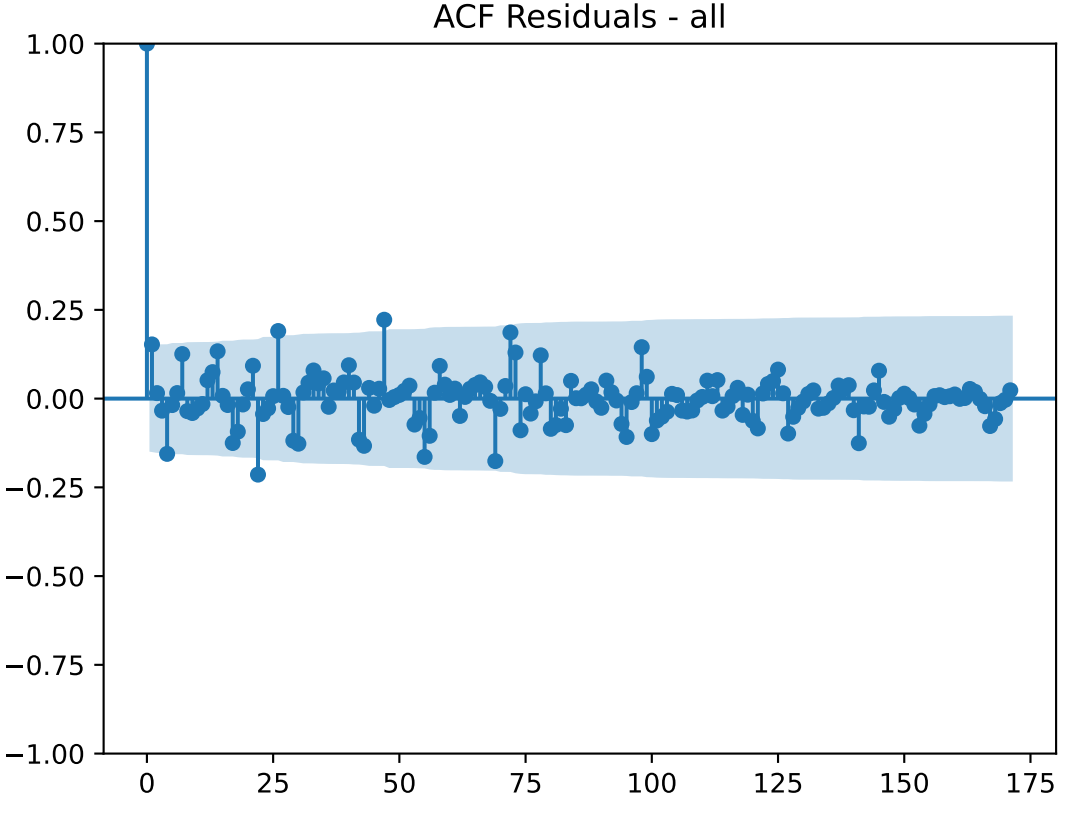

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

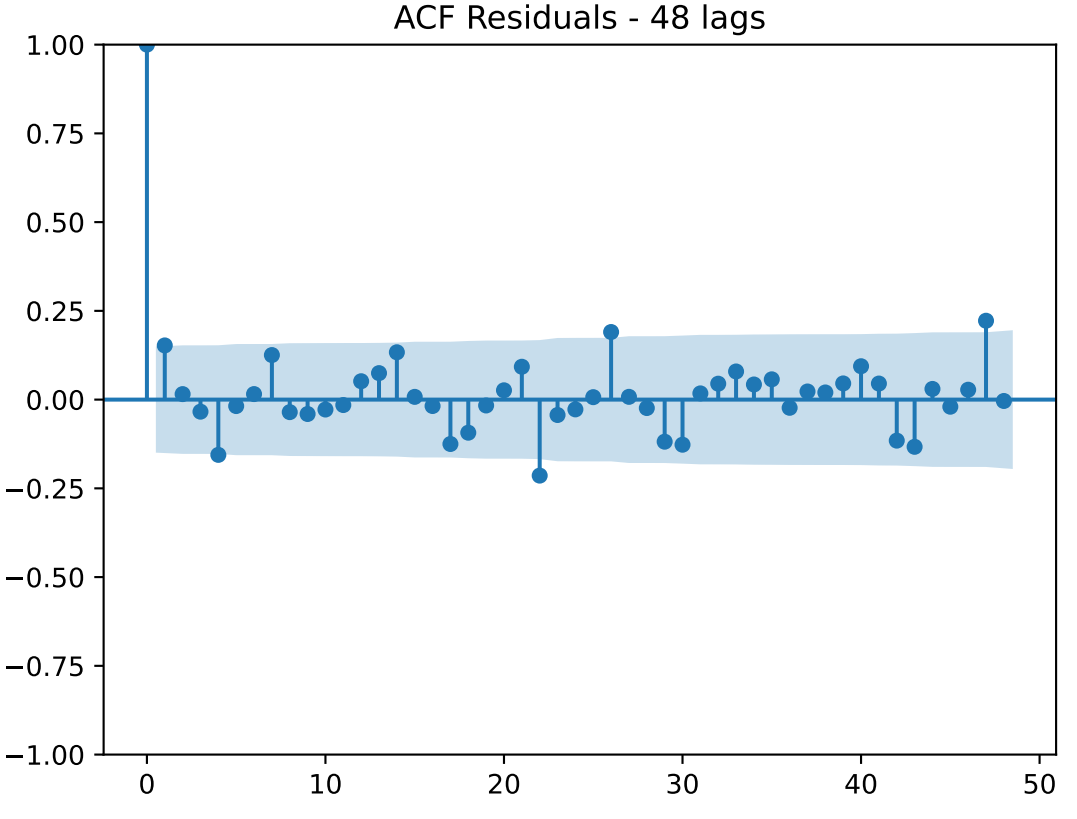

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

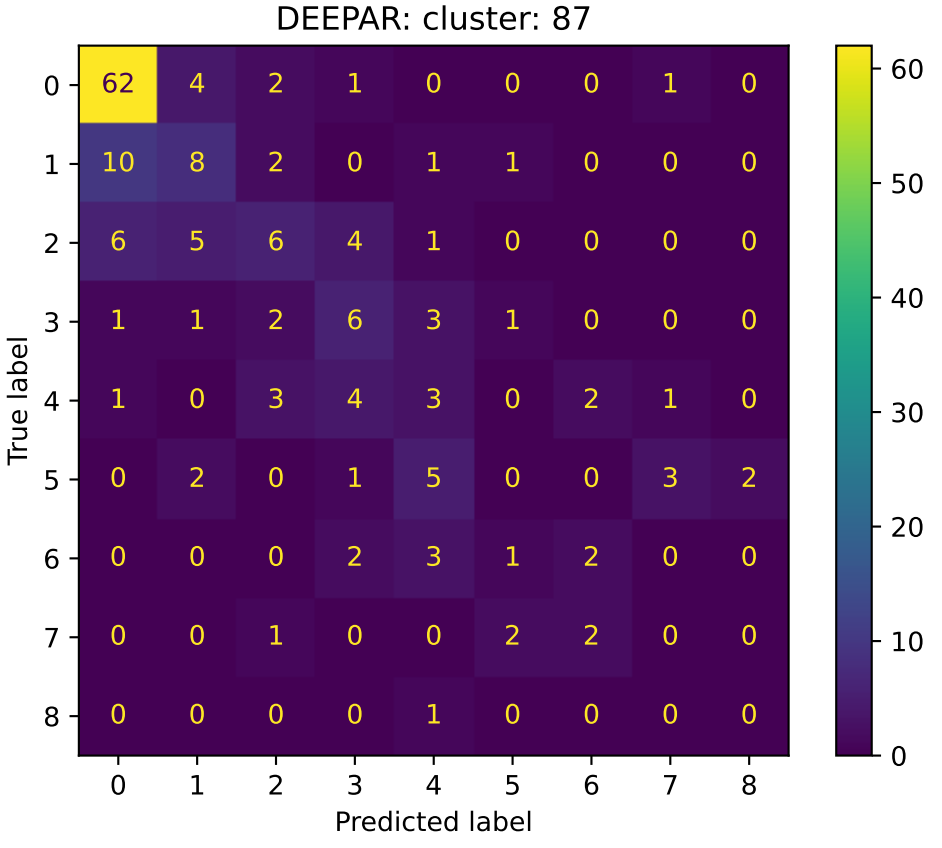

DEEPAR: cluster: 85
True label
Predicted label
0
1
2
3
4
68 5 2 1 1
37 12 6 3 0
10 8 0 3 0
3 7 2 1 0
0 1 0 1 0
60
50
40
30
20
10
0

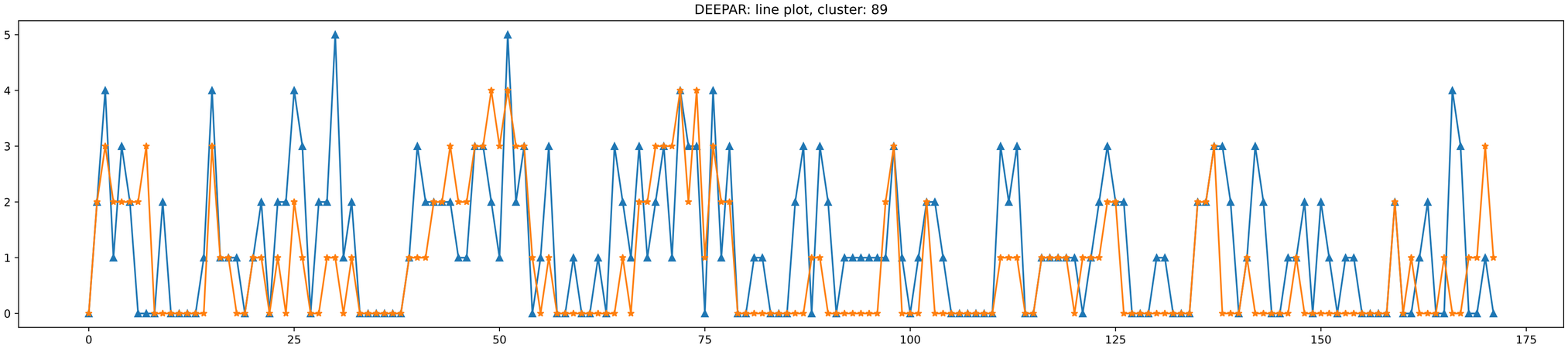

DEEPAR: line plot, cluster: 87
0
2
4
6
8
0
25
50
75
100
125
150
175

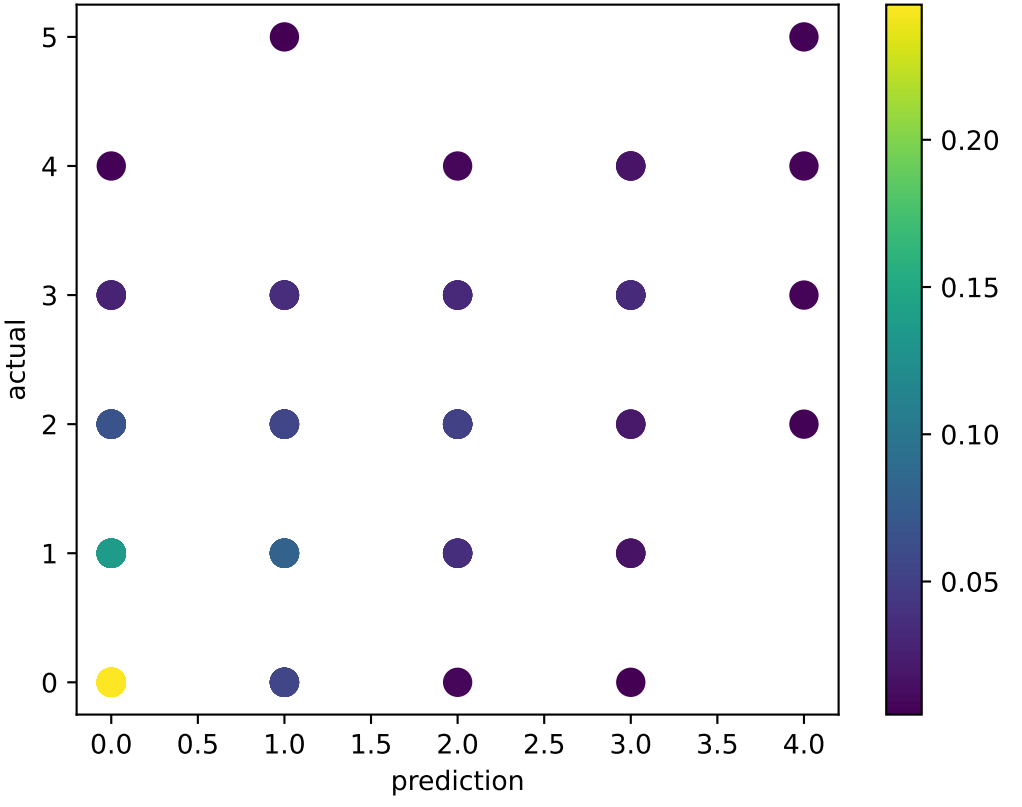

actual
prediction
0
1
2
3
4
5
6
7
8
0.10
0.08
0.06
0.04
0.02

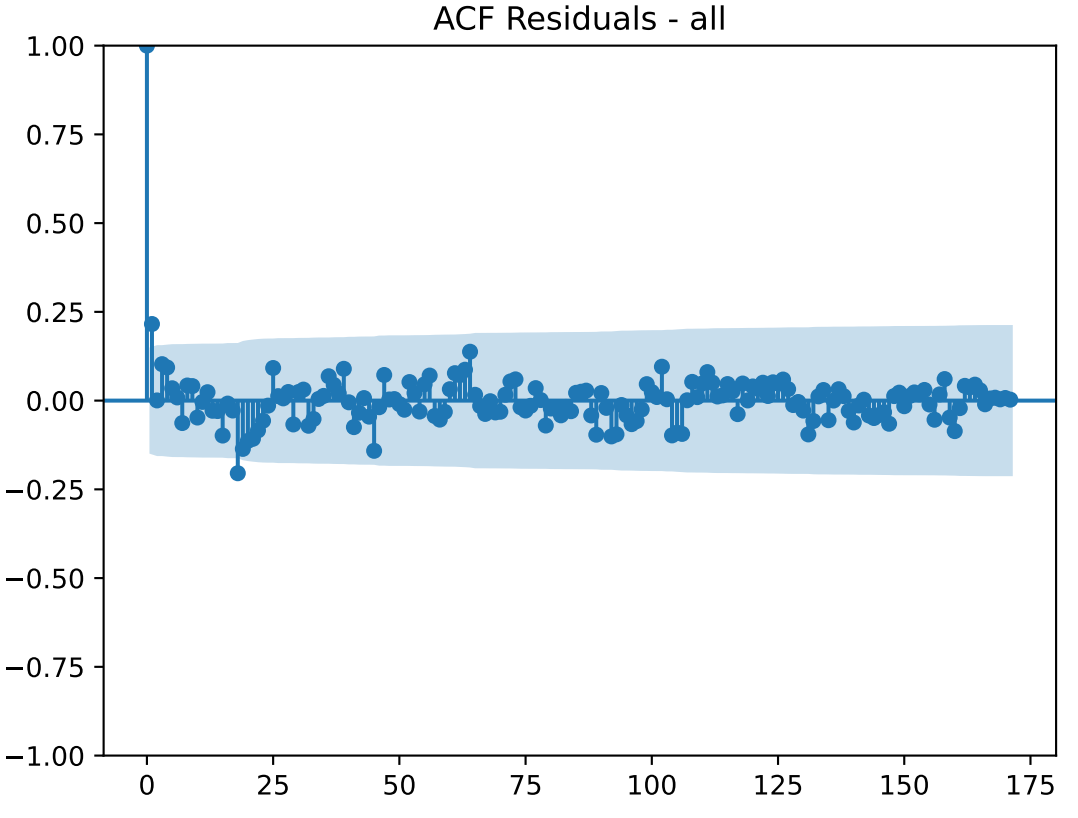

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

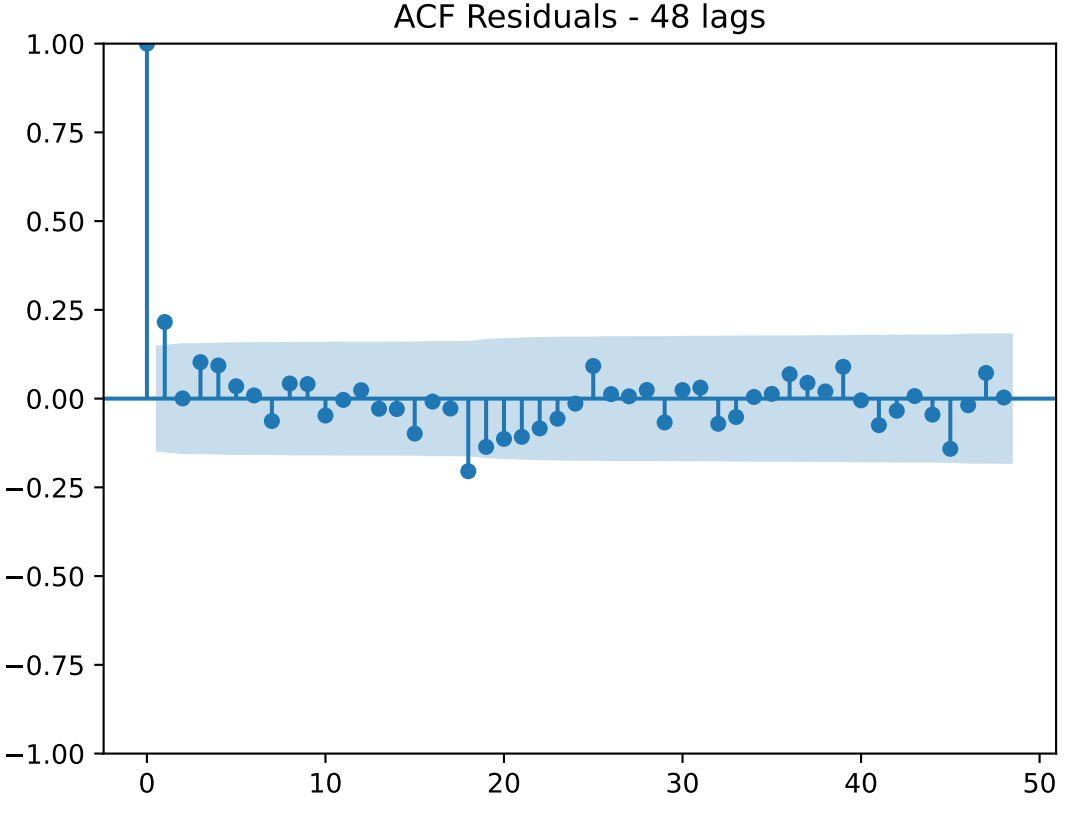

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

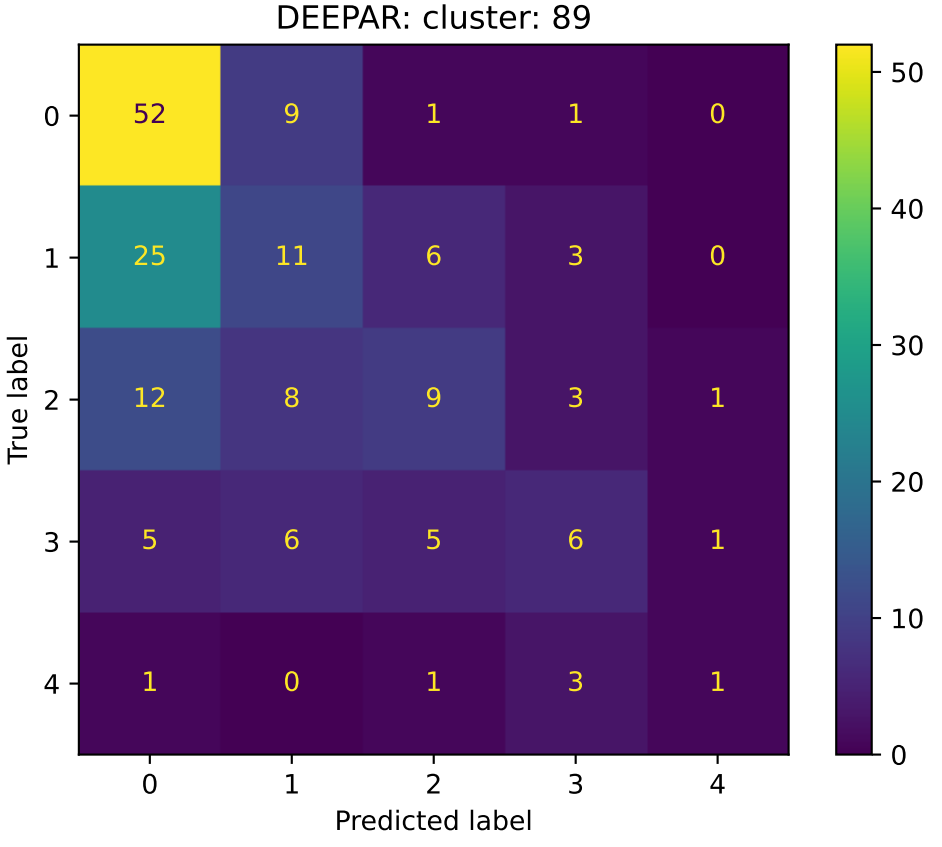

DEEPAR: cluster: 87
True label
Predicted label
0 1 2 3 4 5 6 7 8
62 4 2 1 0 0 0 1 0
10 8 2 0 1 1 0 0 0
6 5 6 4 1 0 0 0 0
1 1 2 6 3 1 0 0 0
1 0 3 4 3 0 2 1 0
0 2 0 1 5 0 0 3 2
0 0 0 2 3 1 2 0 0
0 0 1 0 0 2 2 0 0
0 0 0 0 1 0 0 0 0
60 50 40 30 20 10 0

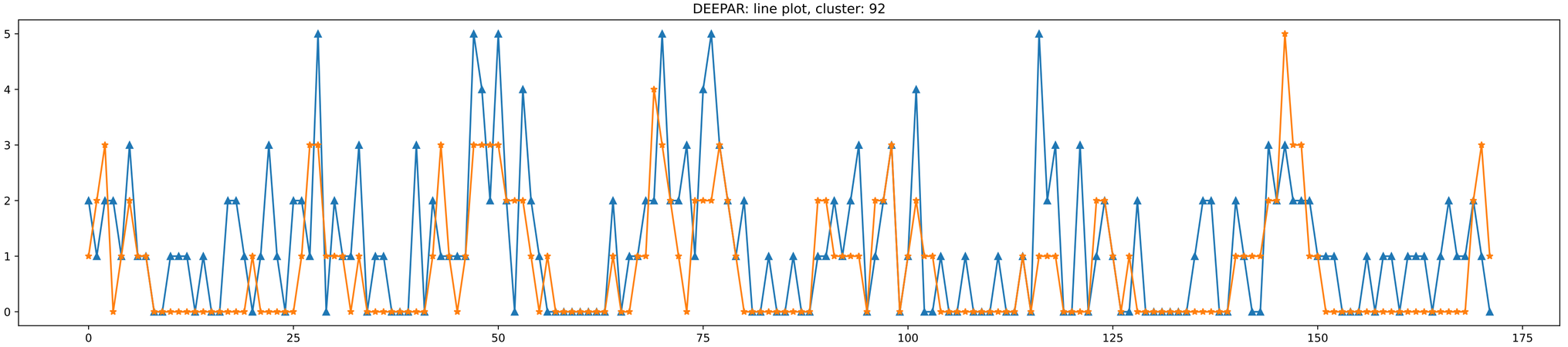

DEEPAR: line plot, cluster: 89
0
1
2
3
4
5
0
25
50
75
100
125
150
175

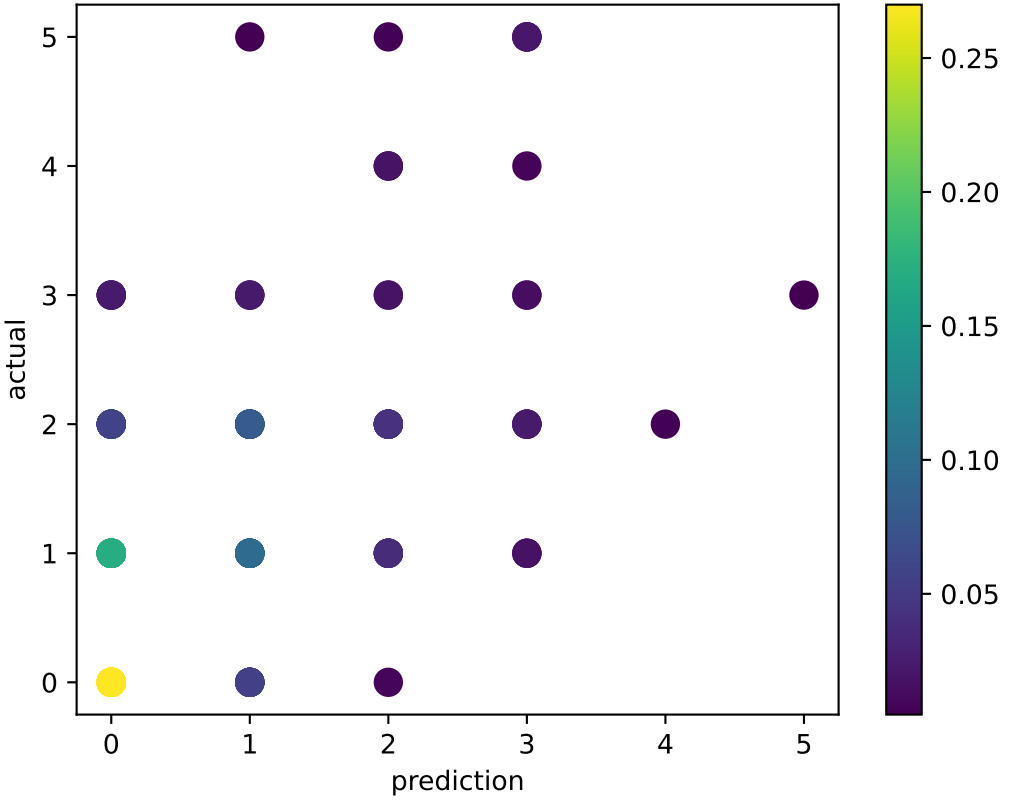

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.20
0.15
0.10
0.05

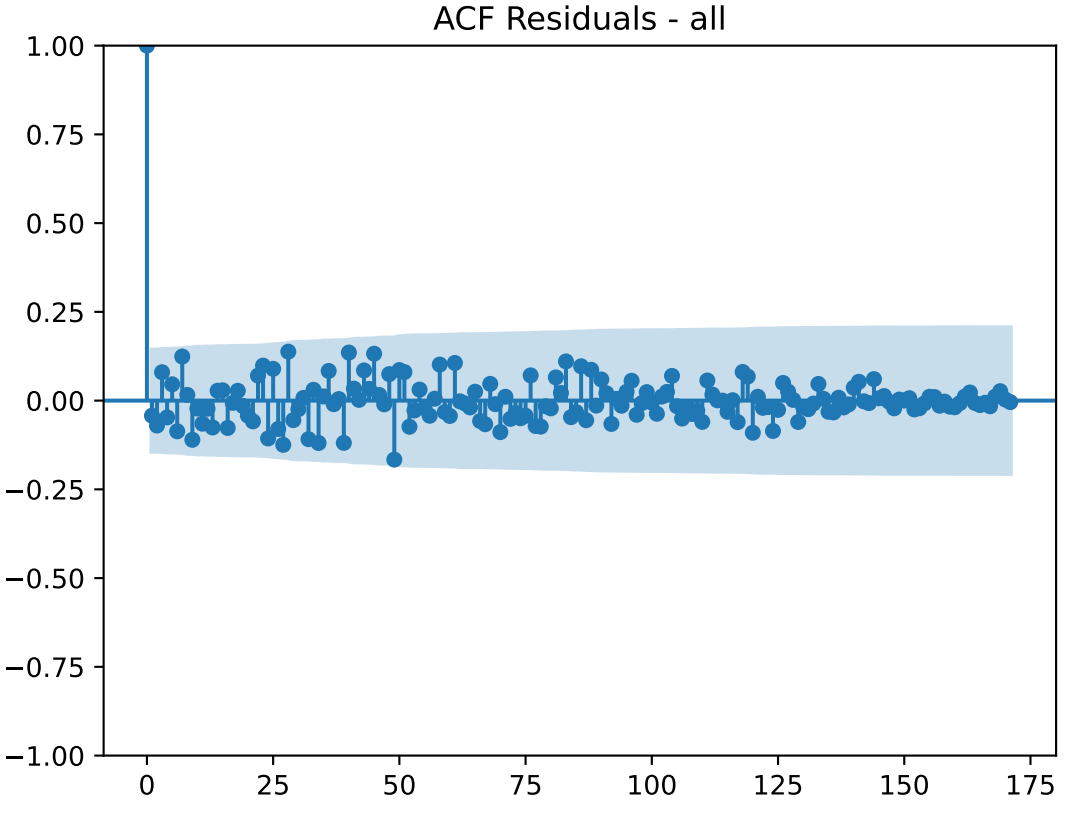

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

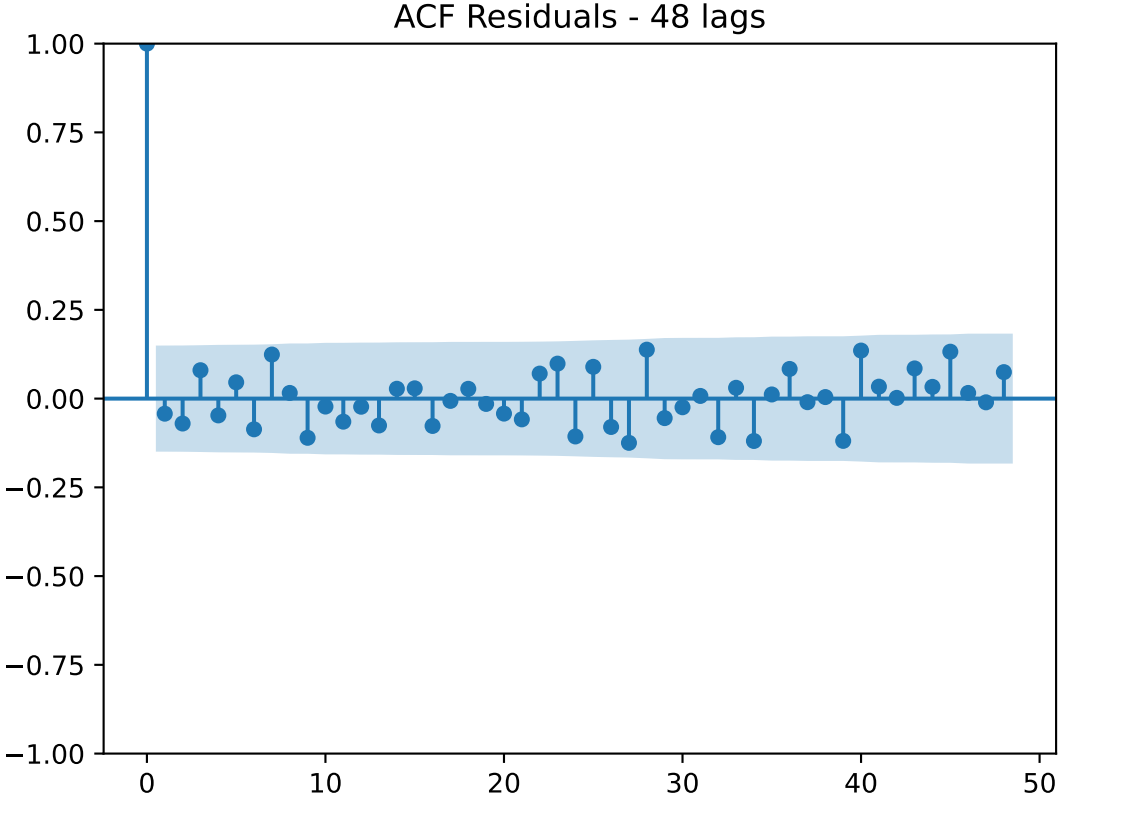

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

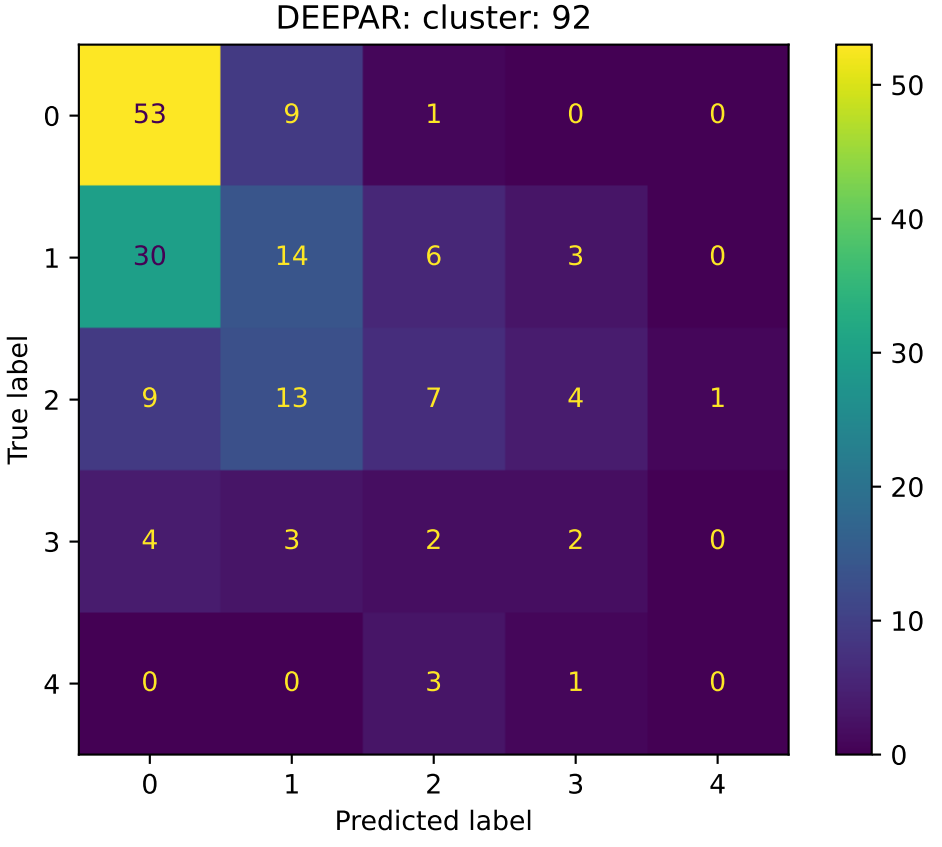

DEEPAR: cluster: 89
True label
Predicted label
0
1
2
3
4
52
9
1
1
0
25
11
6
3
0
12
8
9
3
1
5
6
5
6
1
1
0
1
3
1
50
40
30
20
10
0

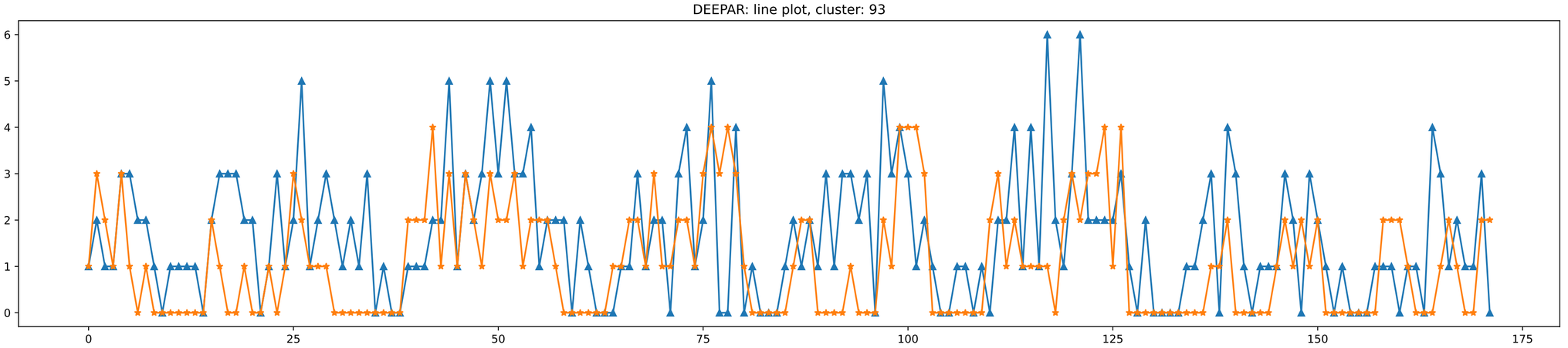

DEEPAR: line plot, cluster: 92
0
1
2
3
4
5
0
25
50
75
100
125
150
175

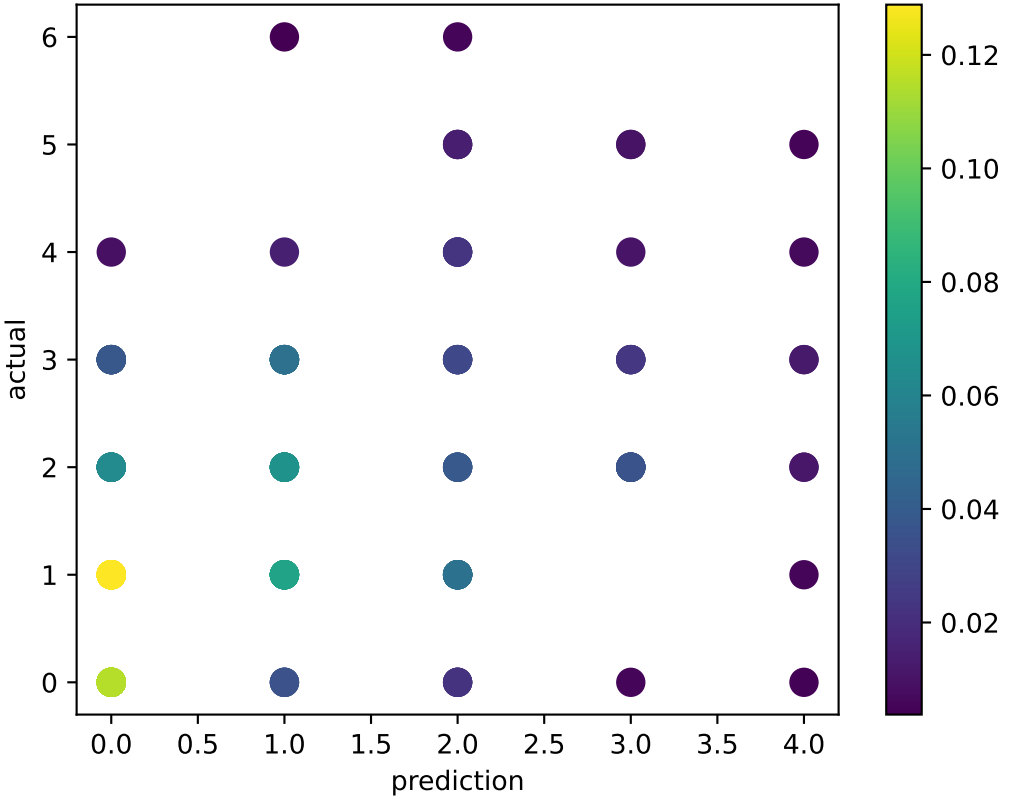

actual
prediction
0
1
2
3
4
5
0.25
0.20
0.15
0.10
0.05

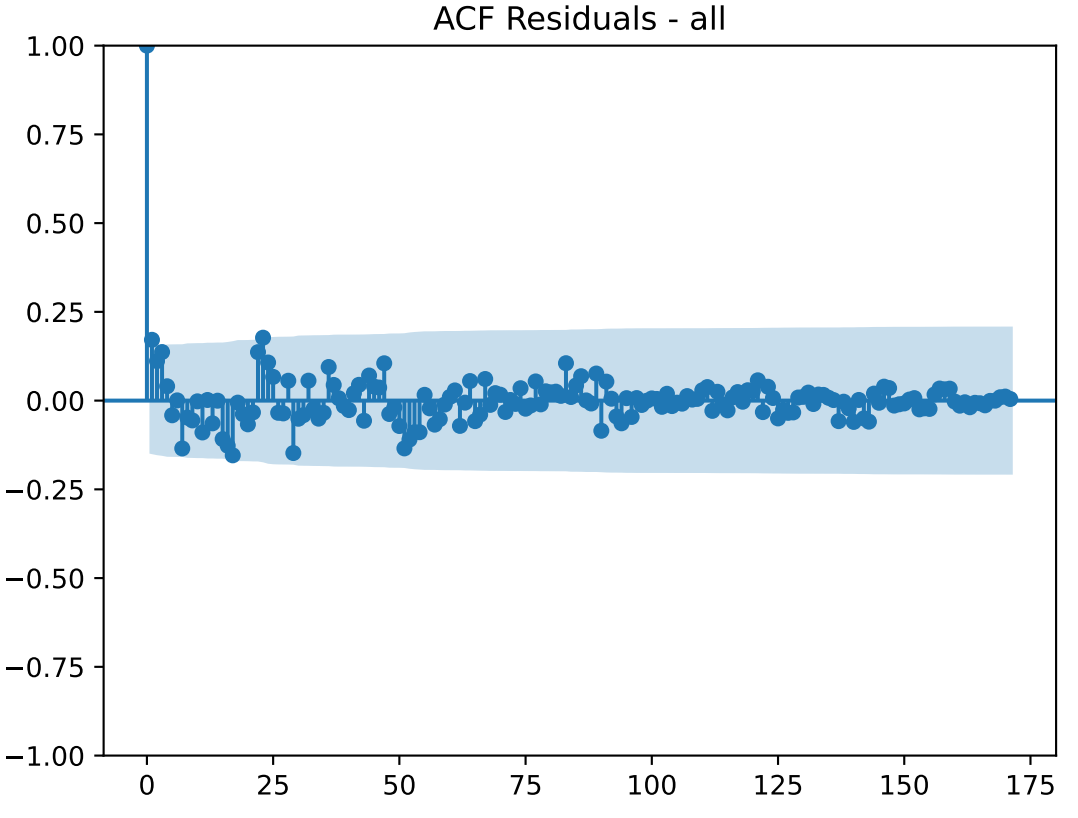

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

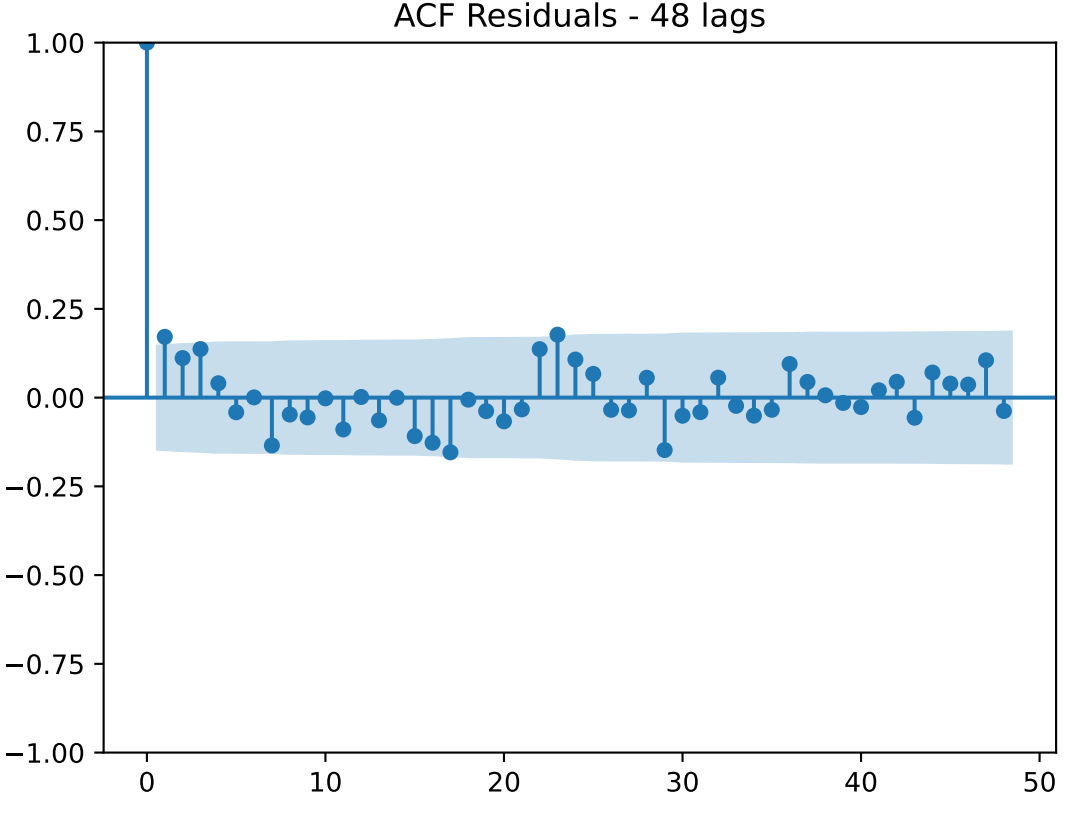

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

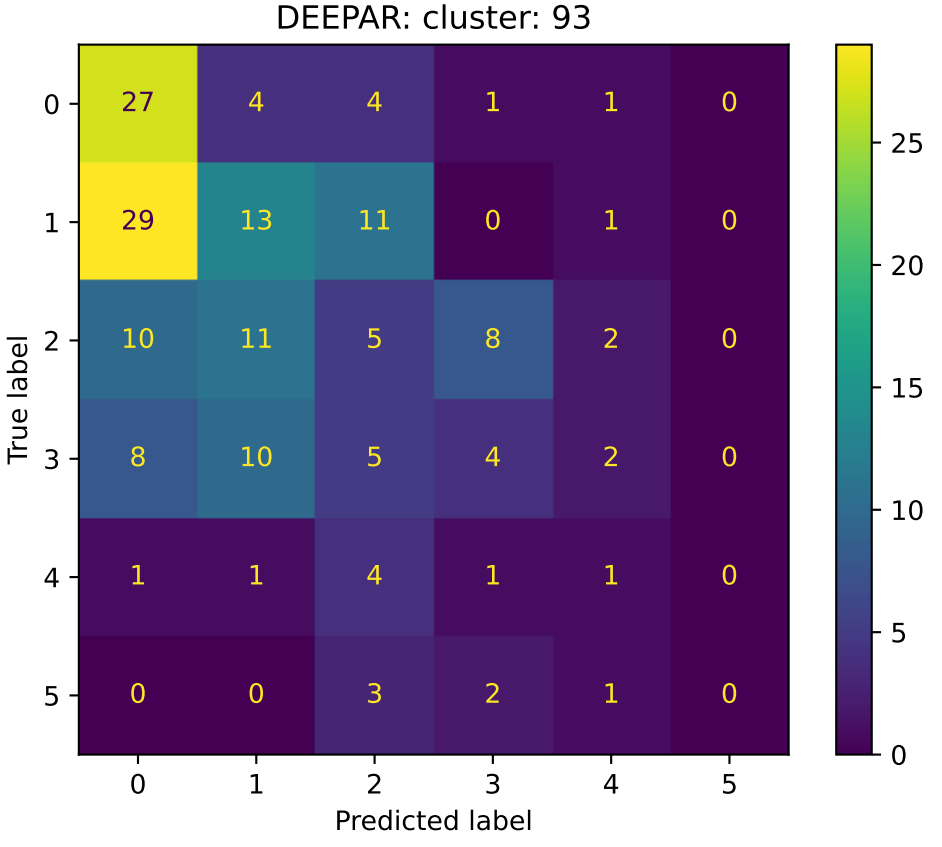

DEEPAR: cluster: 92
True label
Predicted label
0
1
2
3
4
53
9
1
0
0
30
14
6
3
0
9
13
7
4
1
4
3
2
2
0
0
0
3
1
0
50
40
30
20
10
0

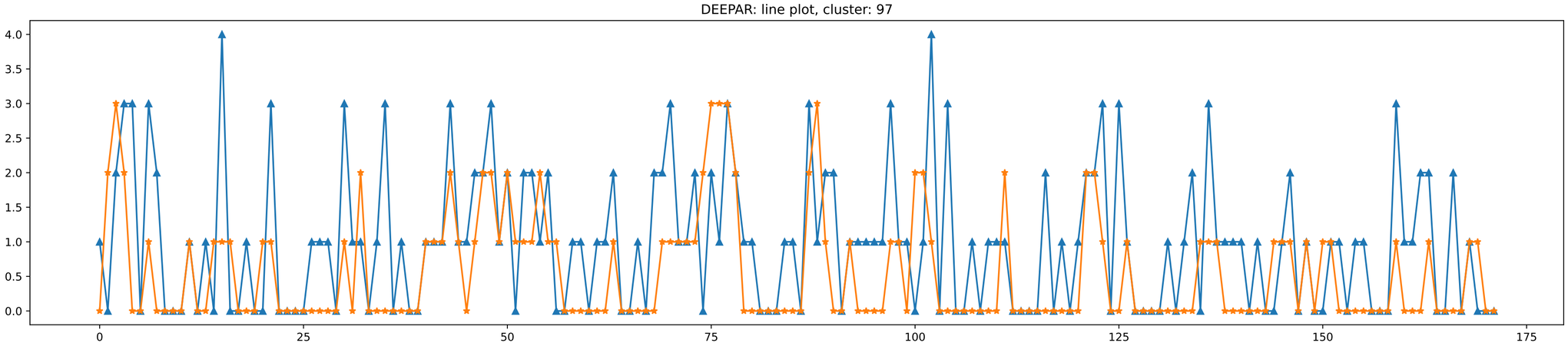

DEEPAR: line plot, cluster: 93
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

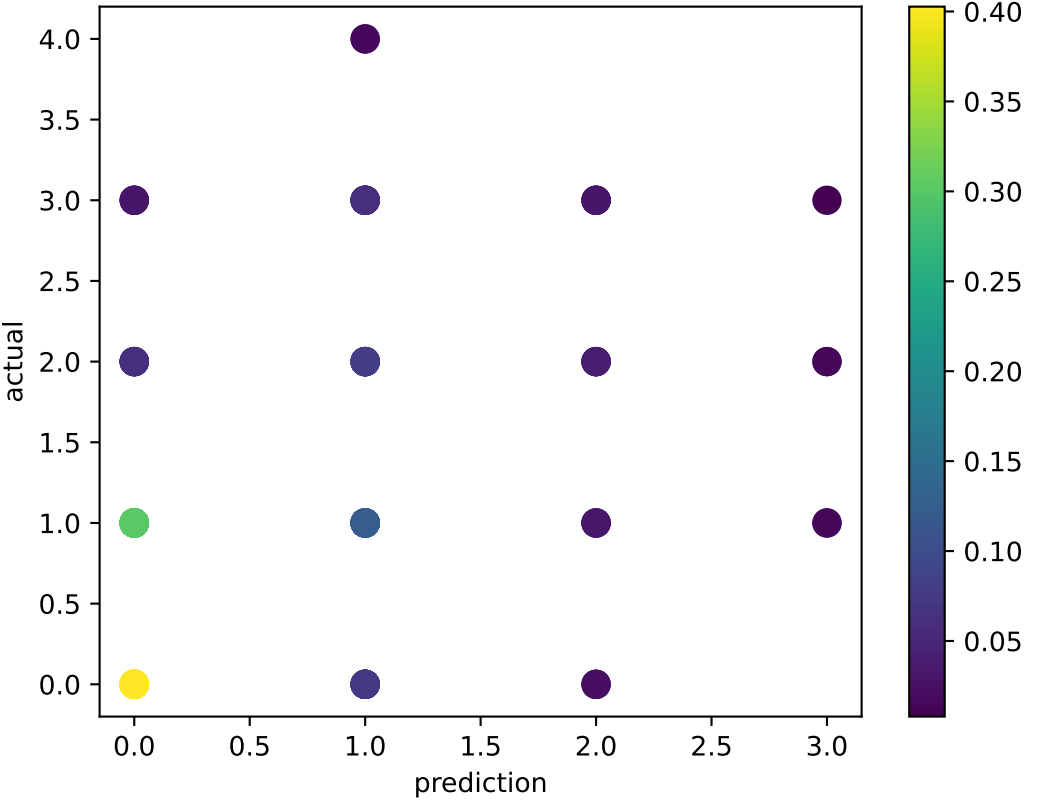

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.12
0.10
0.08
0.06
0.04
0.02

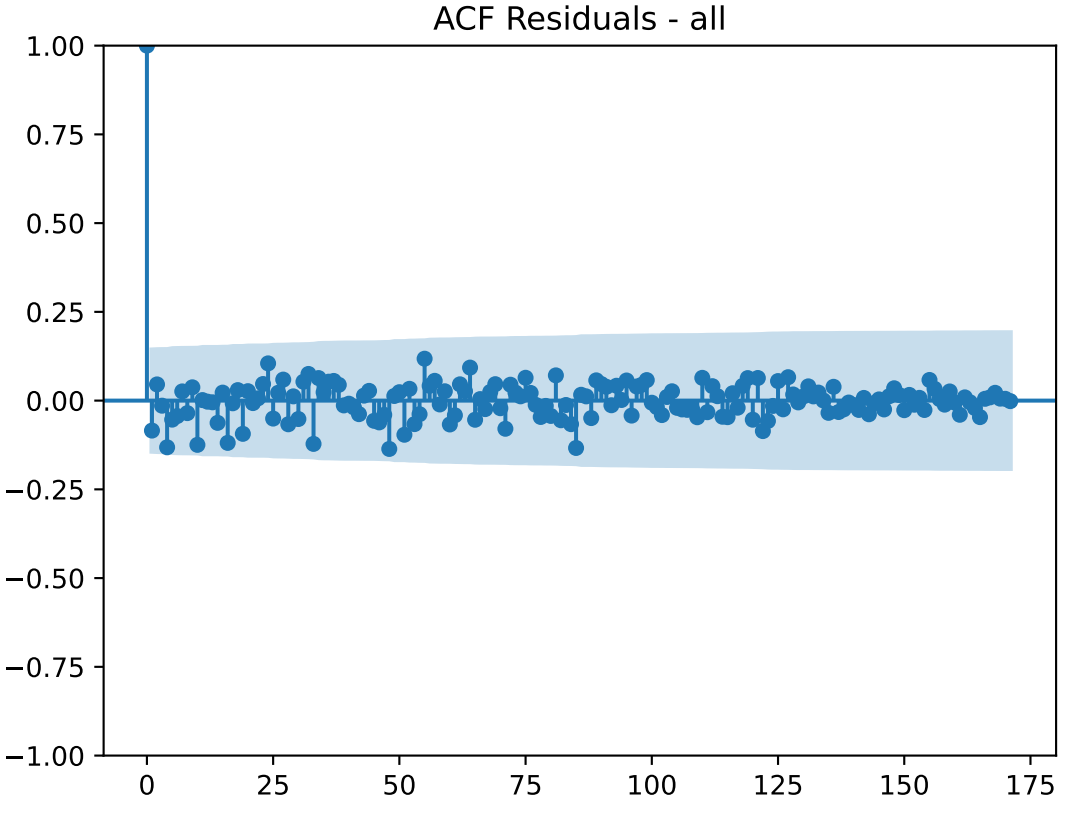

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

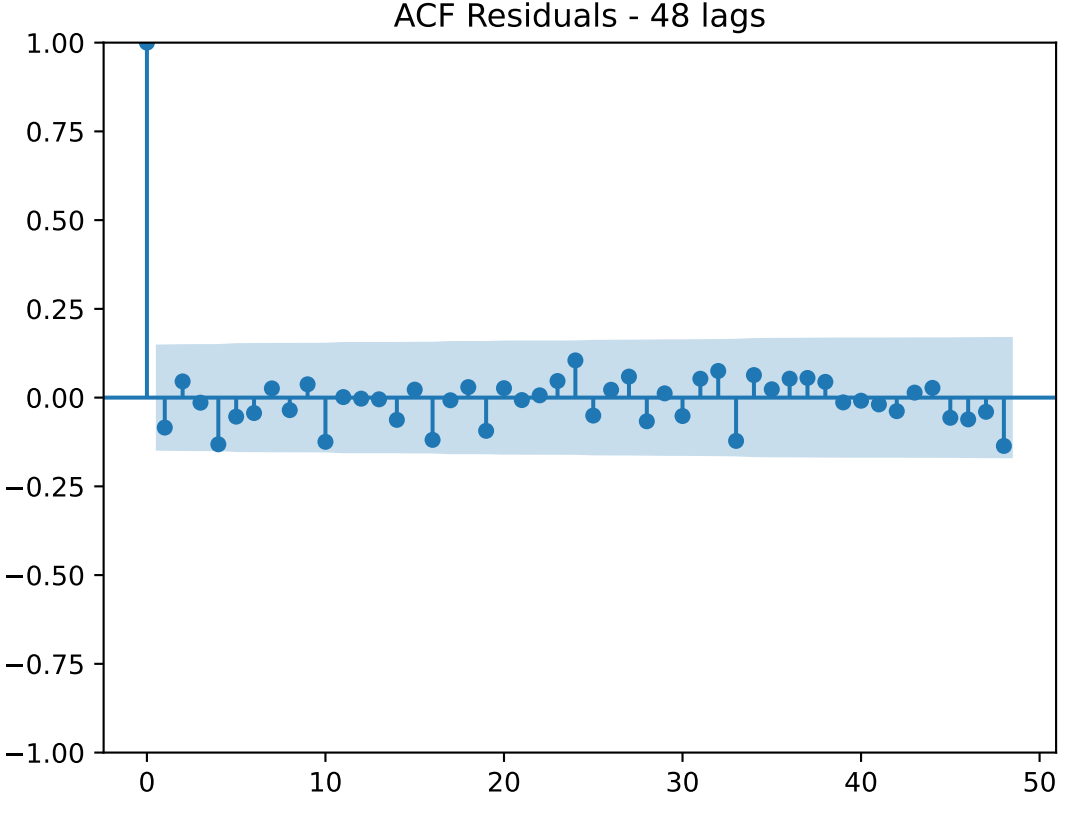

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

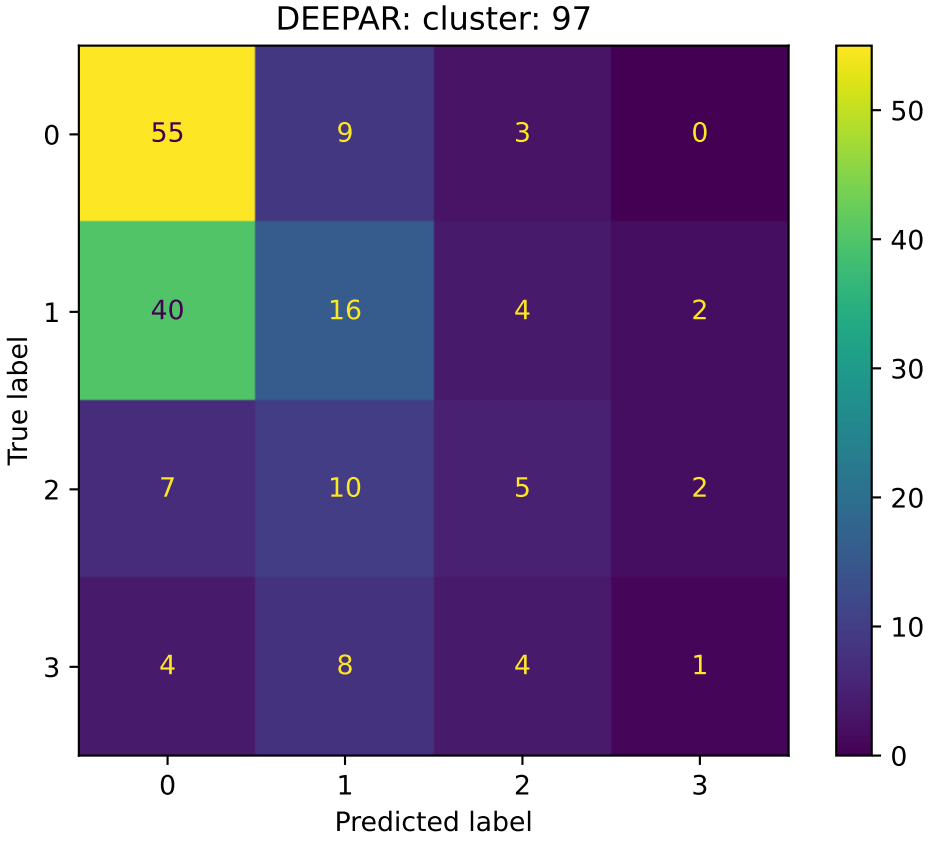

DEEPAR: cluster: 93
True label
Predicted label
0
1
2
3
4
5
27 4 4 1 1 0
29 13 11 0 1 0
10 11 5 8 2 0
8 10 5 4 2 0
1 1 4 1 1 0
0 0 3 2 1 0
0
5
10
15
20
25

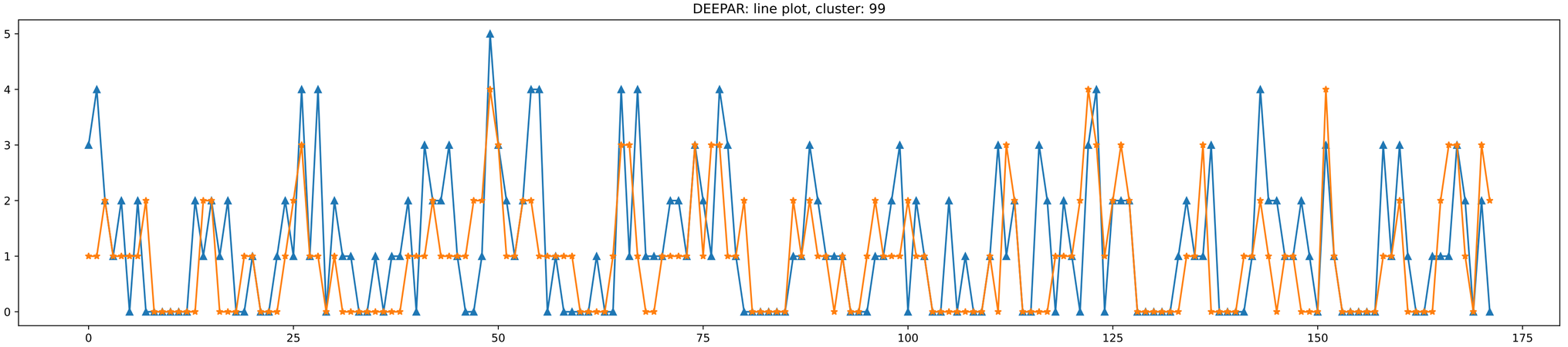

DEEPAR: line plot, cluster: 97
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
25
50
75
100
125
150
175

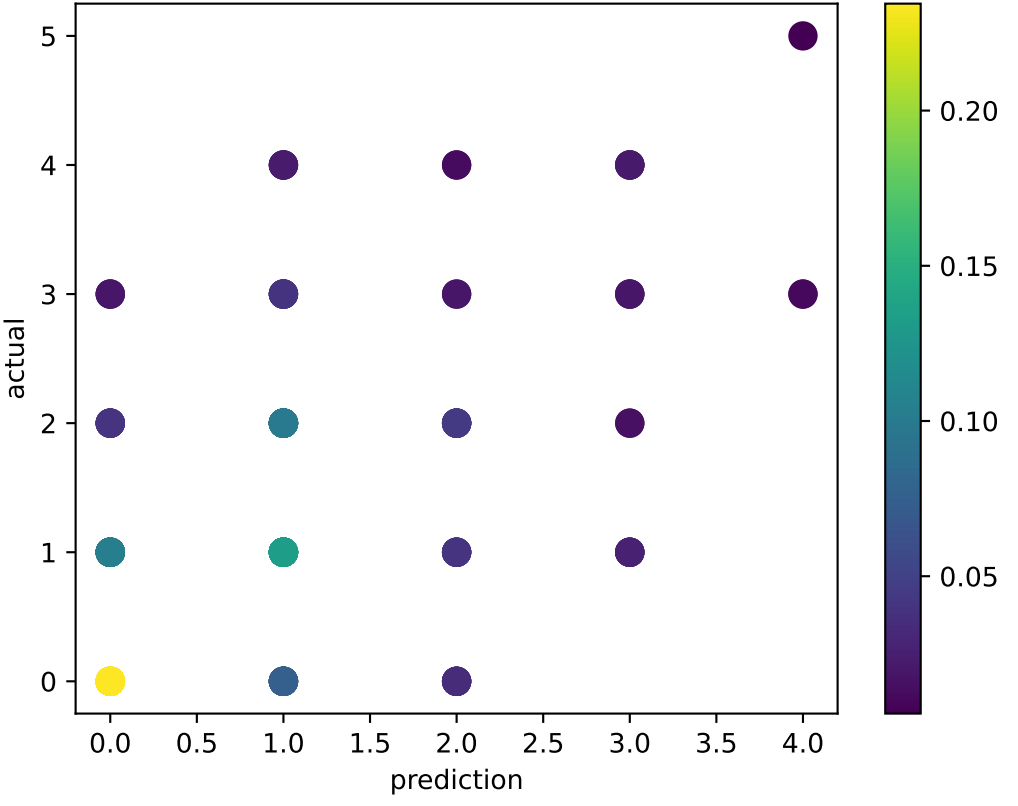

actual
prediction
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

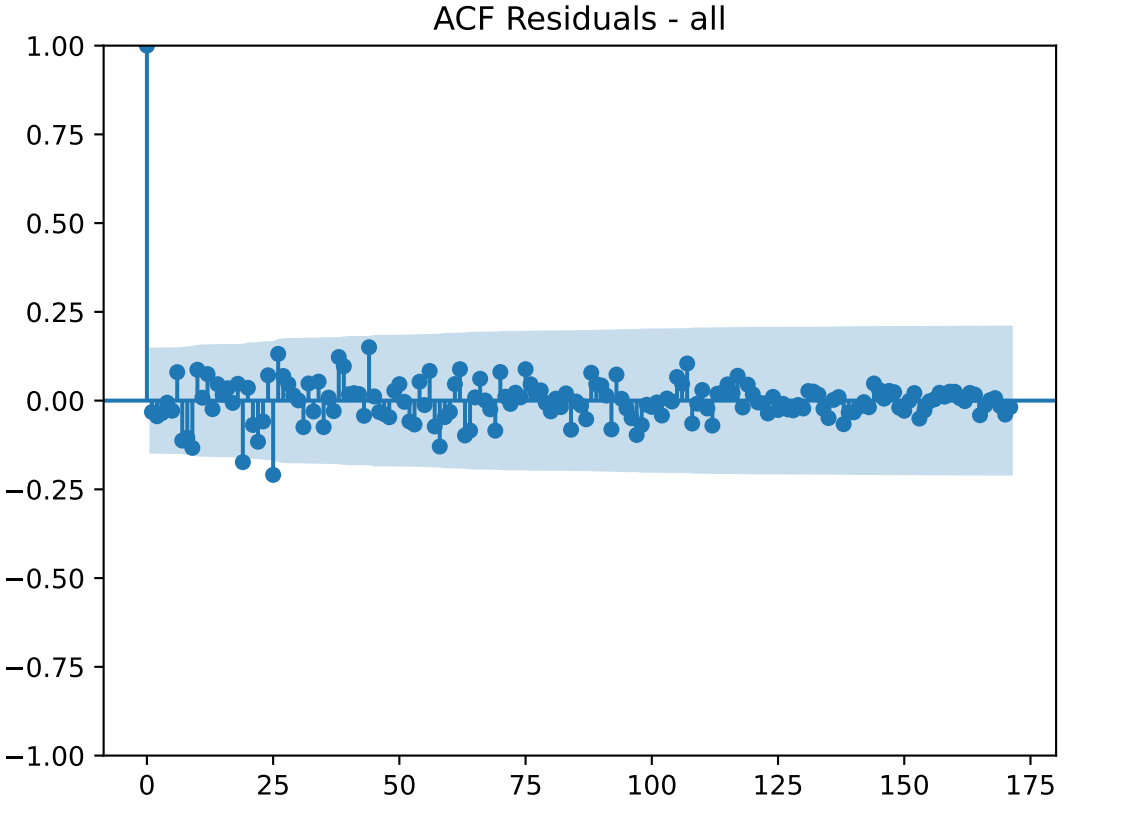

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

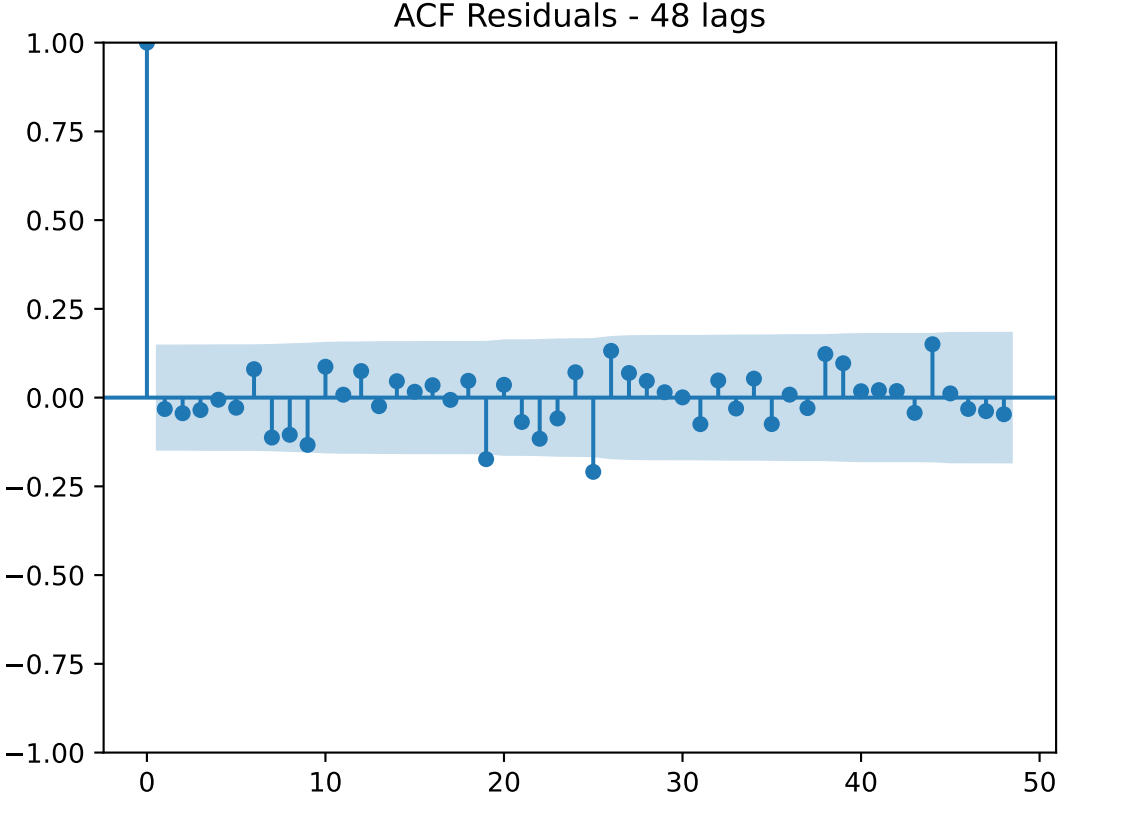

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

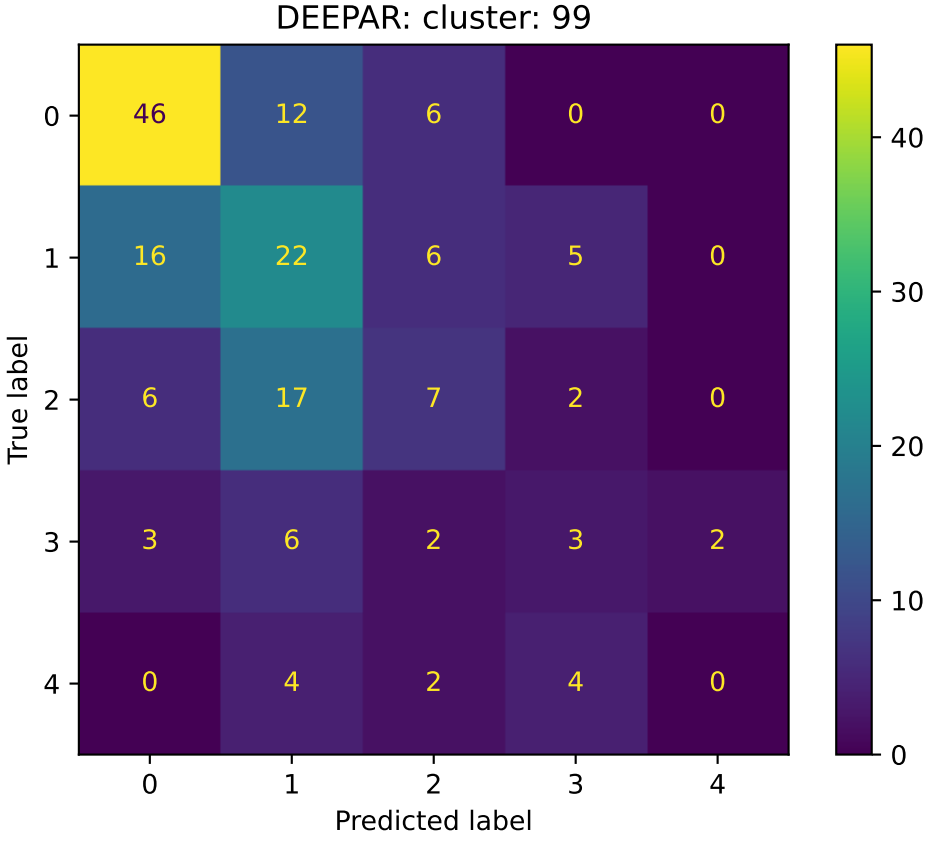

DEEPAR: cluster: 97
True label
Predicted label
0
1
2
3
55
9
3
0
40
16
4
2
7
10
5
2
4
8
4
1
50
40
30
20
10
0

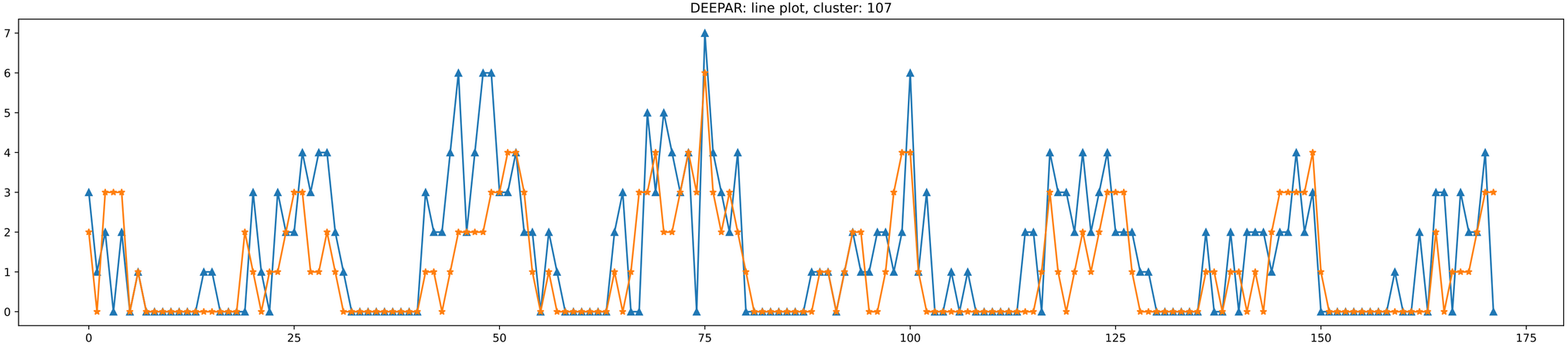

DEEPAR: line plot, cluster: 99
0
1
2
3
4
5
0
25
50
75
100
125
150
175

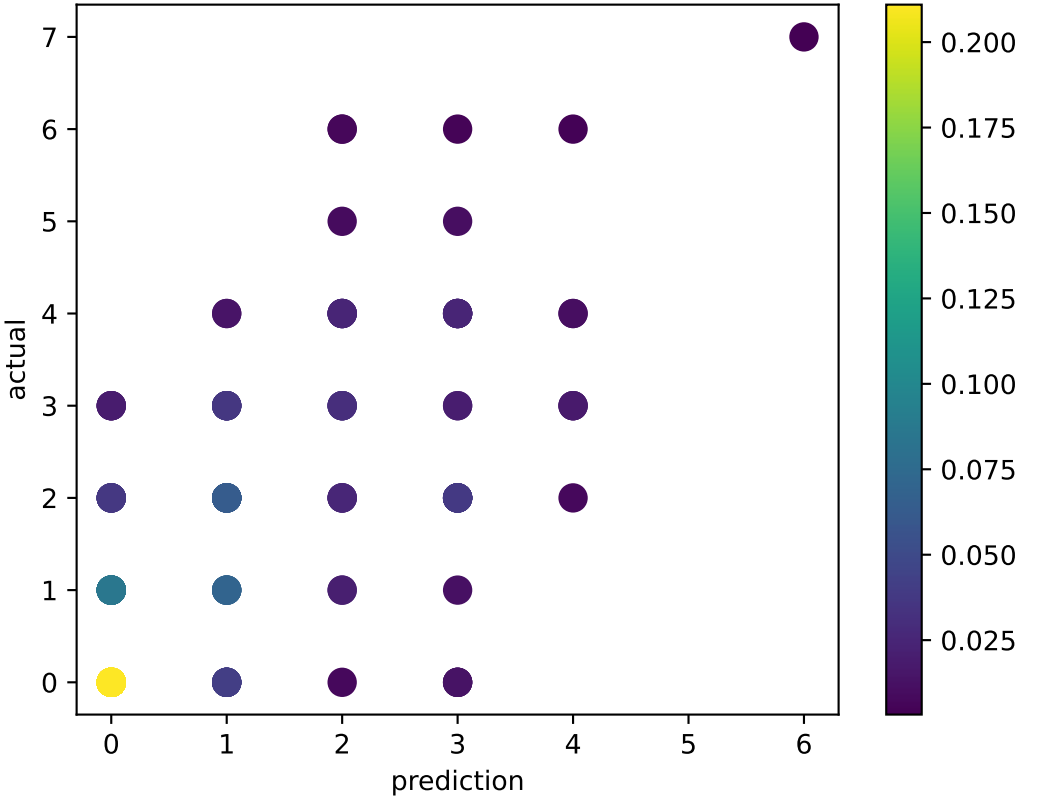

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.20
0.15
0.10
0.05

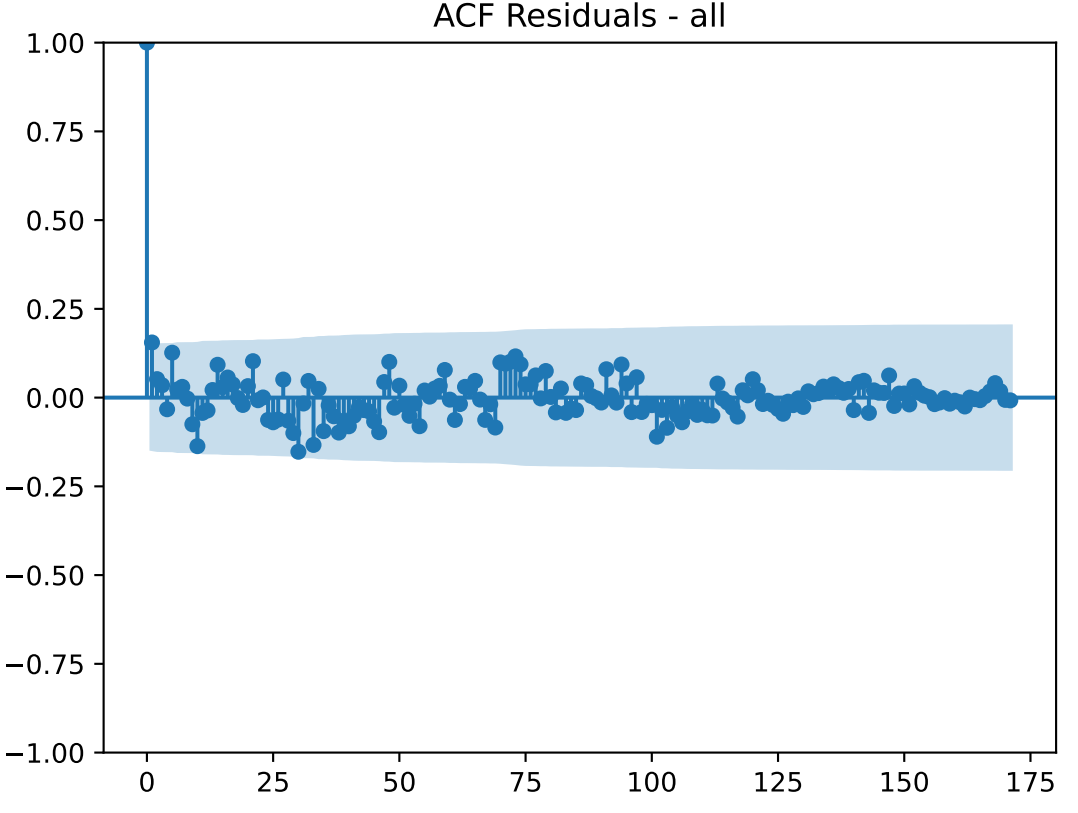

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

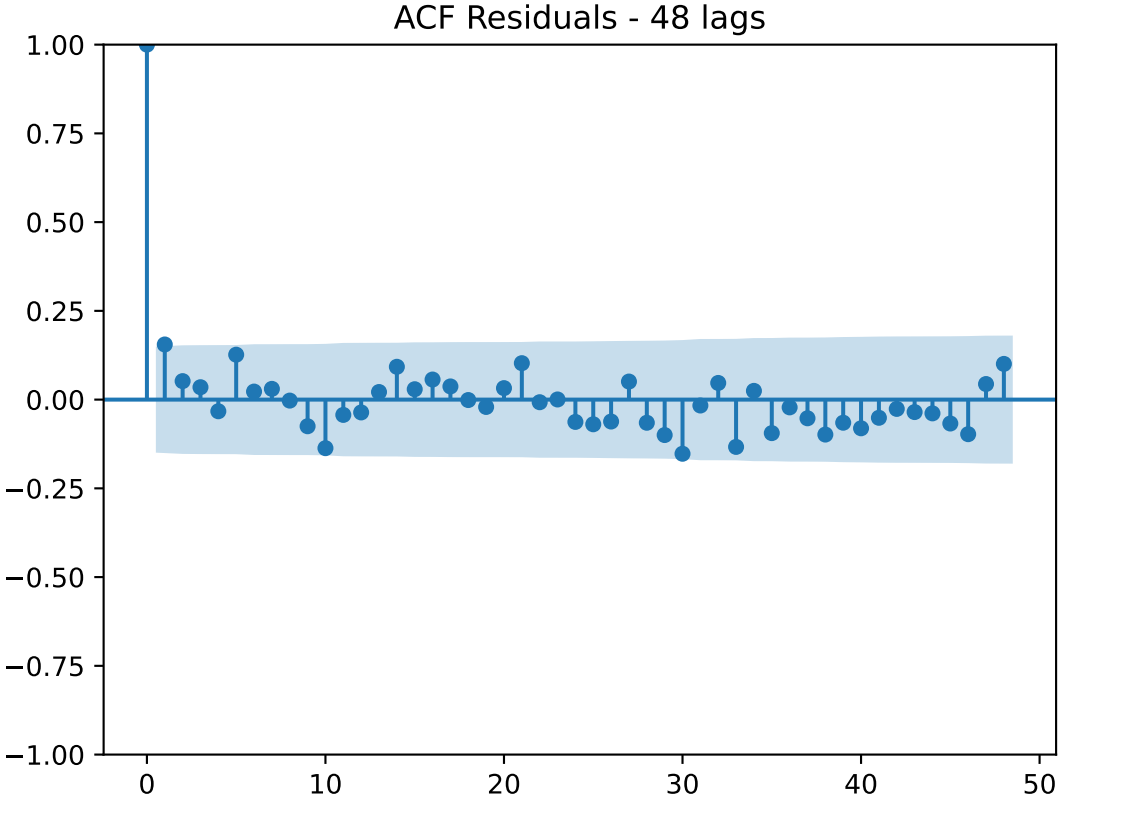

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

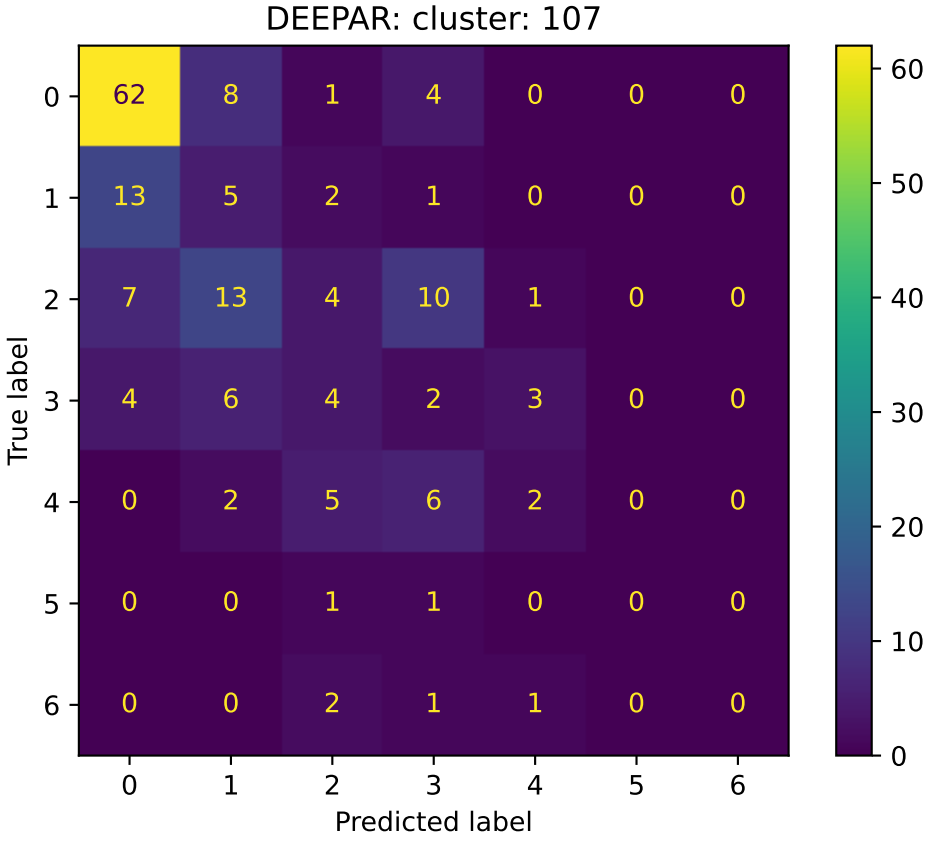

DEEPAR: cluster: 99
True label
Predicted label
0
1
2
3
4
46
12
6
0
0
16
22
6
5
0
6
17
7
2
0
3
6
2
3
2
0
4
2
4
0
40
30
20
10
0

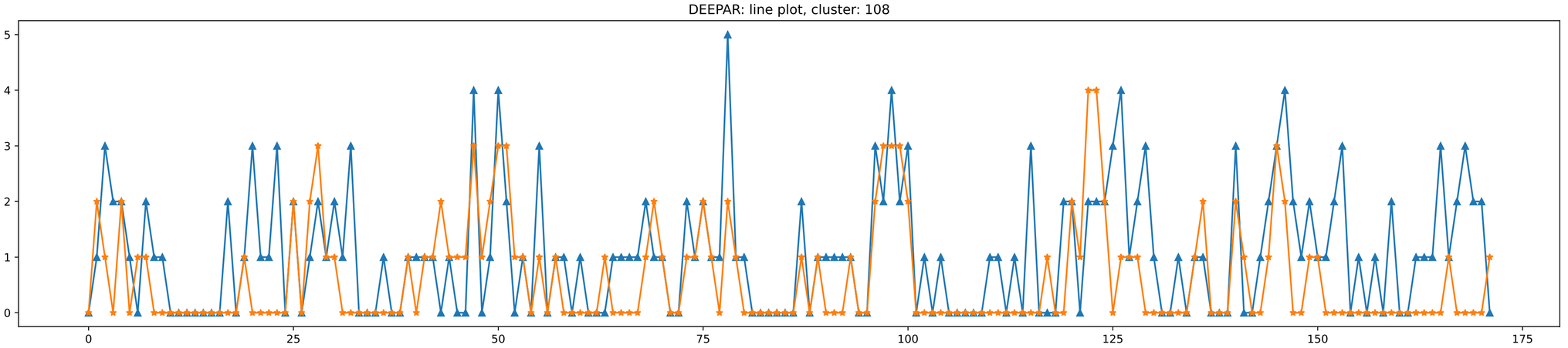

DEEPAR: line plot, cluster: 107
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

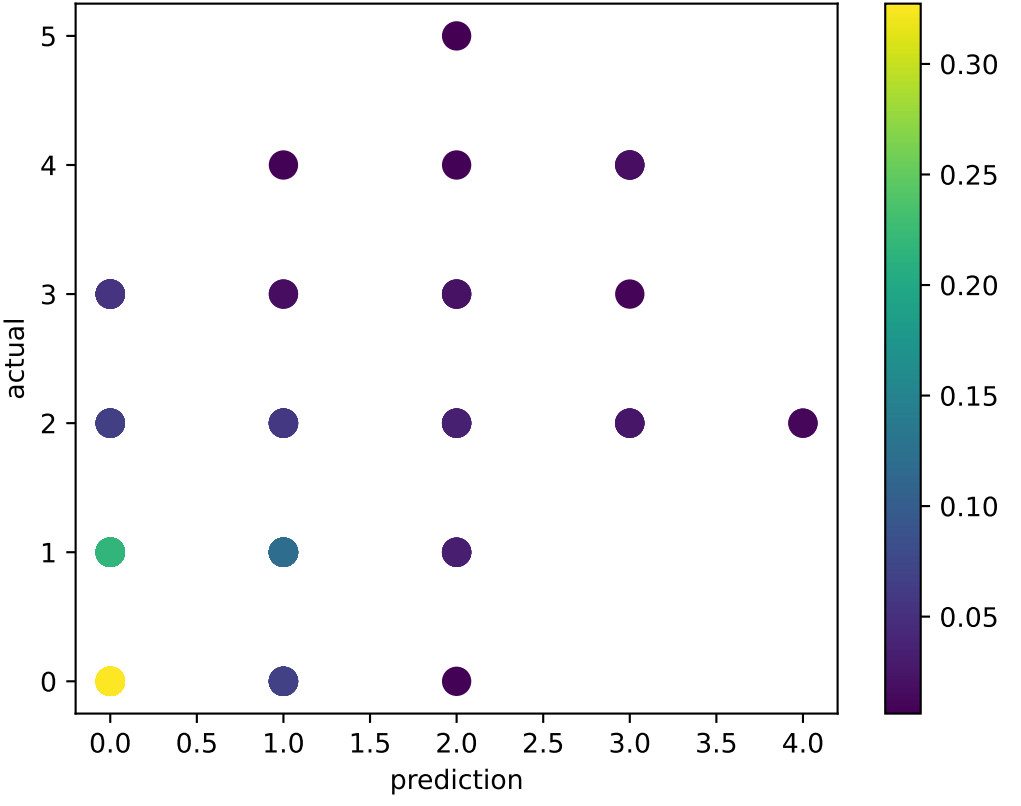

actual
prediction
0
1
2
3
4
5
6
7
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025

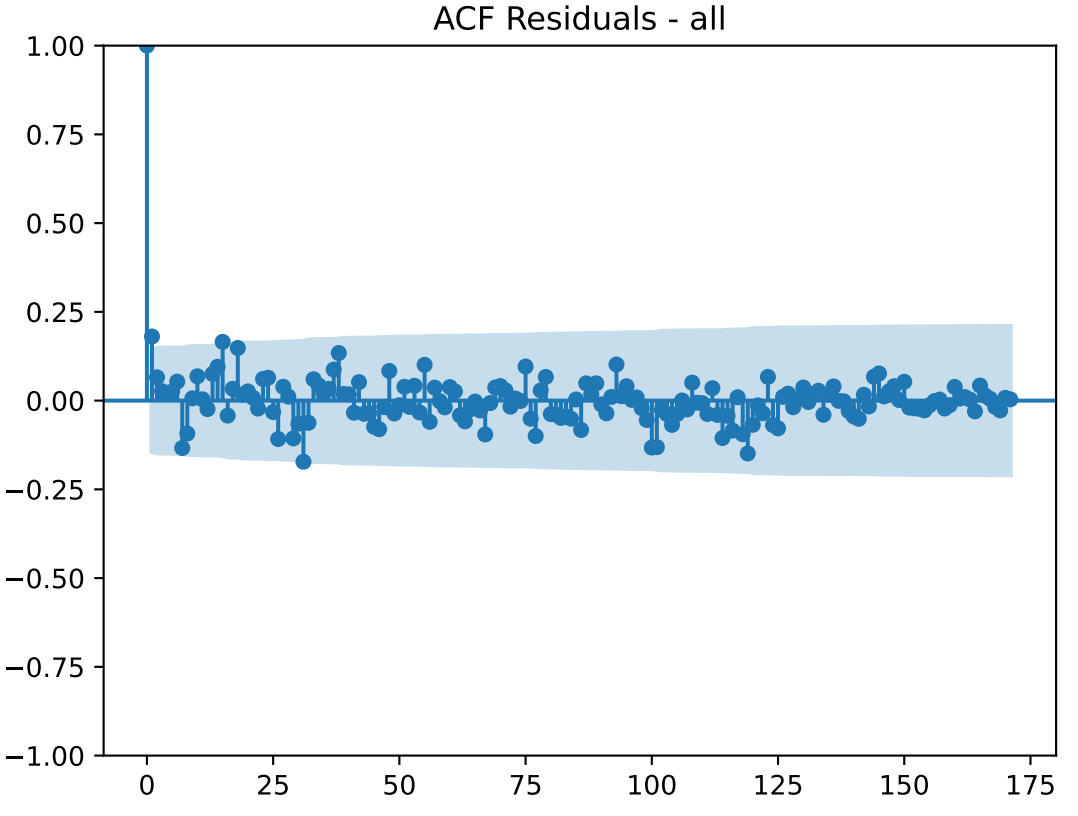

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

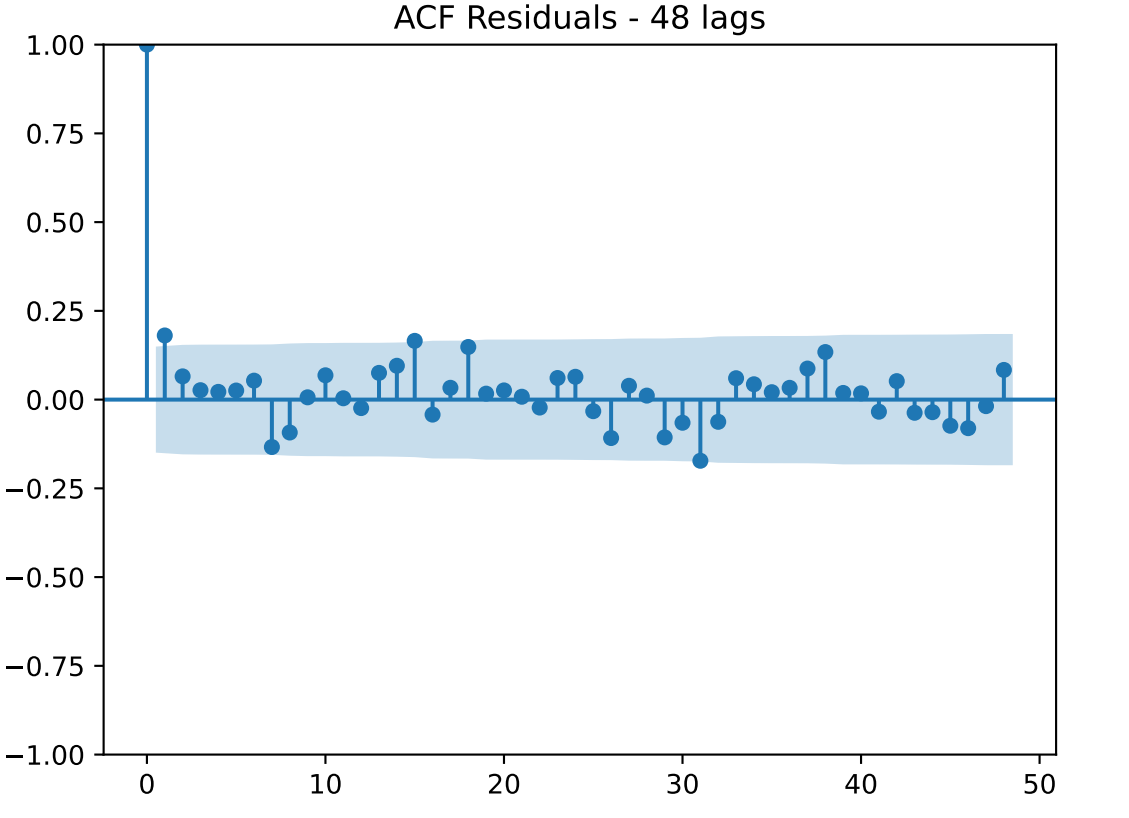

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

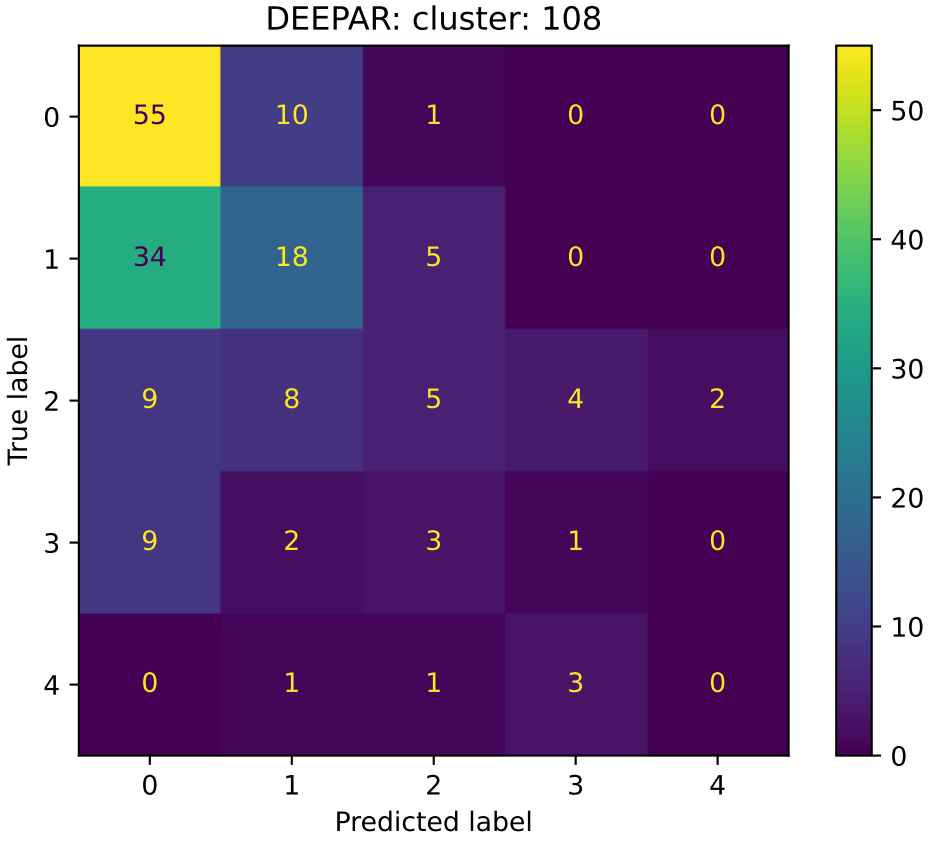

DEEPAR: cluster: 107
True label
Predicted label
0 1 2 3 4 5 6
62 8 1 4 0 0 0
13 5 2 1 0 0 0
7 13 4 10 1 0 0
4 6 4 2 3 0 0
0 2 5 6 2 0 0
0 0 1 1 0 0 0
0 0 2 1 1 0 0
0 10 20 30 40 50 60

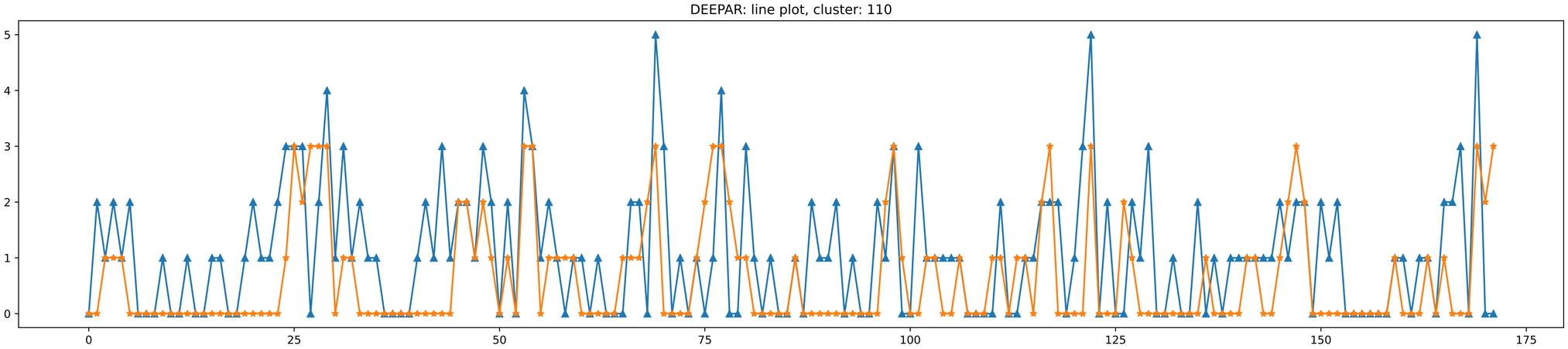

DEEPAR: line plot, cluster: 108
0
1
2
3
4
5
0
25
50
75
100
125
150
175

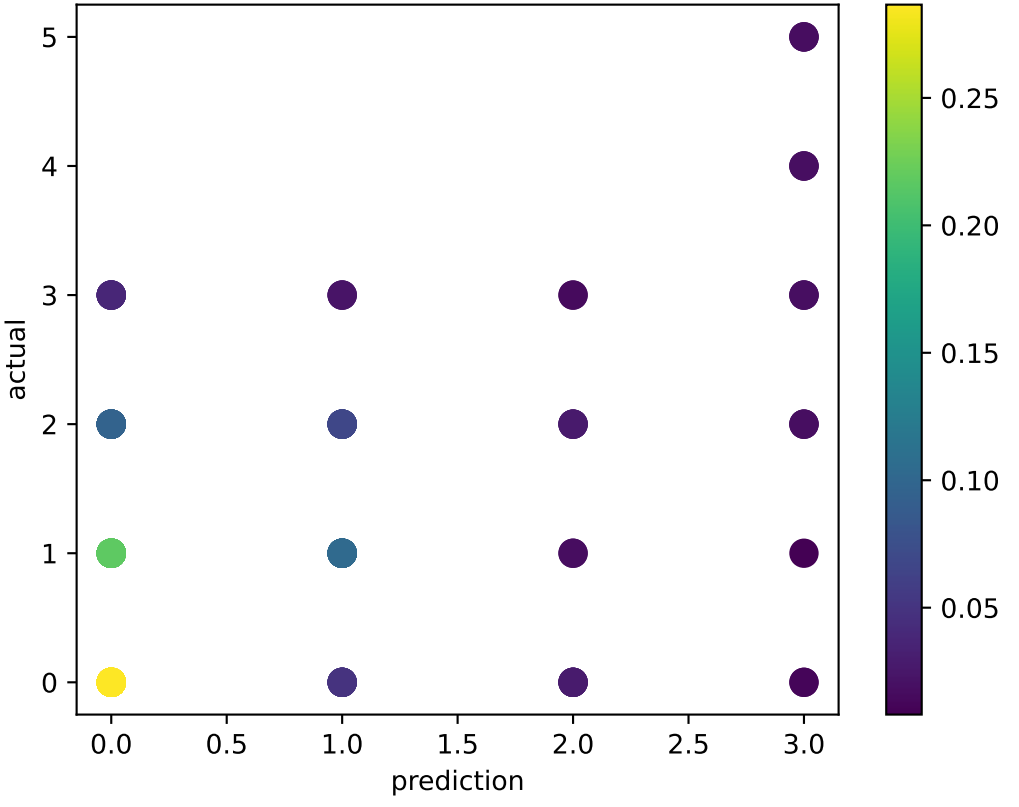

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.30
0.25
0.20
0.15
0.10
0.05

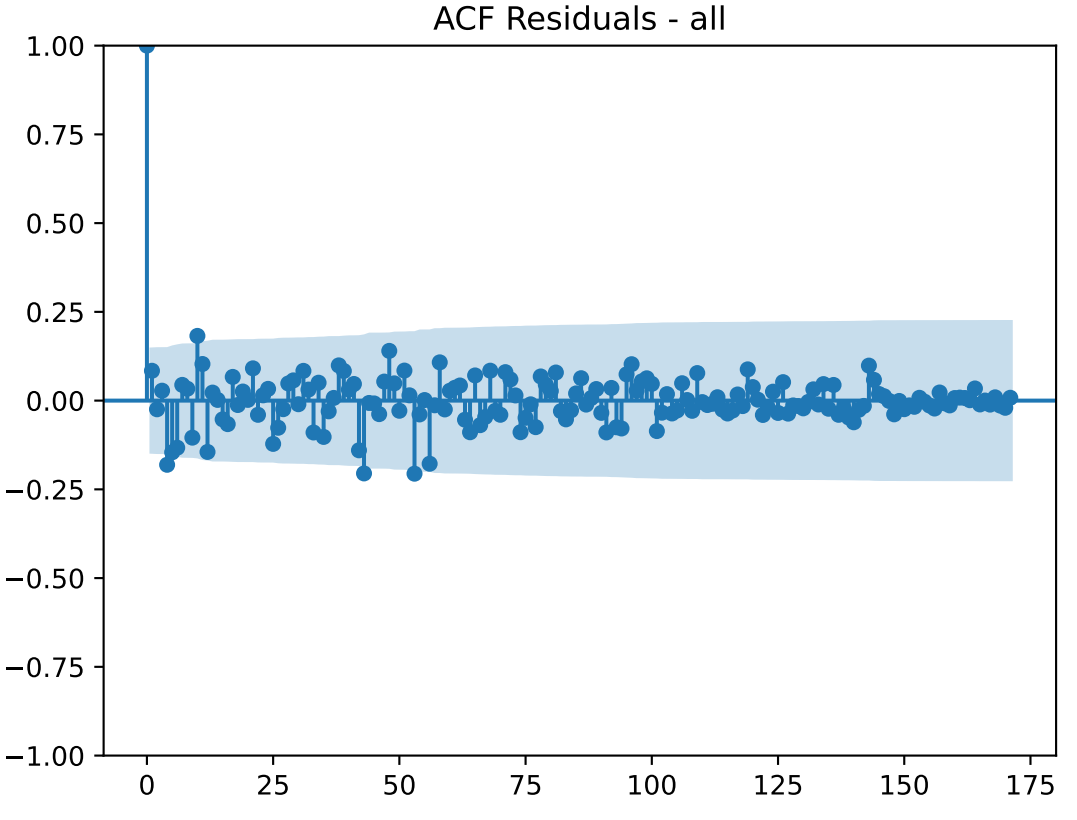

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

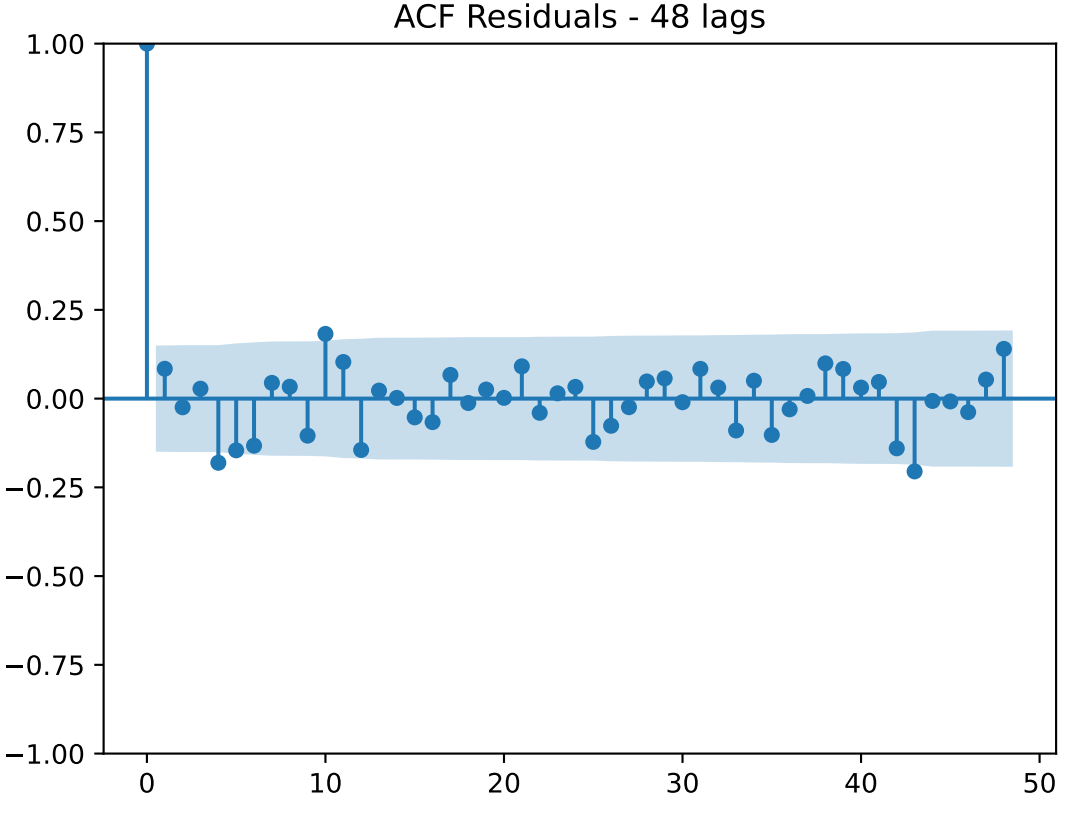

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

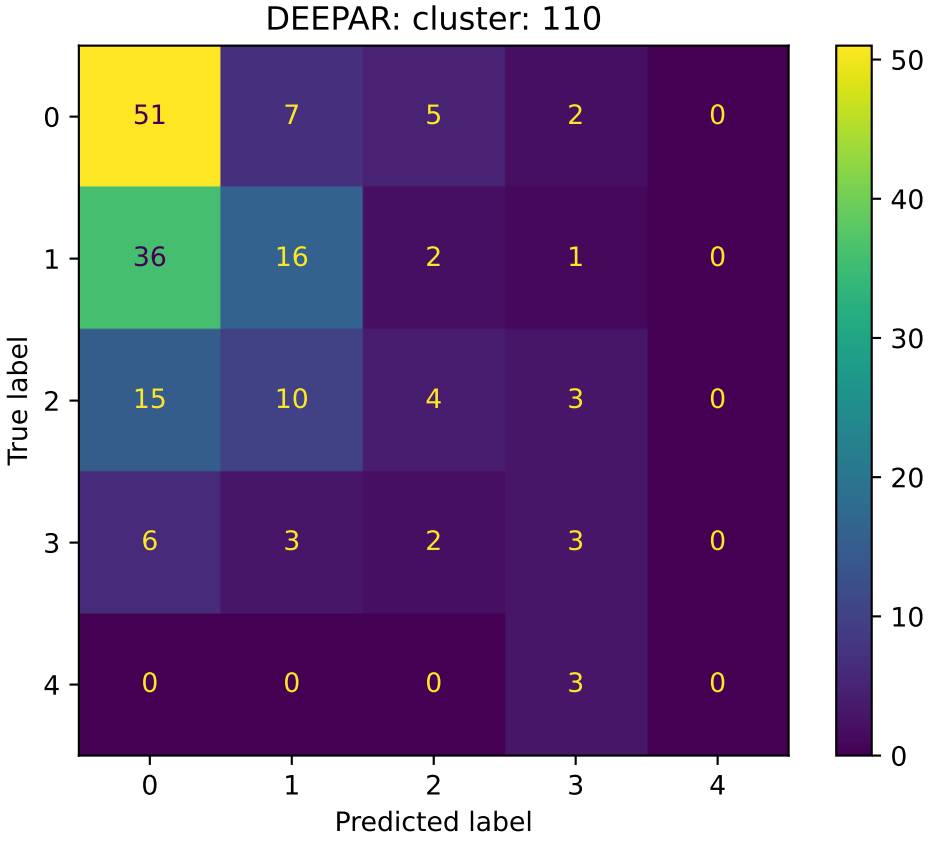

DEEPAR: cluster: 108
True label
Predicted label
0
1
2
3
4
55
10
1
0
0
34
18
5
0
0
9
8
5
4
2
9
2
3
1
0
0
1
1
3
0
50
40
30
20
10
0

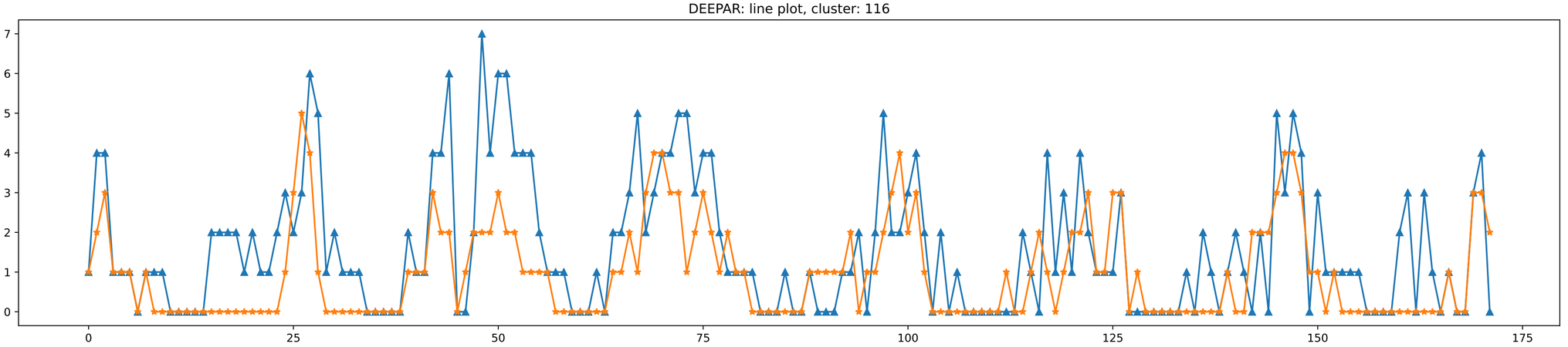

DEEPAR: line plot, cluster: 110
0
1
2
3
4
5
0
25
50
75
100
125
150
175

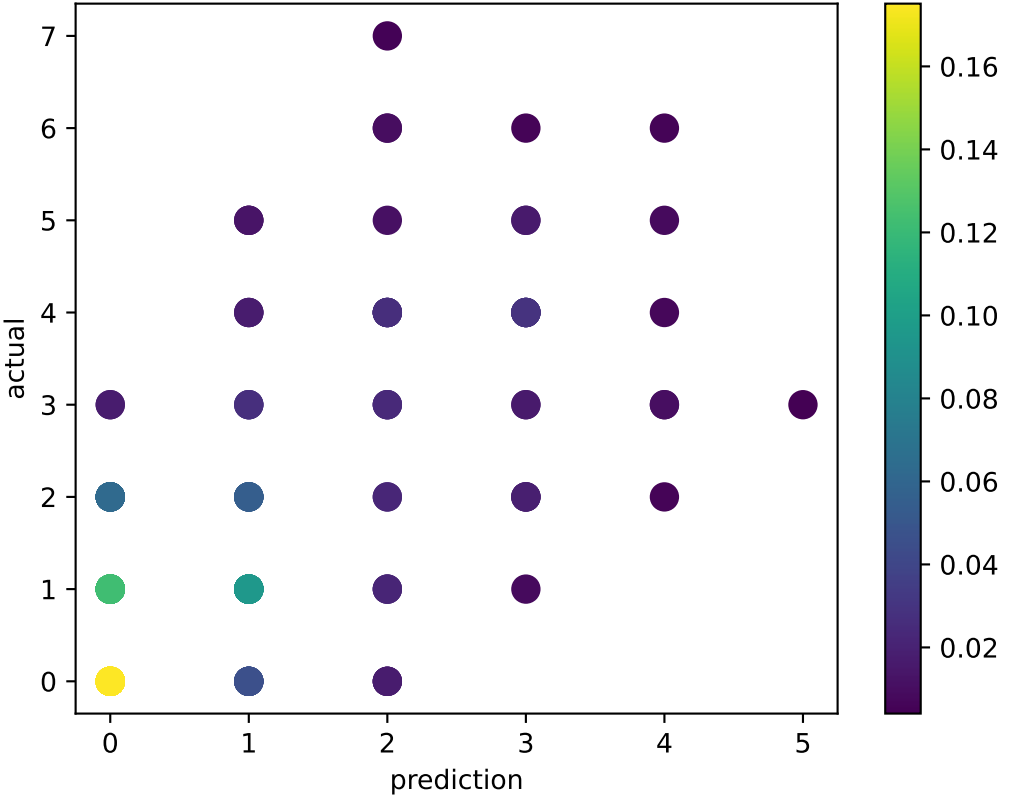

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.25
0.20
0.15
0.10
0.05

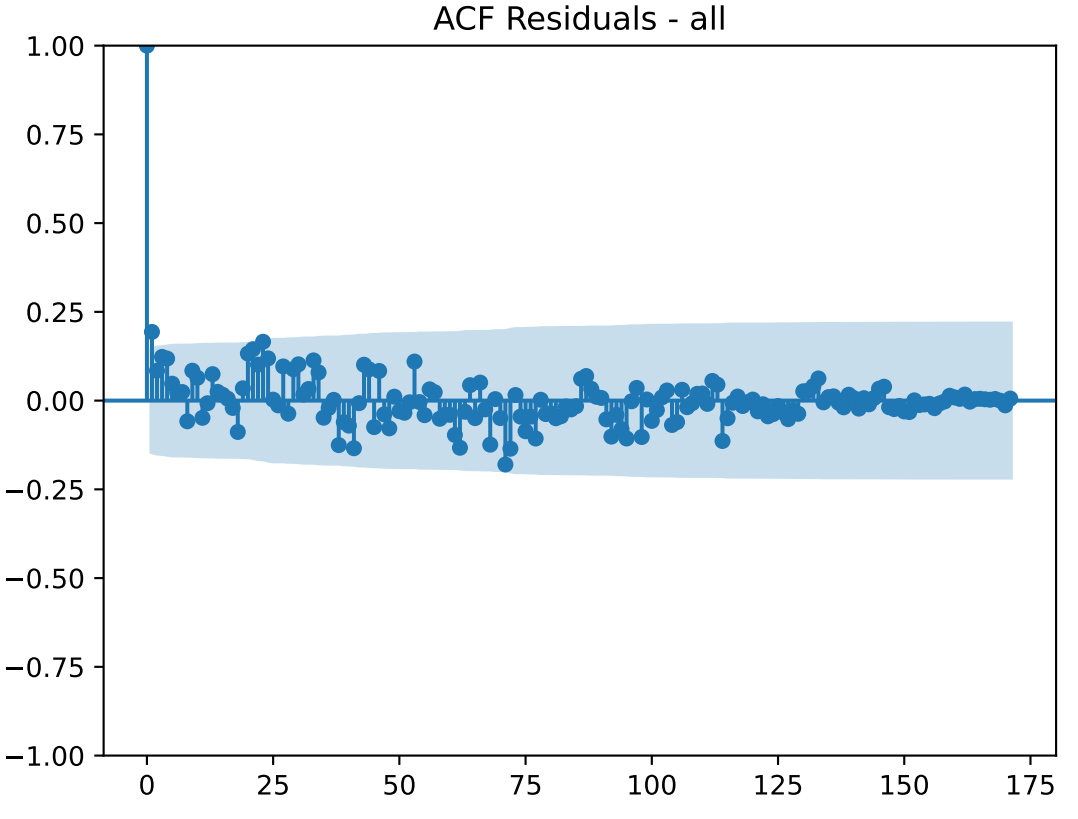

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

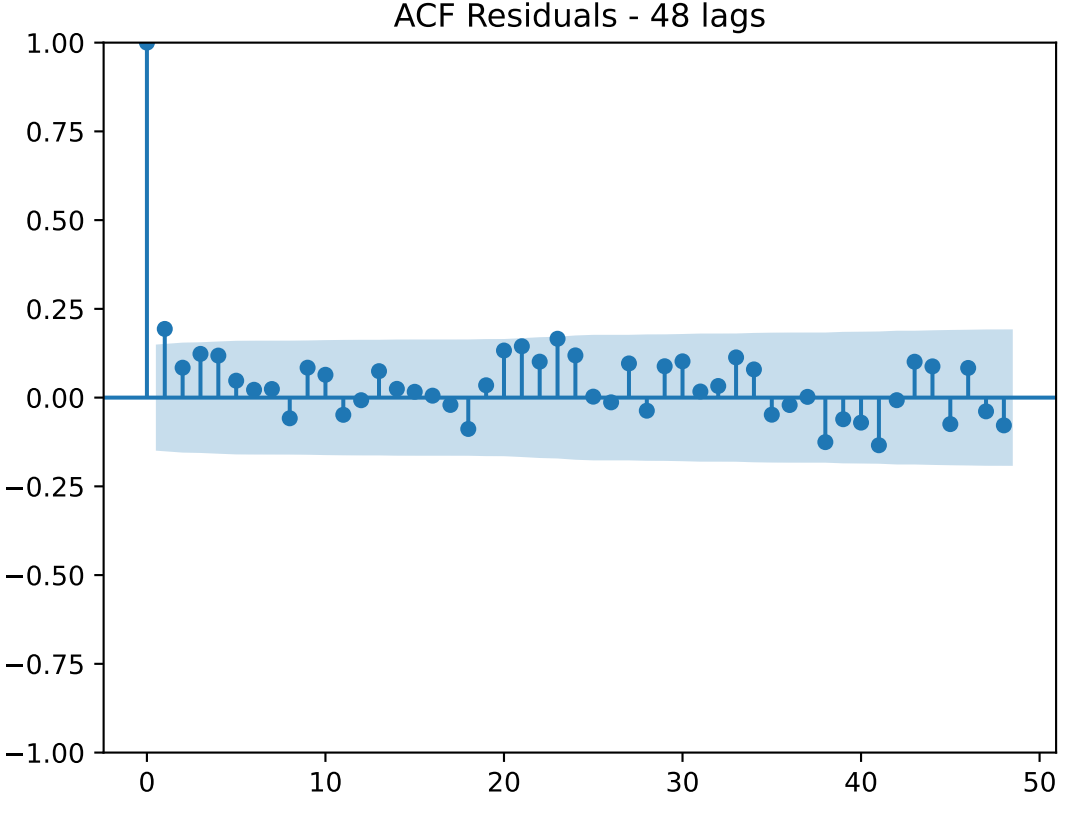

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

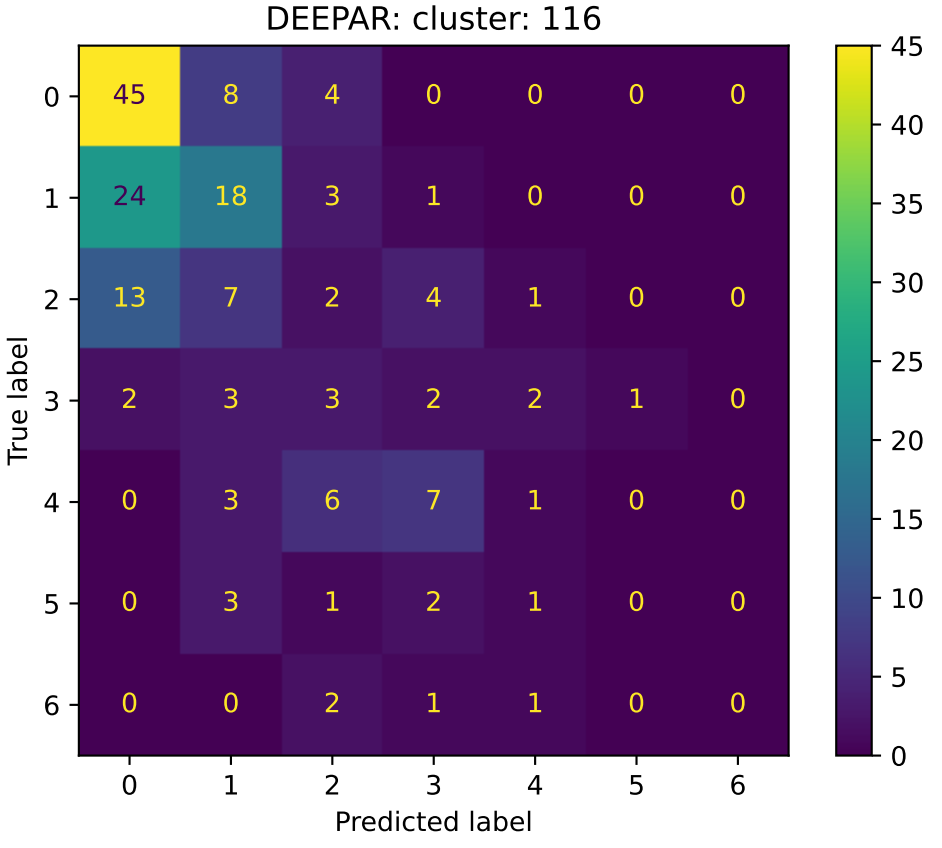

DEEPAR: cluster: 110
True label
Predicted label
0
1
2
3
4
51
7
5
2
0
36
16
2
1
0
15
10
4
3
0
6
3
2
3
0
0
0
0
3
0
50
40
30
20
10
0

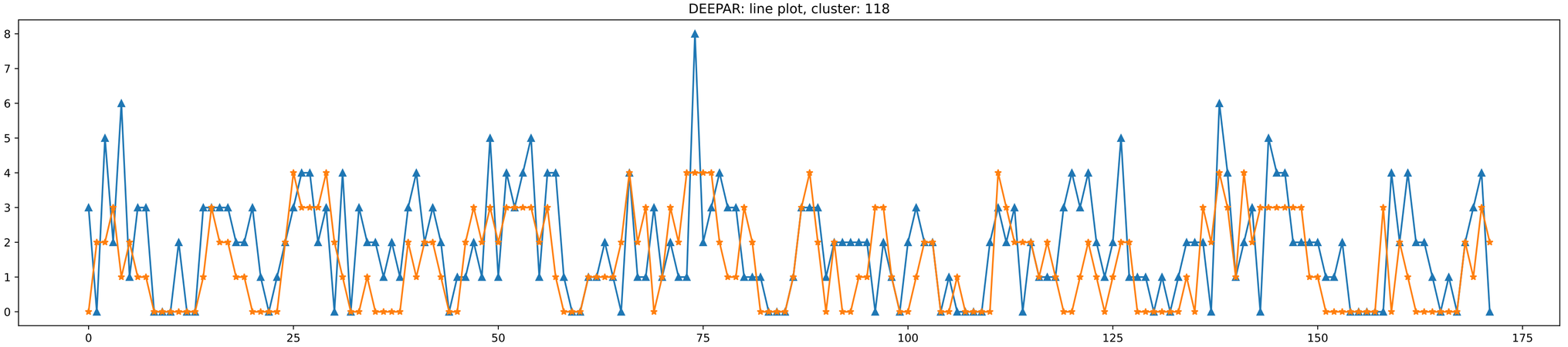

DEEPAR: line plot, cluster: 116
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

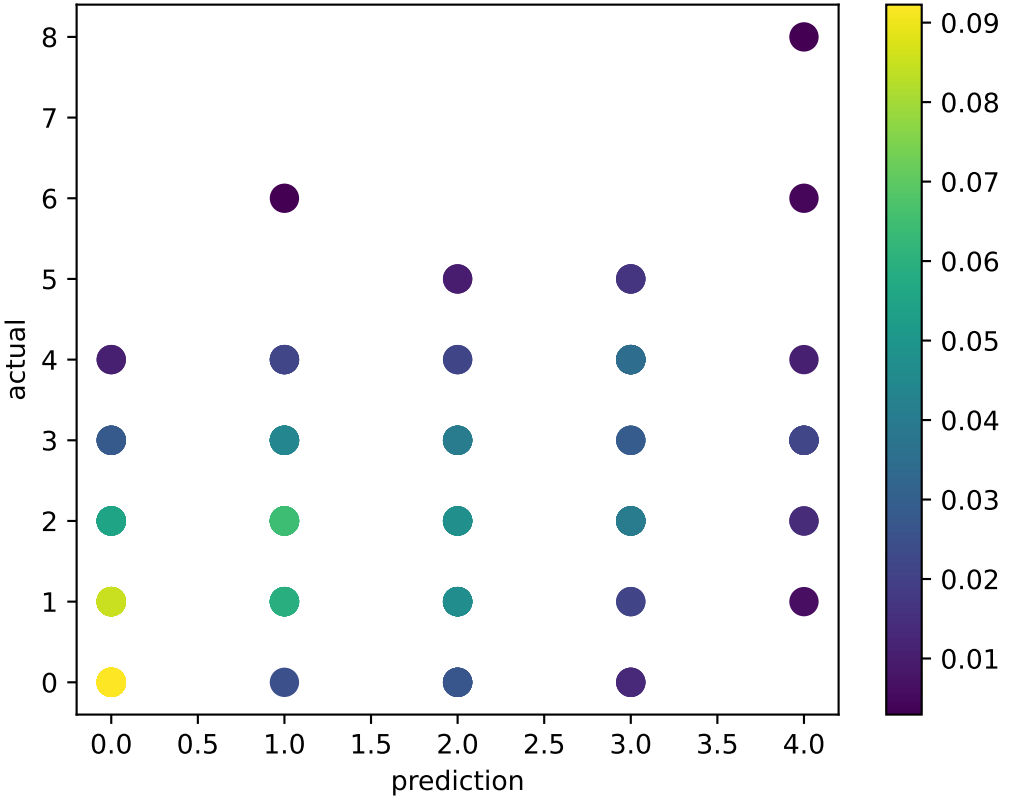

actual
prediction
0
1
2
3
4
5
6
7
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02

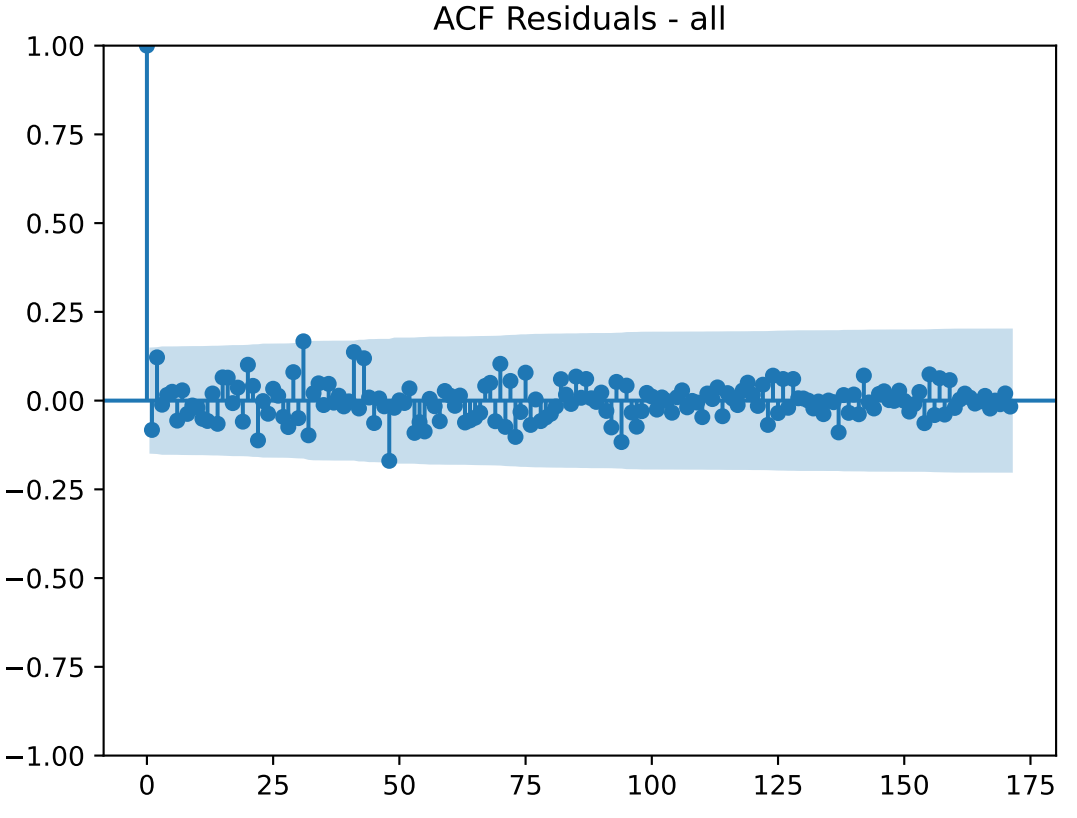

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

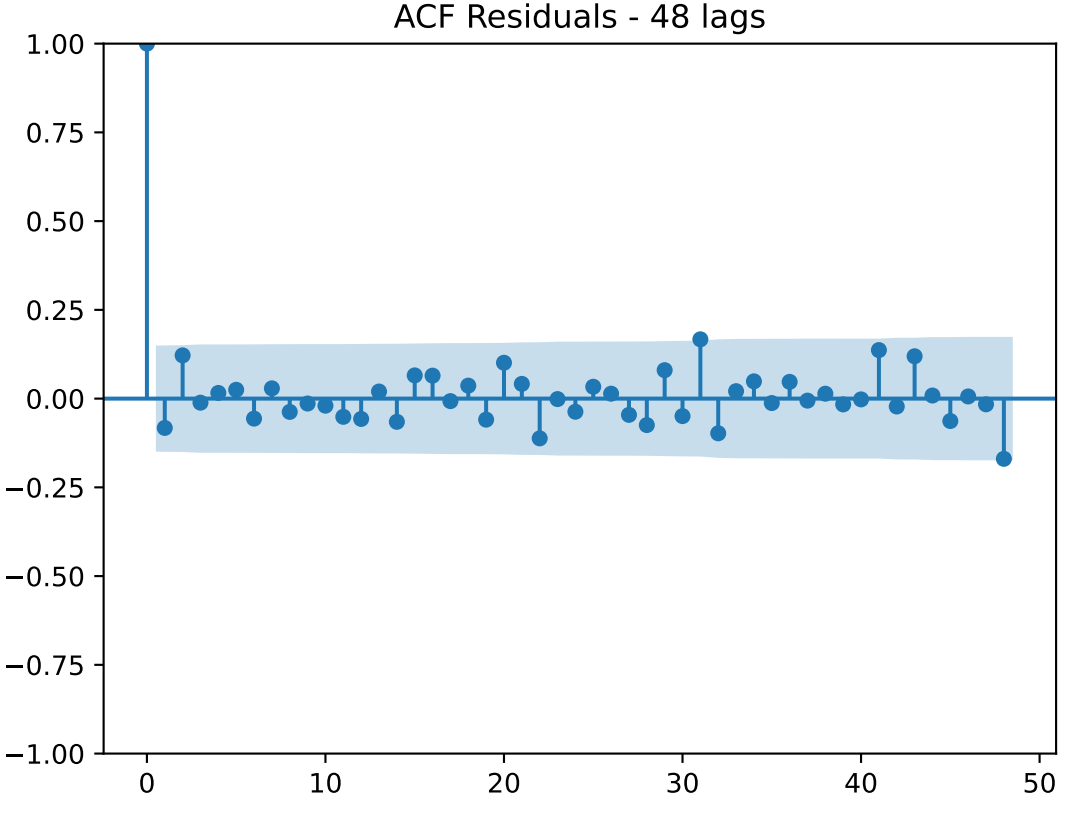

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

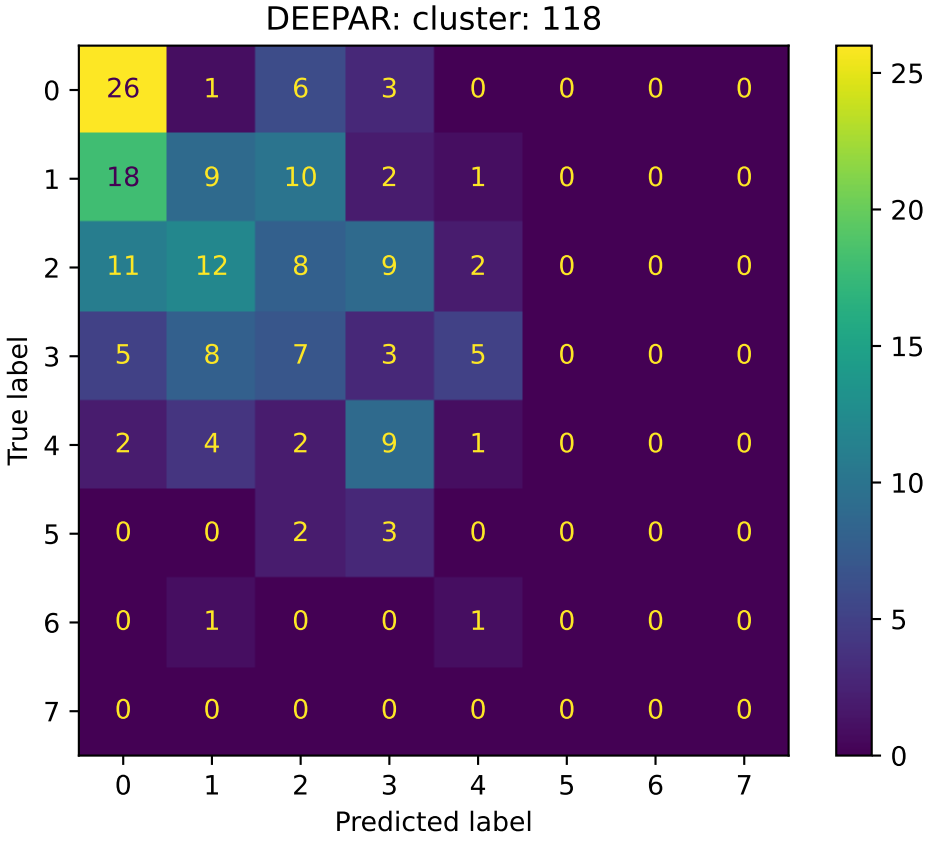

DEEPAR: cluster: 116
True label
Predicted label
0 1 2 3 4 5 6
45 8 4 0 0 0 0
24 18 3 1 0 0 0
13 7 2 4 1 0 0
2 3 3 2 2 1 0
0 3 6 7 1 0 0
0 3 1 2 1 0 0
0 0 2 1 1 0 0
0 5 10 15 20 25 30 35 40 45

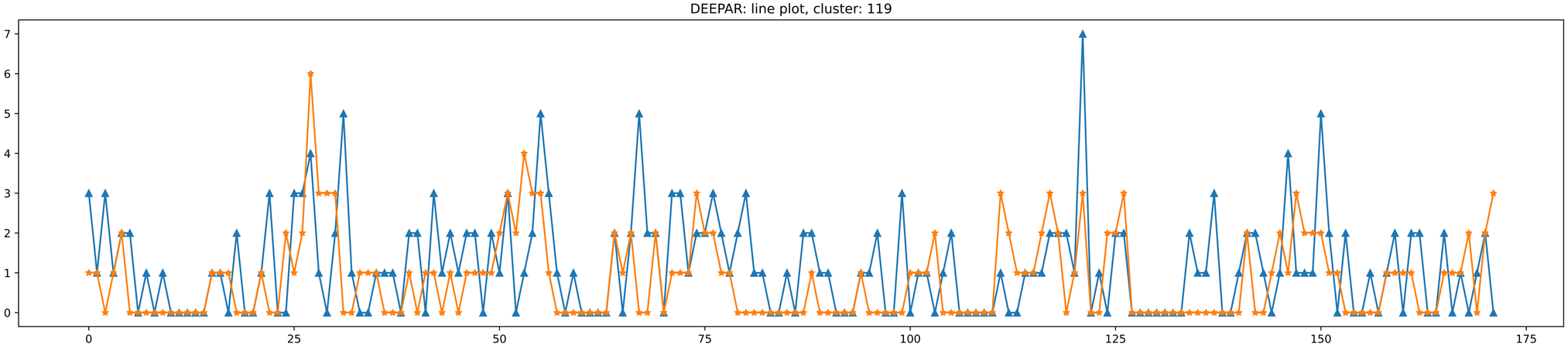

DEEPAR: line plot, cluster: 118
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

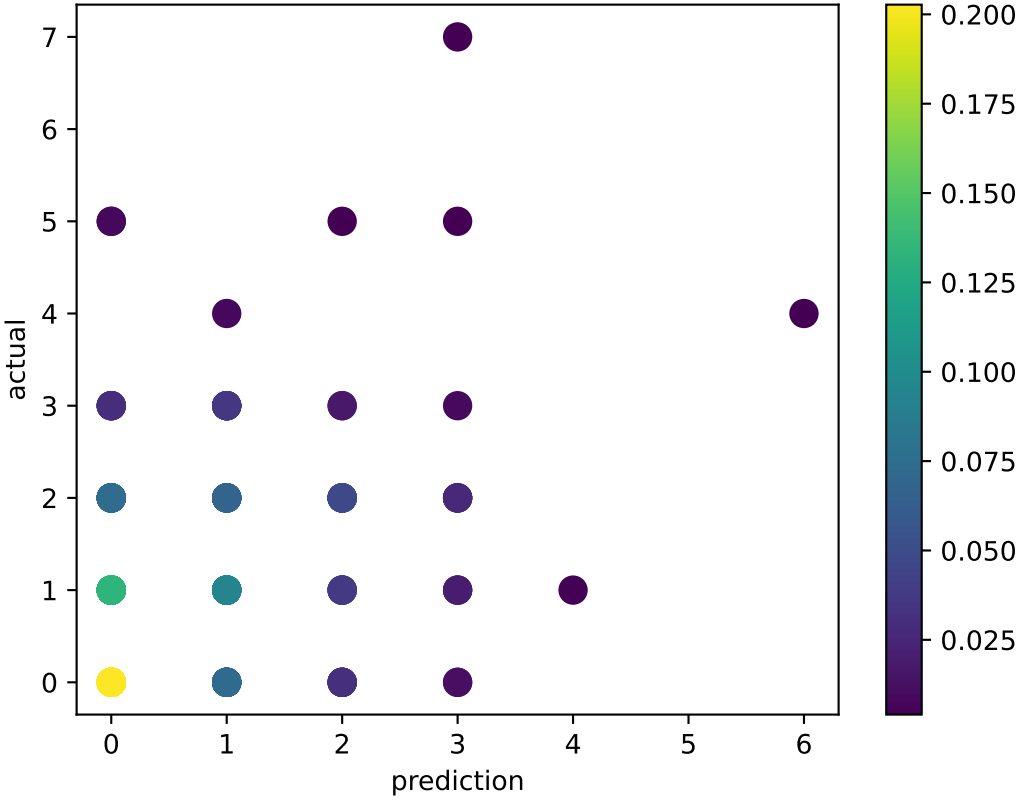

actual
prediction
0
1
2
3
4
5
6
7
8
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

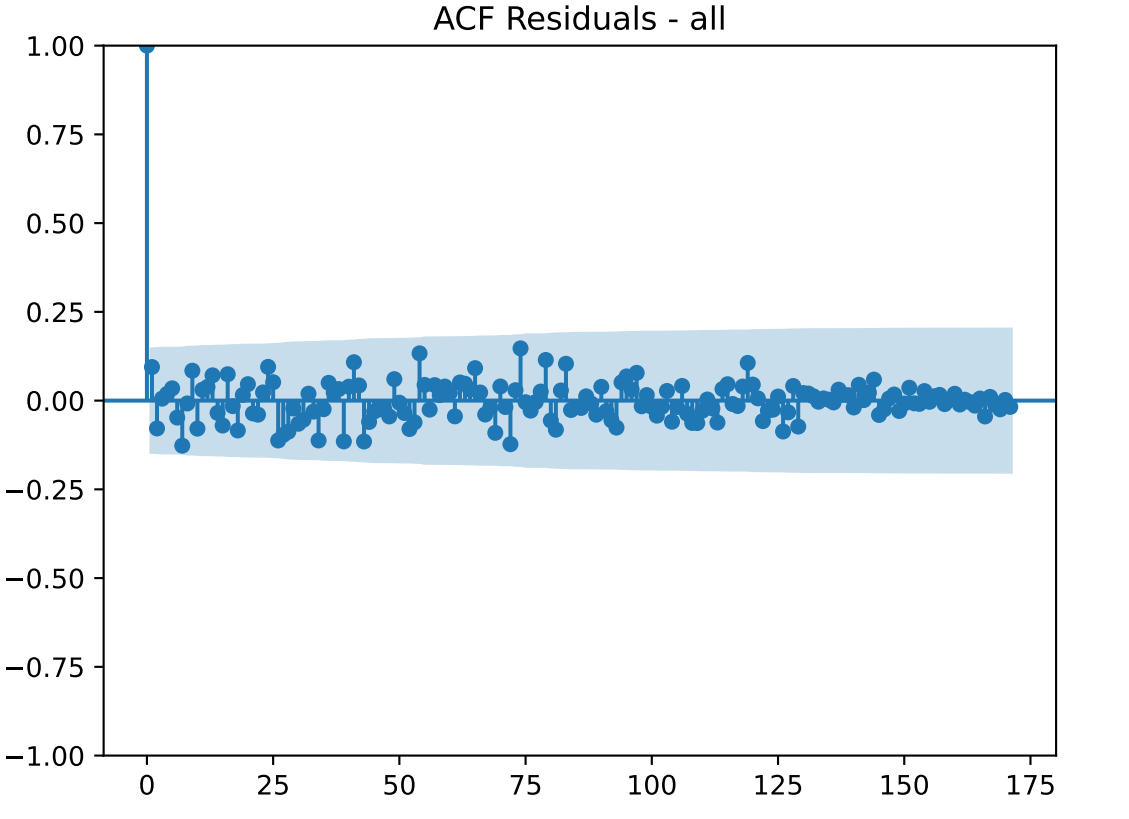

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

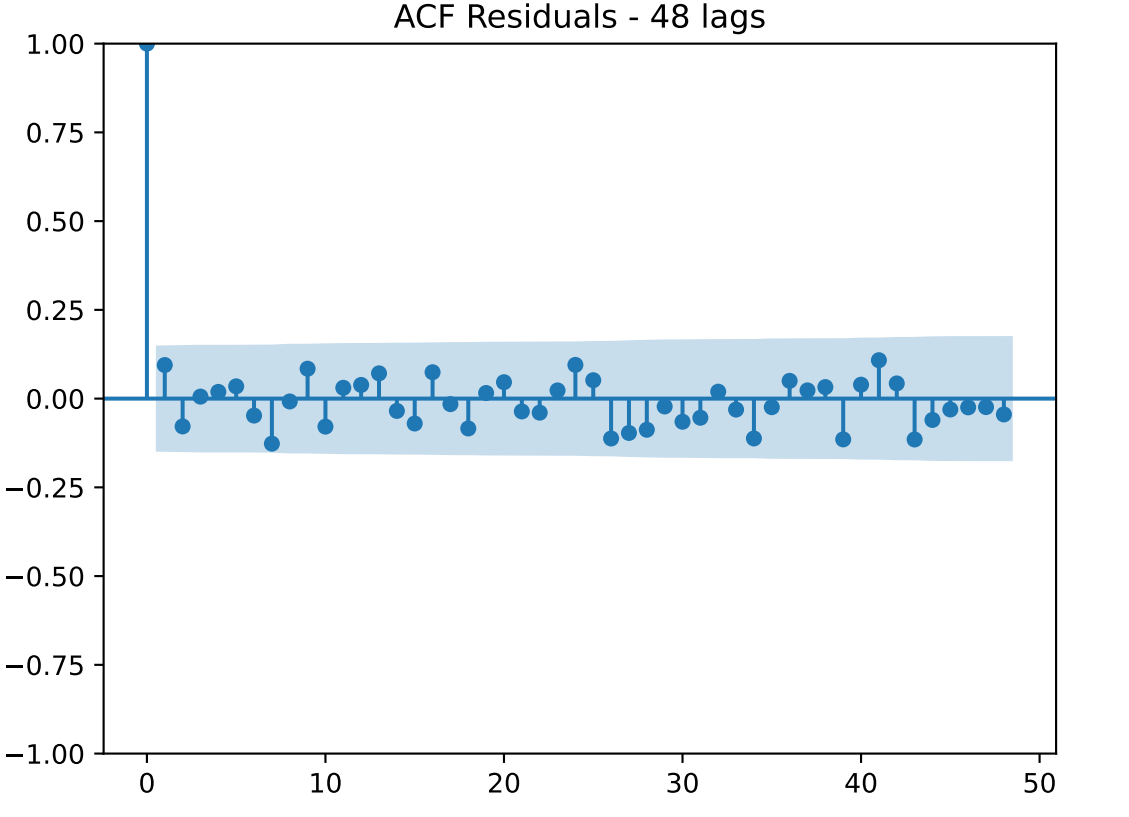

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

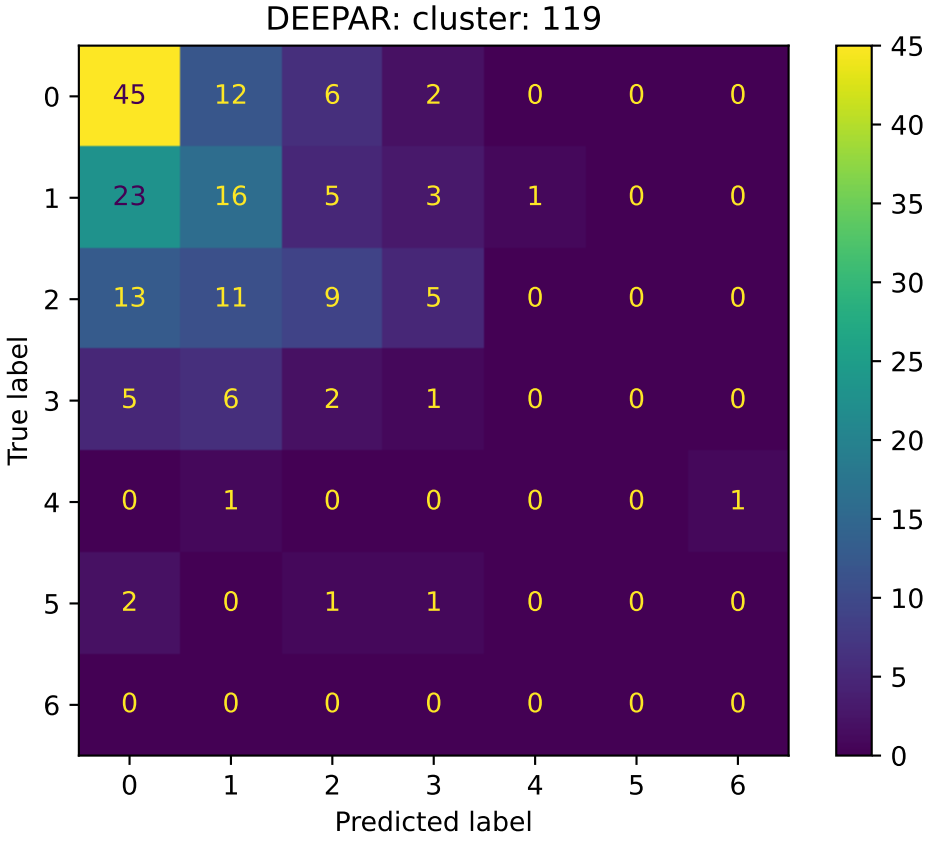

DEEPAR: cluster: 118
True label
Predicted label
0 1 2 3 4 5 6 7
26 1 6 3 0 0 0 0
18 9 10 2 1 0 0 0
11 12 8 9 2 0 0 0
5 8 7 3 5 0 0 0
2 4 2 9 1 0 0 0
0 0 2 3 0 0 0 0
0 1 0 0 1 0 0 0
0 0 0 0 0 0 0 0
25
20
15
10
5
0

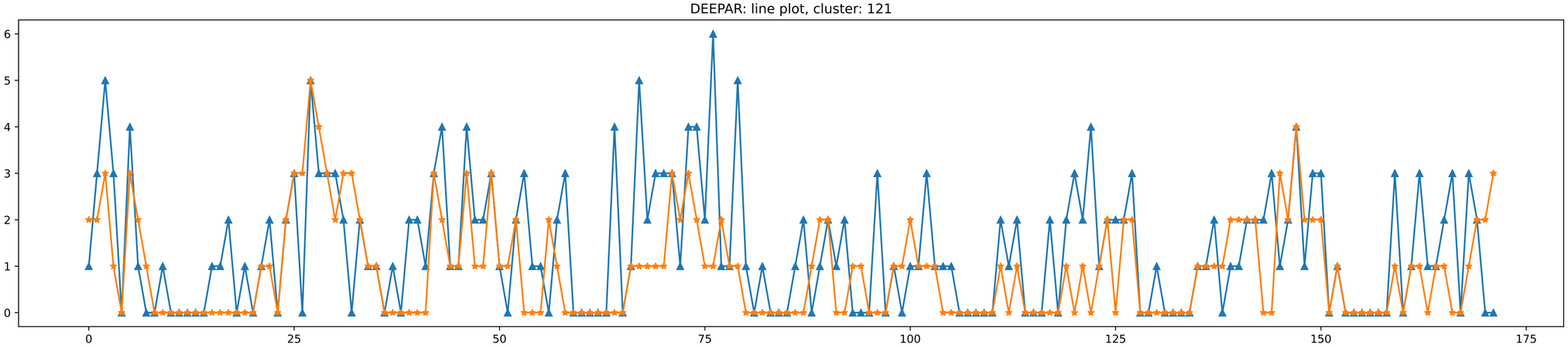

DEEPAR: line plot, cluster: 119
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

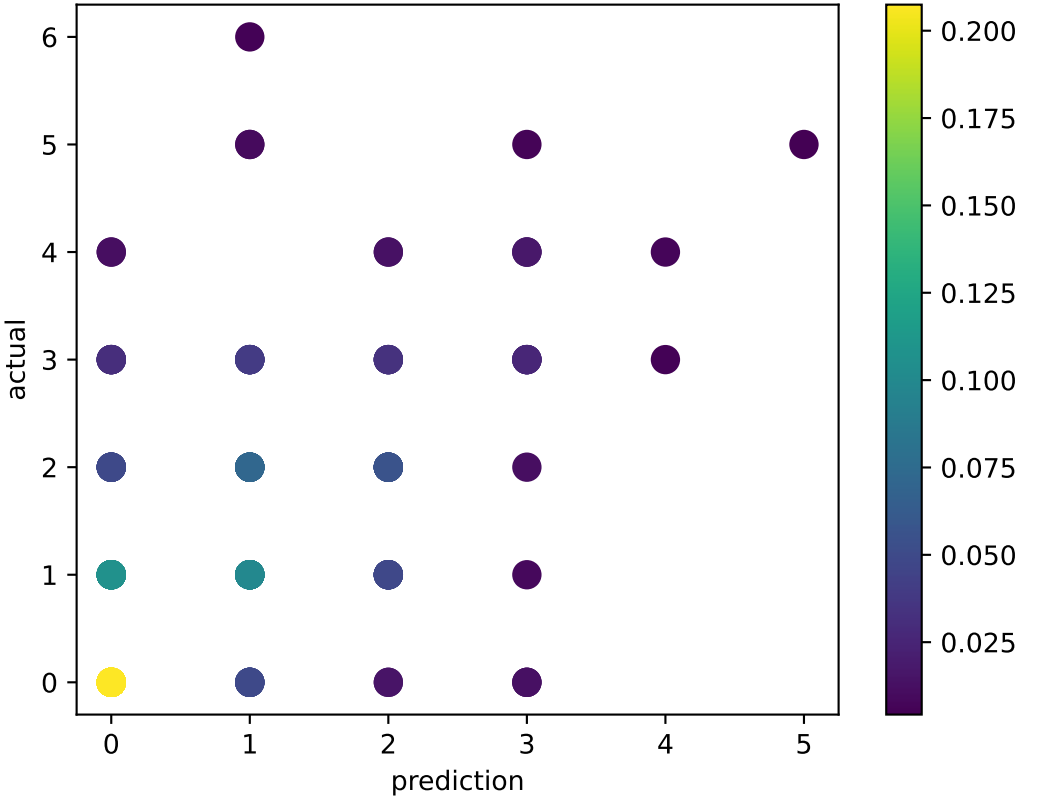

actual
prediction
0
1
2
3
4
5
6
7
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025

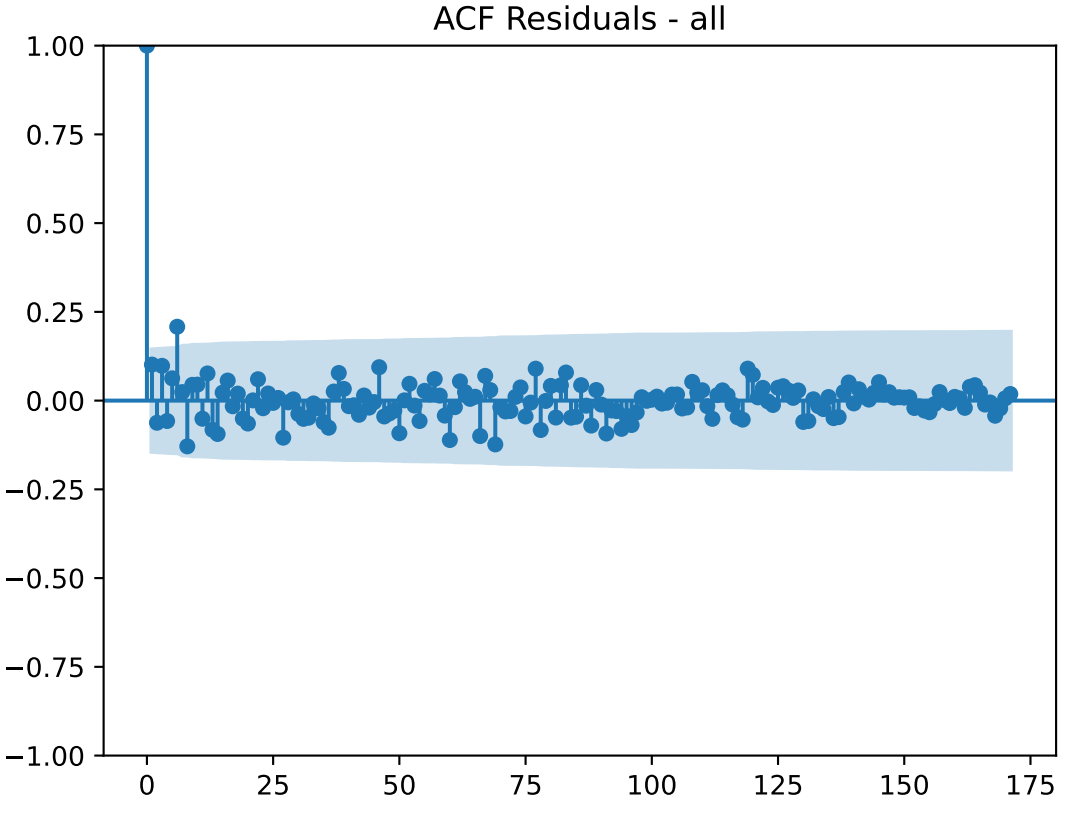

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

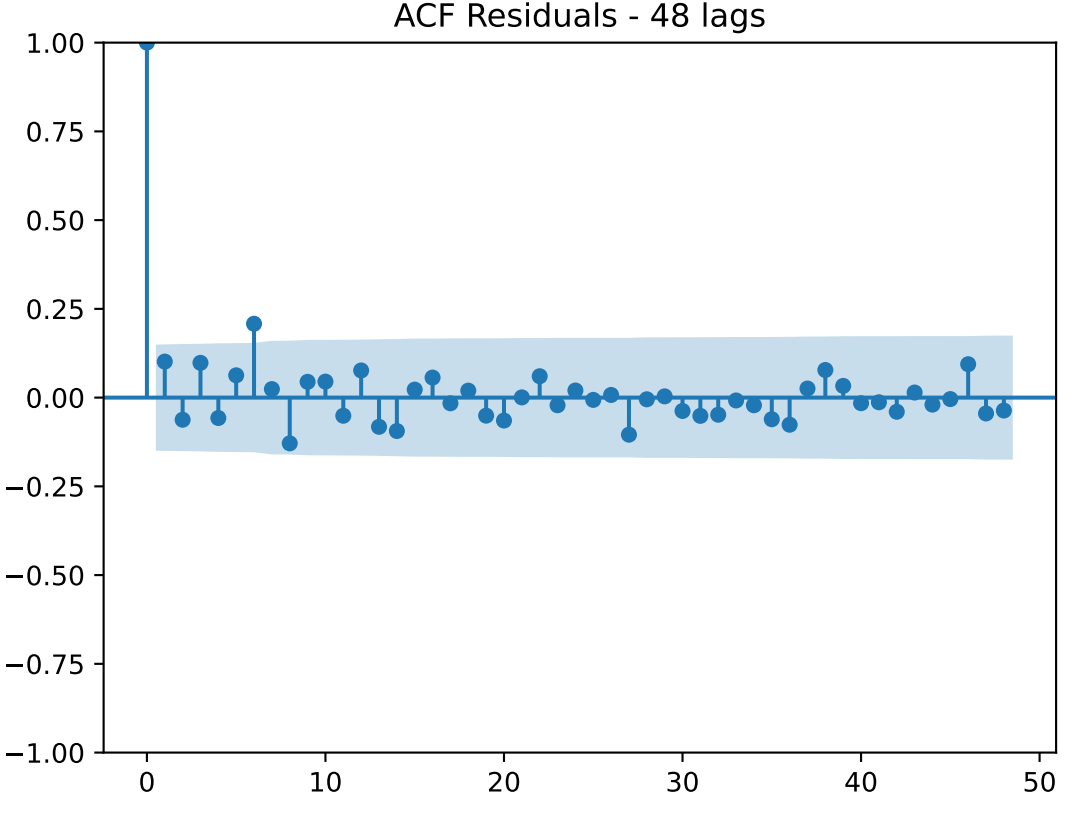

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

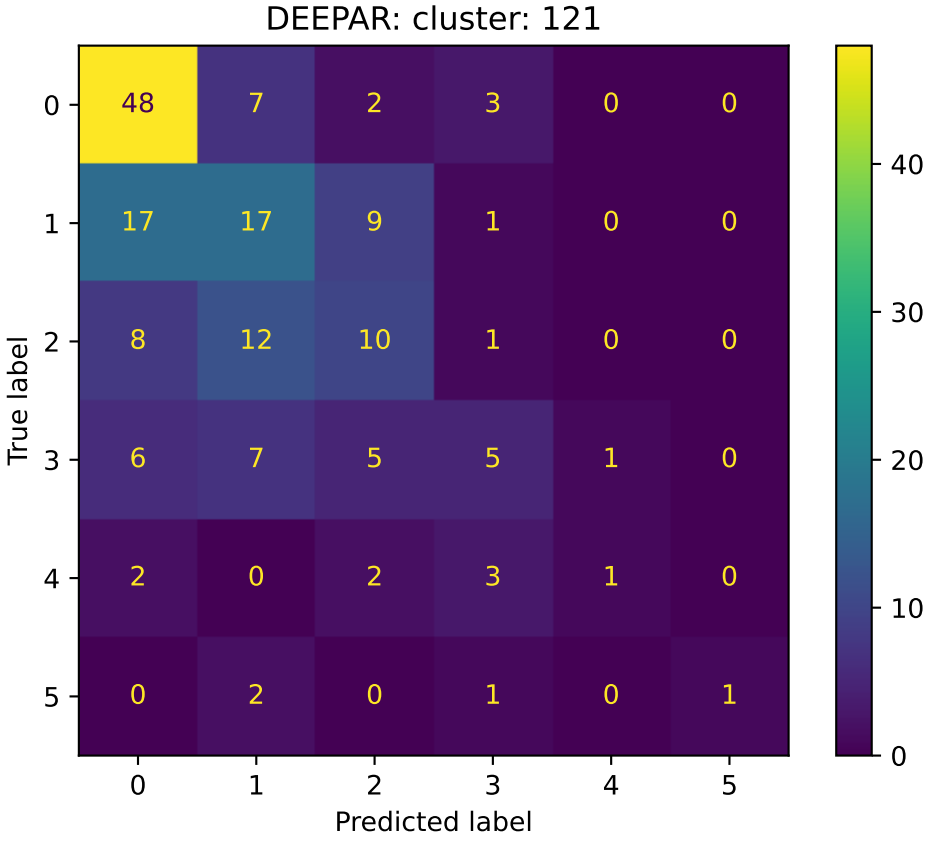

DEEPAR: cluster: 119
True label
Predicted label
0 1 2 3 4 5 6
45 12 6 2 0 0 0
23 16 5 3 1 0 0
13 11 9 5 0 0 0
5 6 2 1 0 0 0
0 1 0 0 0 0 1
2 0 1 1 0 0 0
0 0 0 0 0 0 0
45 40 35 30 25 20 15 10 5 0

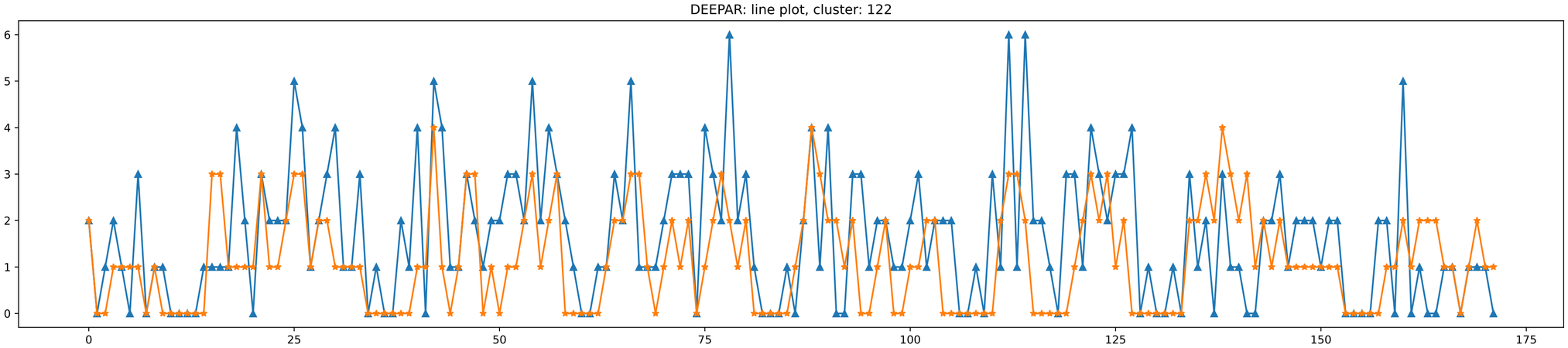

DEEPAR: line plot, cluster: 121
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

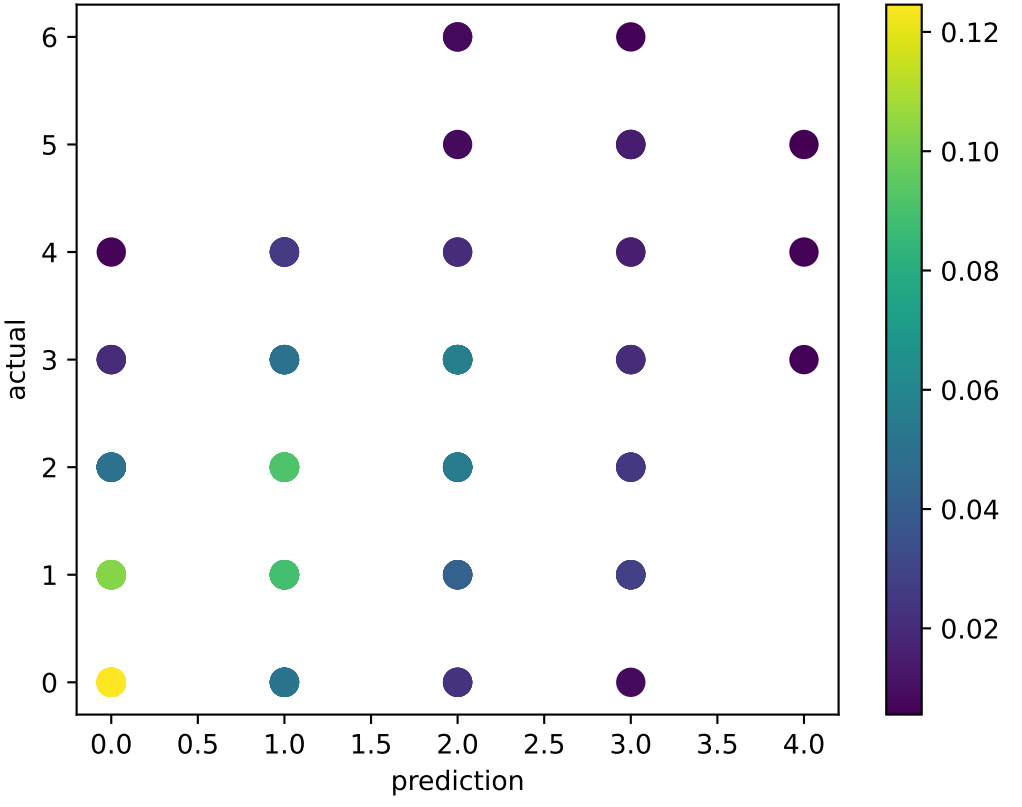

actual
prediction
0
1
2
3
4
5
6
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025

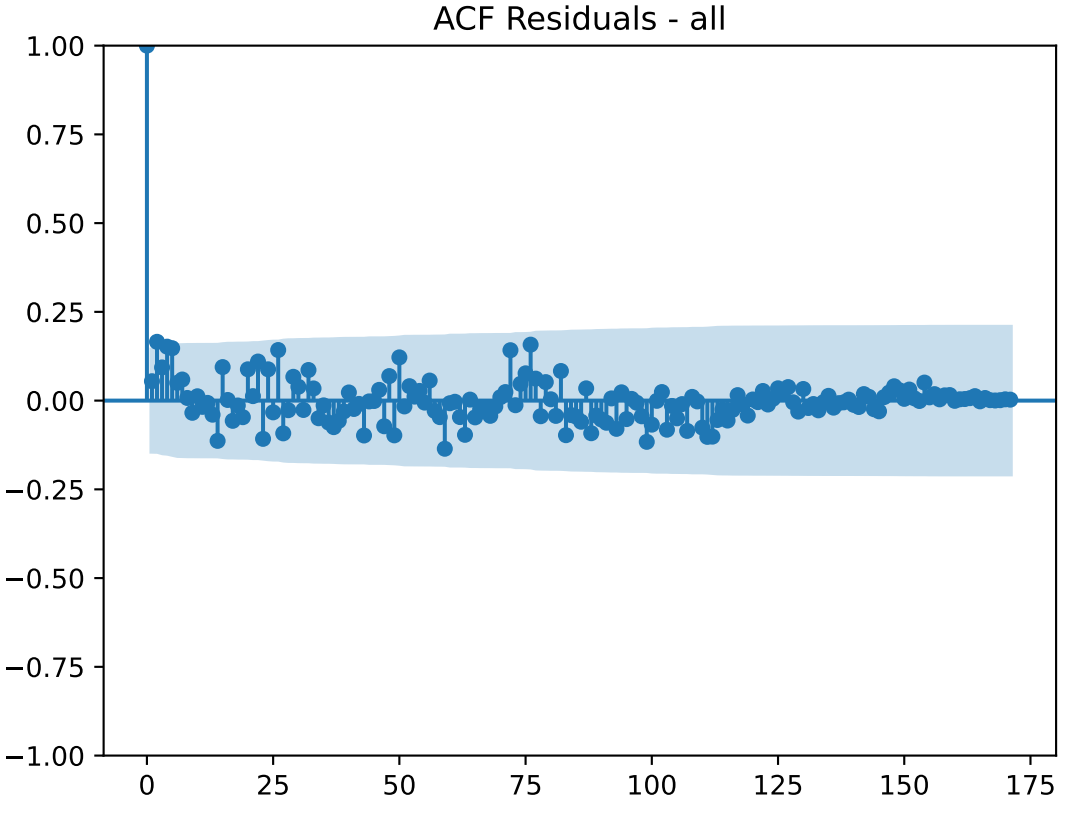

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

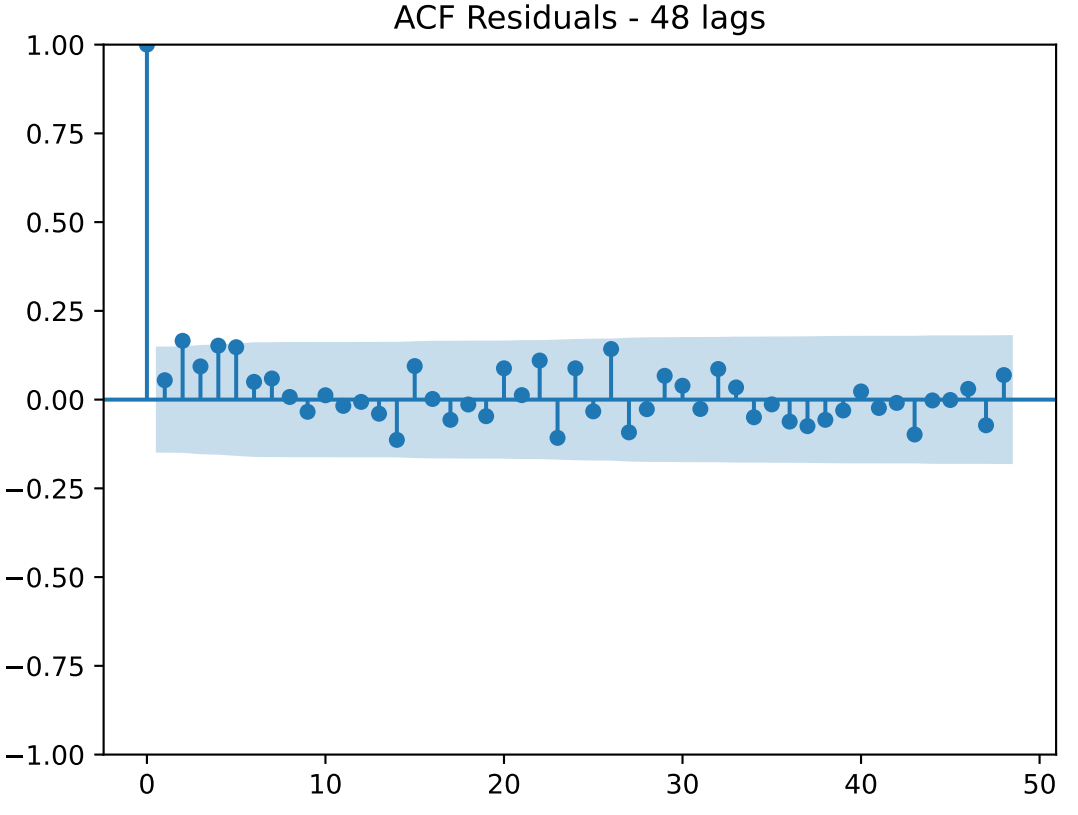

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

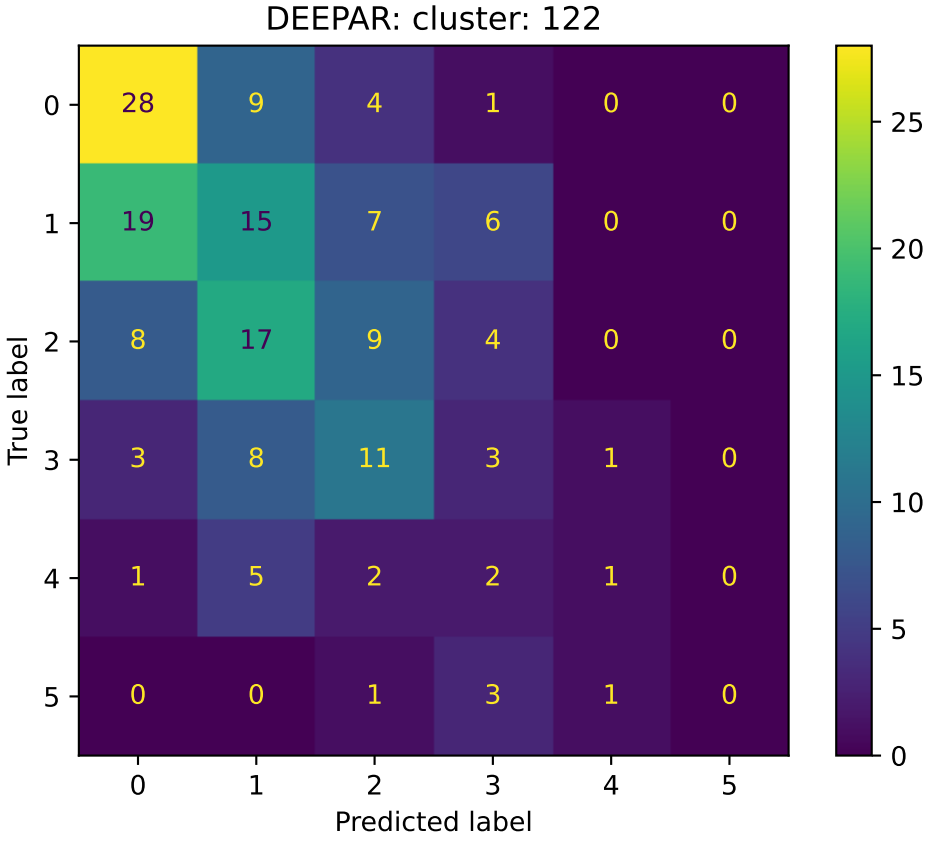

DEEPAR: cluster: 121
True label
Predicted label
0
1
2
3
4
5
48 7 2 3 0 0
17 17 9 1 0 0
8 12 10 1 0 0
6 7 5 5 1 0
2 0 2 3 1 0
0 2 0 1 0 1
40
30
20
10
0

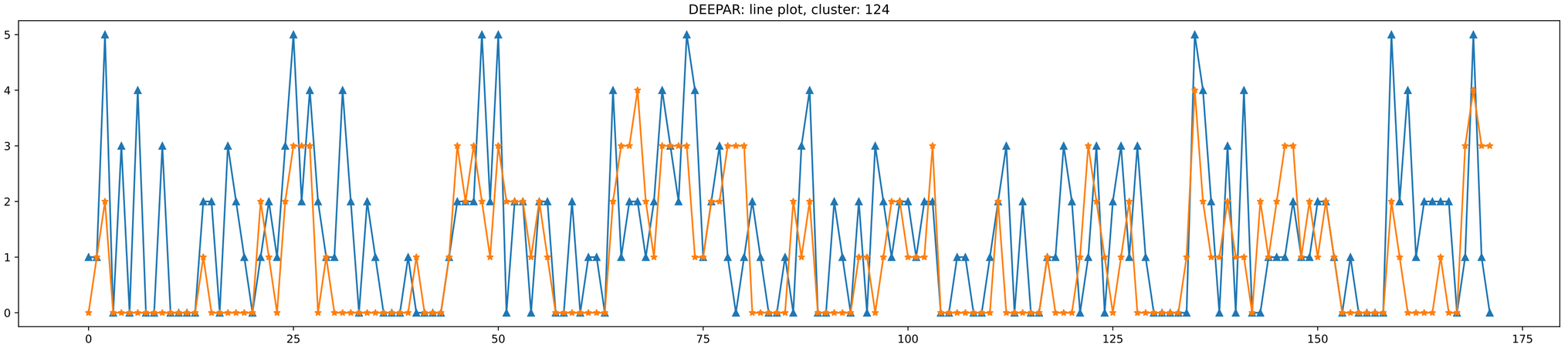

DEEPAR: line plot, cluster: 122
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

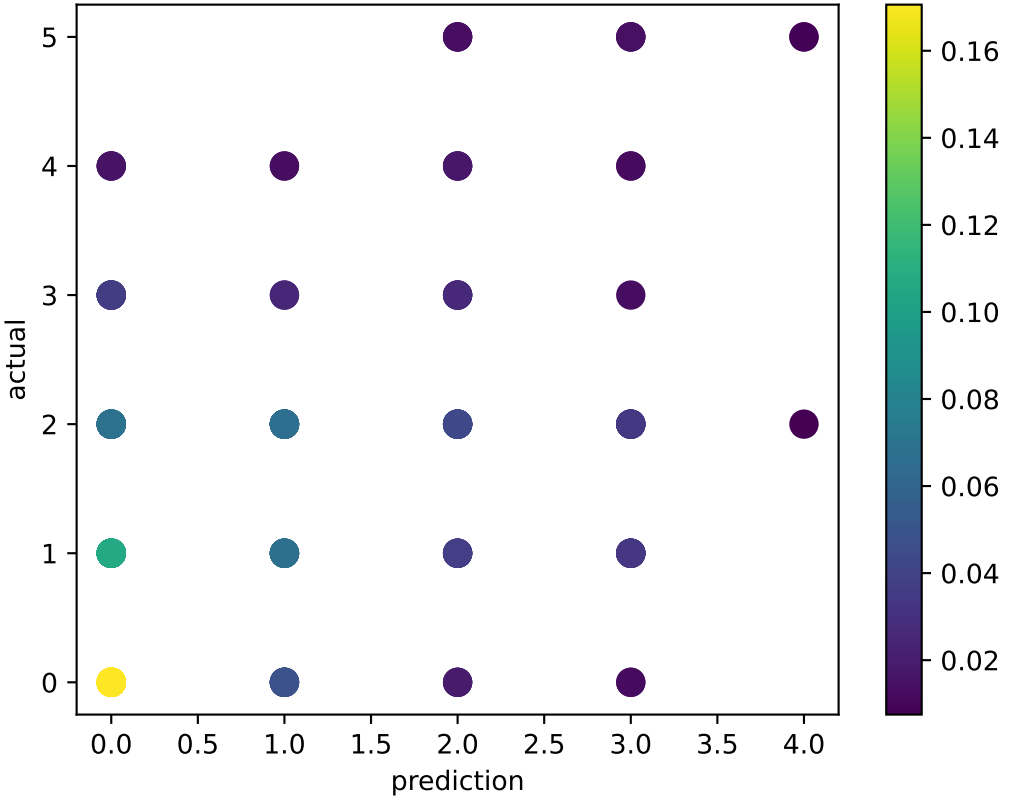

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.12
0.10
0.08
0.06
0.04
0.02

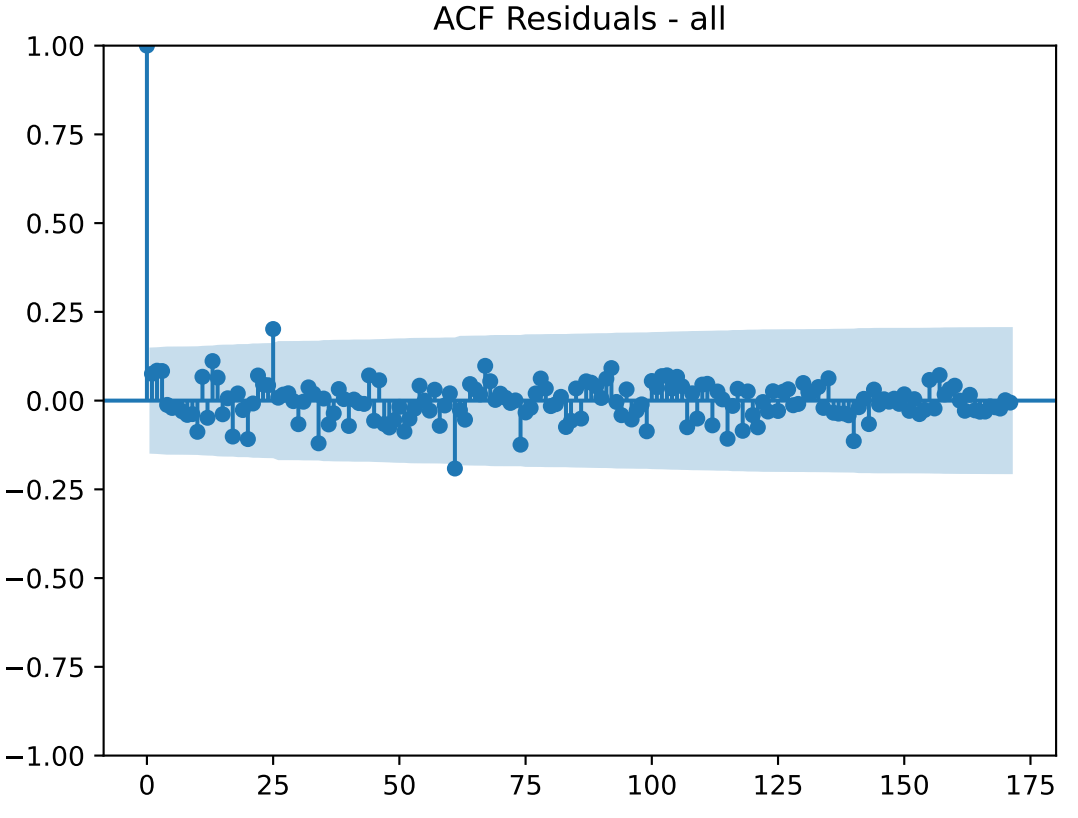

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

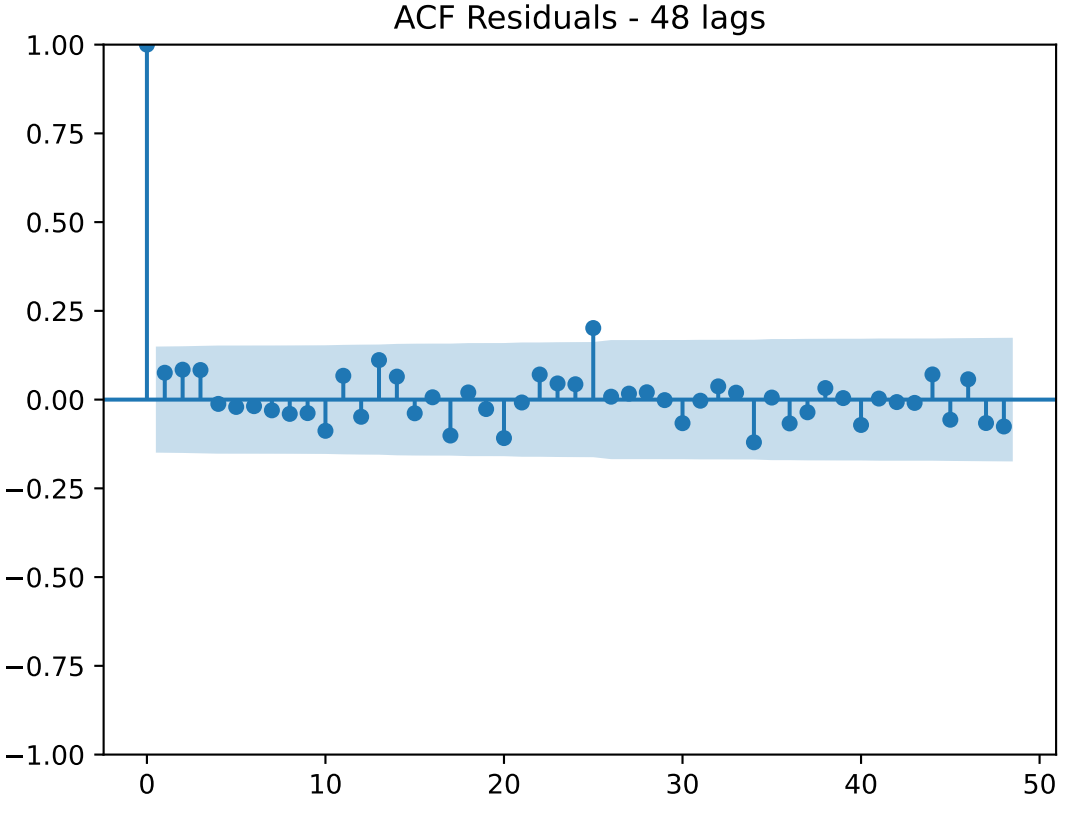

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

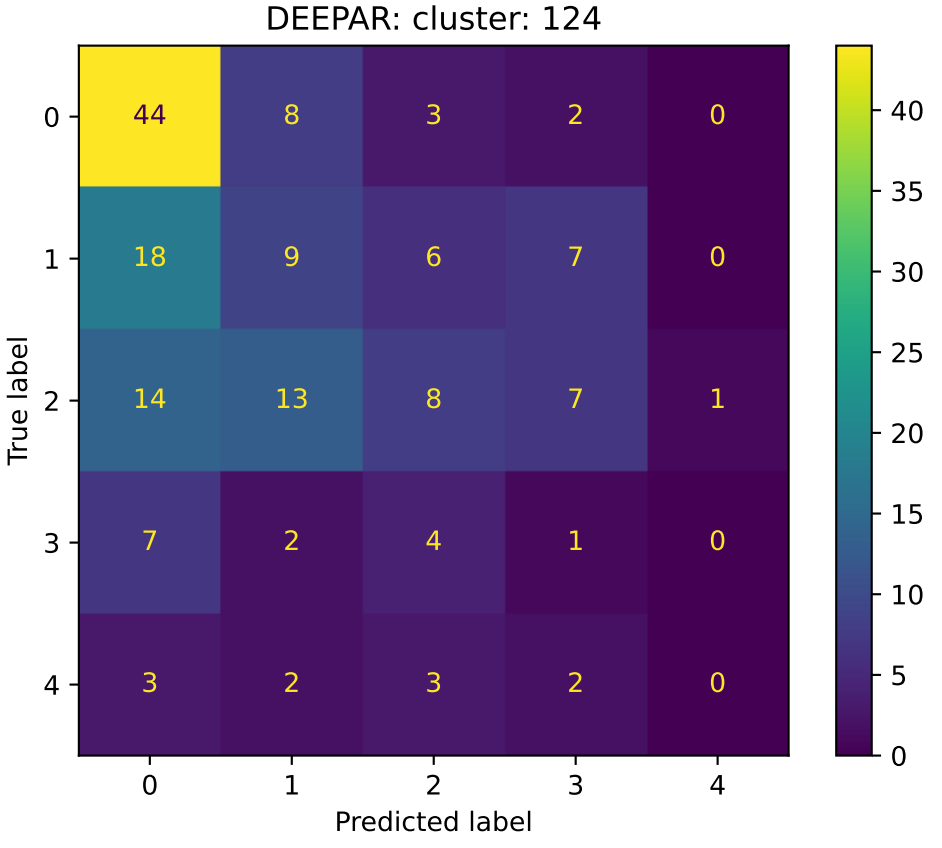

DEEPAR: cluster: 122
True label
Predicted label
0
1
2
3
4
5
28 9 4 1 0 0
19 15 7 6 0 0
8 17 9 4 0 0
3 8 11 3 1 0
1 5 2 2 1 0
0 0 1 3 1 0
25
20
15
10
5
0

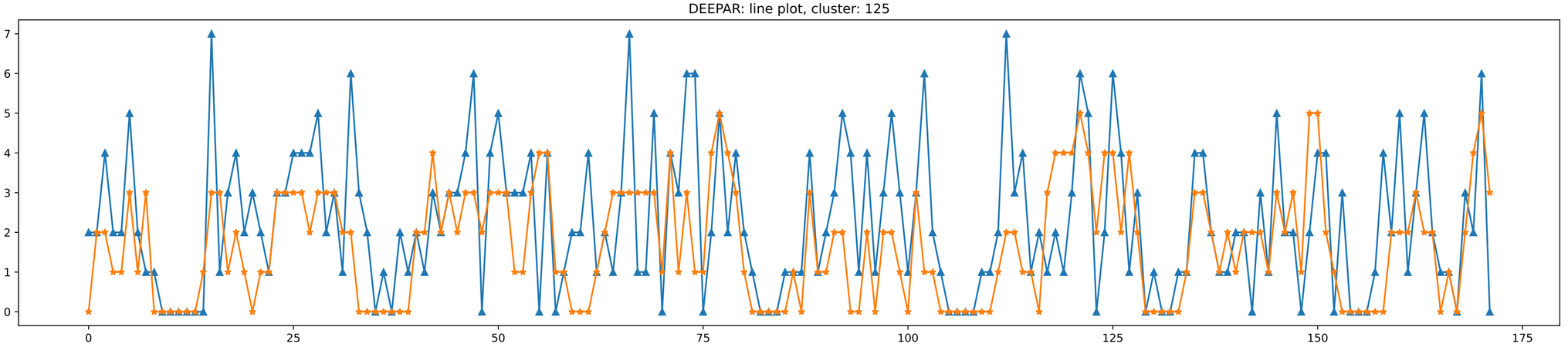

DEEPAR: line plot, cluster: 124
0
1
2
3
4
5
0
25
50
75
100
125
150
175

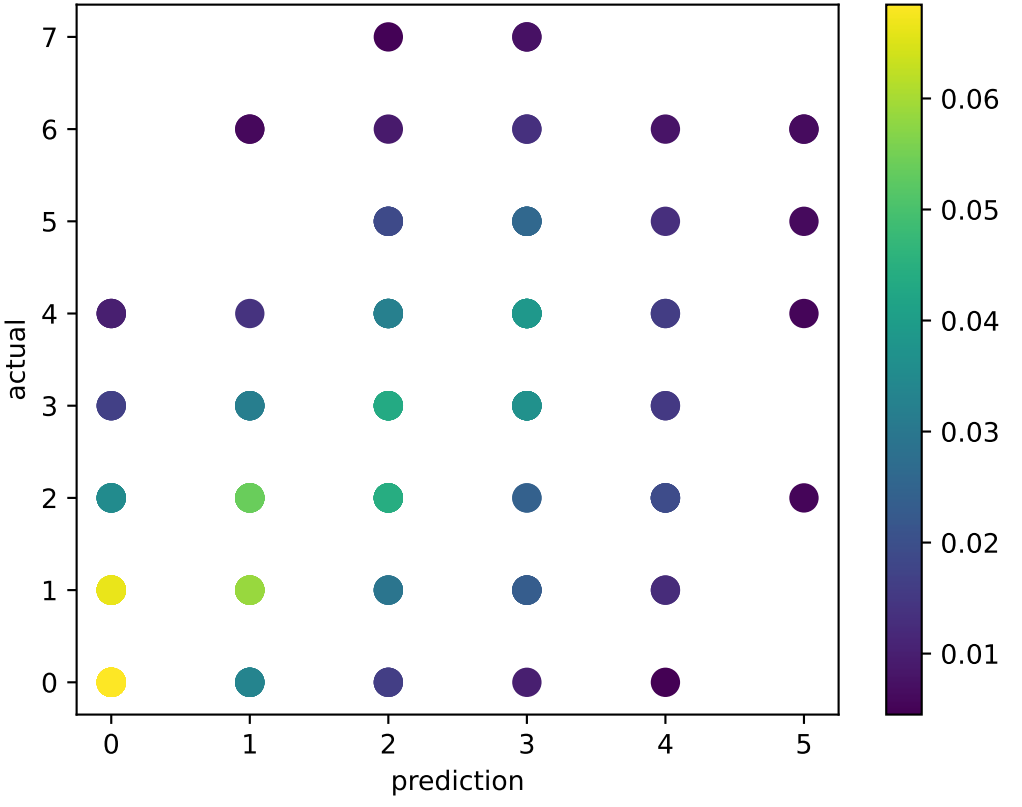

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02

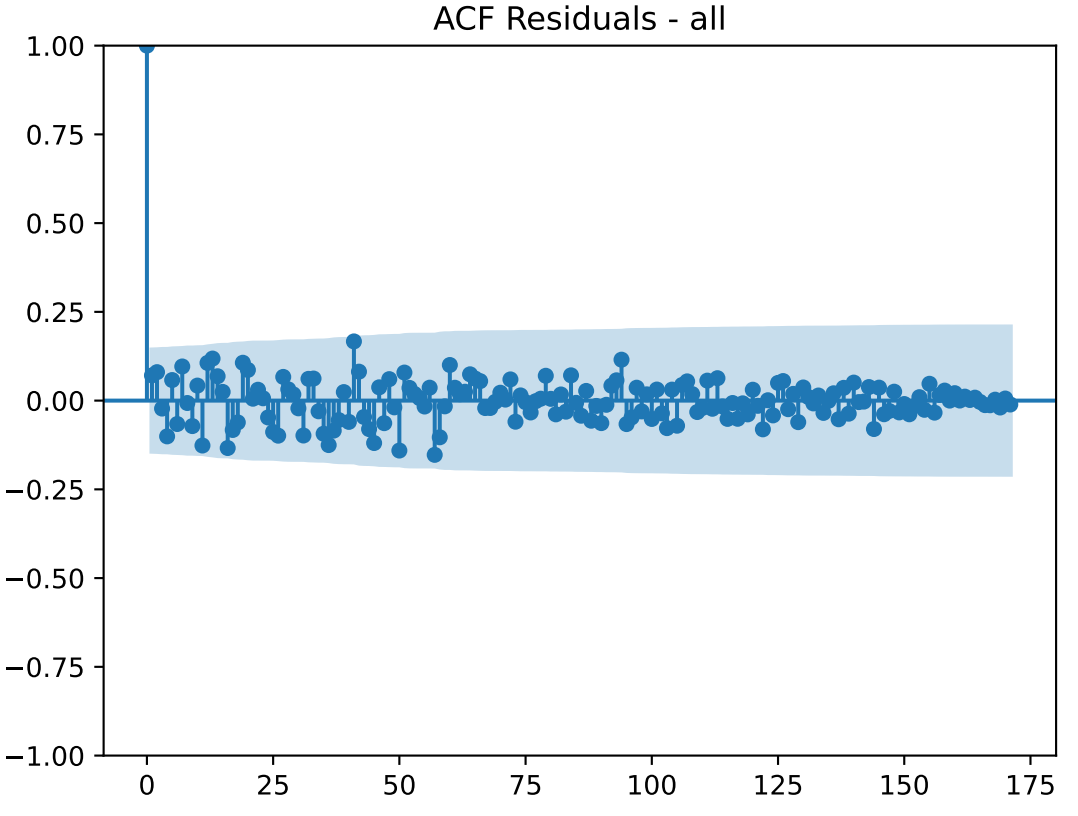

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

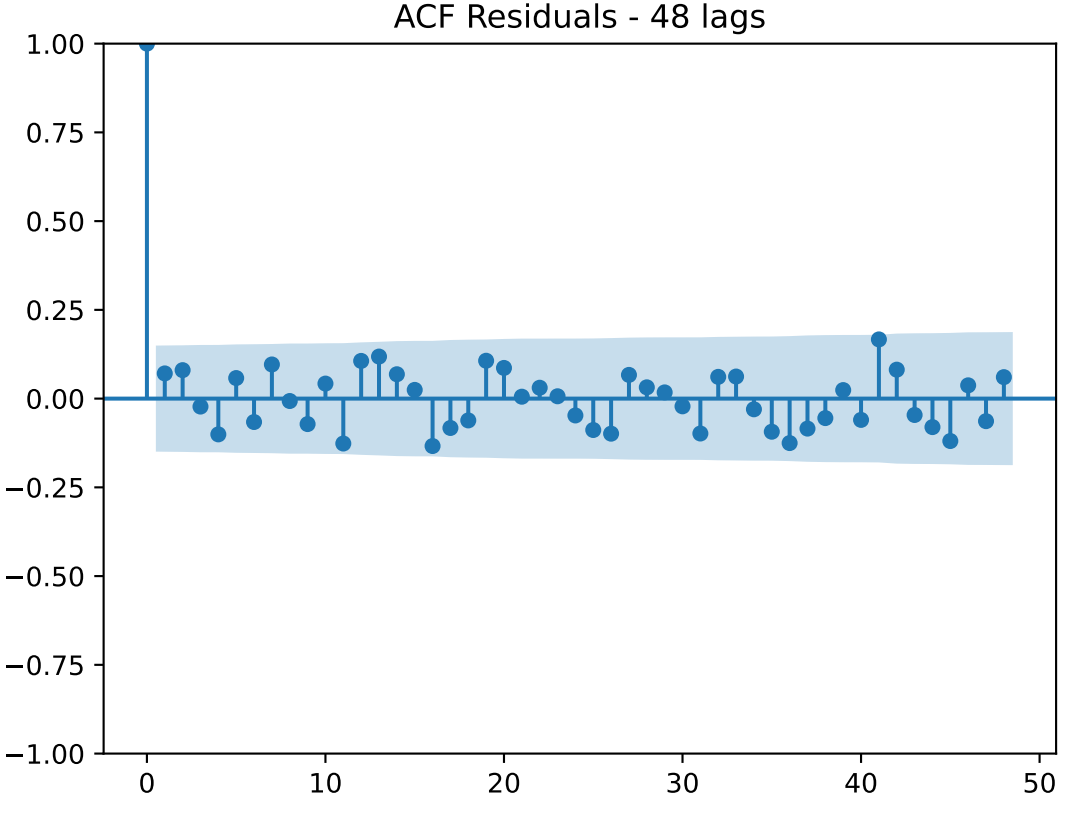

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

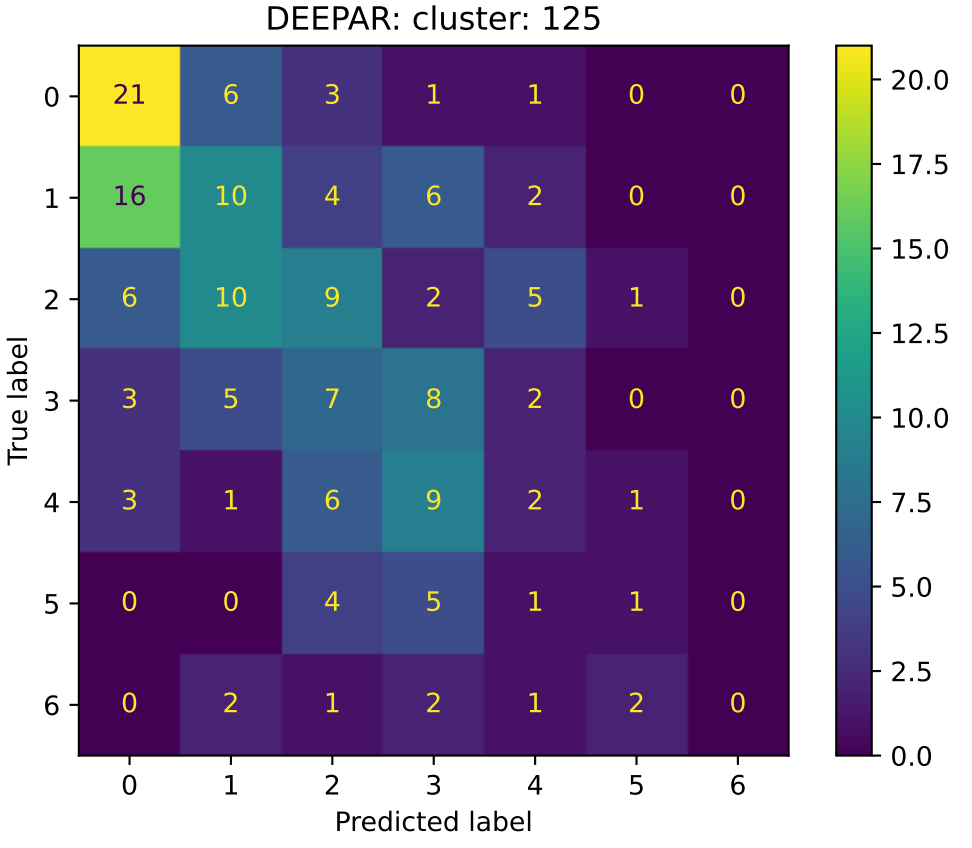

DEEPAR: cluster: 124
True label
Predicted label
0
1
2
3
4
44
8
3
2
0
18
9
6
7
0
14
13
8
7
1
7
2
4
1
0
3
2
3
2
0
40
35
30
25
20
15
10
5
0

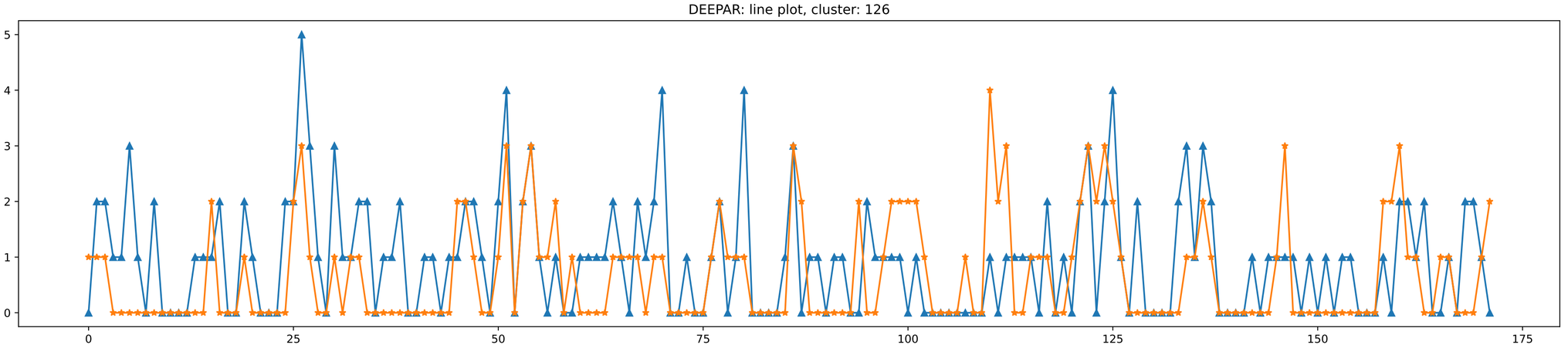

DEEPAR: line plot, cluster: 125
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

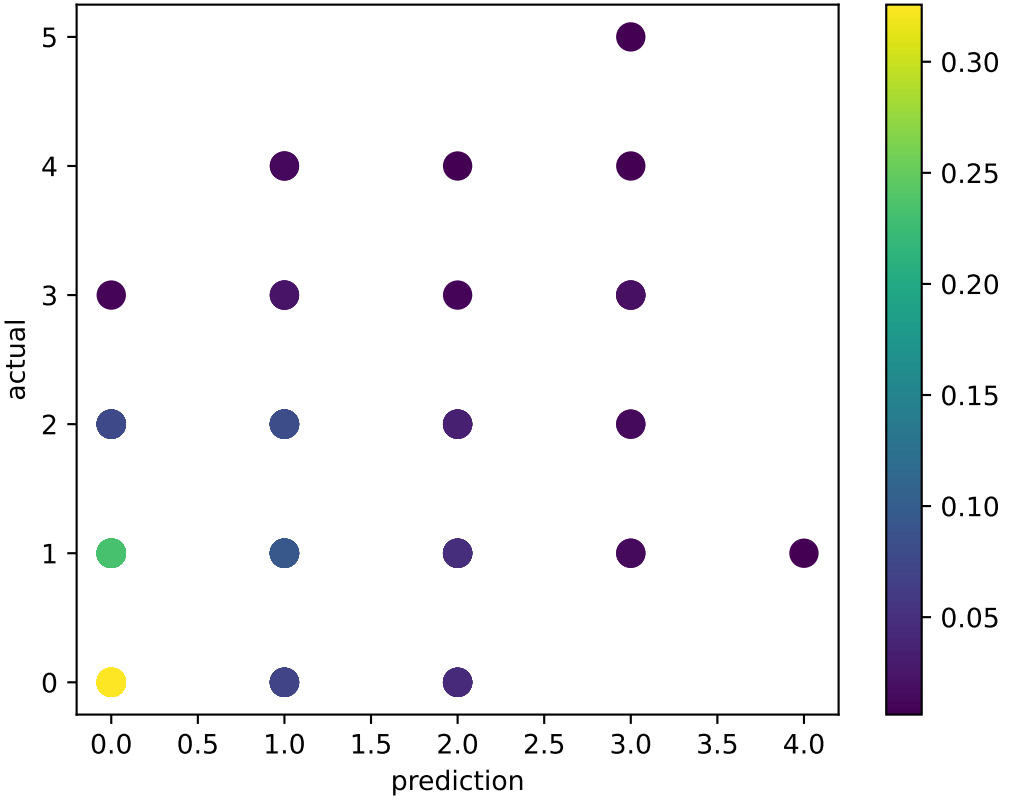

actual
prediction
0
1
2
3
4
5
6
7
0.01
0.02
0.03
0.04
0.05
0.06

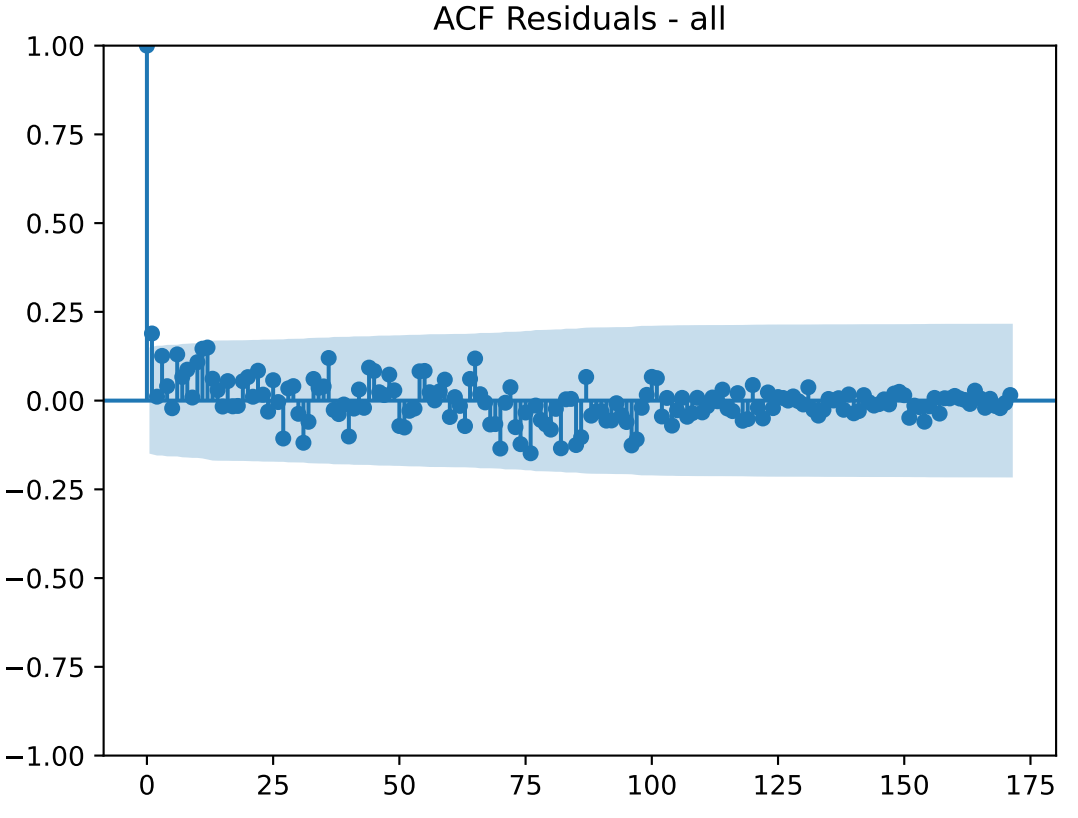

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

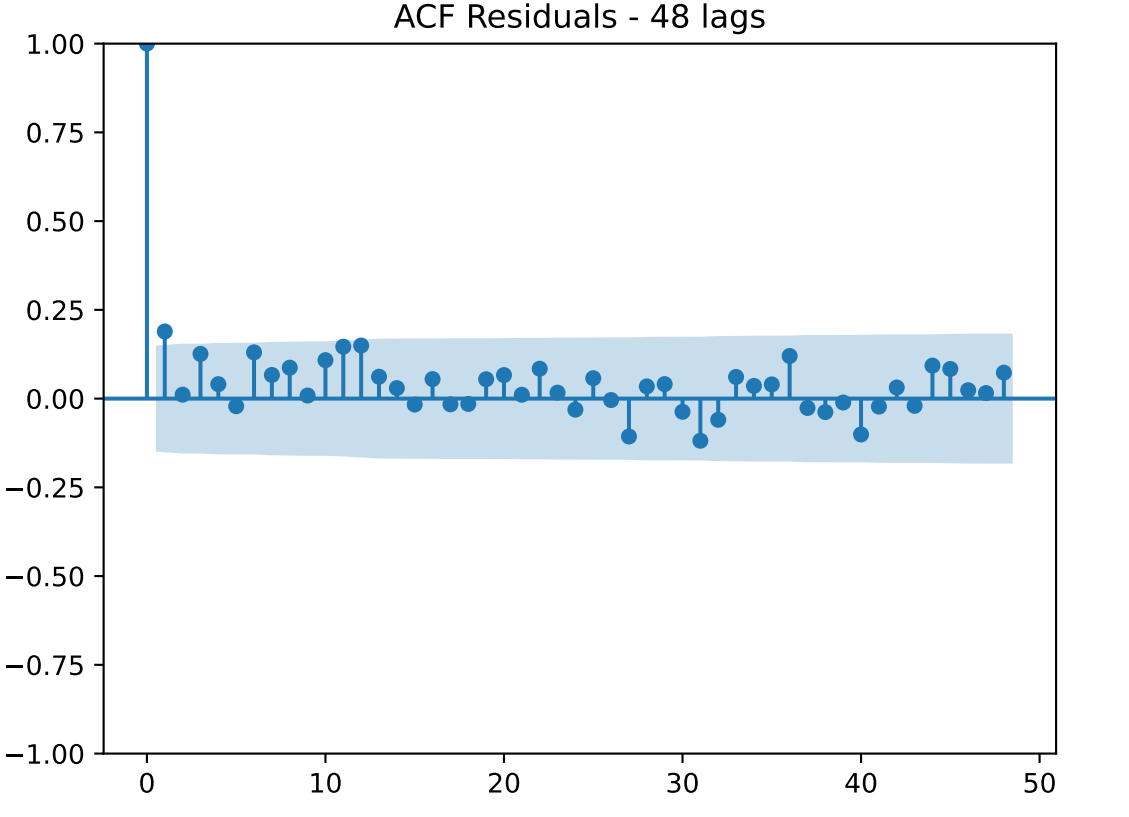

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

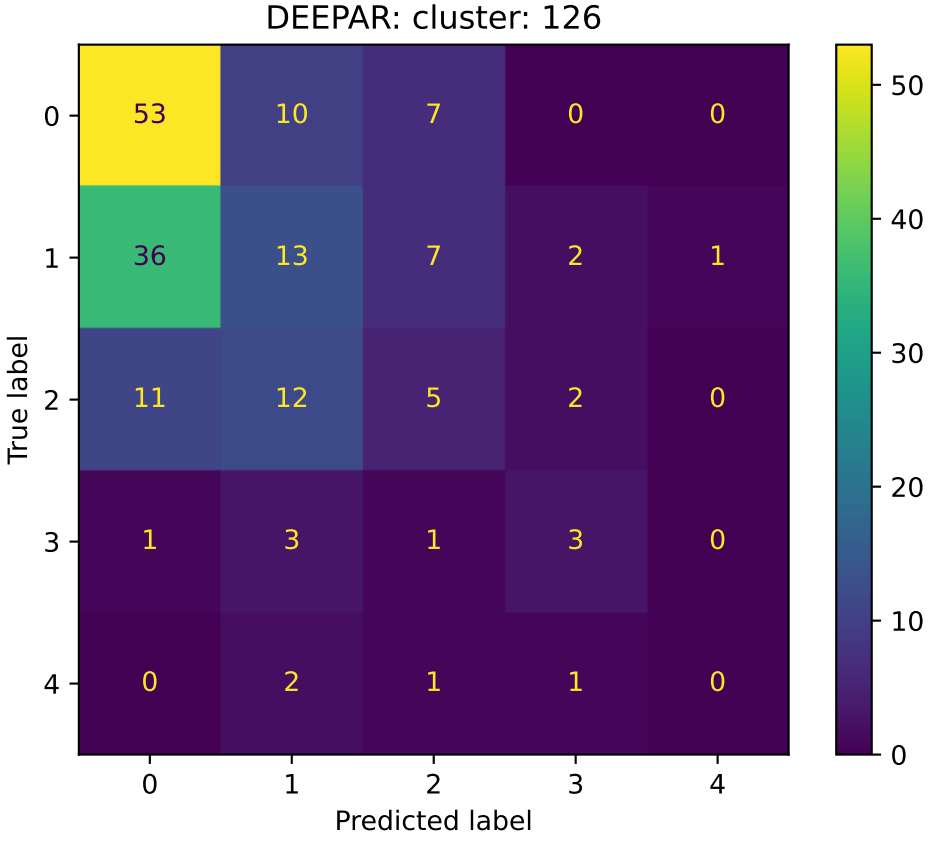

DEEPAR: cluster: 125
True label
Predicted label
0 1 2 3 4 5 6
21 6 3 1 1 0 0
16 10 4 6 2 0 0
6 10 9 2 5 1 0
3 5 7 8 2 0 0
3 1 6 9 2 1 0
0 0 4 5 1 1 0
0 2 1 2 1 2 0
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0

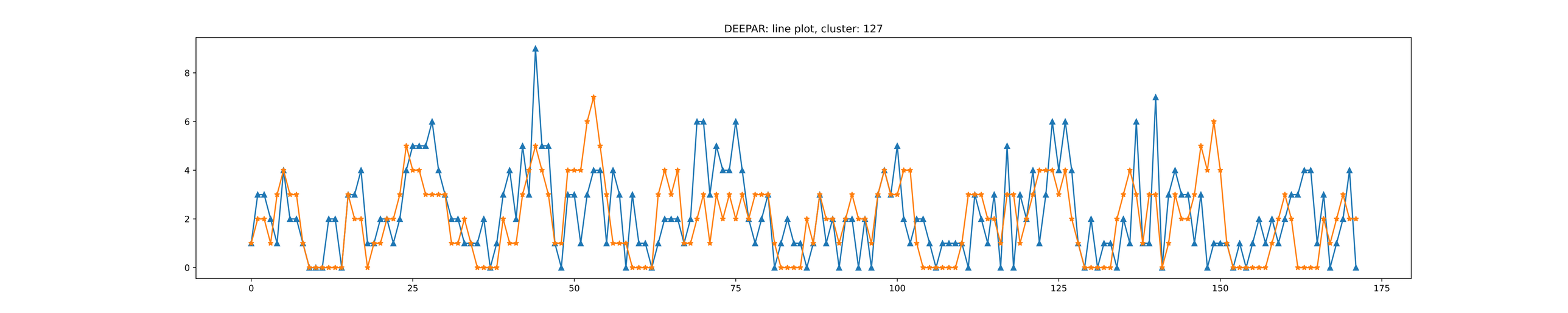

DEEPAR: line plot, cluster: 126
0
1
2
3
4
5
0
25
50
75
100
125
150
175

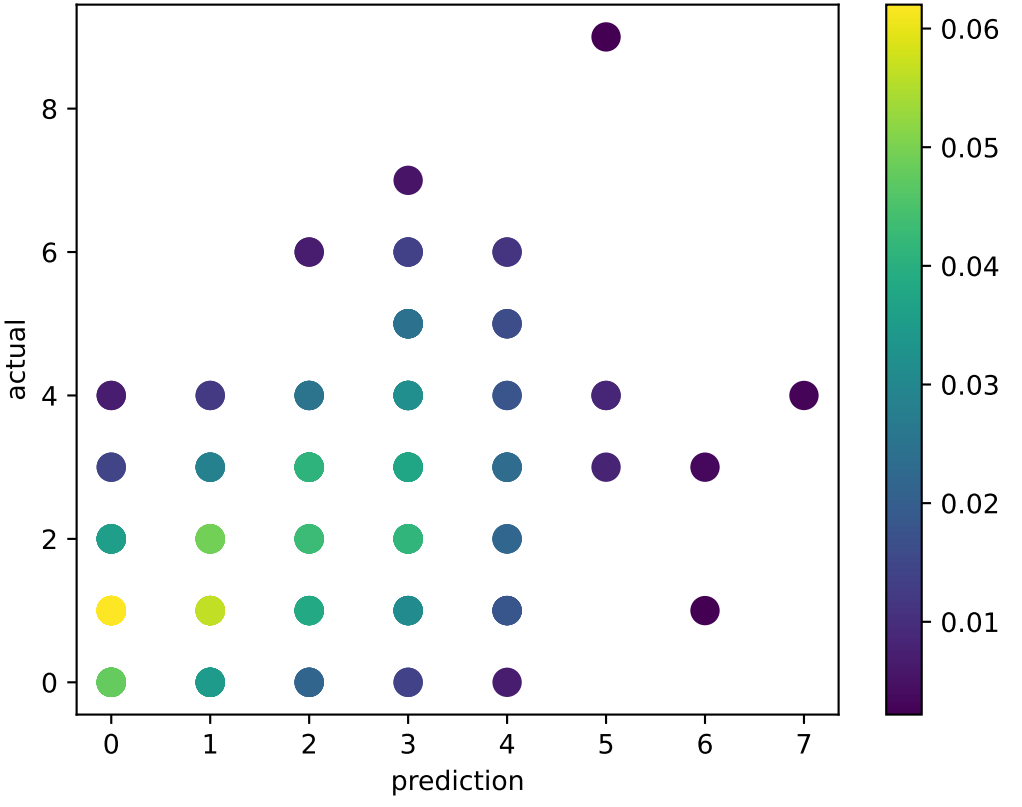

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.30
0.25
0.20
0.15
0.10
0.05

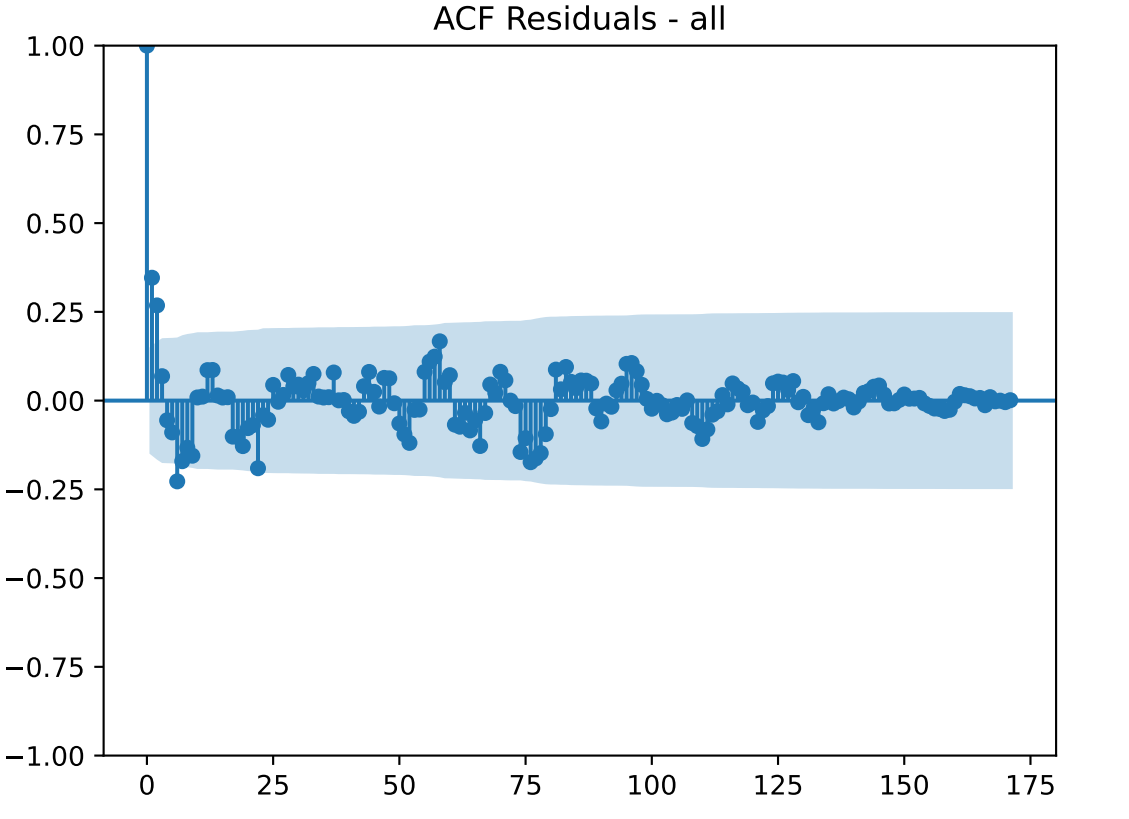

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

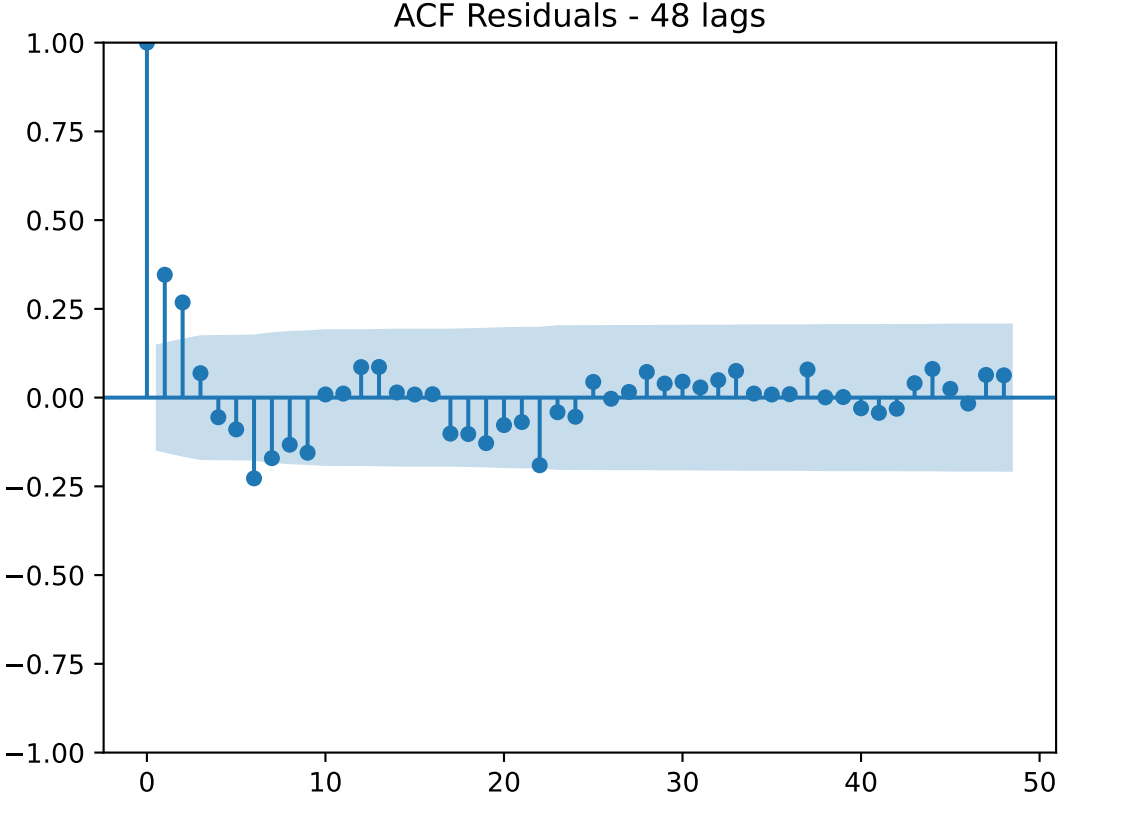

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

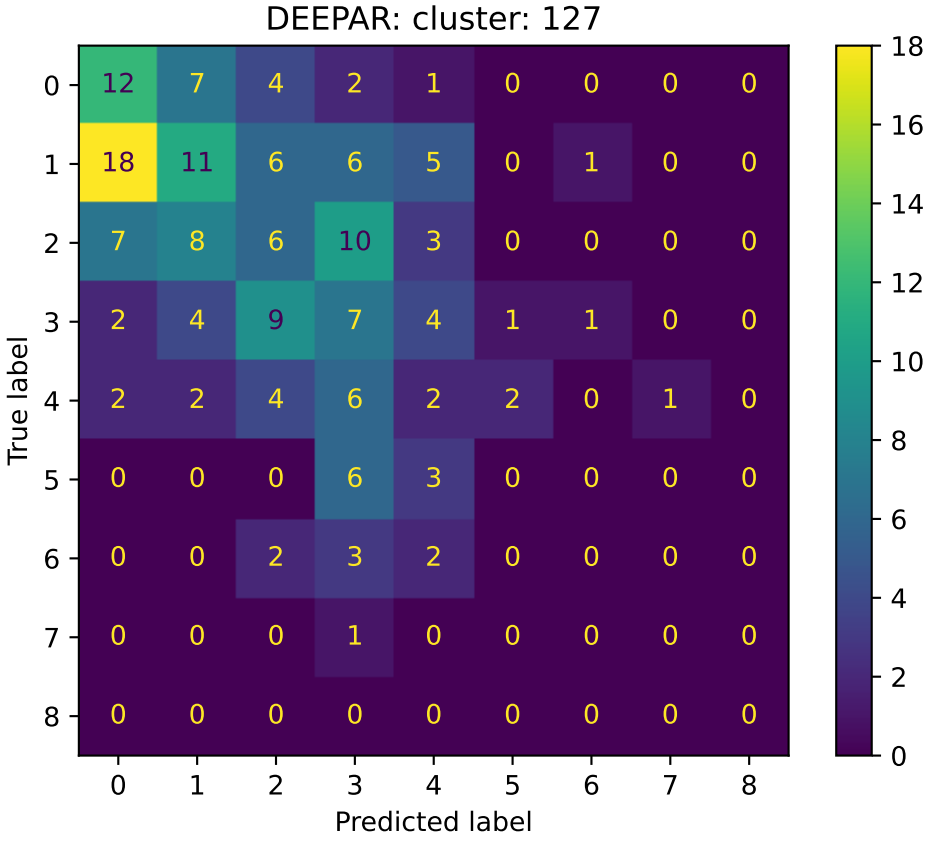

DEEPAR: cluster: 126
True label
Predicted label
0
1
2
3
4
53
10
7
0
0
36
13
7
2
1
11
12
5
2
0
1
3
1
3
0
0
2
1
1
0
50
40
30
20
10
0

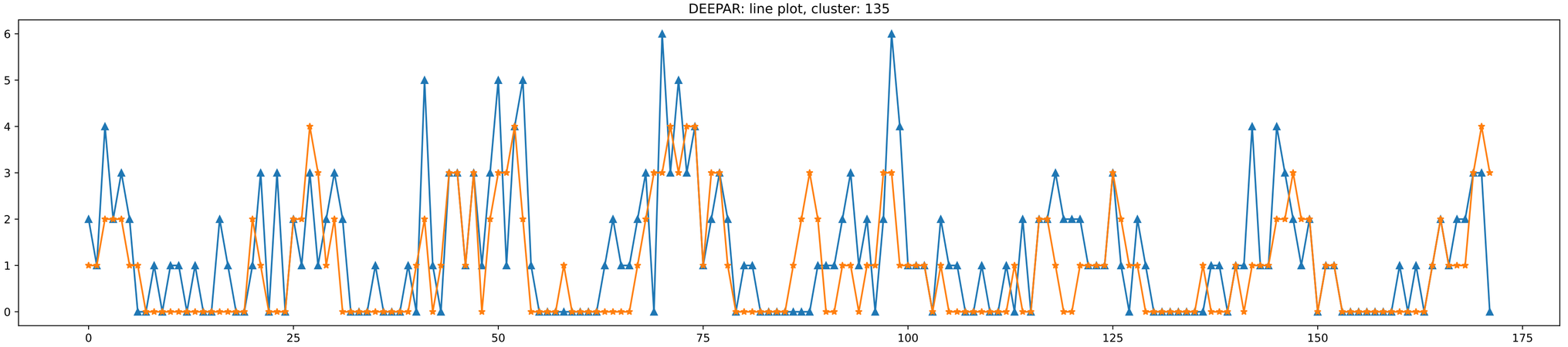

DEEPAR: line plot, cluster: 127
0
2
4
6
8
0
25
50
75
100
125
150
175

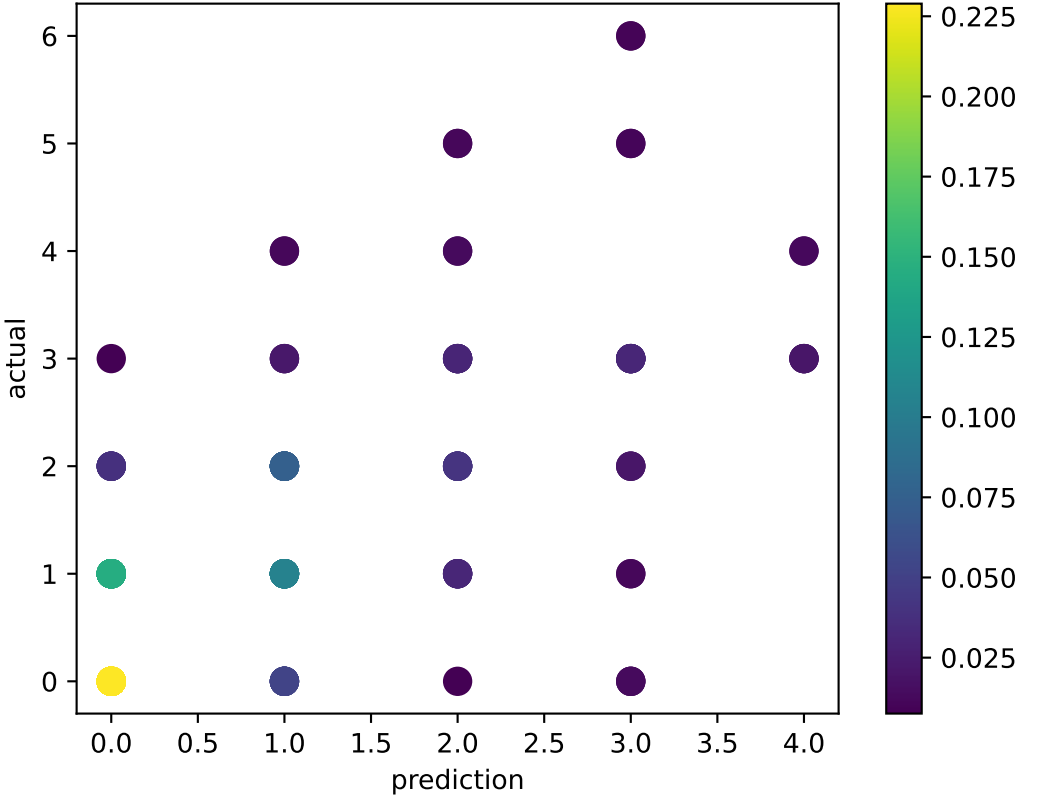

actual
prediction
0
1
2
3
4
5
6
7
0
2
4
6
8
0.01
0.02
0.03
0.04
0.05
0.06

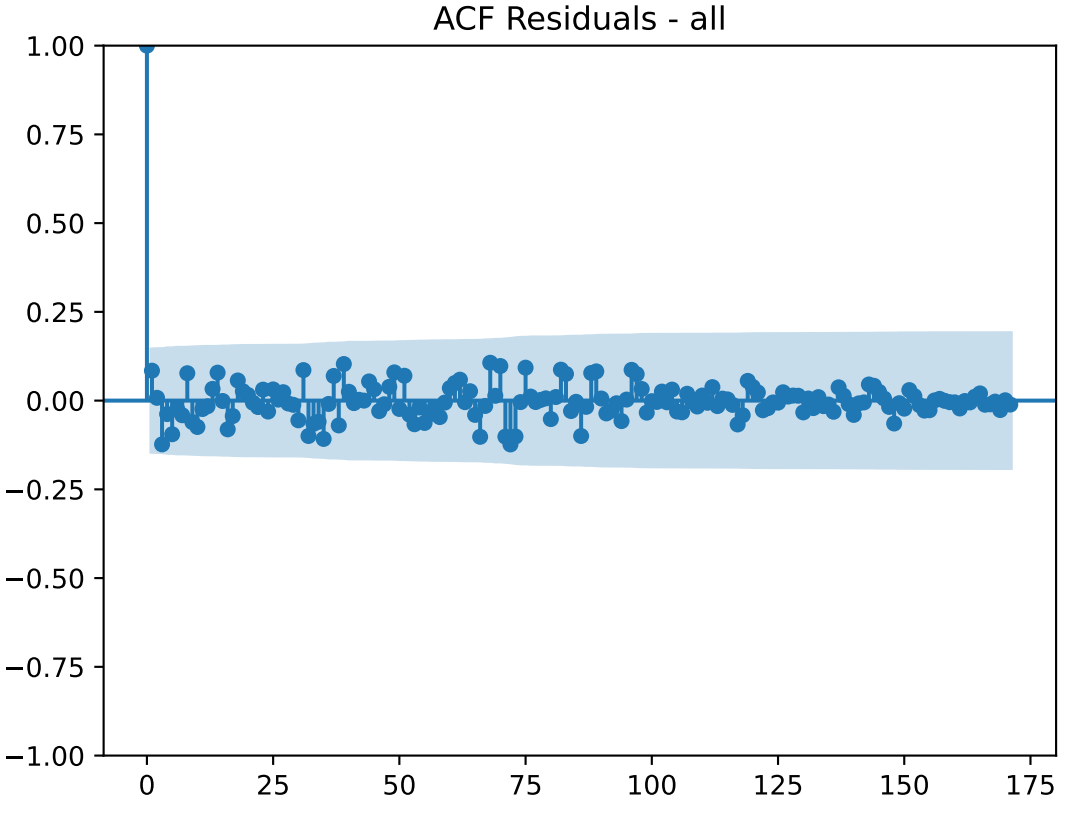

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

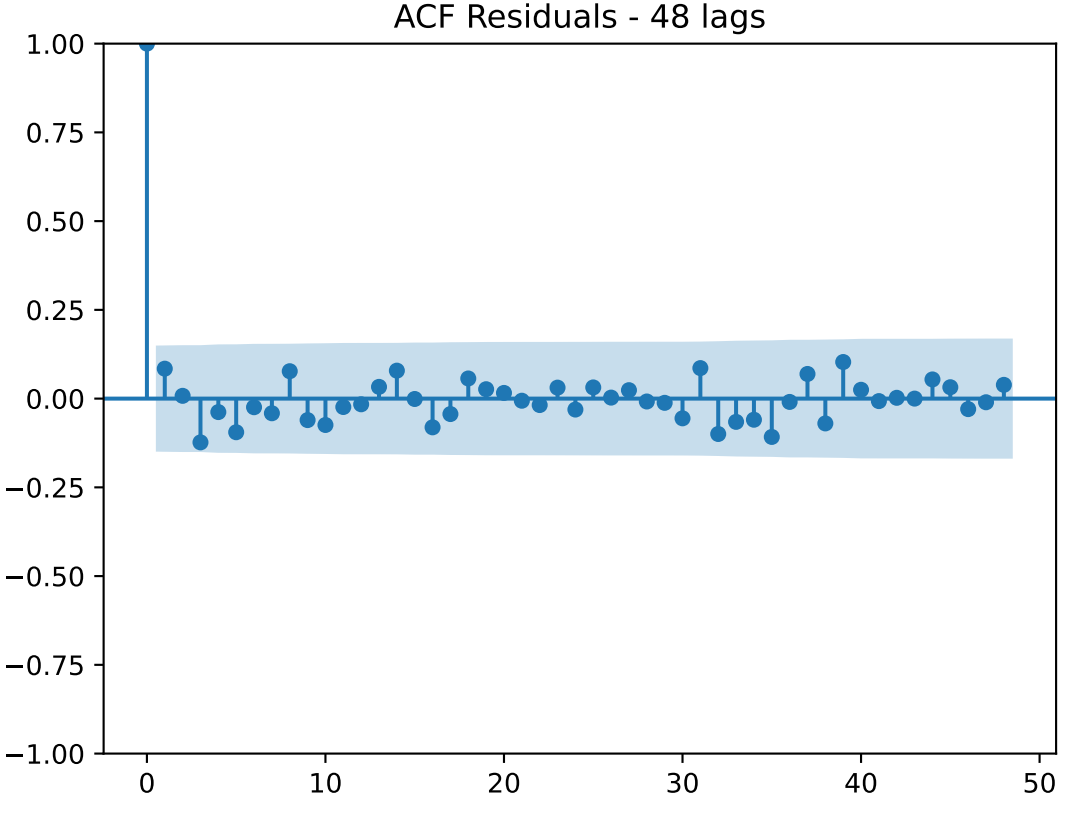

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

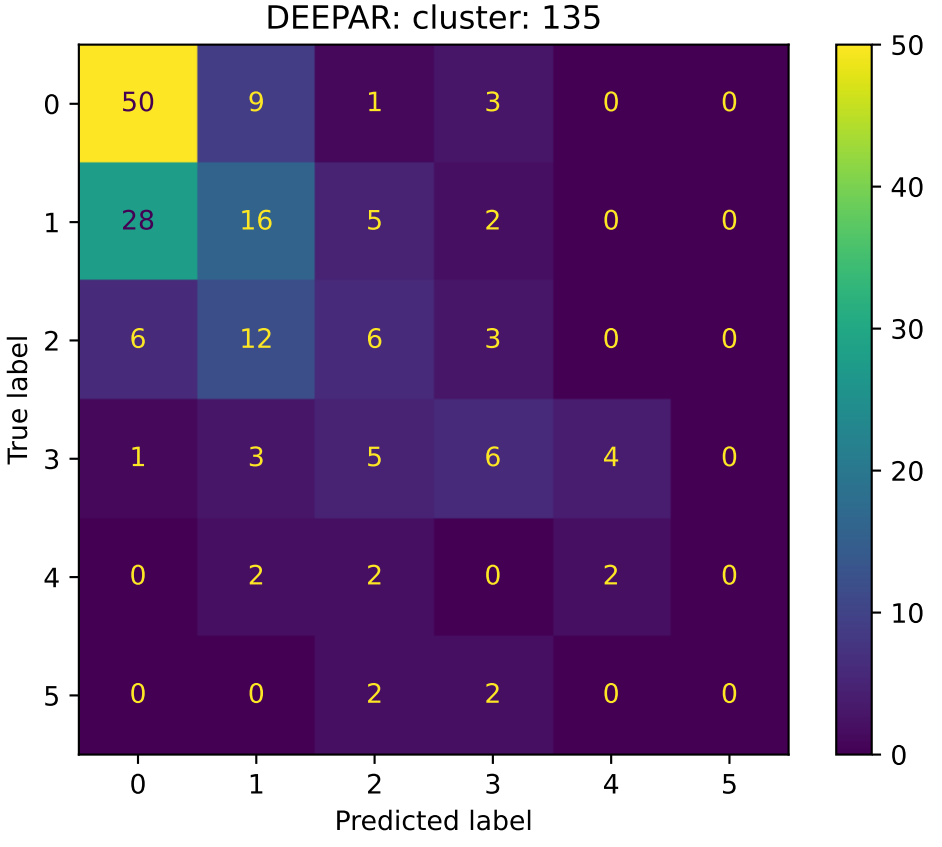

DEEPAR: cluster: 127
True label
Predicted label
0 1 2 3 4 5 6 7 8
12 7 4 2 1 0 0 0 0
18 11 6 6 5 0 1 0 0
7 8 6 10 3 0 0 0 0
2 4 9 7 4 1 1 0 0
2 2 4 6 2 2 0 1 0
0 0 0 6 3 0 0 0 0
0 0 2 3 2 0 0 0 0
0 0 0 1 0 0 0 0 0
0 0 0 0 0 0 0 0 0
0 2 4 6 8 10 12 14 16 18

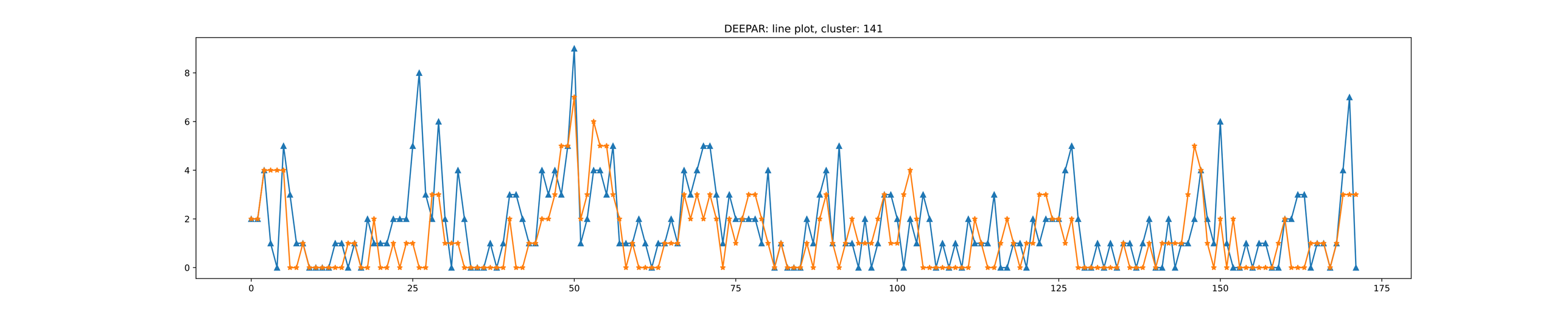

DEEPAR: line plot, cluster: 135
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

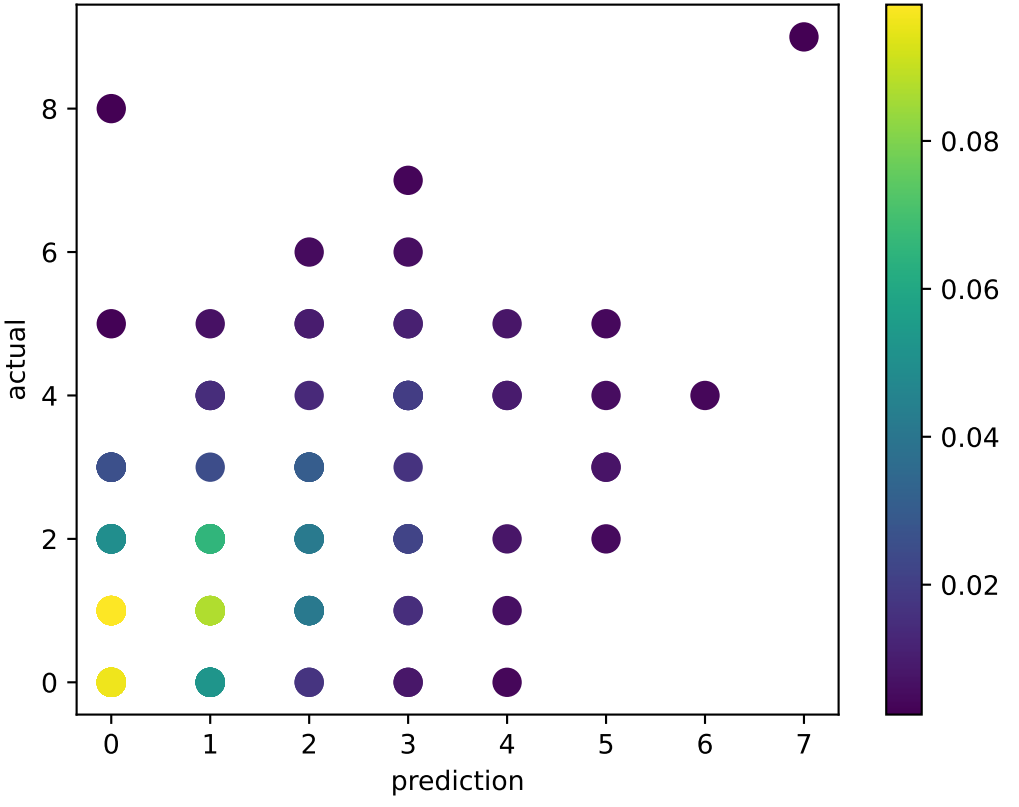

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.225
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025

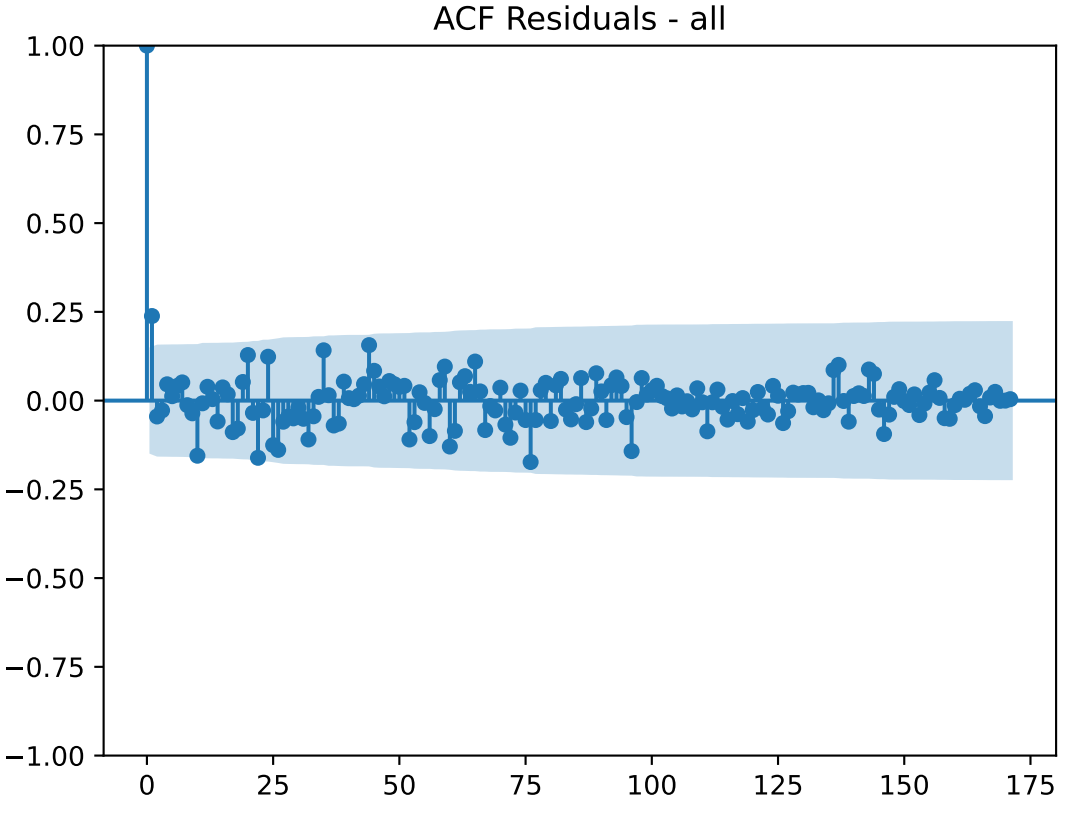

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

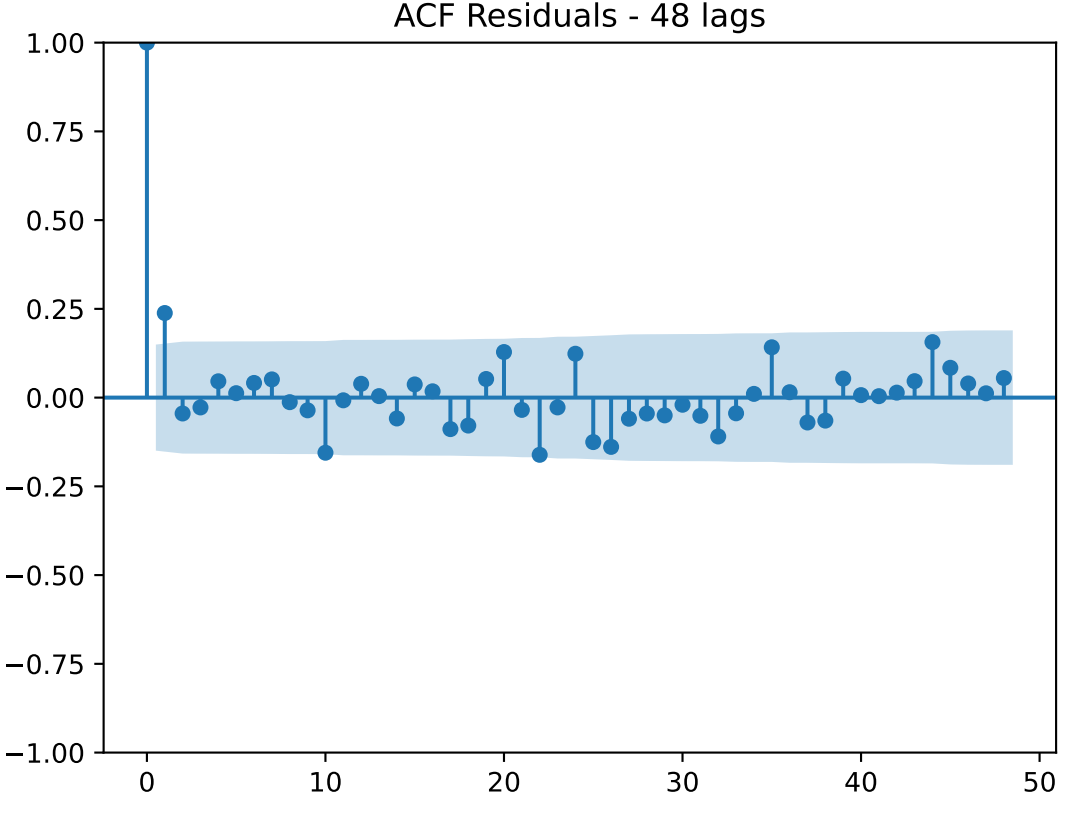

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

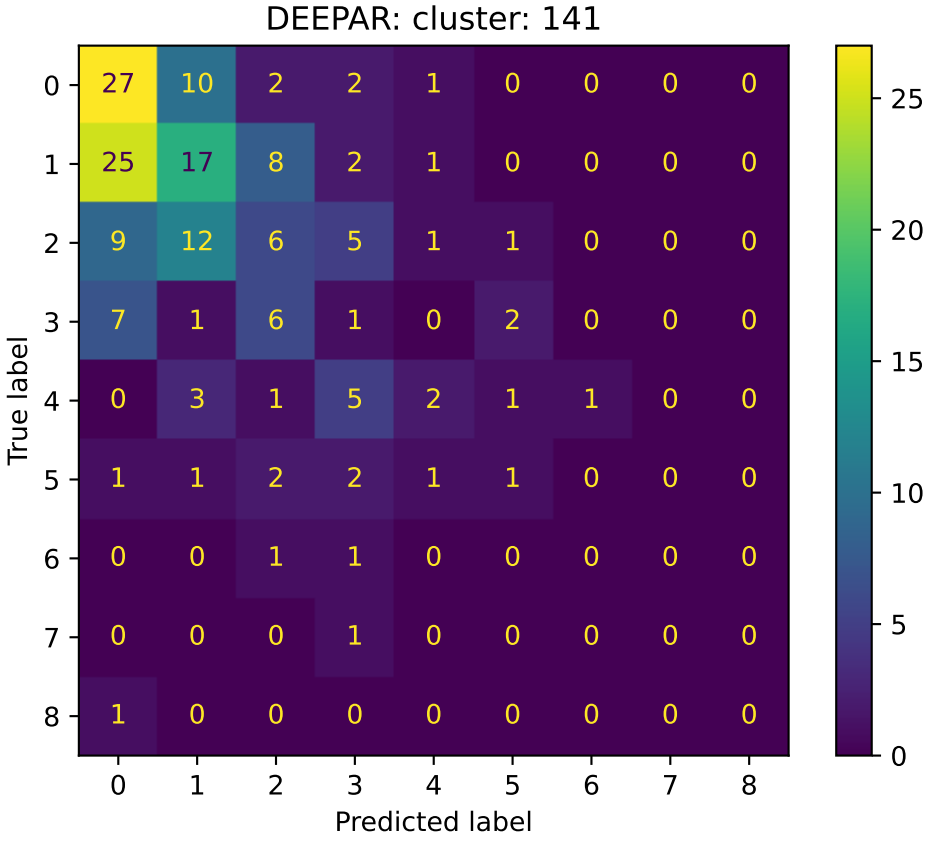

DEEPAR: cluster: 135
True label
Predicted label
0
1
2
3
4
5
50 9 1 3 0 0
28 16 5 2 0 0
6 12 6 3 0 0
1 3 5 6 4 0
0 2 2 0 2 0
0 0 2 2 0 0
50
40
30
20
10
0

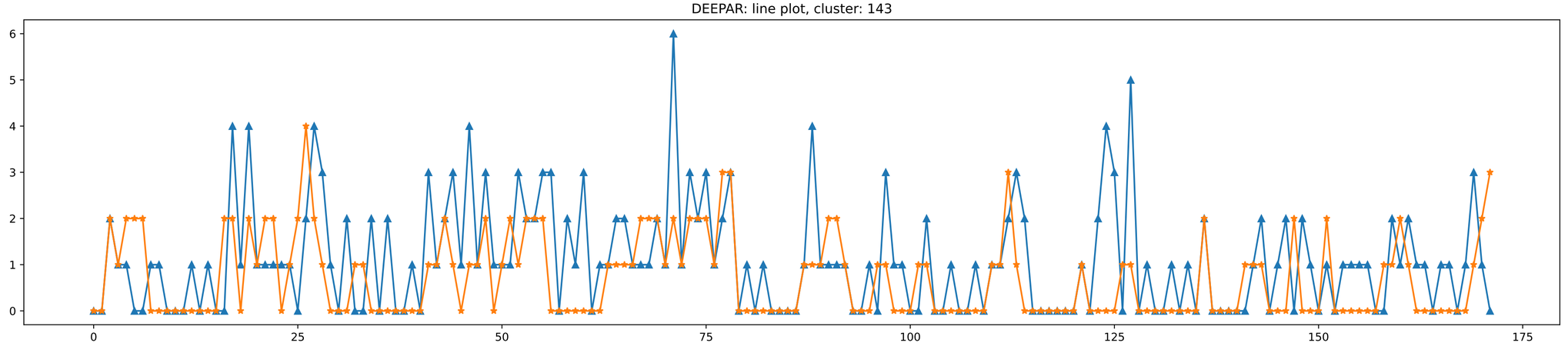

DEEPAR: line plot, cluster: 141
0
2
4
6
8
0
25
50
75
100
125
150
175

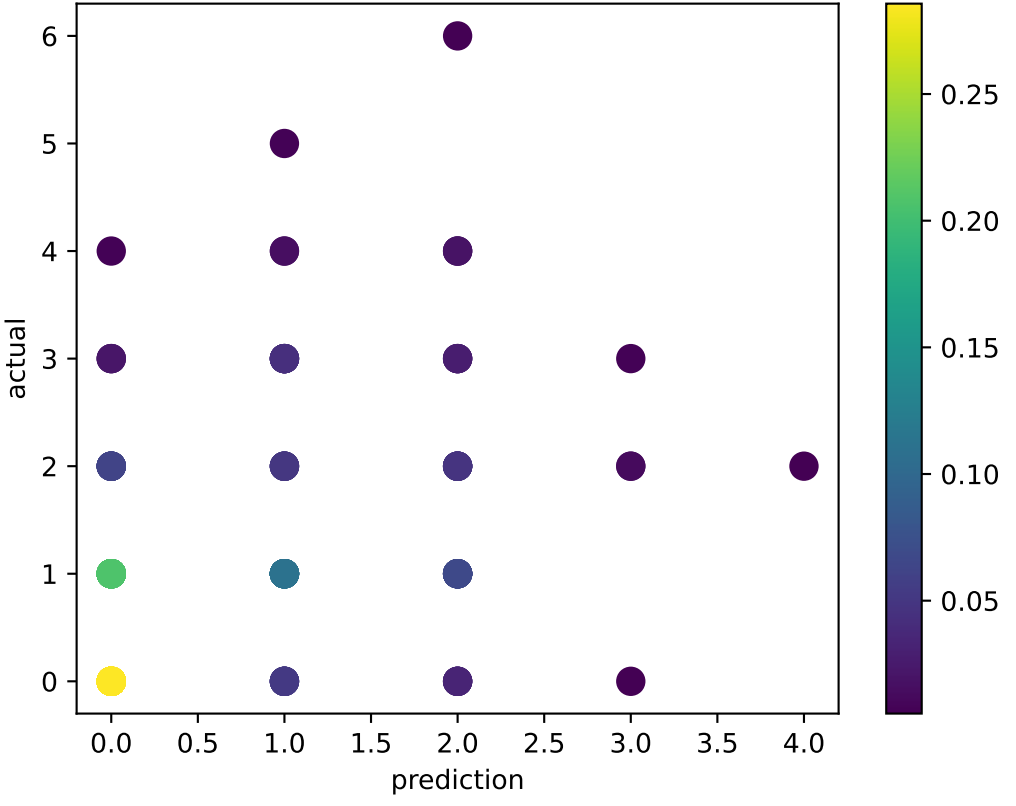

actual
prediction
0
1
2
3
4
5
6
7
8
0.08
0.06
0.04
0.02

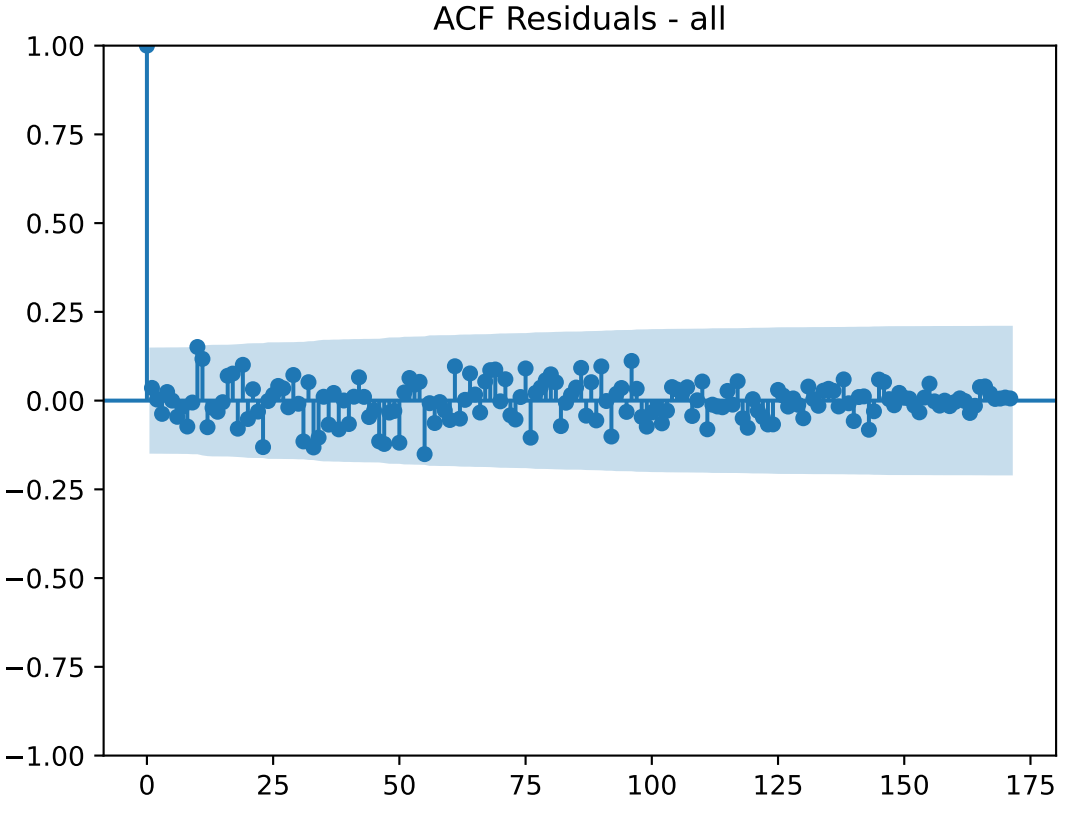

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

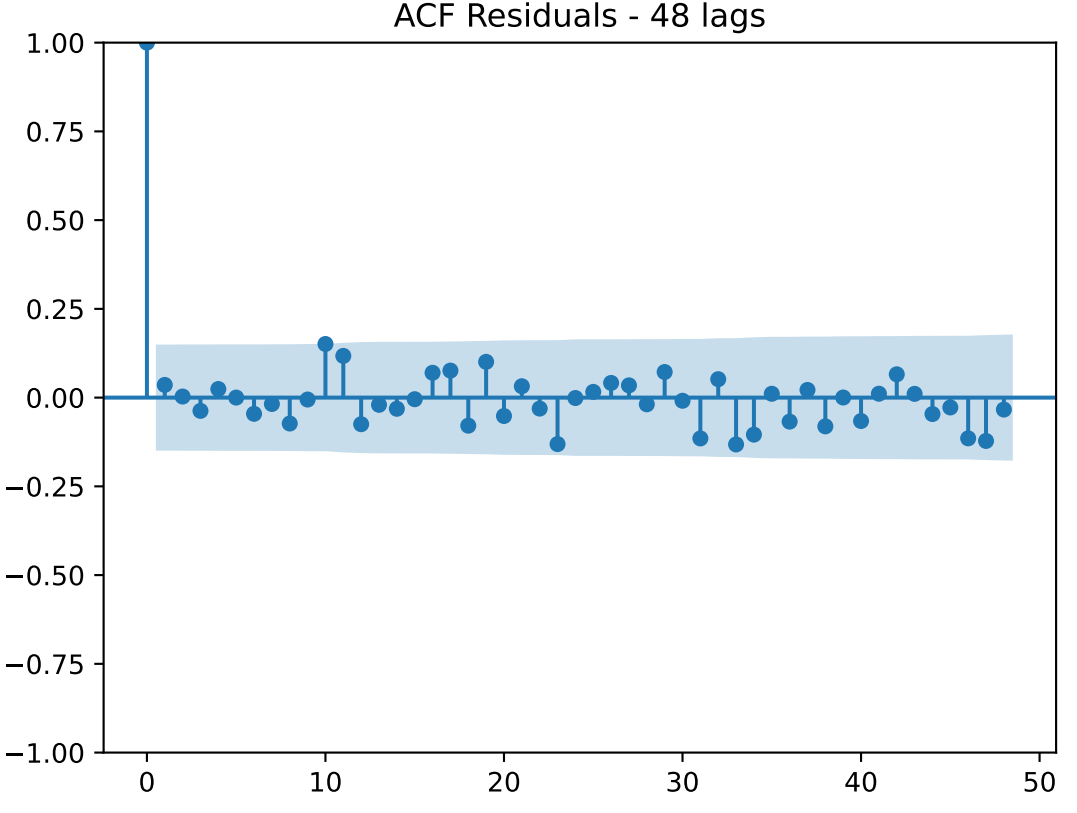

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

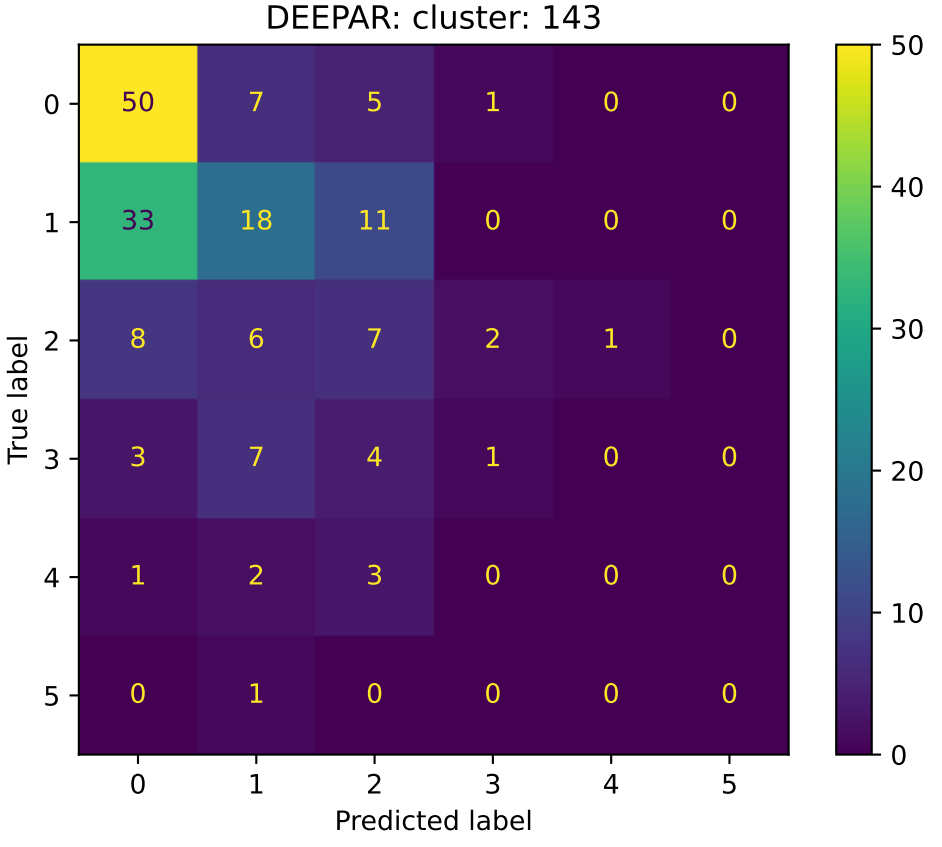

DEEPAR: cluster: 141
True label
Predicted label
0 27 10 2 2 1 0 0 0 0
1 25 17 8 2 1 0 0 0 0
2 9 12 6 5 1 1 0 0 0
3 7 1 6 1 0 2 0 0 0
4 0 3 1 5 2 1 1 0 0
5 1 1 2 2 1 1 0 0 0
6 0 0 1 1 0 0 0 0 0
7 0 0 0 1 0 0 0 0 0
8 1 0 0 0 0 0 0 0 0
0 1 2 3 4 5 6 7 8
25 20 15 10 5 0

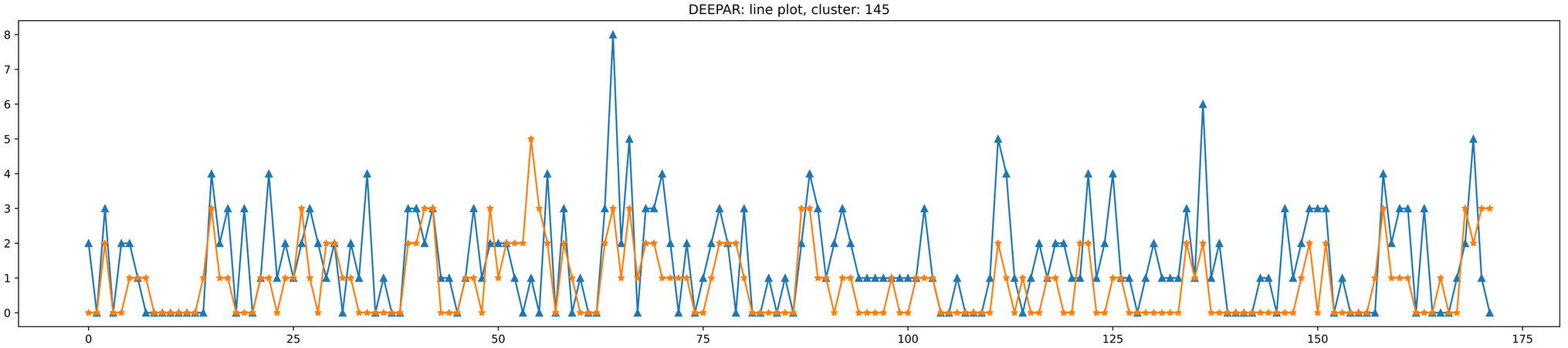

DEEPAR: line plot, cluster: 143
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

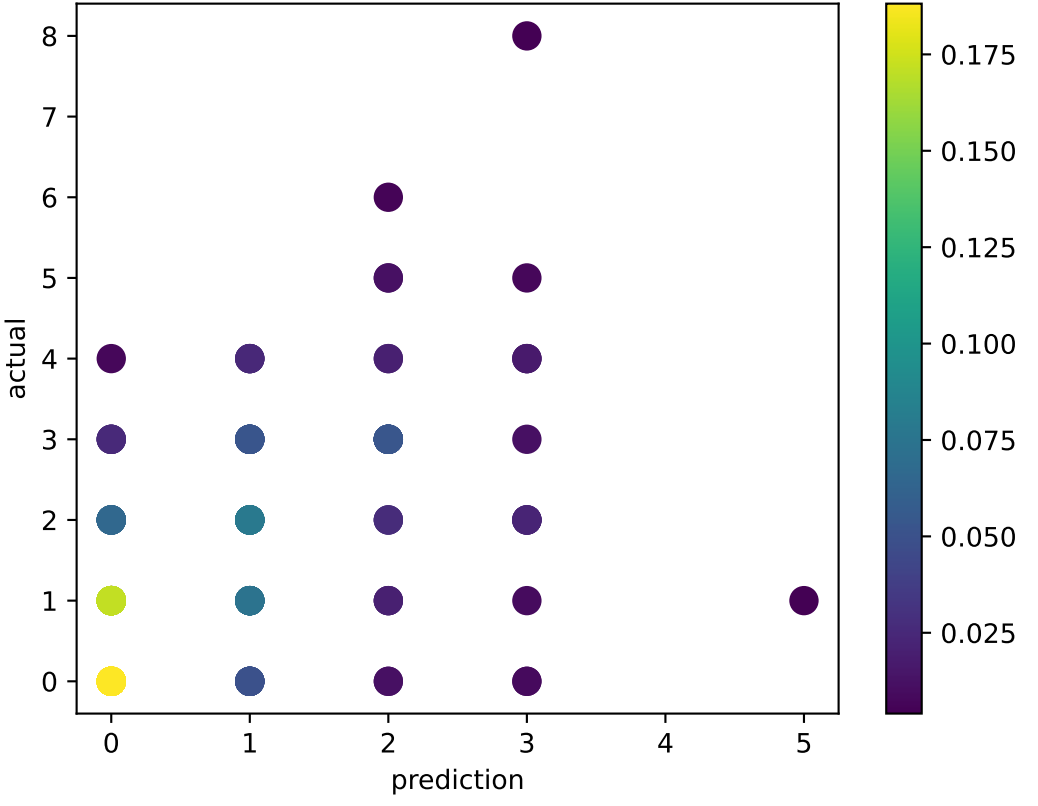

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.25
0.20
0.15
0.10
0.05

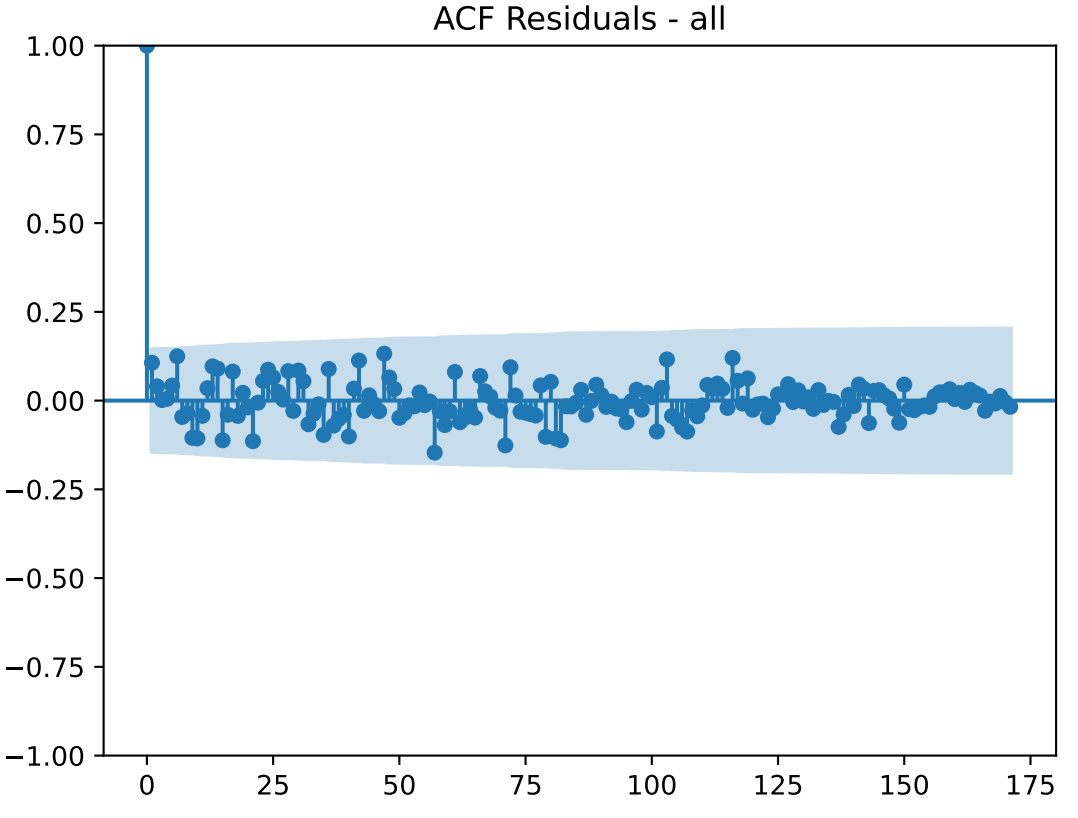

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

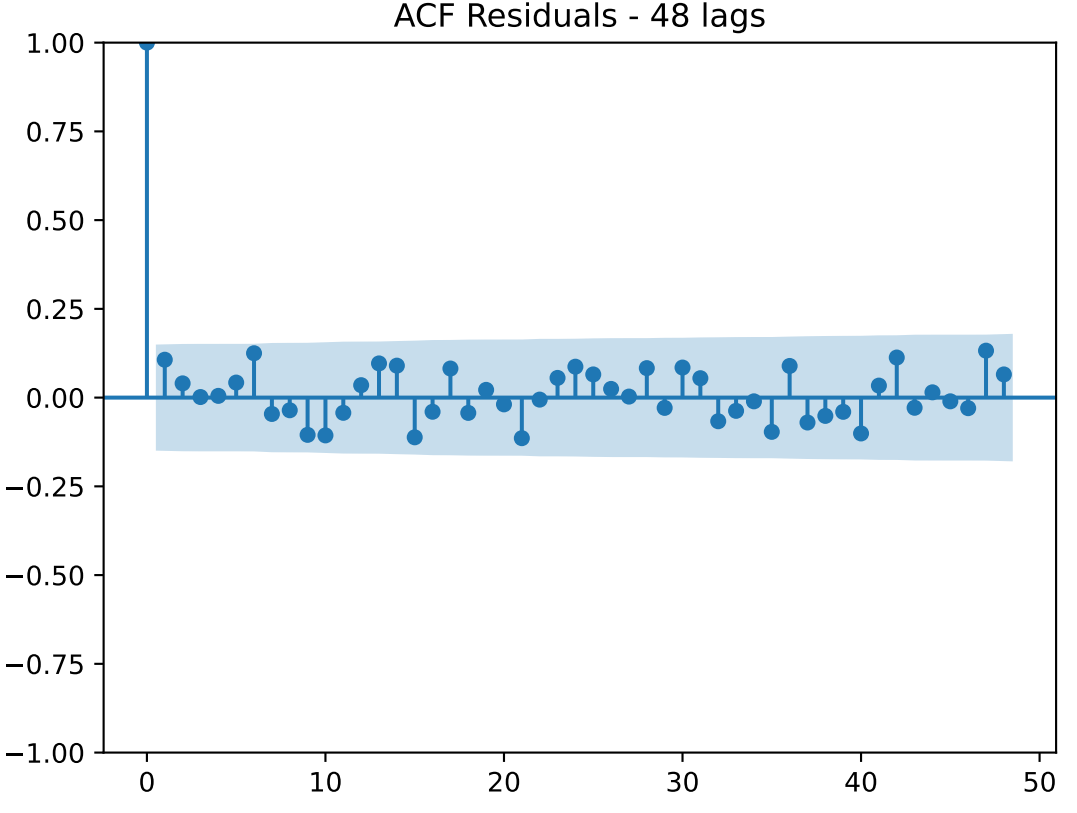

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

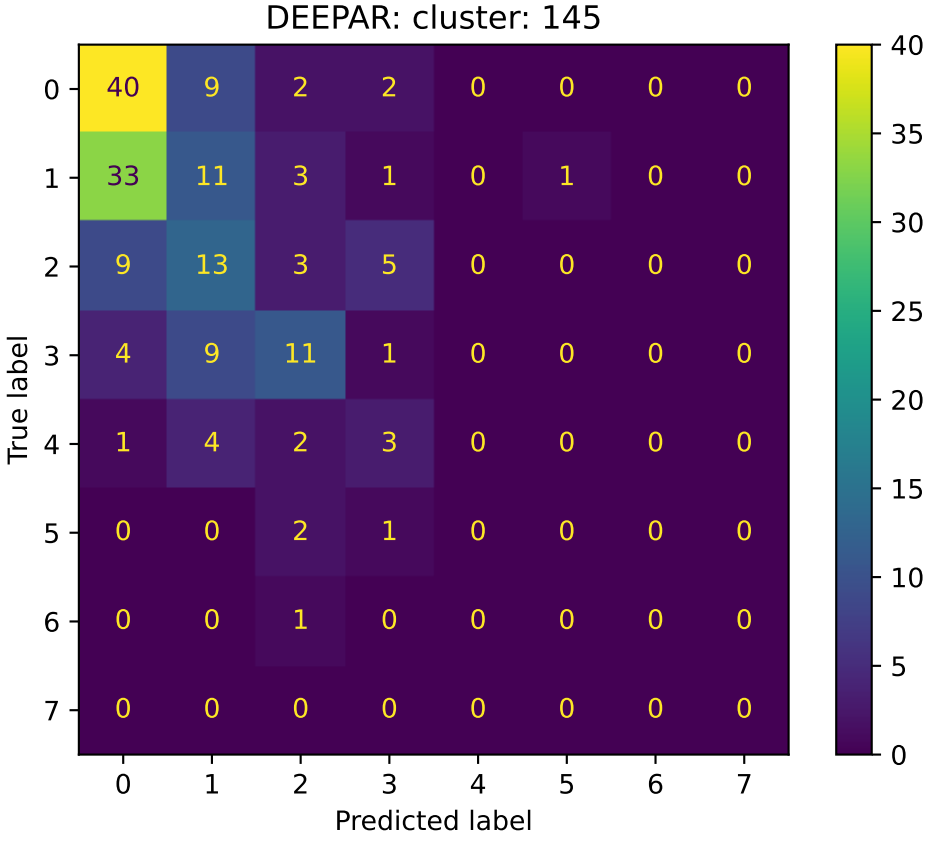

DEEPAR: cluster: 143
True label
Predicted label
0
1
2
3
4
5
50
7
5
1
0
0
33
18
11
0
0
0
8
6
7
2
1
0
3
7
4
1
0
0
1
2
3
0
0
0
0
1
0
0
0
0
50
40
30
20
10
0

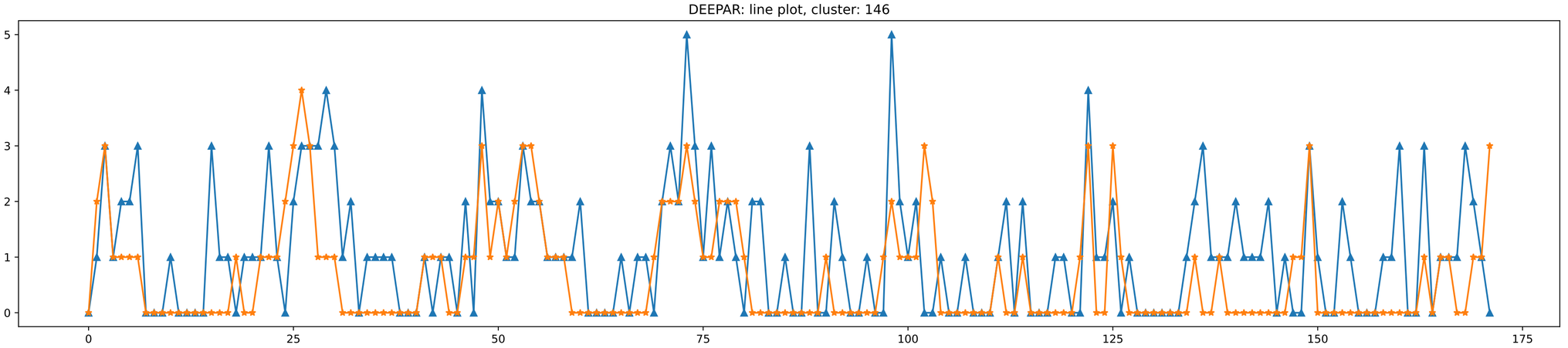

DEEPAR: line plot, cluster: 145
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

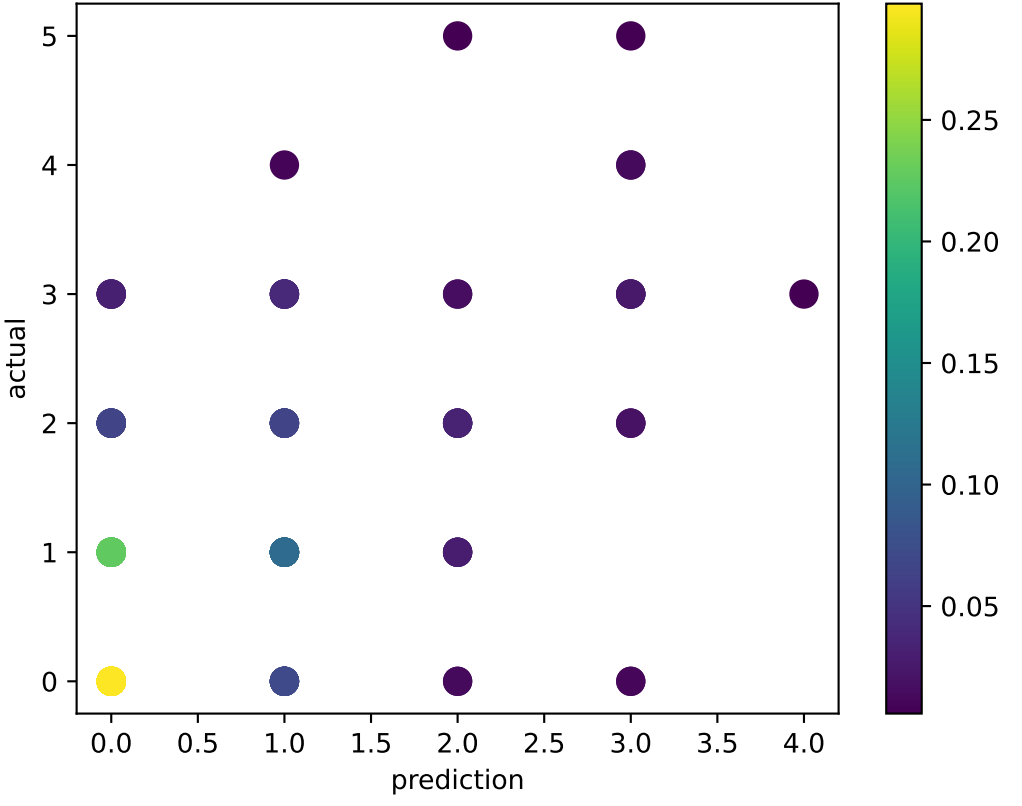

actual
prediction
0
1
2
3
4
5
6
7
8
0.175
0.150
0.125
0.100
0.075
0.050
0.025

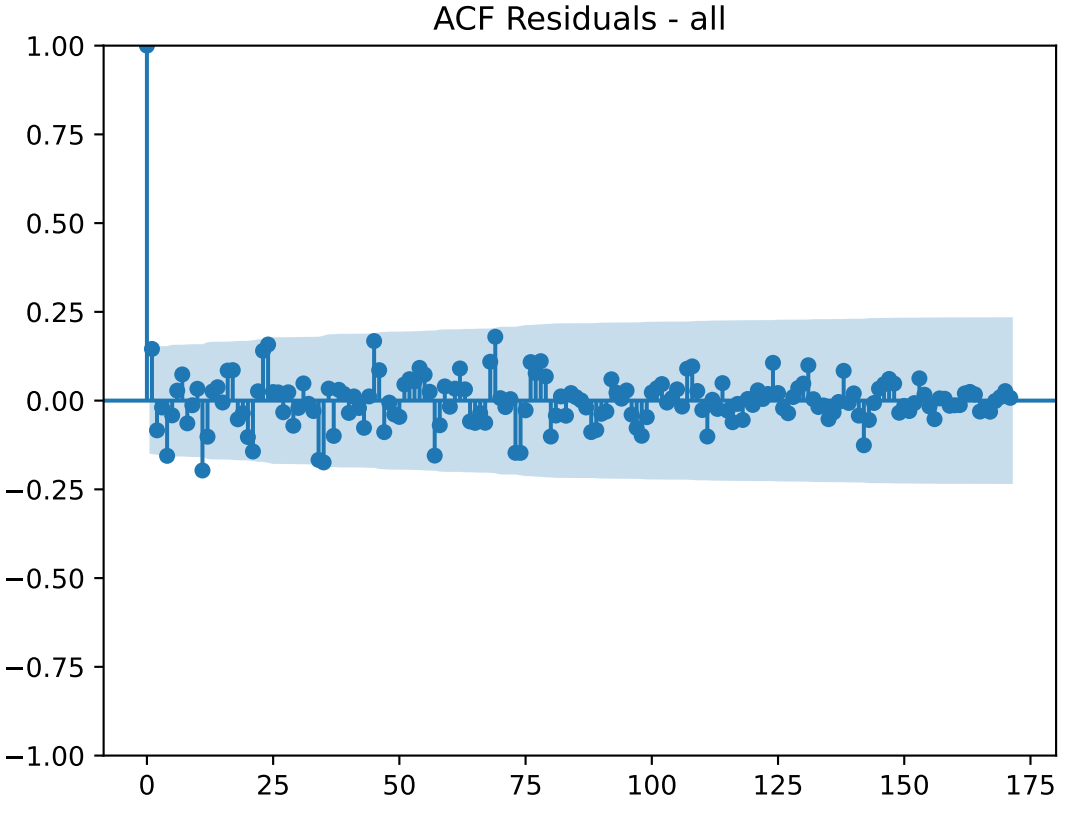

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

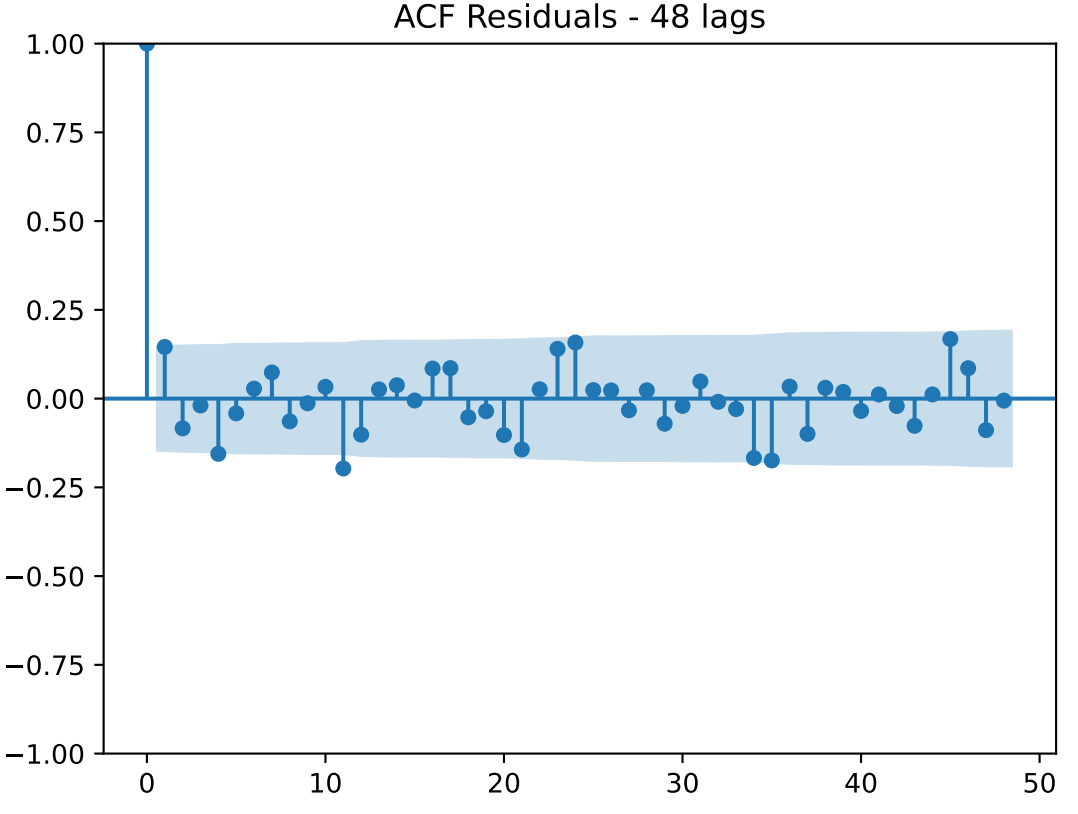

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

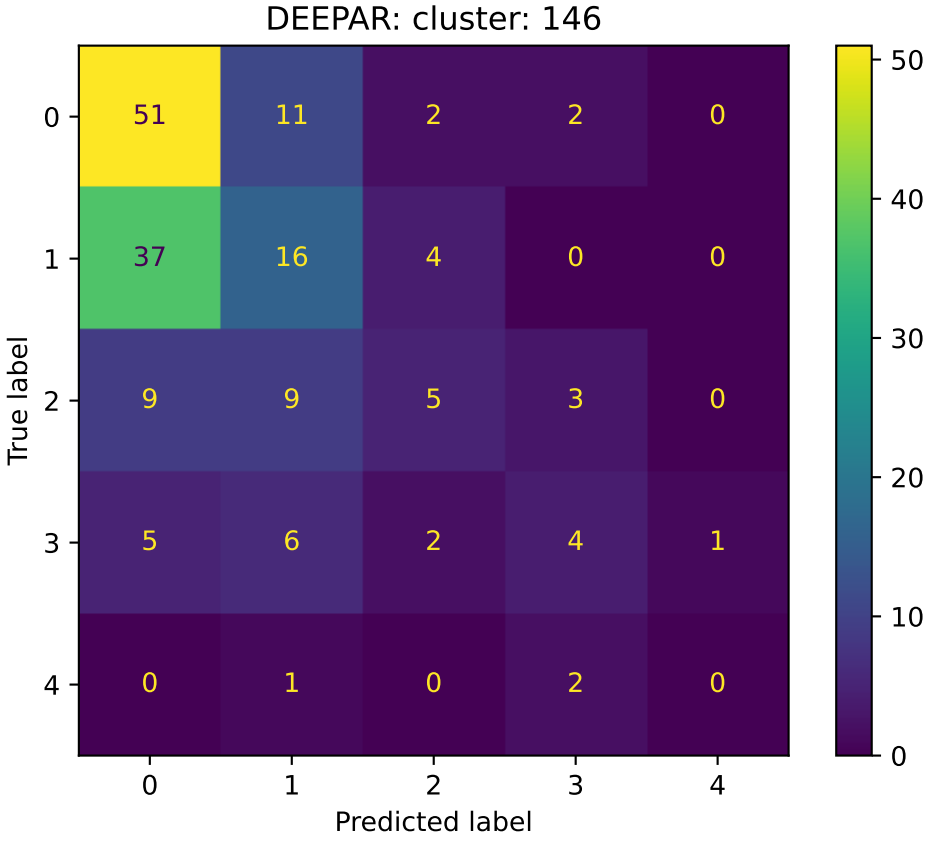

DEEPAR: cluster: 145
True label
Predicted label
0 1 2 3 4 5 6 7
40 9 2 2 0 0 0 0
33 11 3 1 0 1 0 0
9 13 3 5 0 0 0 0
4 9 11 1 0 0 0 0
1 4 2 3 0 0 0 0
0 0 2 1 0 0 0 0
0 0 1 0 0 0 0 0
0 0 0 0 0 0 0 0
40 35 30 25 20 15 10 5 0

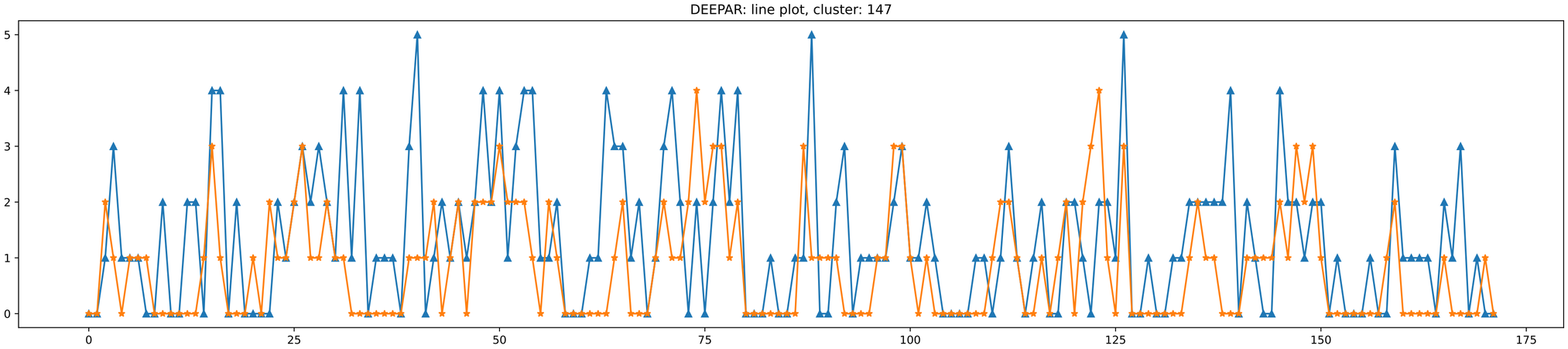

DEEPAR: line plot, cluster: 146
0
1
2
3
4
5
0
25
50
75
100
125
150
175

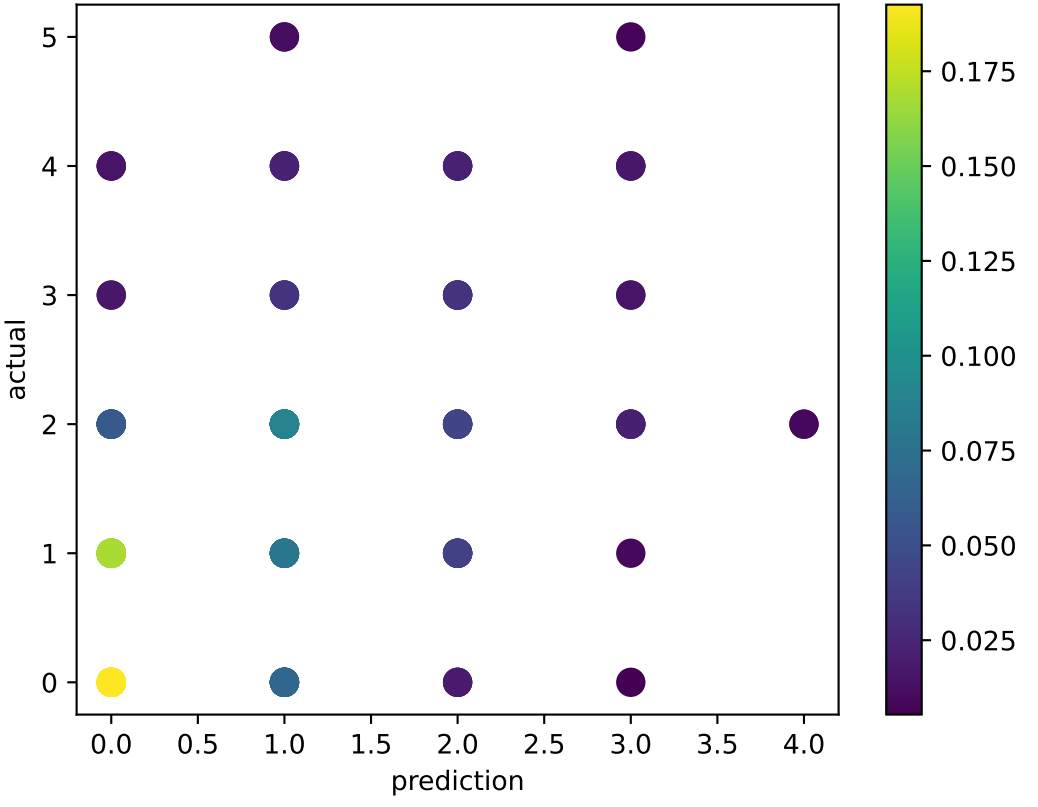

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.25
0.20
0.15
0.10
0.05

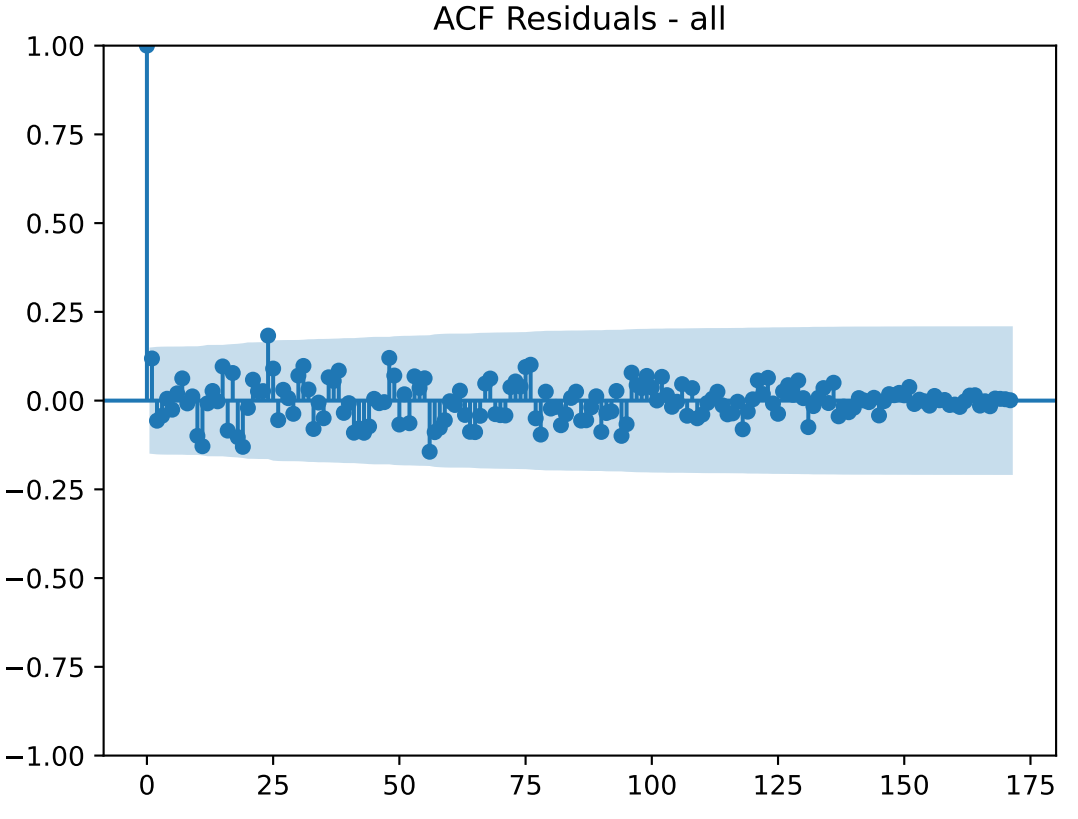

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

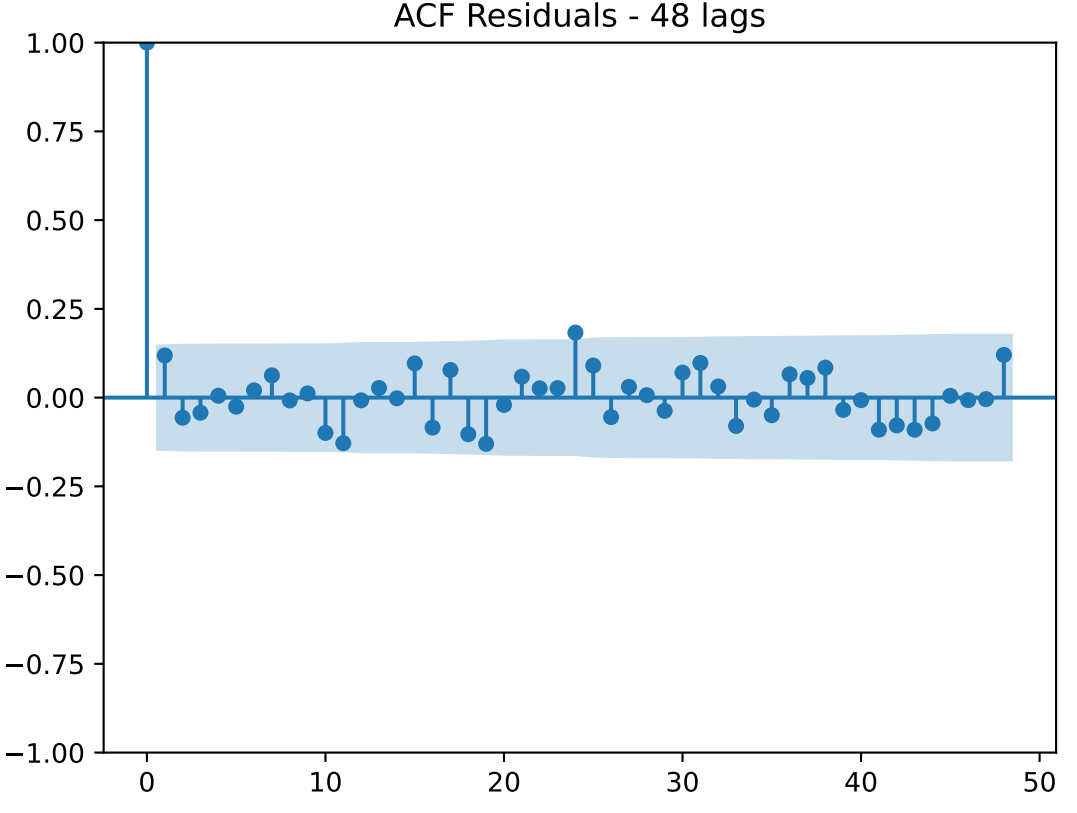

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

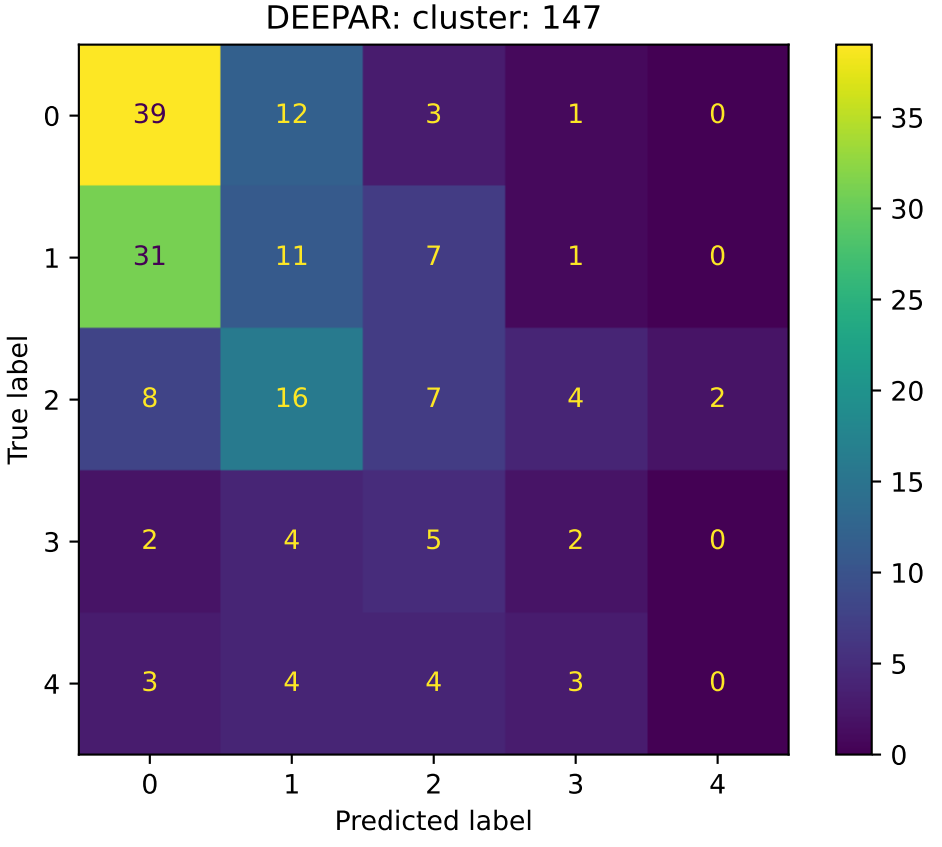

DEEPAR: cluster: 146
True label
Predicted label
0
1
2
3
4
51
11
2
2
0
37
16
4
0
0
9
9
5
3
0
5
6
2
4
1
0
1
0
2
0
50
40
30
20
10
0

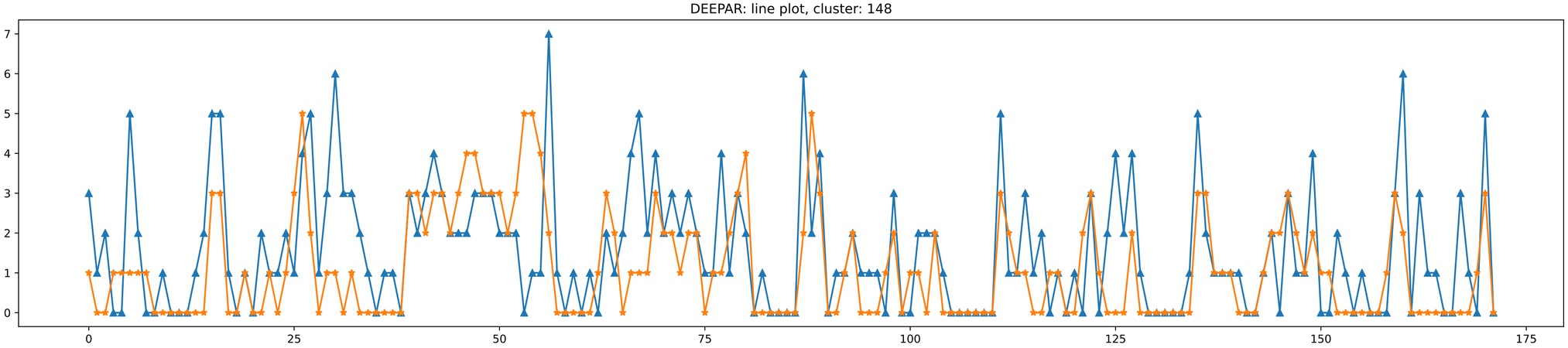

DEEPAR: line plot, cluster: 147
0
1
2
3
4
5
0
25
50
75
100
125
150
175

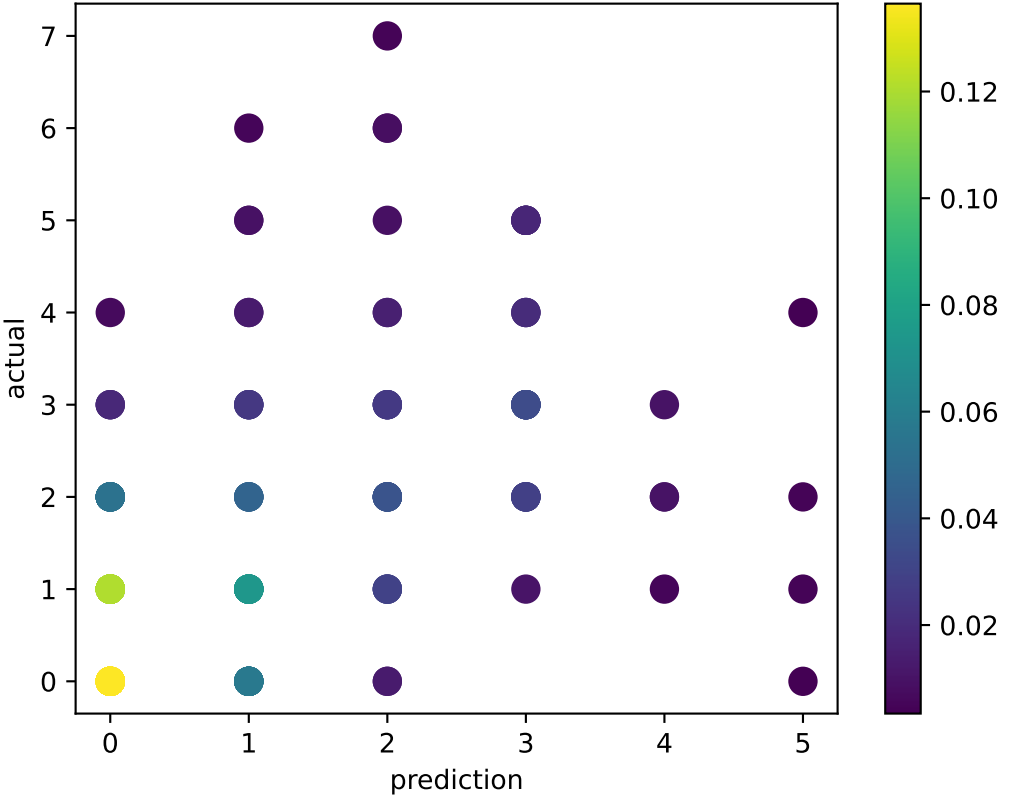

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.175
0.150
0.125
0.100
0.075
0.050
0.025

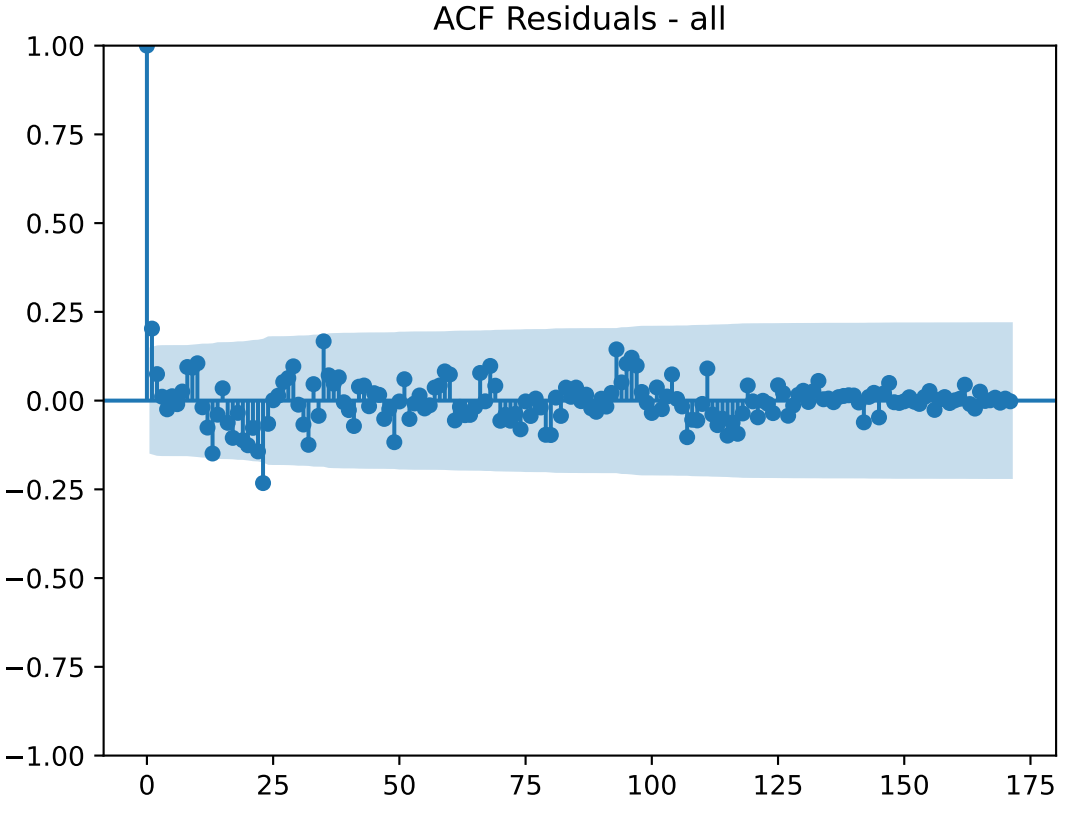

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

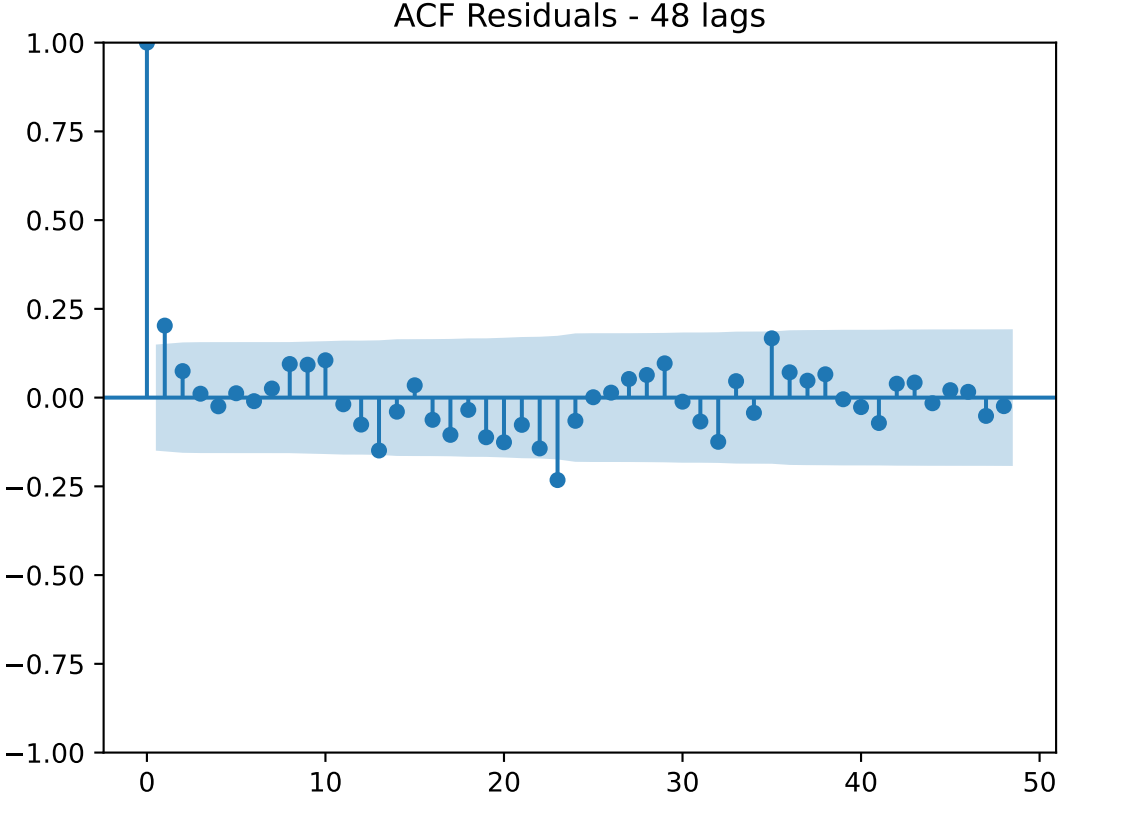

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

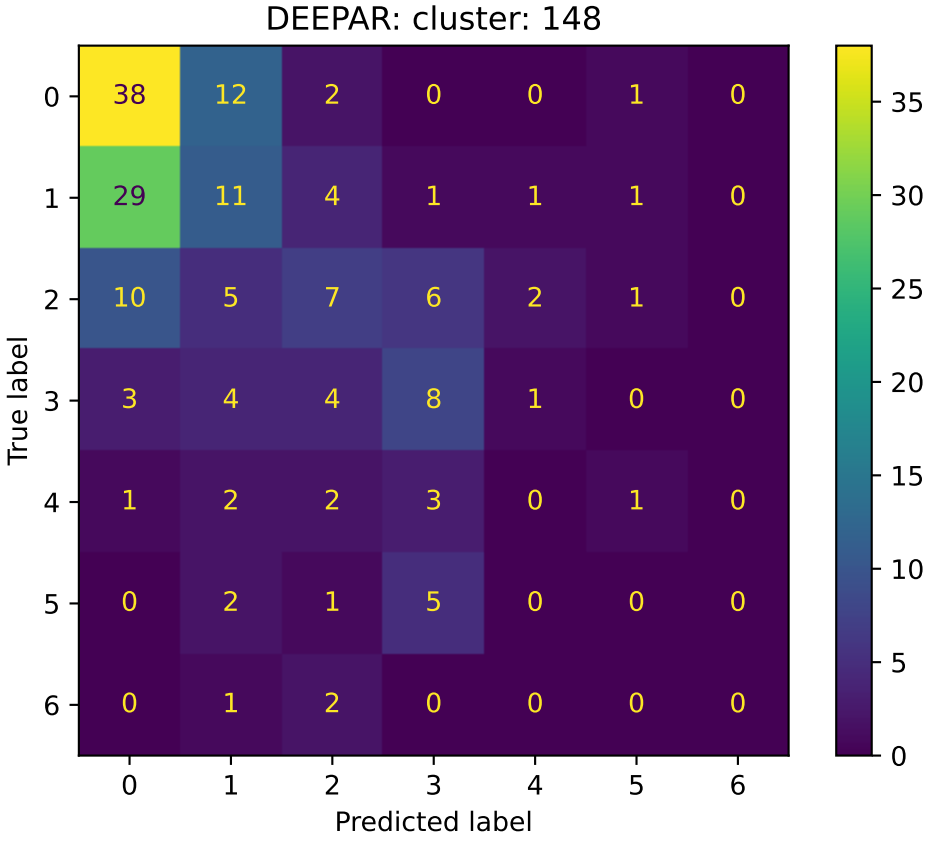

DEEPAR: cluster: 147
True label
Predicted label
0
1
2
3
4
39 12 3 1 0
31 11 7 1 0
8 16 7 4 2
2 4 5 2 0
3 4 4 3 0
0
5
10
15
20
25
30
35

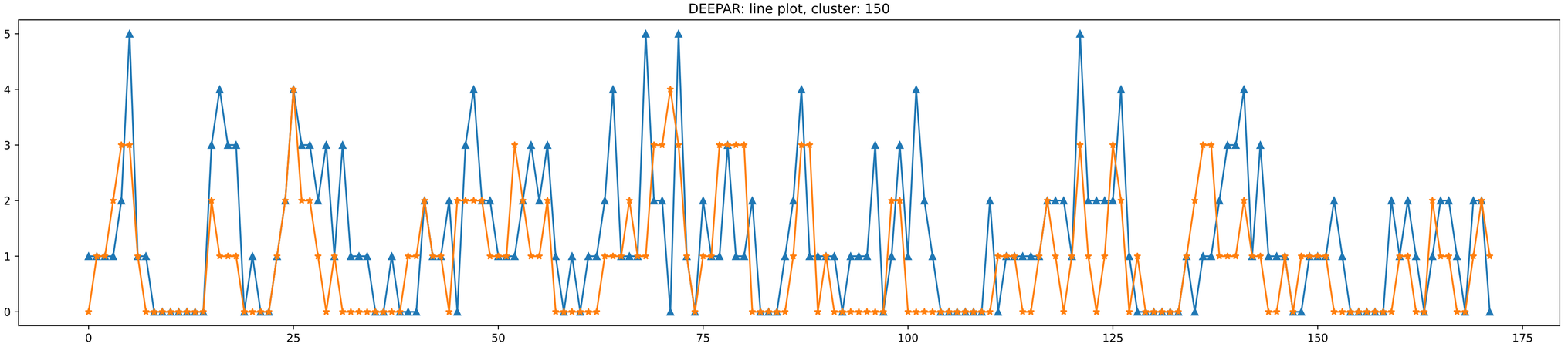

DEEPAR: line plot, cluster: 148
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

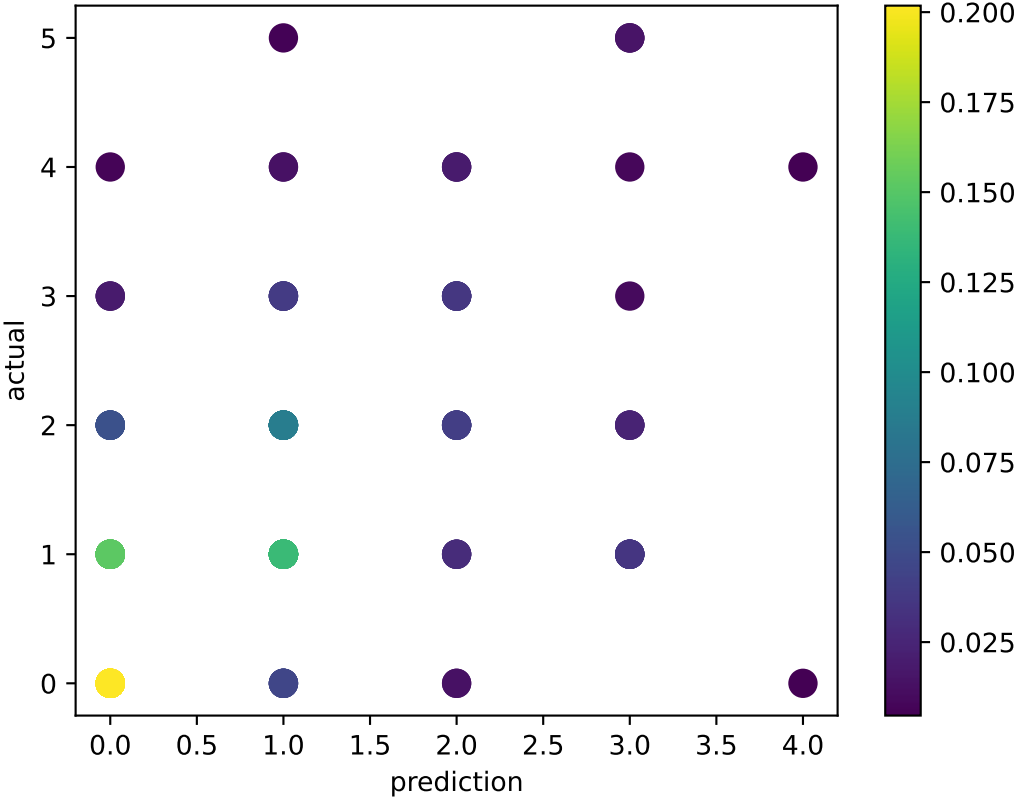

actual
prediction
0
1
2
3
4
5
6
7
0.12
0.10
0.08
0.06
0.04
0.02

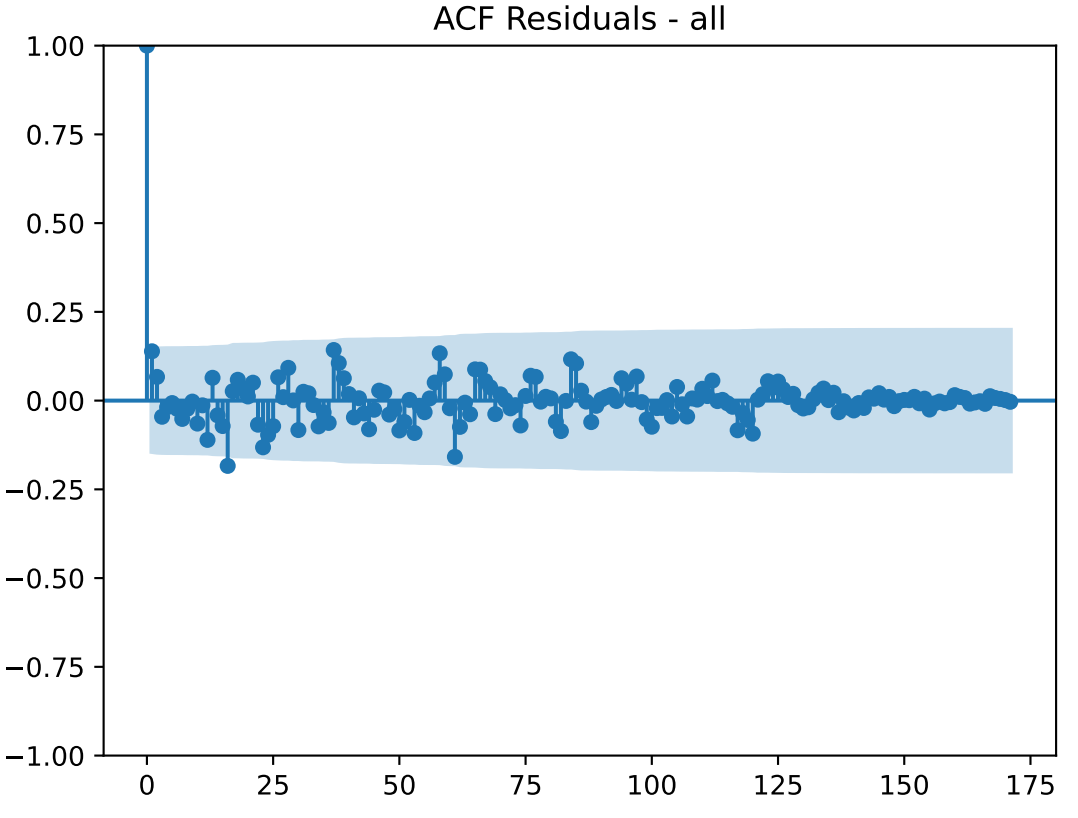

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

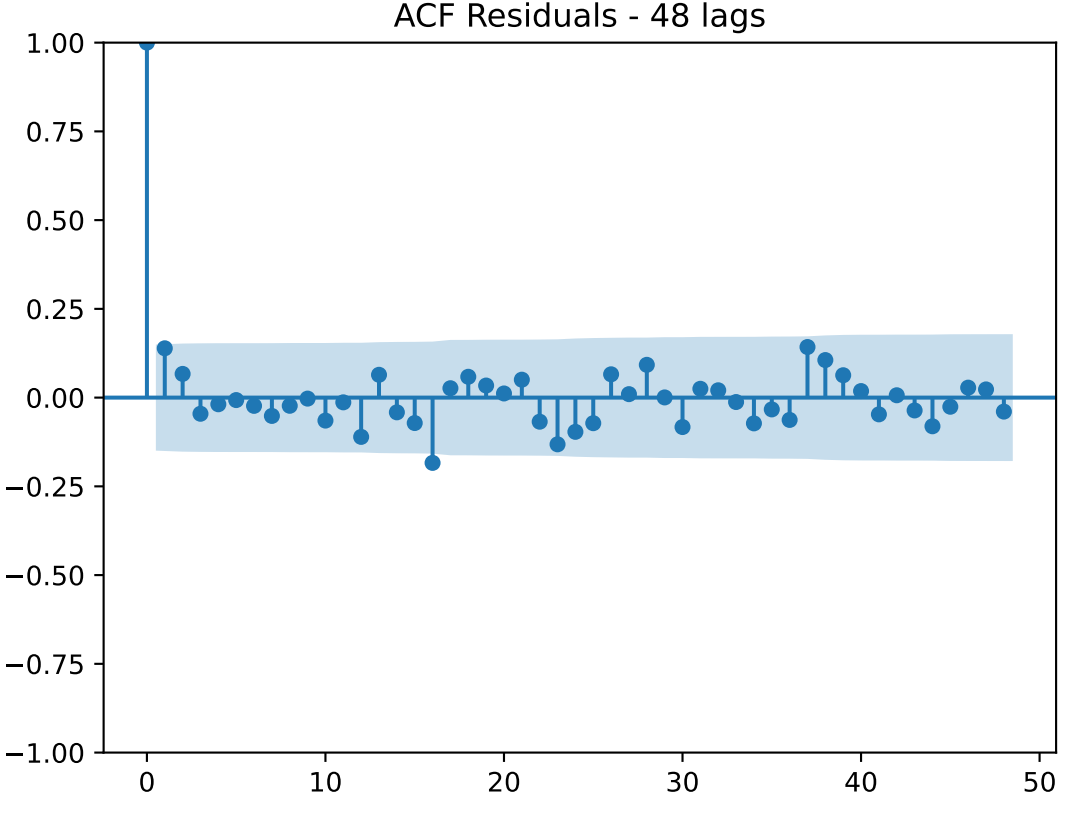

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

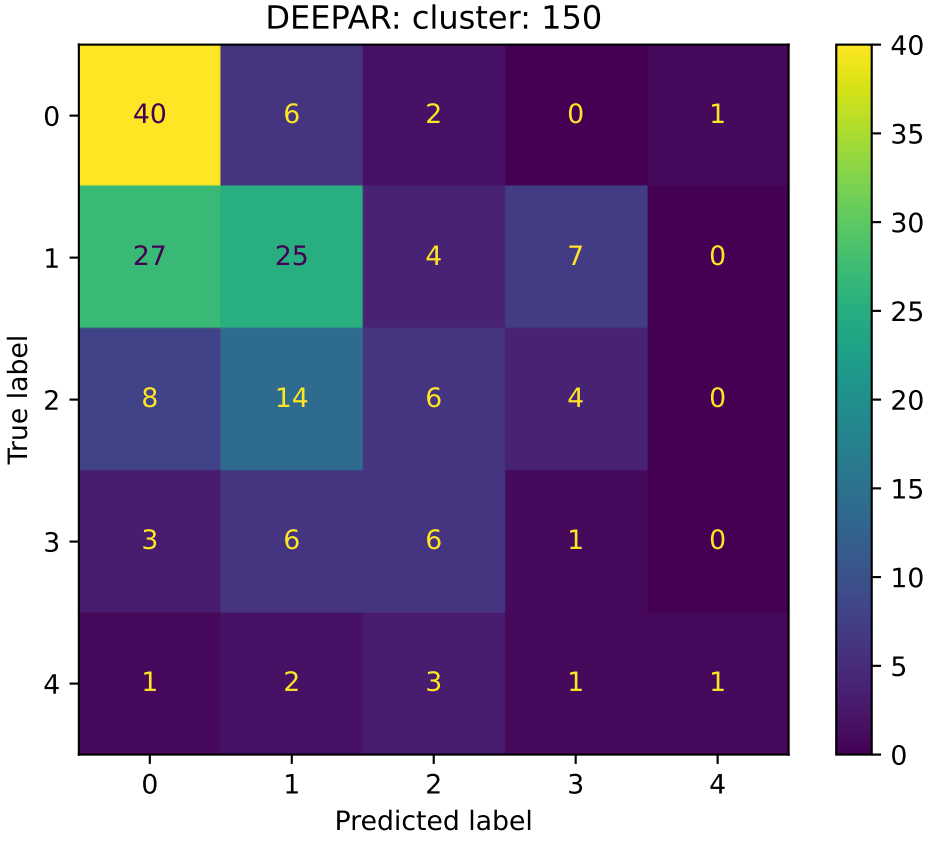

DEEPAR: cluster: 148
True label
Predicted label
0 1 2 3 4 5 6
38 12 2 0 0 1 0
29 11 4 1 1 1 0
10 5 7 6 2 1 0
3 4 4 8 1 0 0
1 2 2 3 0 1 0
0 2 1 5 0 0 0
0 1 2 0 0 0 0
0 5 10 15 20 25 30 35

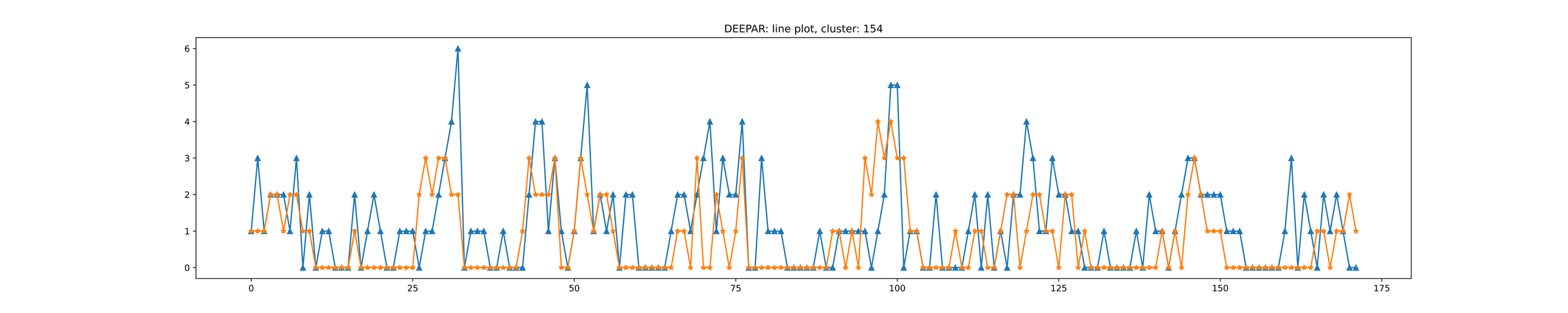

DEEPAR: line plot, cluster: 150
0
1
2
3
4
5
0
25
50
75
100
125
150
175

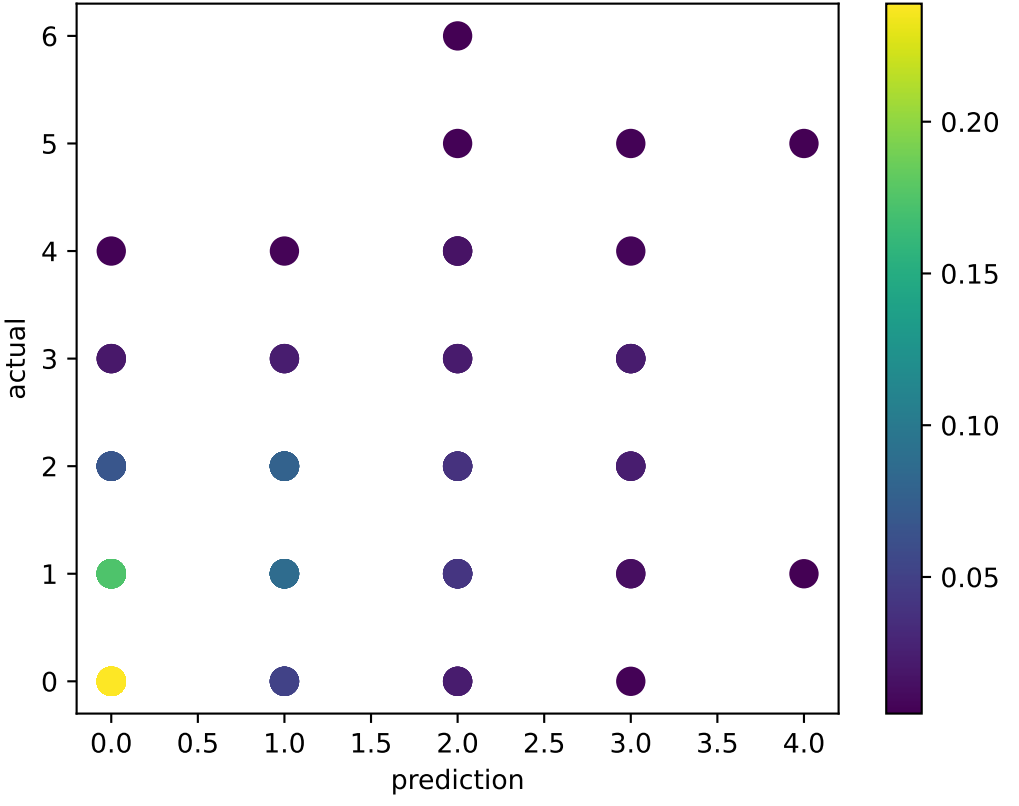

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025

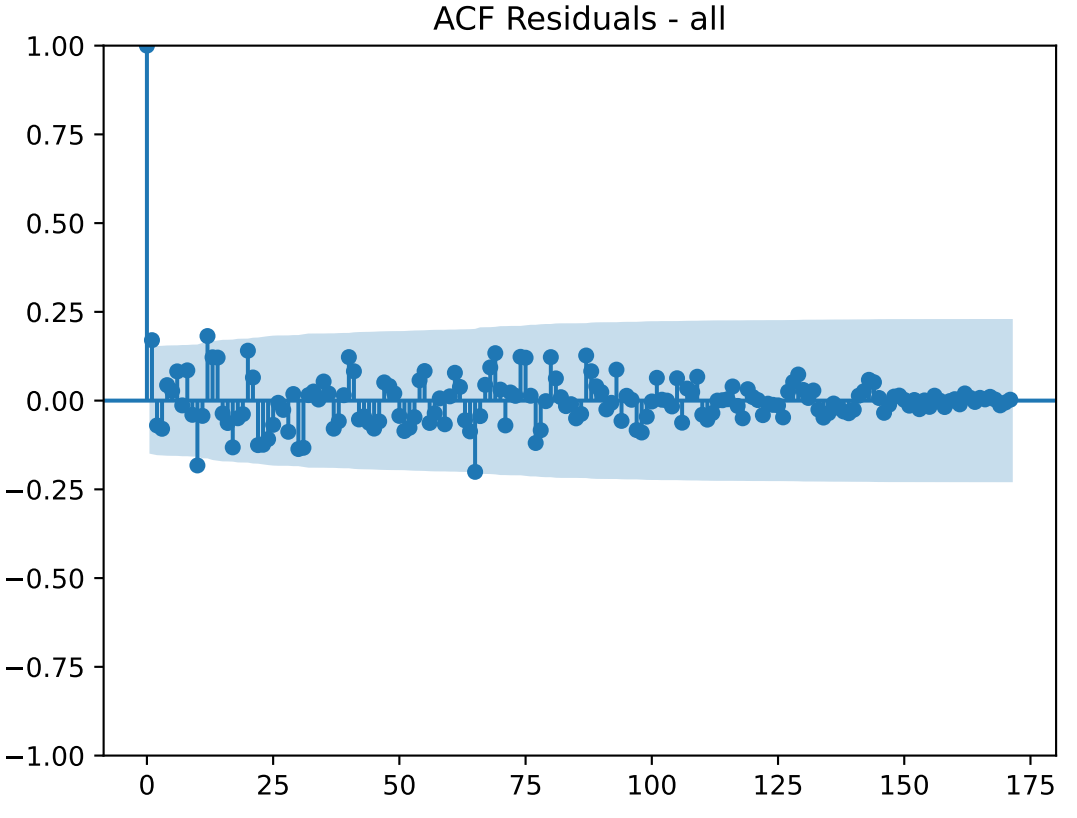

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

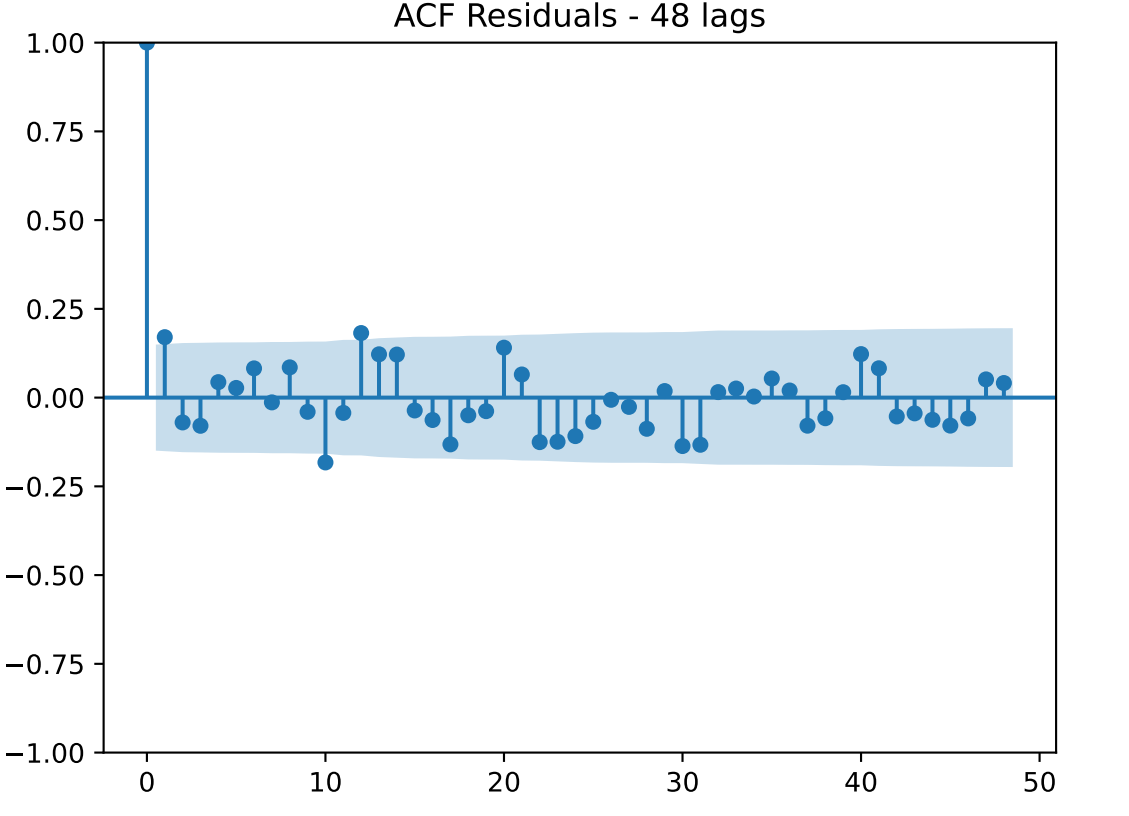

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

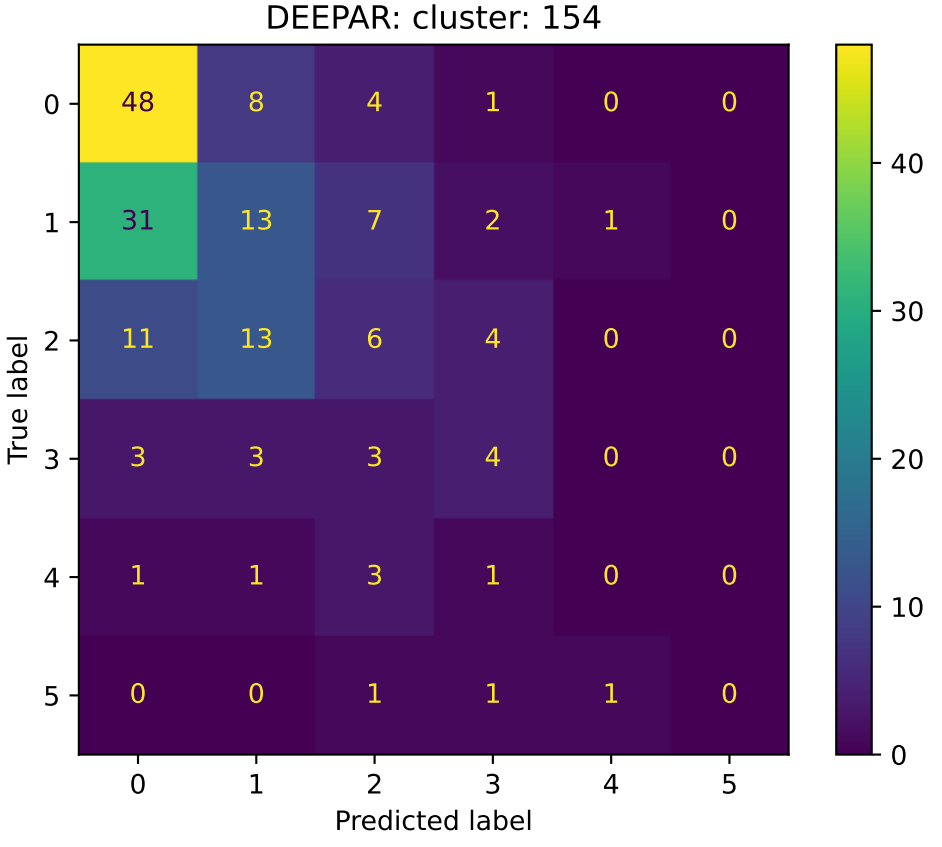

DEEPAR: cluster: 150
True label
Predicted label
0
1
2
3
4
40
6
2
0
1
27
25
4
7
0
8
14
6
4
0
3
6
6
1
0
1
2
3
1
1
40
35
30
25
20
15
10
5
0

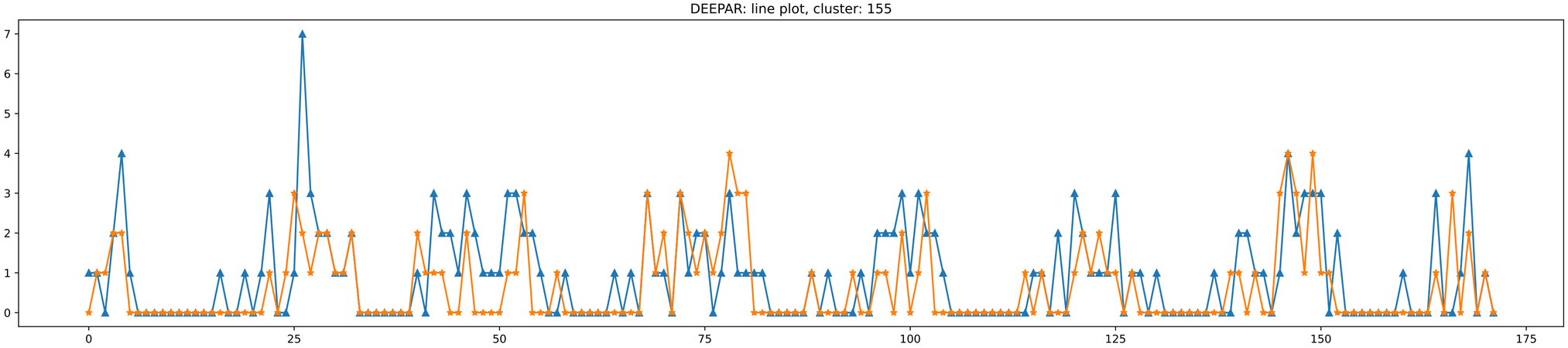

DEEPAR: line plot, cluster: 154
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

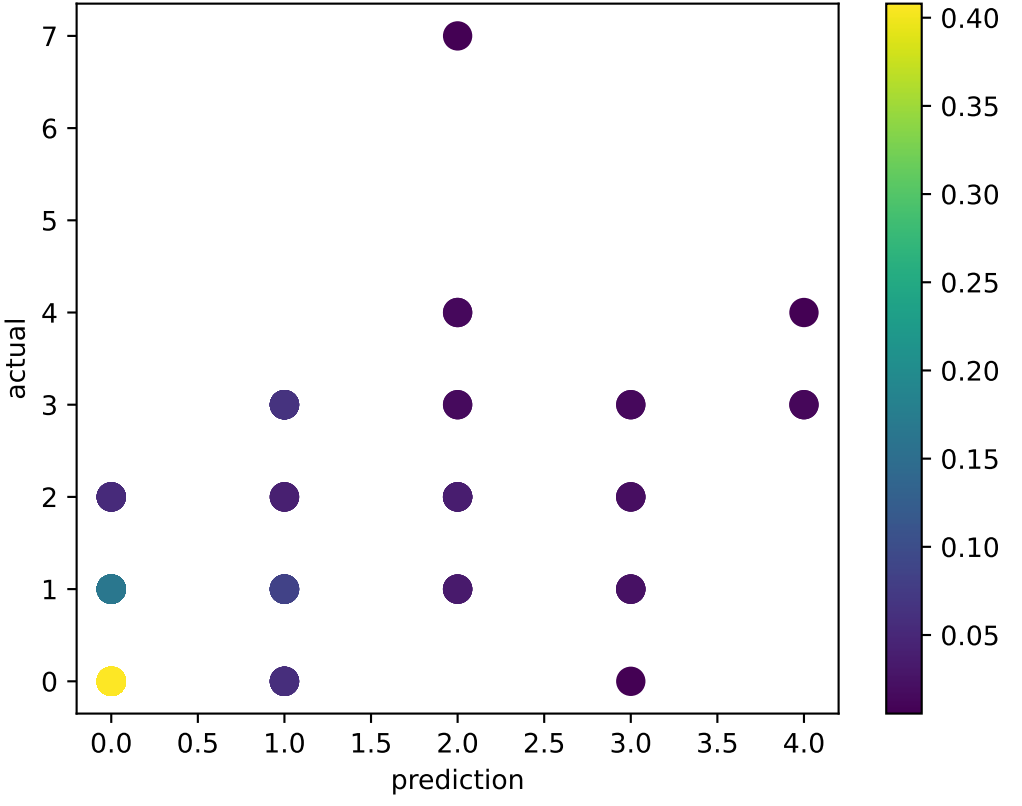

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.20
0.15
0.10
0.05

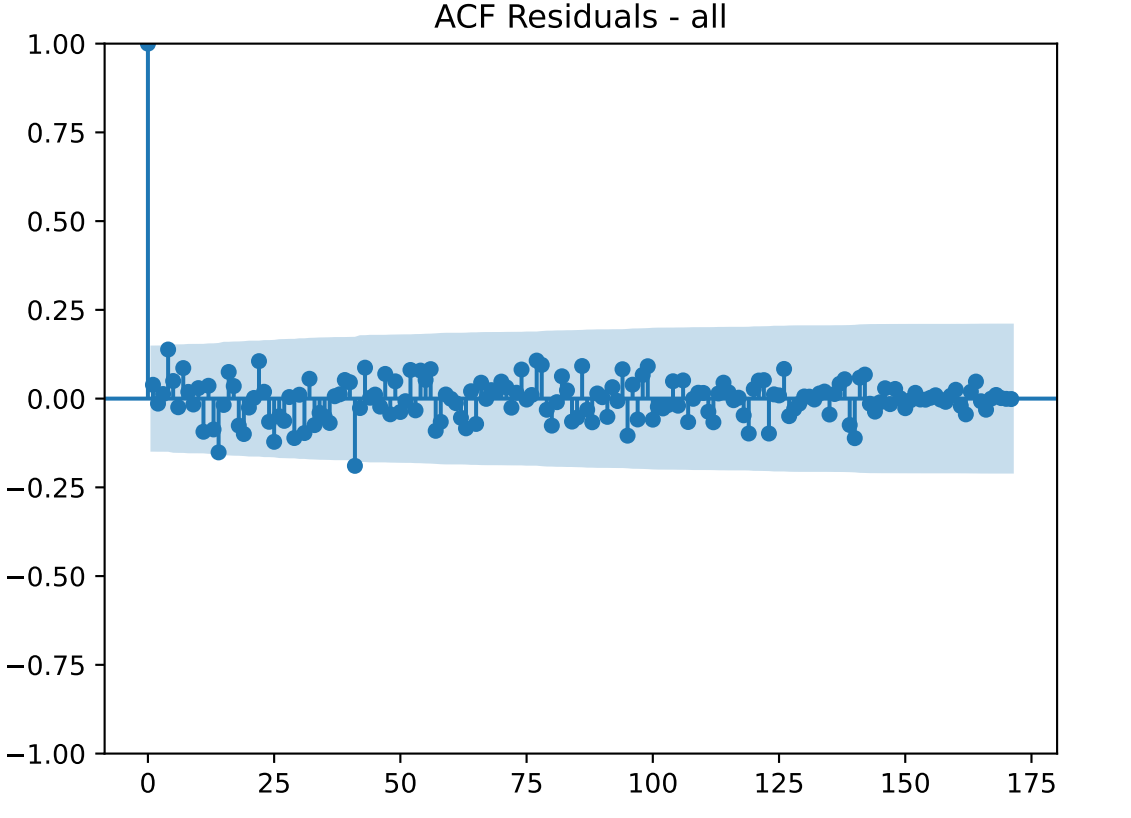

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

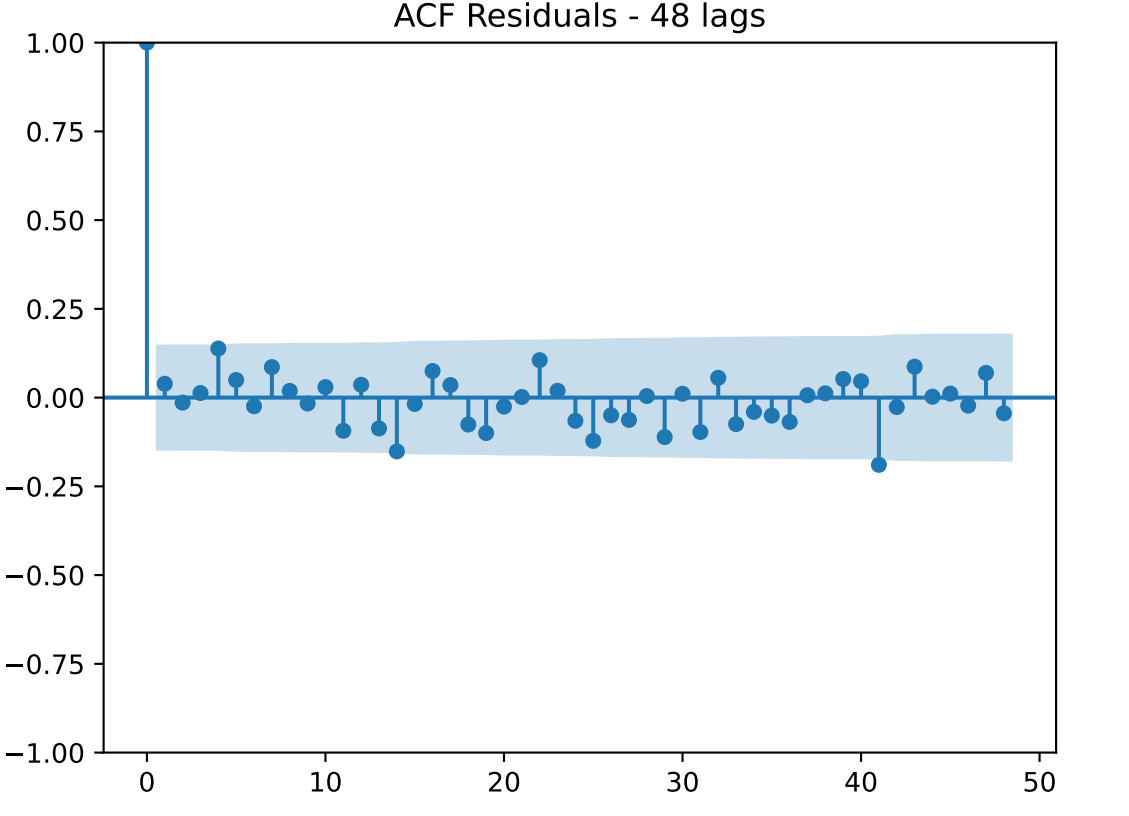

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

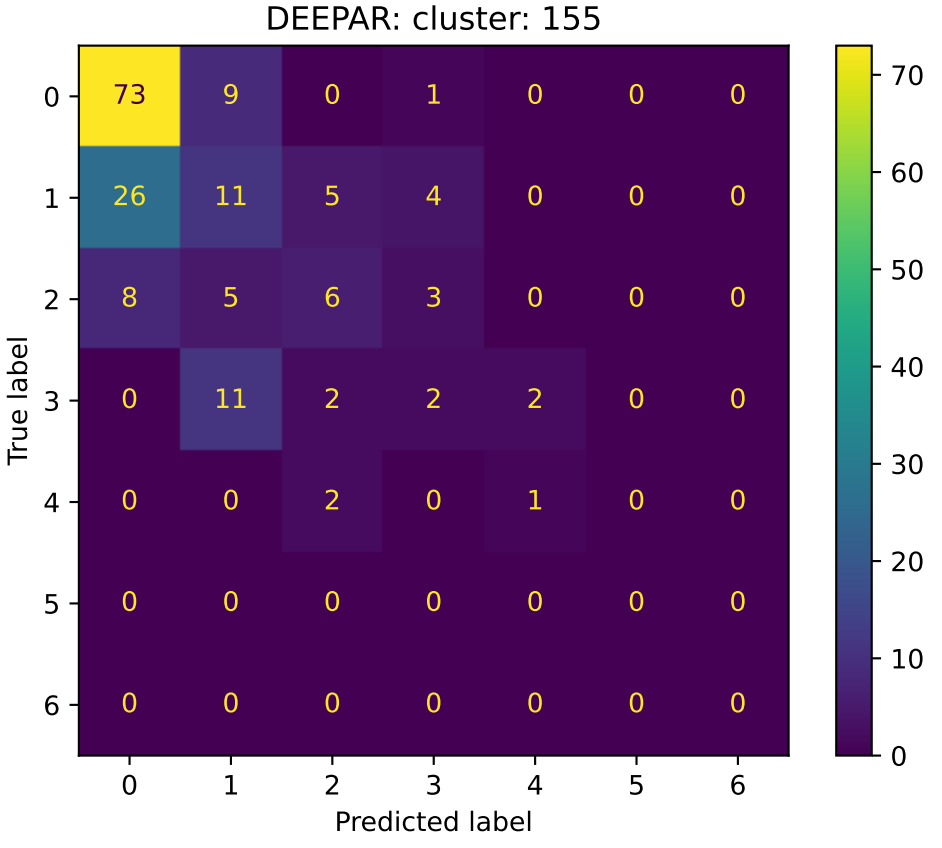

DEEPAR: cluster: 154
True label
Predicted label
0
1
2
3
4
5
48 8 4 1 0 0
31 13 7 2 1 0
11 13 6 4 0 0
3 3 3 4 0 0
1 1 3 1 0 0
0 0 1 1 1 0
40
30
20
10
0

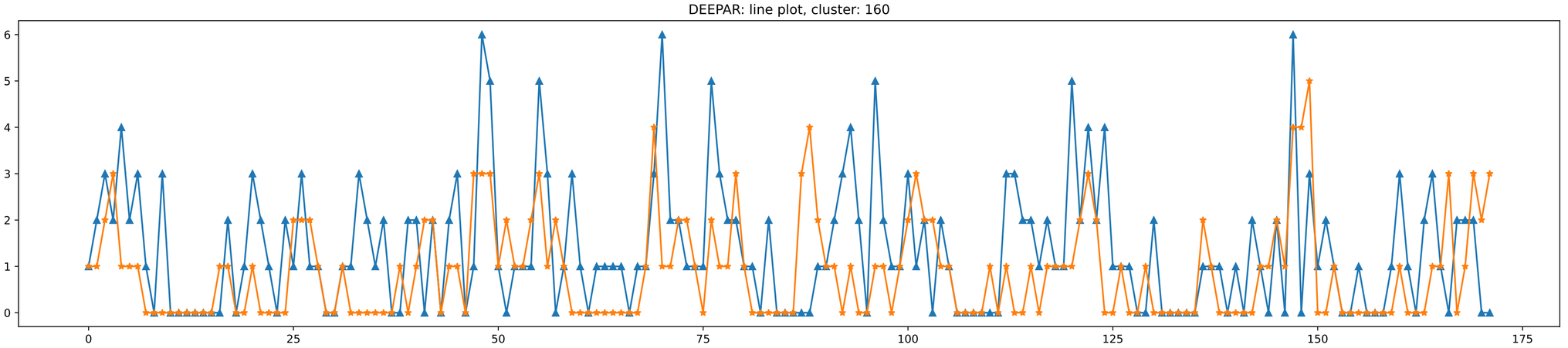

DEEPAR: line plot, cluster: 155
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

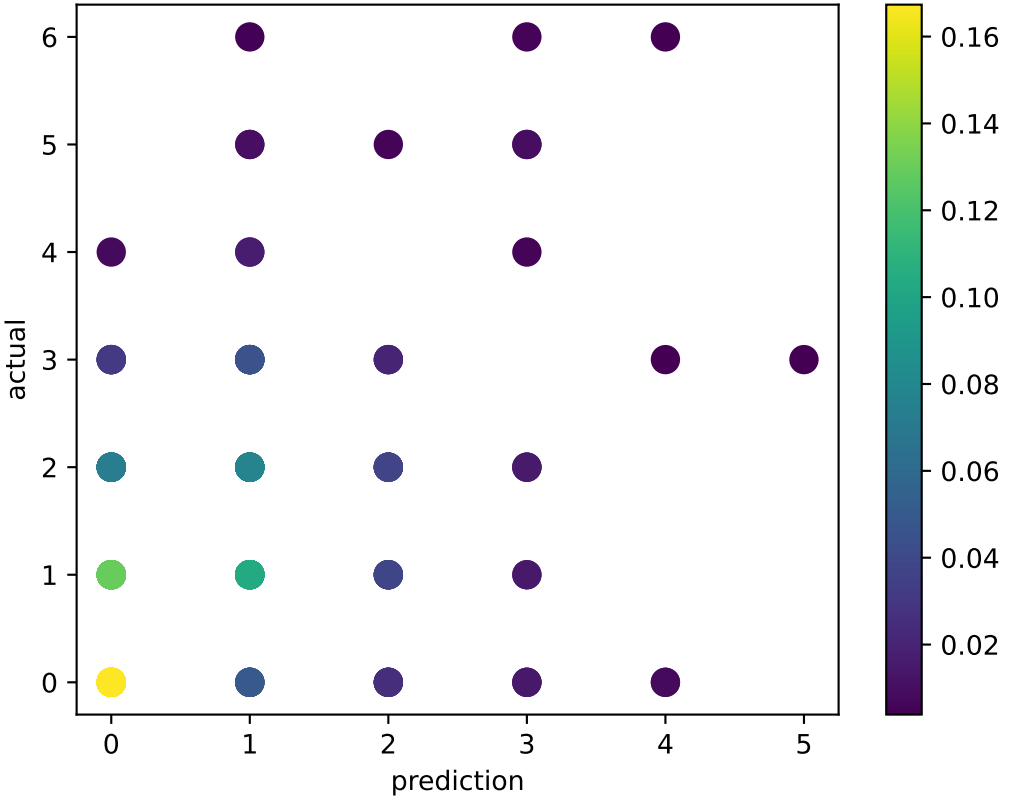

actual
prediction
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
1
2
3
4
5
6
7
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

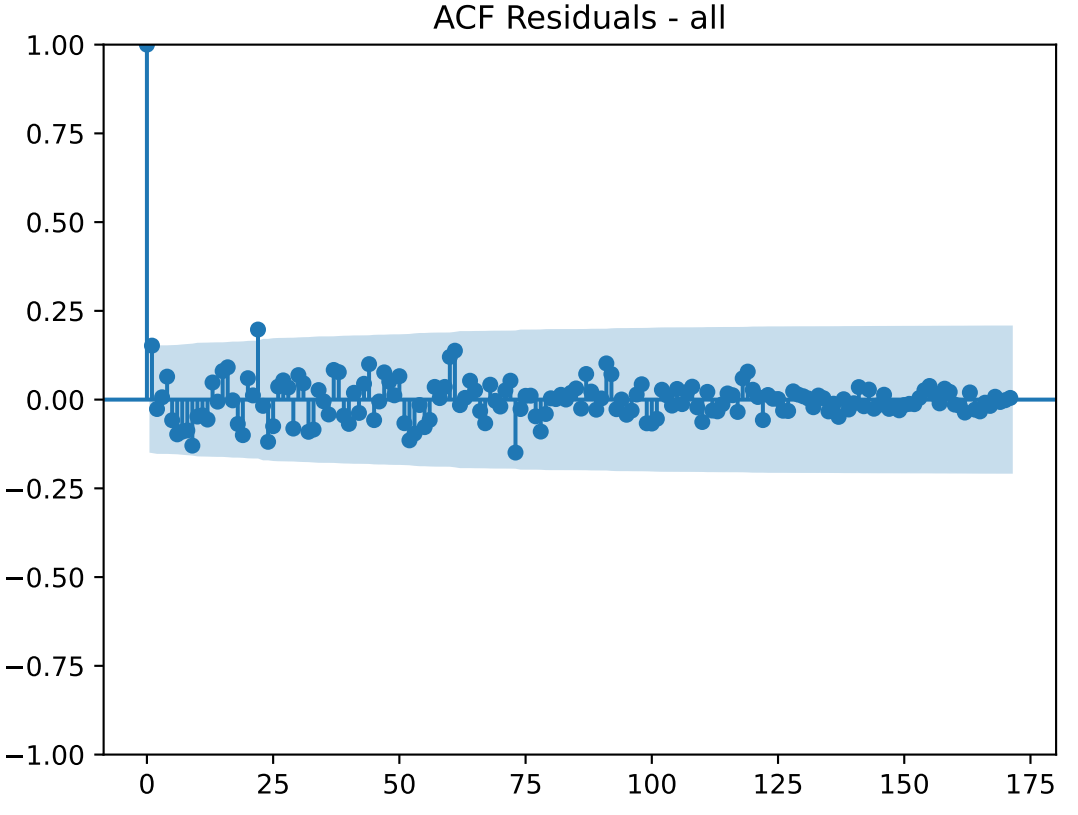

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

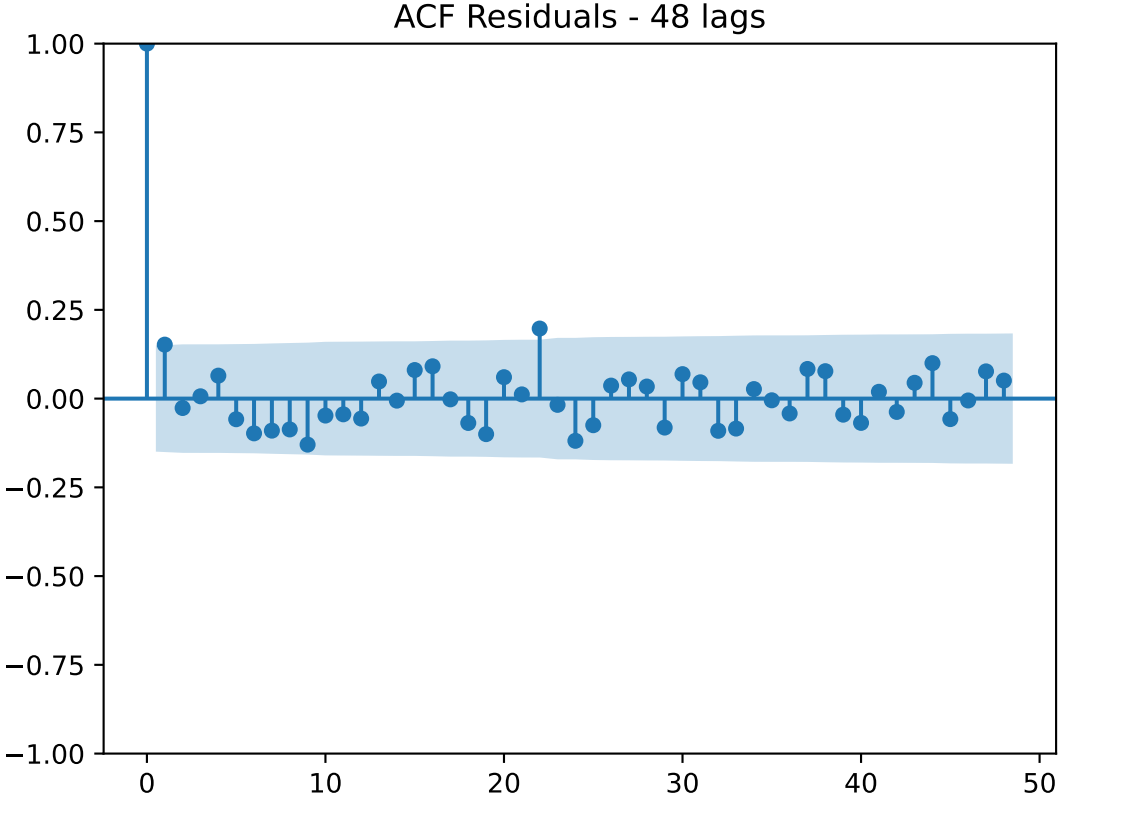

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

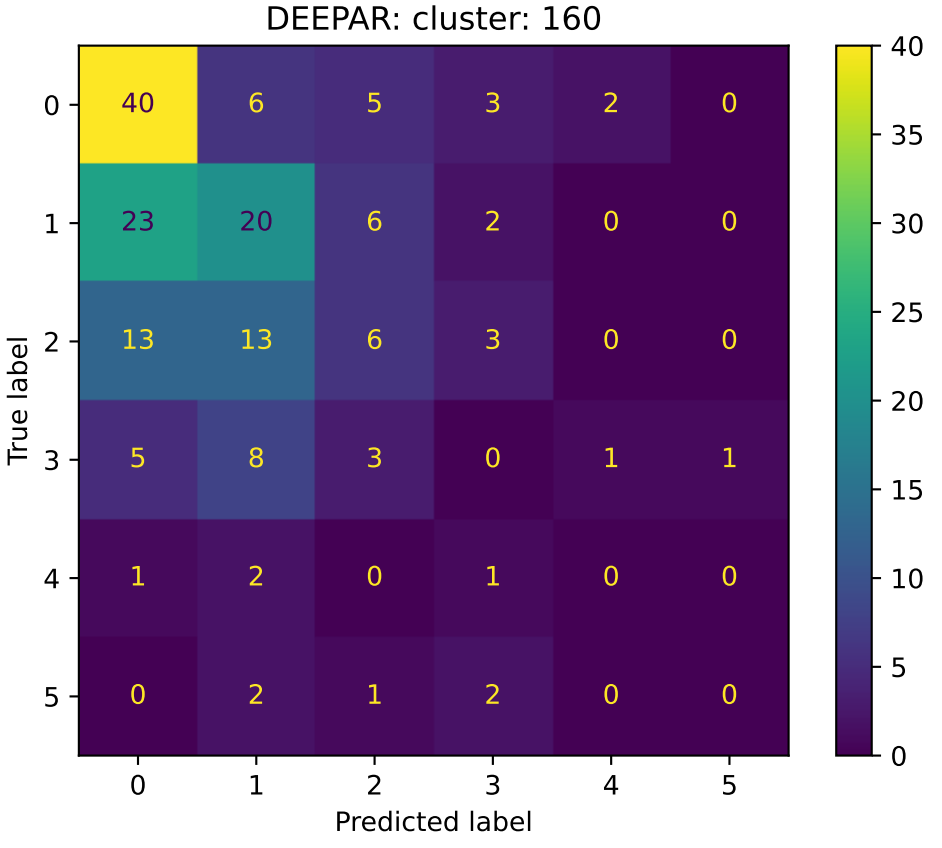

DEEPAR: cluster: 155
True label
Predicted label
0 1 2 3 4 5 6
73 9 0 1 0 0 0
26 11 5 4 0 0 0
8 5 6 3 0 0 0
0 11 2 2 2 0 0
0 0 2 0 1 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
70 60 50 40 30 20 10 0

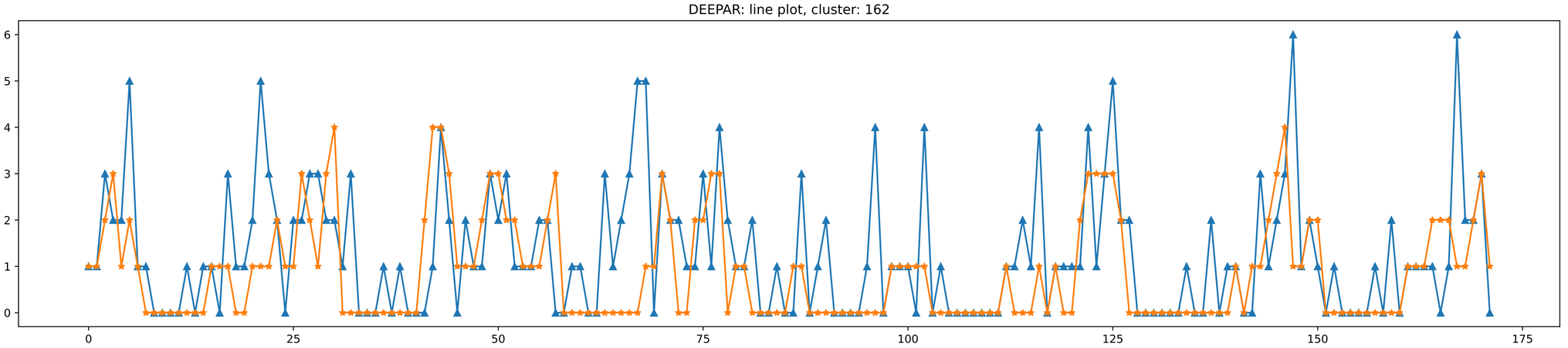

DEEPAR: line plot, cluster: 160
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

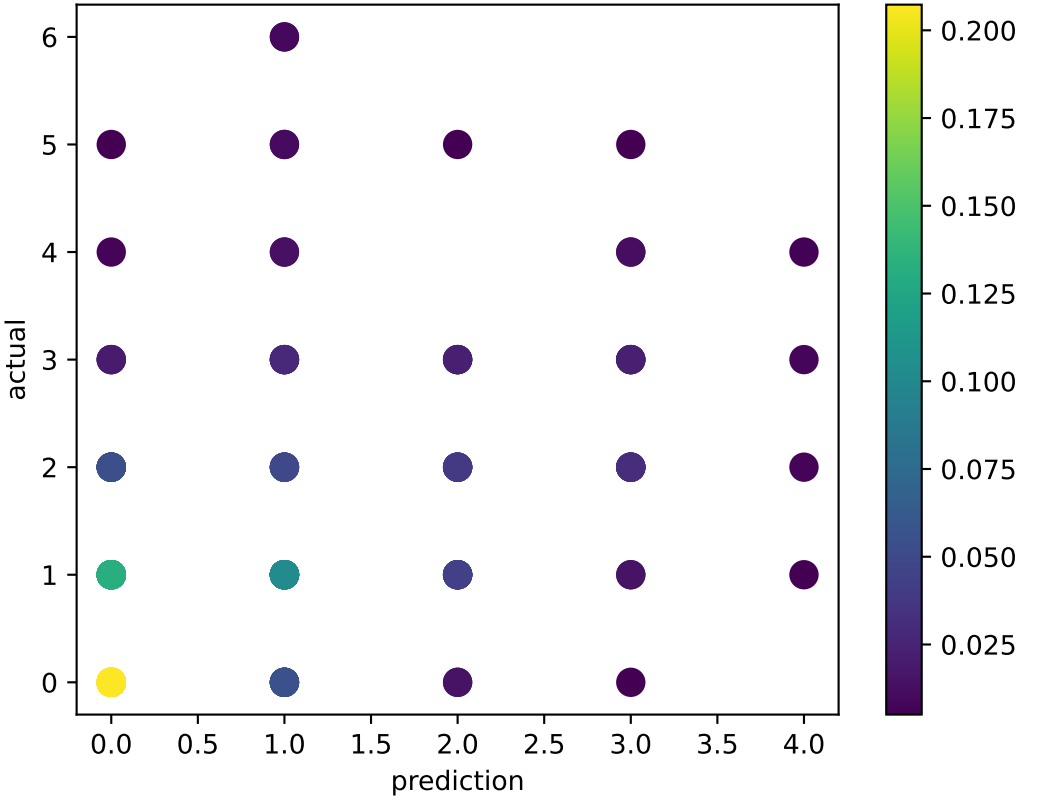

actual
prediction
0
1
2
3
4
5
6
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02

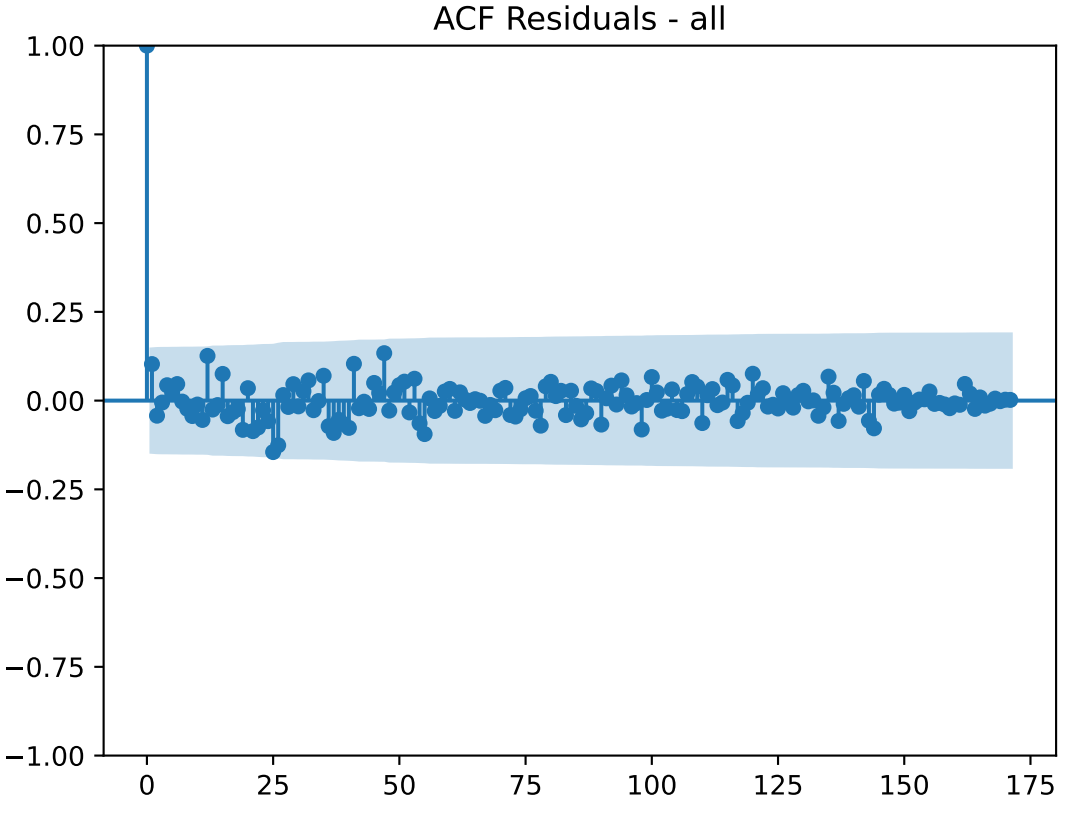

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

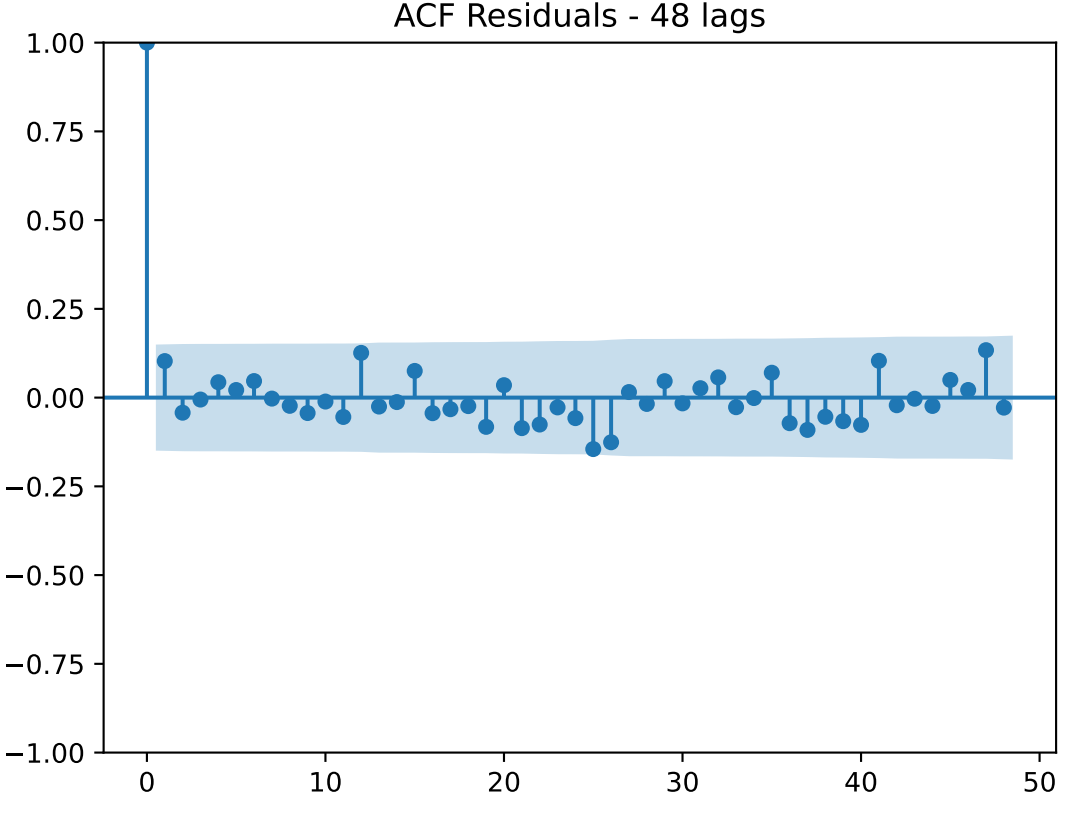

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

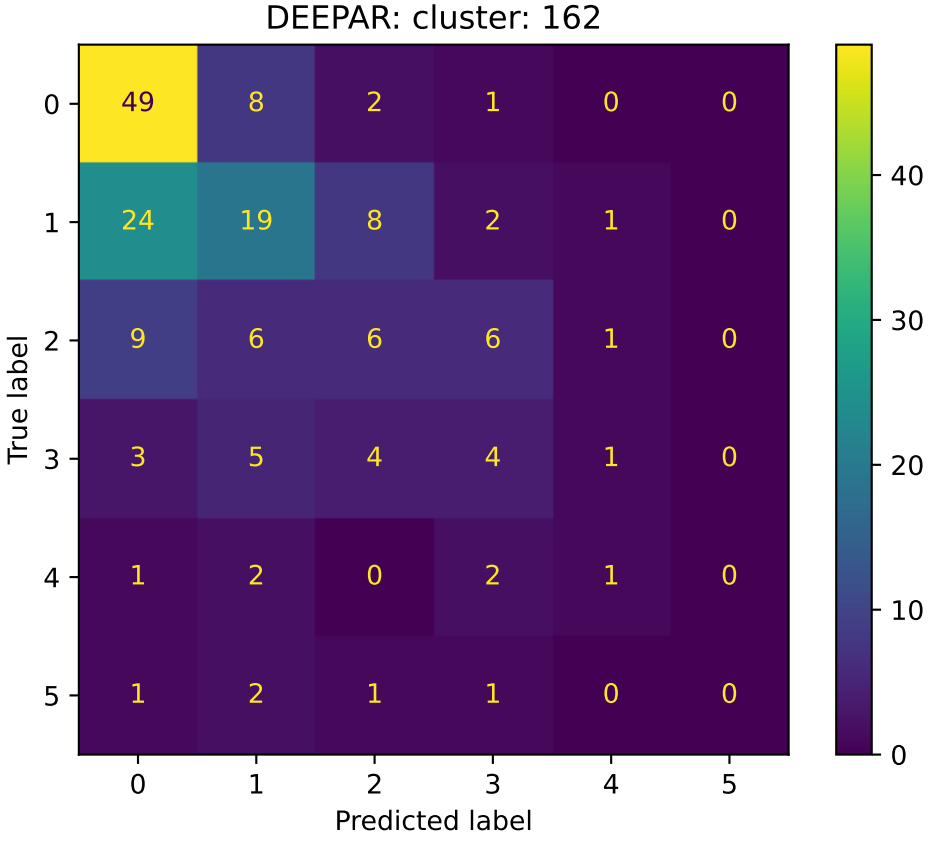

DEEPAR: cluster: 160
True label
Predicted label
0
1
2
3
4
5
40 6 5 3 2 0
23 20 6 2 0 0
13 13 6 3 0 0
5 8 3 0 1 1
1 2 0 1 0 0
0 2 1 2 0 0
40
35
30
25
20
15
10
5
0

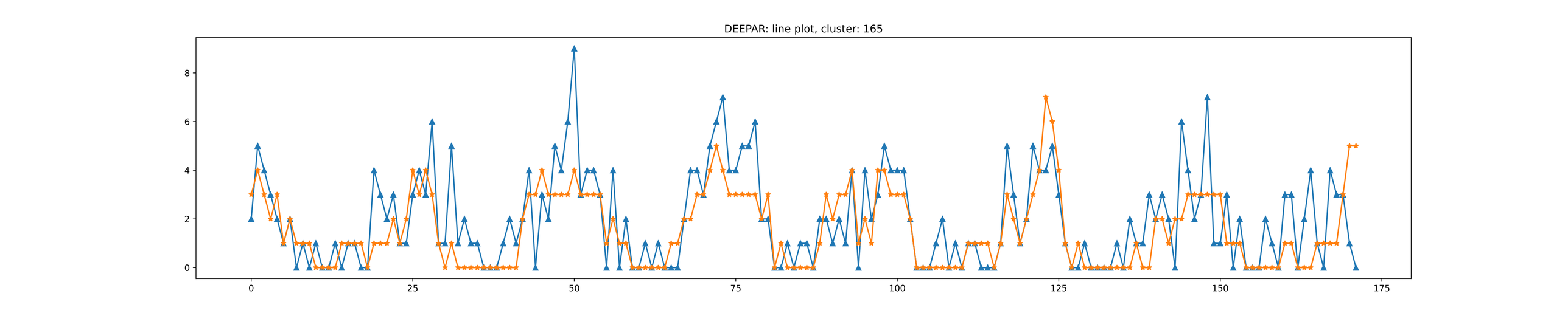

DEEPAR: line plot, cluster: 162
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

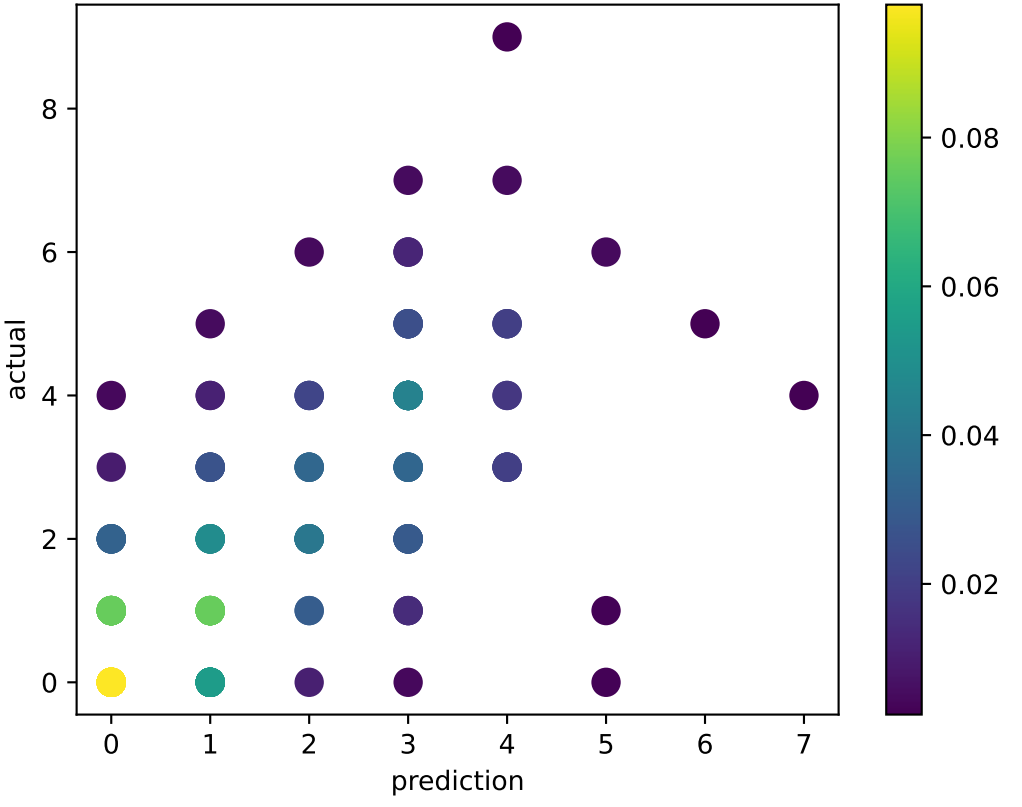

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025

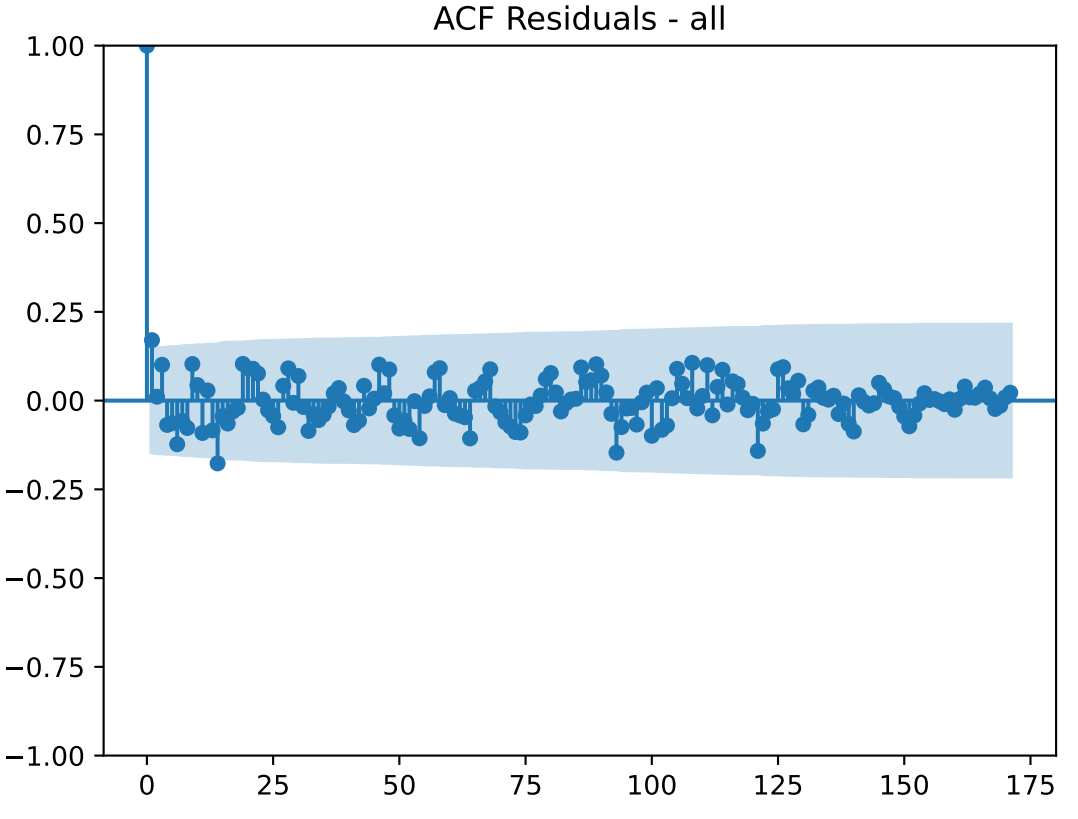

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

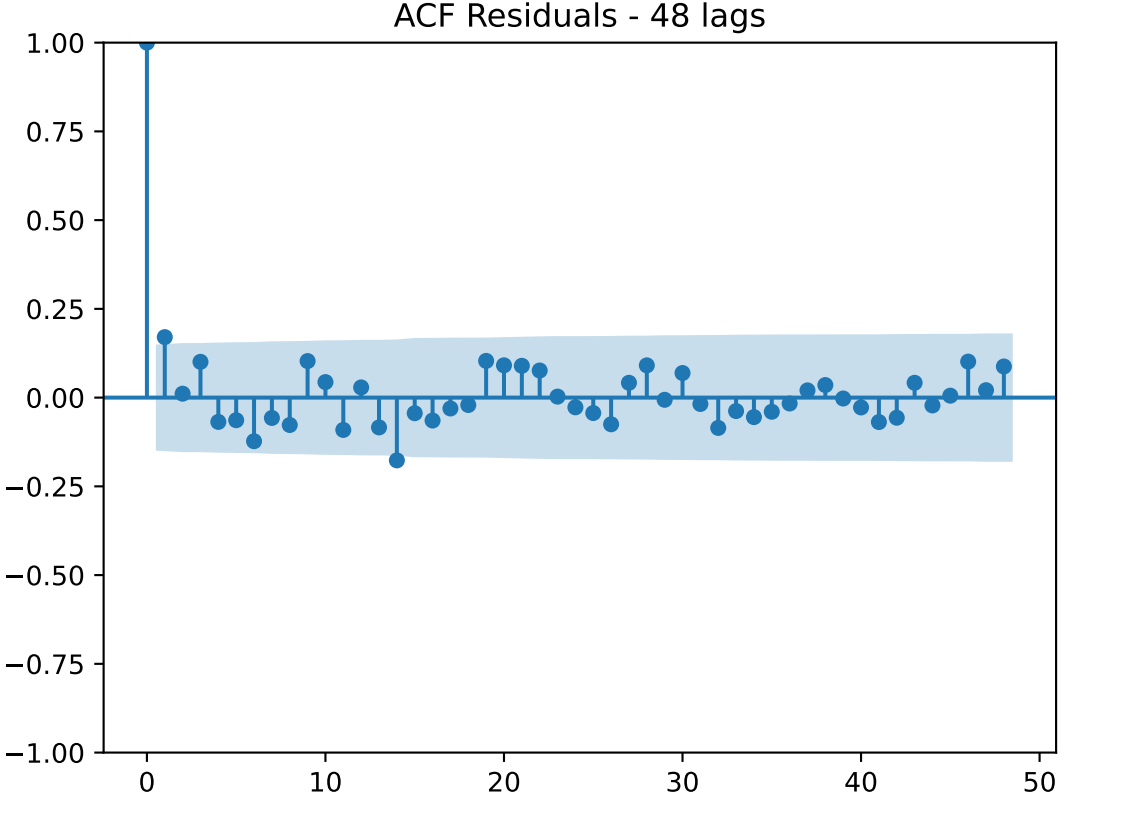

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

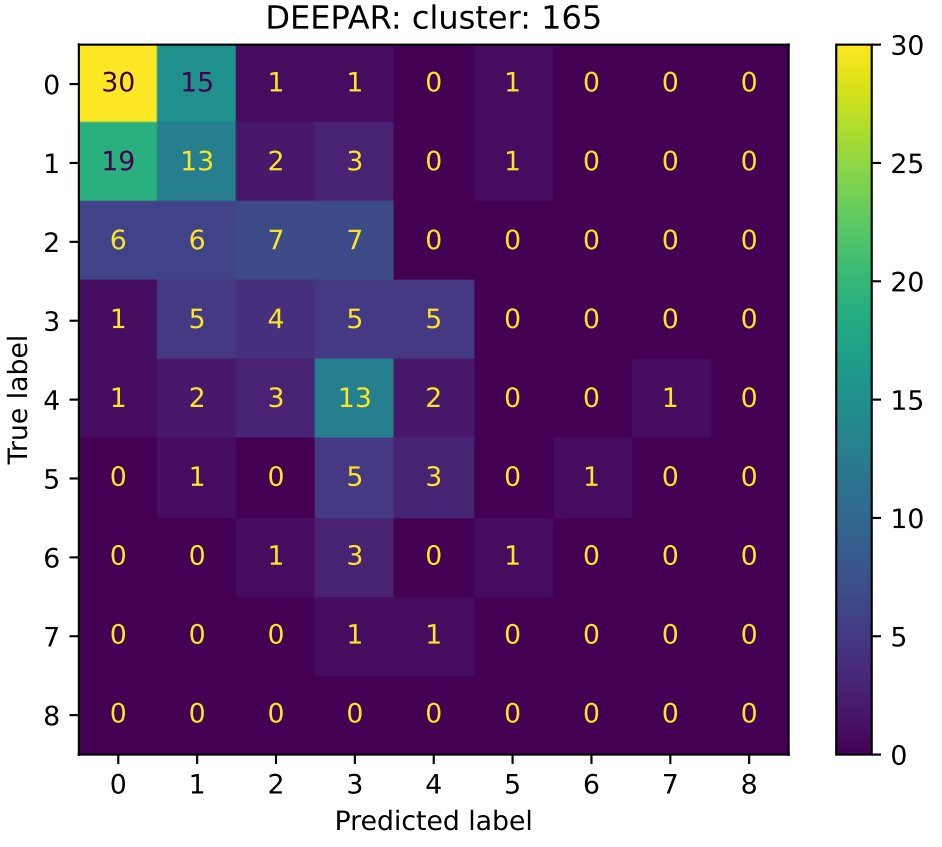

DEEPAR: cluster: 162
True label
Predicted label
0
1
2
3
4
5
49 8 2 1 0 0
24 19 8 2 1 0
9 6 6 6 1 0
3 5 4 4 1 0
1 2 0 2 1 0
1 2 1 1 0 0
40
30
20
10
0

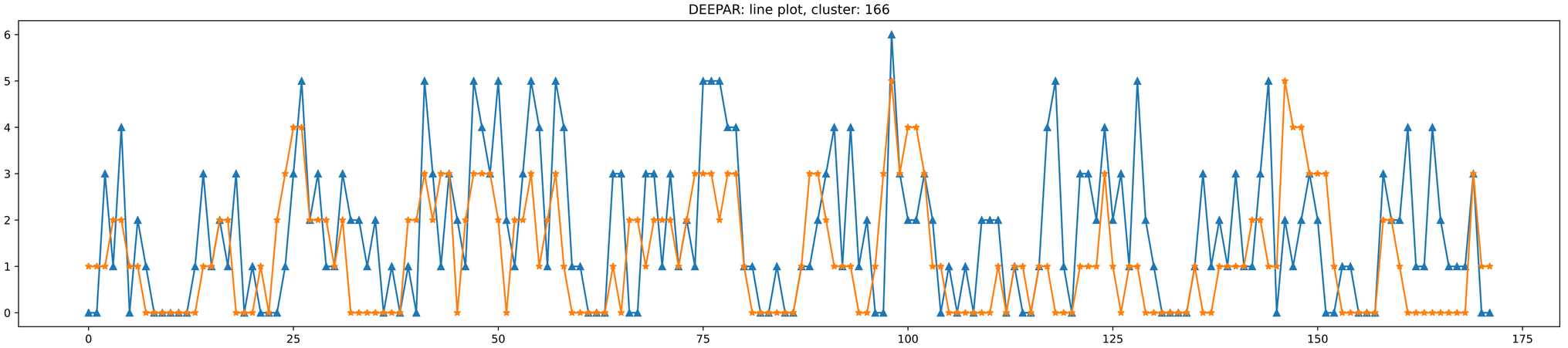

DEEPAR: line plot, cluster: 165
0
2
4
6
8
0
25
50
75
100
125
150
175

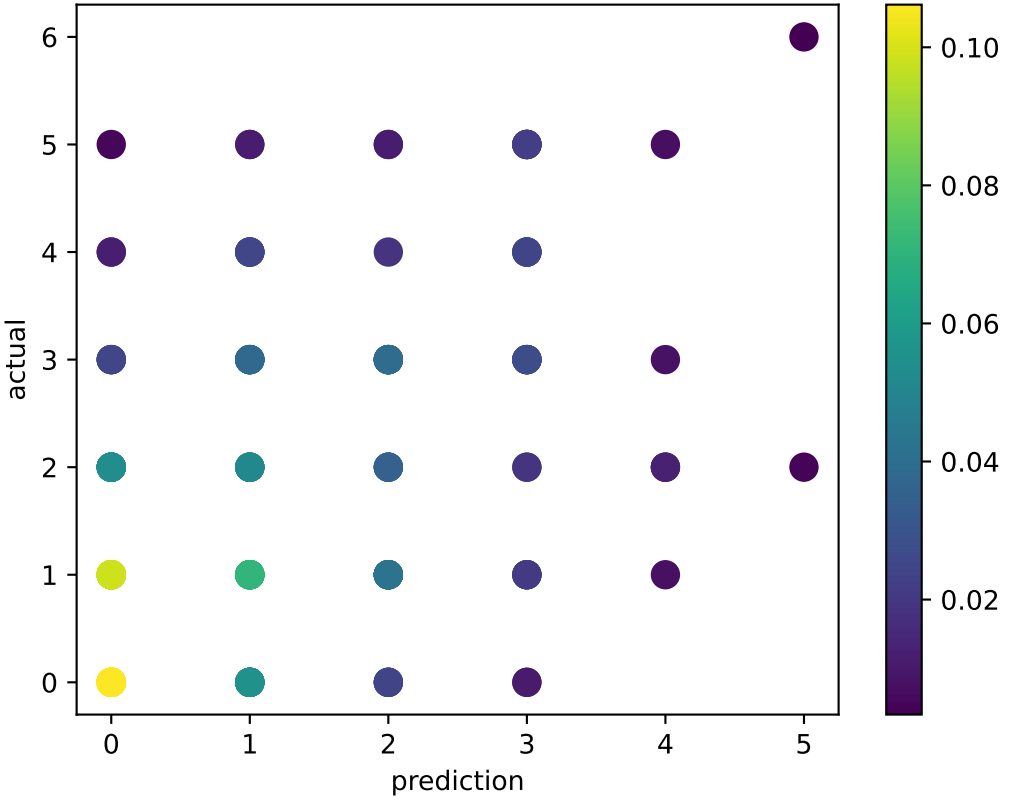

actual
prediction
0
1
2
3
4
5
6
7
8
0.08
0.06
0.04
0.02

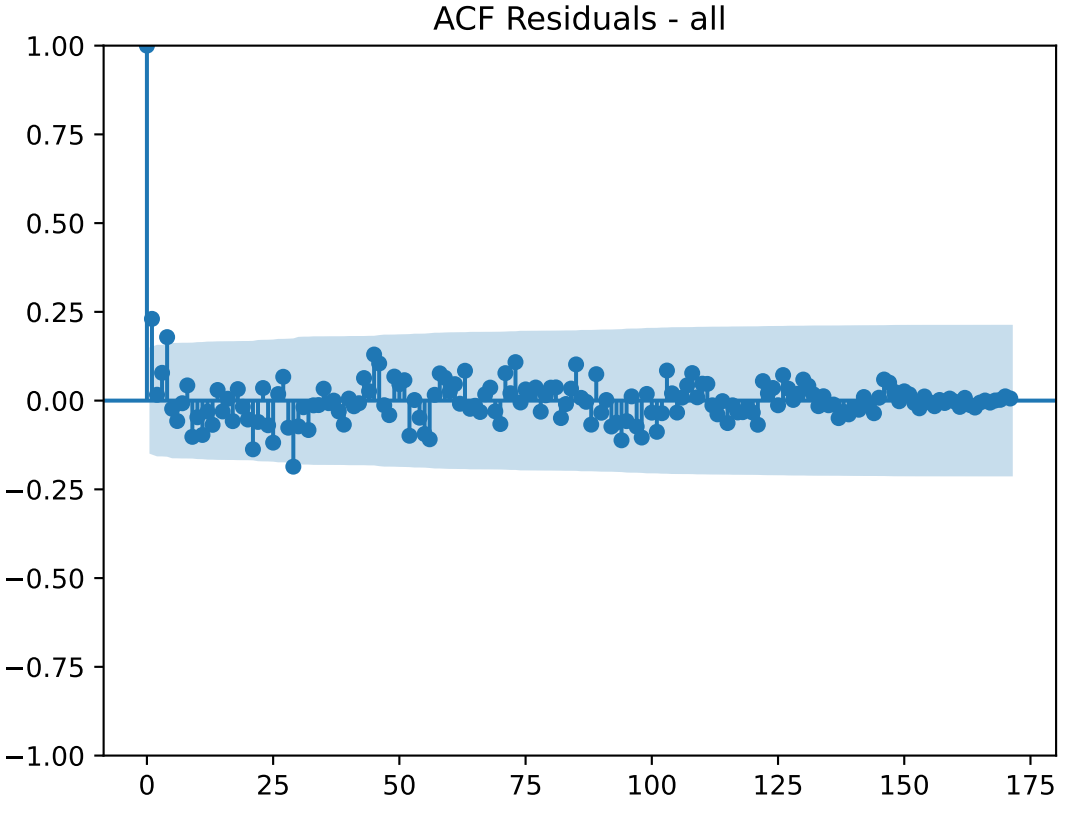

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

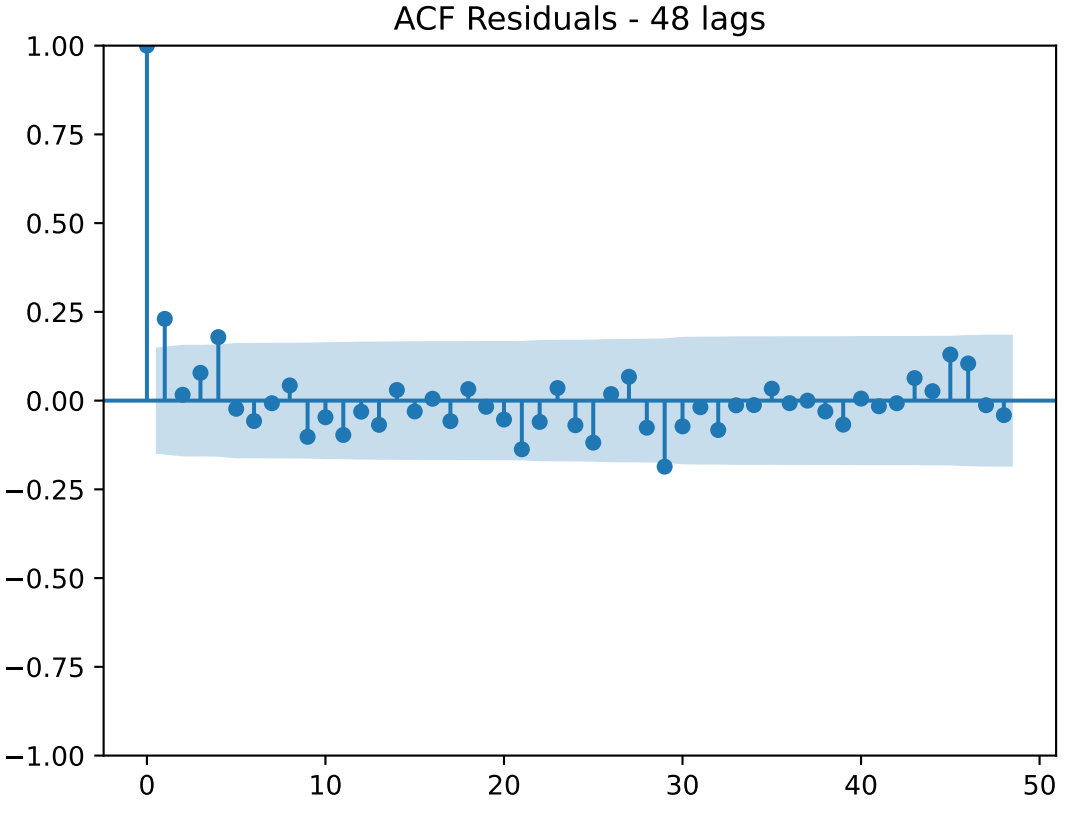

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

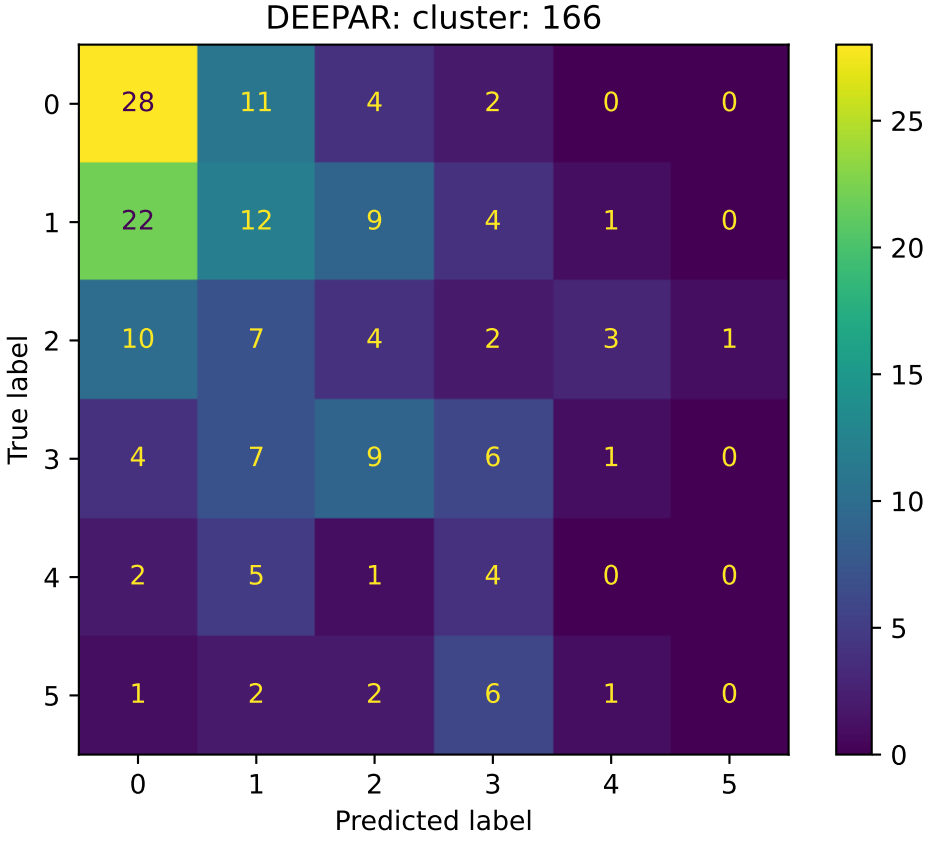

DEEPAR: cluster: 165
True label
Predicted label
0 1 2 3 4 5 6 7 8
30 15 1 1 0 1 0 0 0
19 13 2 3 0 1 0 0 0
6 6 7 7 0 0 0 0 0
1 5 4 5 5 0 0 0 0
1 2 3 13 2 0 0 1 0
0 1 0 5 3 0 1 0 0
0 0 1 3 0 1 0 0 0
0 0 0 1 1 0 0 0 0
0 0 0 0 0 0 0 0 0
30 25 20 15 10 5 0

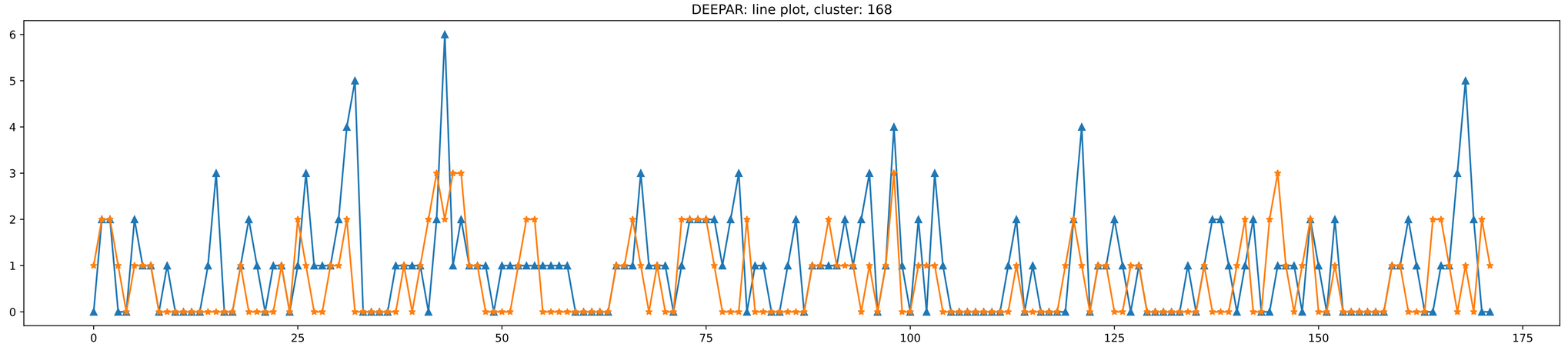

DEEPAR: line plot, cluster: 166
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

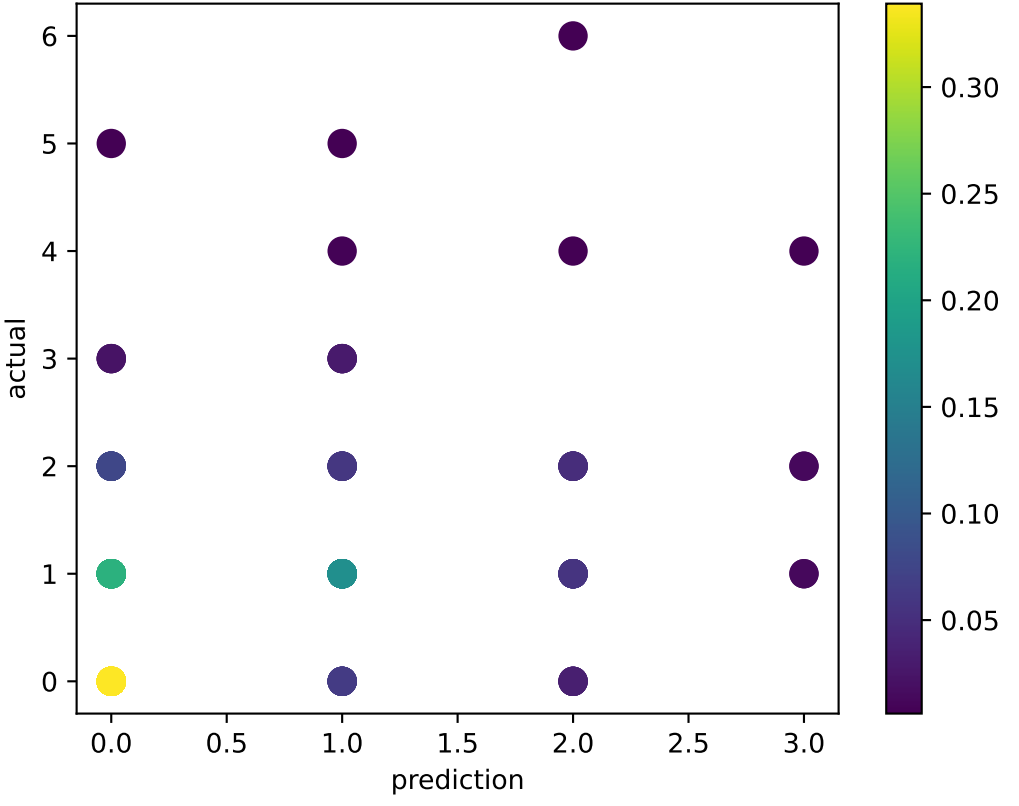

actual
prediction
0
1
2
3
4
5
6
0.10
0.08
0.06
0.04
0.02

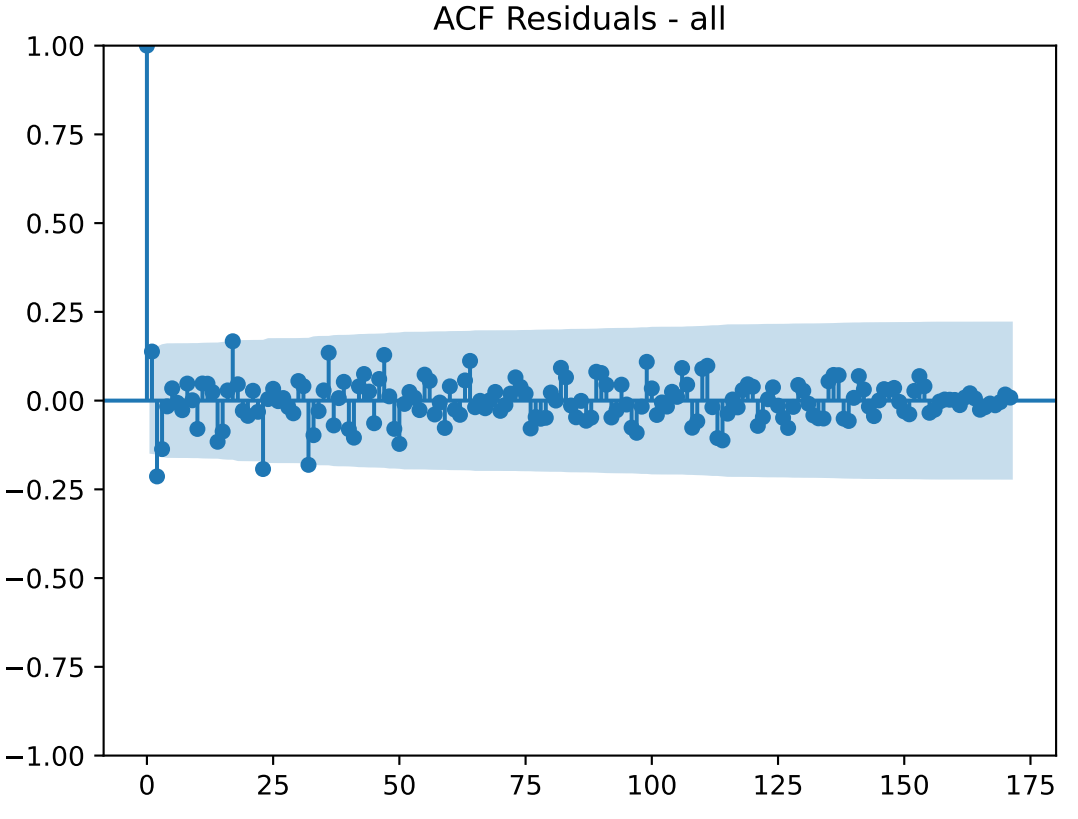

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

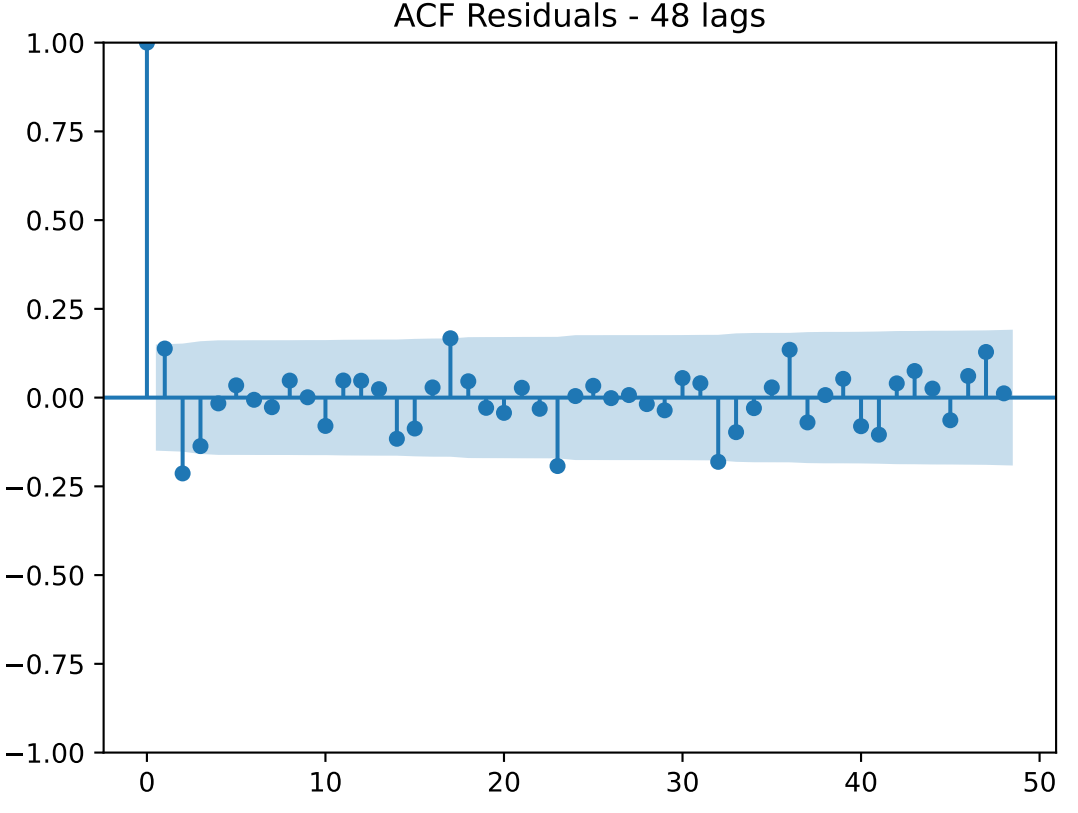

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

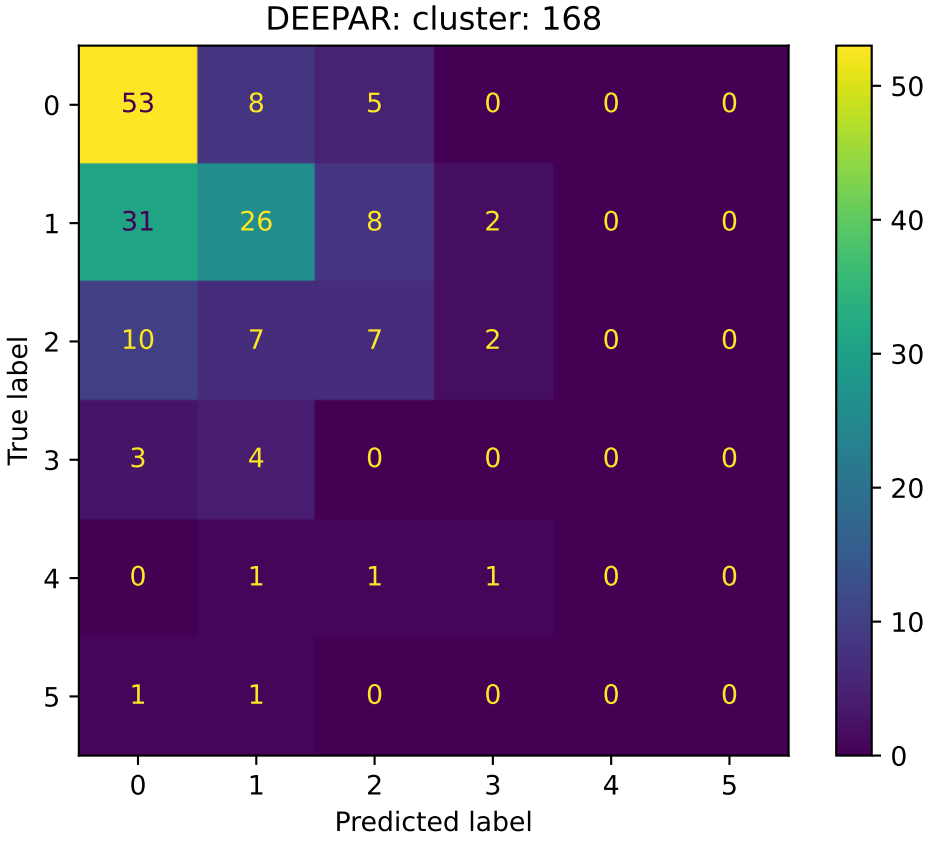

DEEPAR: cluster: 166
True label
Predicted label
0
1
2
3
4
5
28 11 4 2 0 0
22 12 9 4 1 0
10 7 4 2 3 1
4 7 9 6 1 0
2 5 1 4 0 0
1 2 2 6 1 0
25
20
15
10
5
0

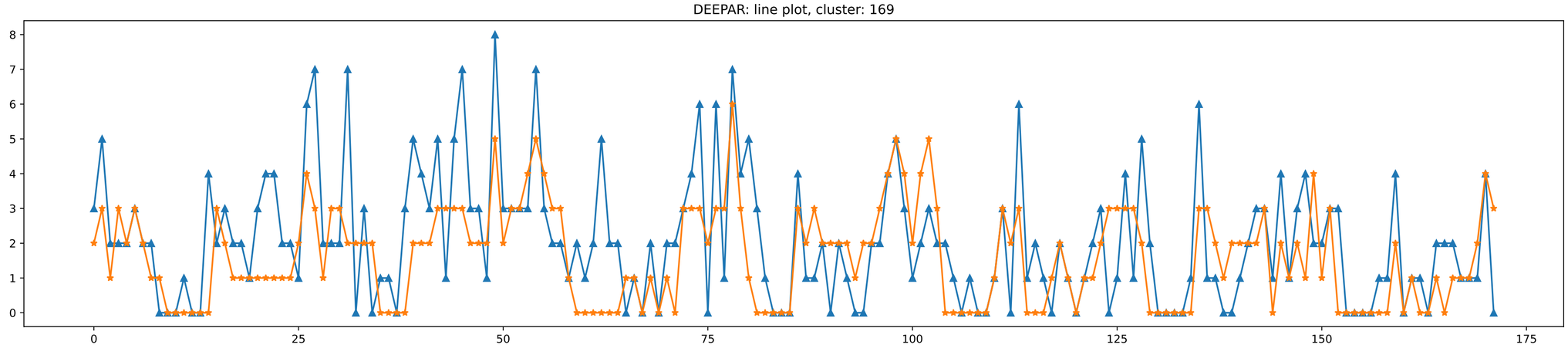

DEEPAR: line plot, cluster: 168
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

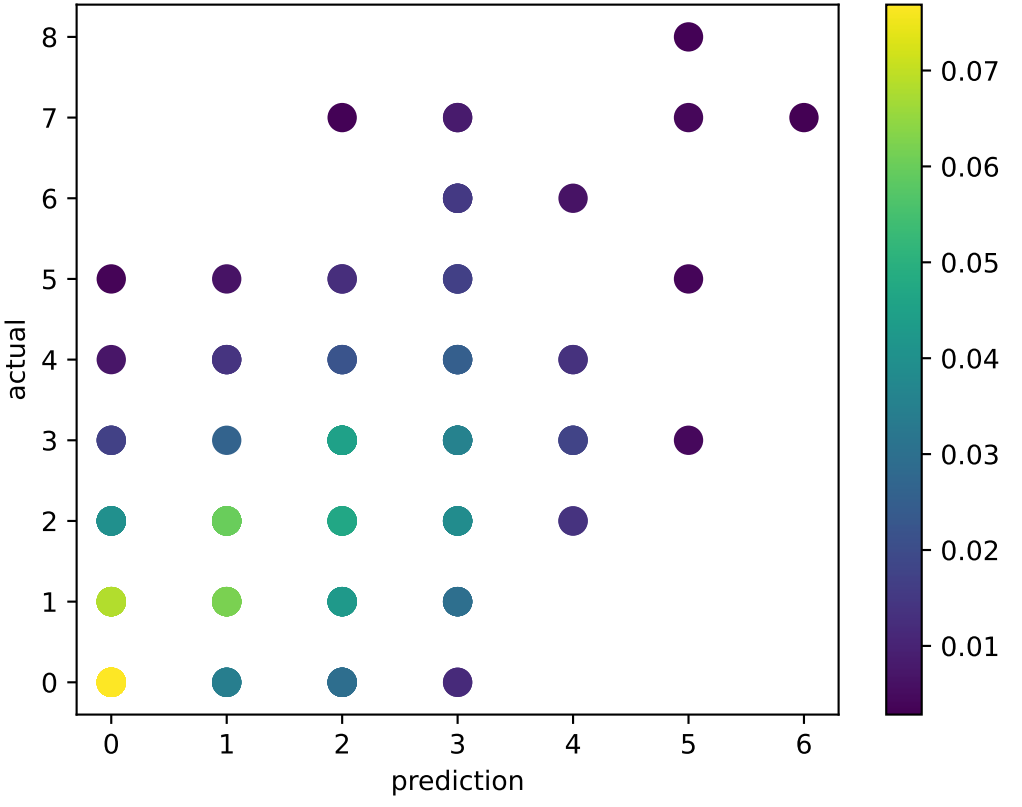

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.30
0.25
0.20
0.15
0.10
0.05

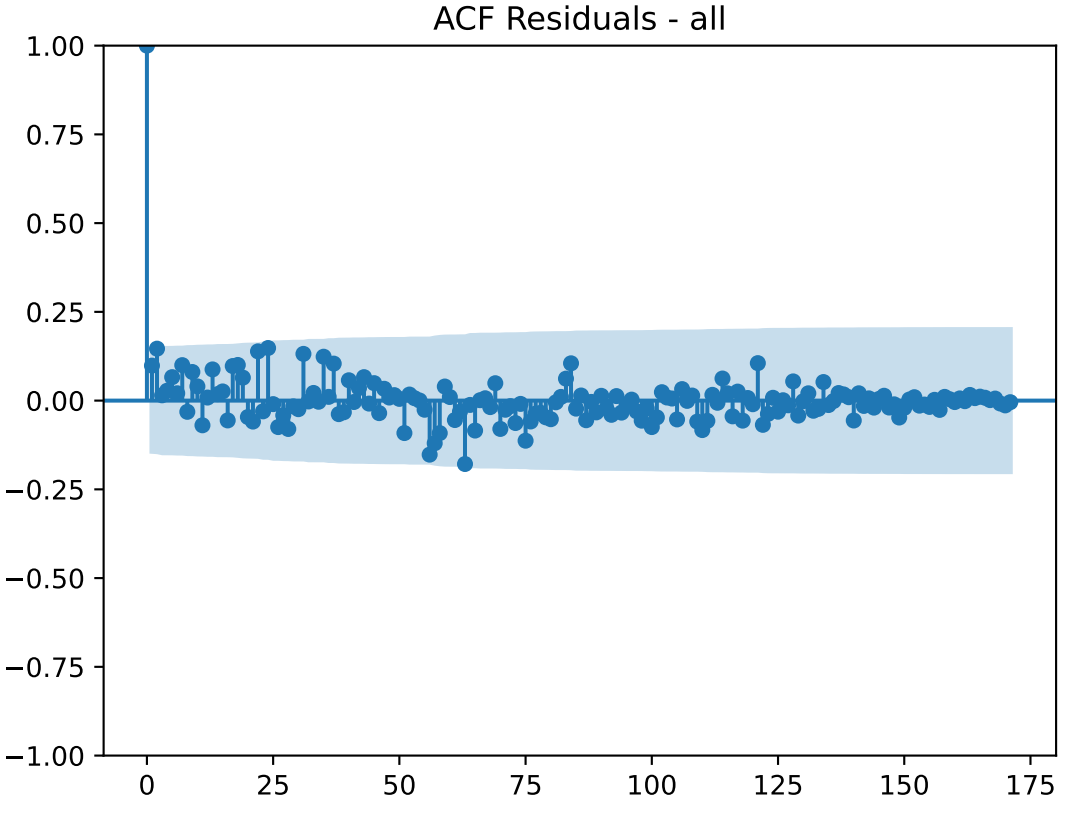

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

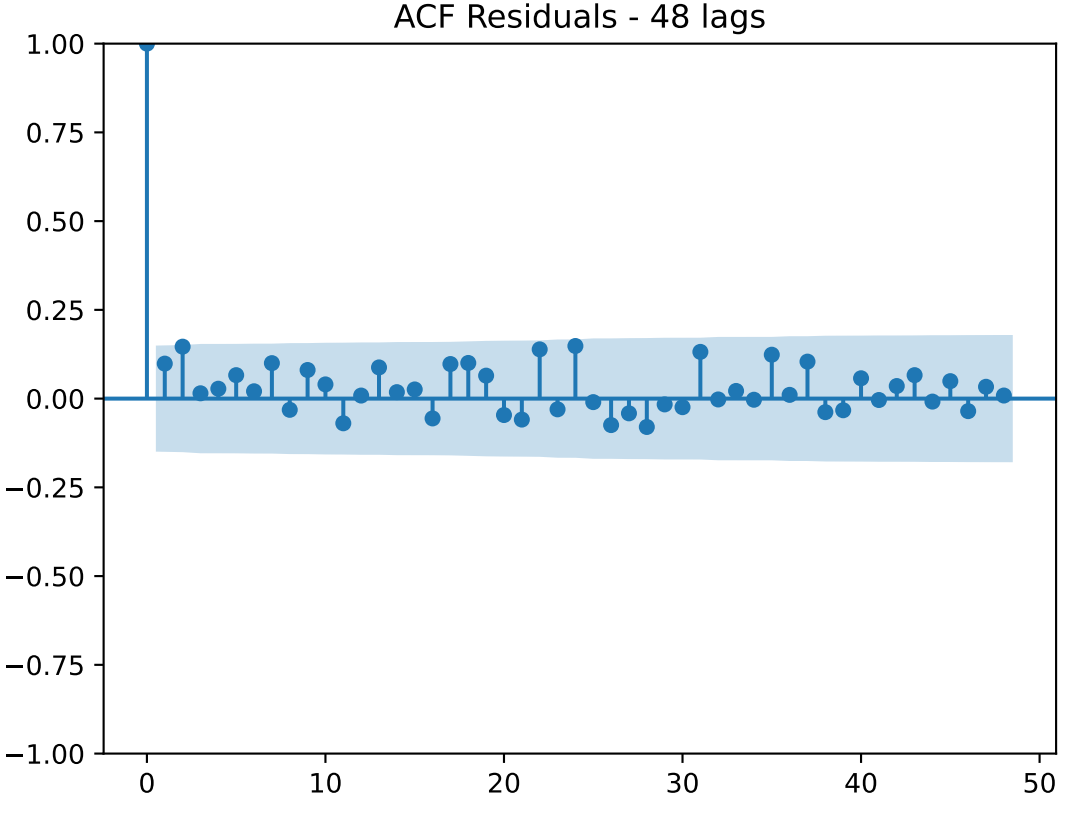

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

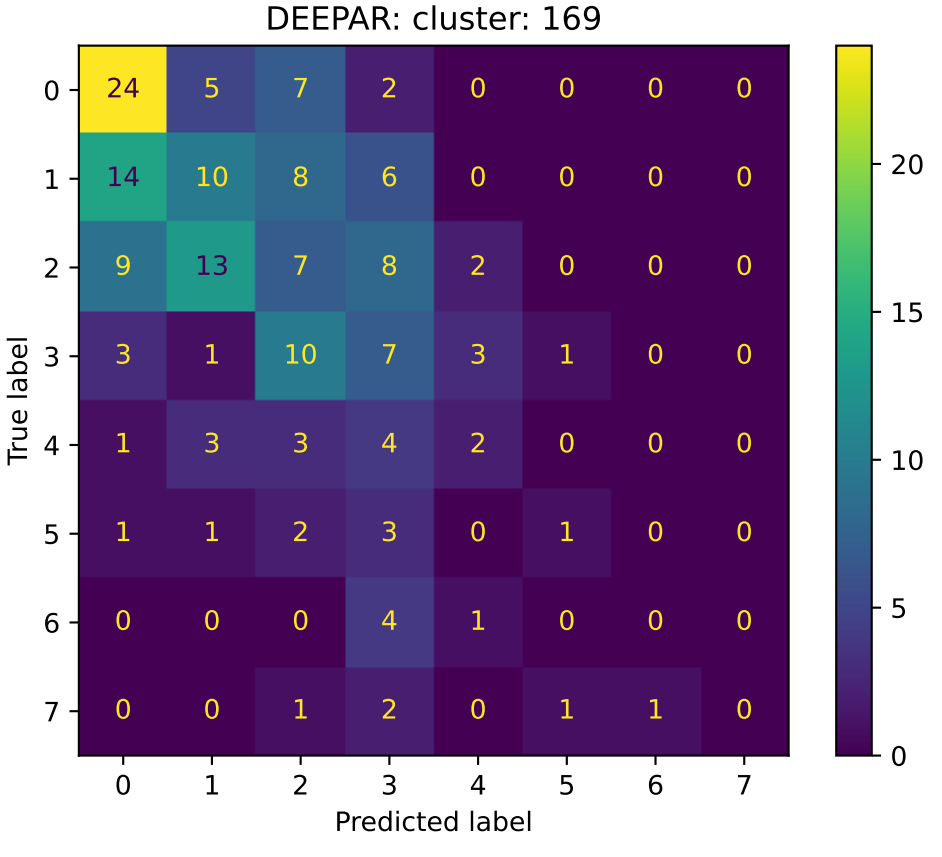

DEEPAR: cluster: 168
True label
Predicted label
0
1
2
3
4
5
53 8 5 0 0 0
31 26 8 2 0 0
10 7 7 2 0 0
3 4 0 0 0 0
0 1 1 1 0 0
1 1 0 0 0 0
50
40
30
20
10
0

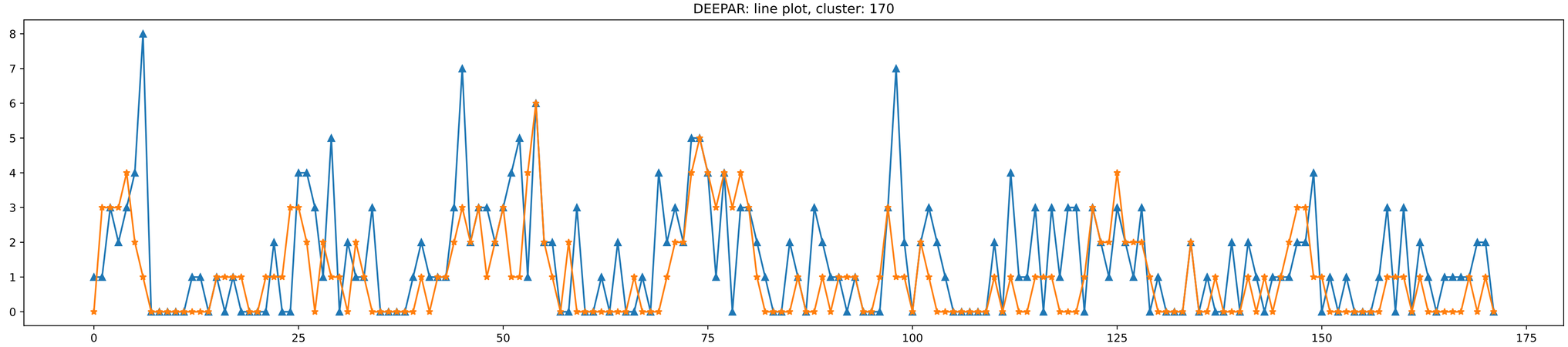

DEEPAR: line plot, cluster: 169
0
1
2
3
4
5
6
7
8
0
25
50
75
100
125
150
175

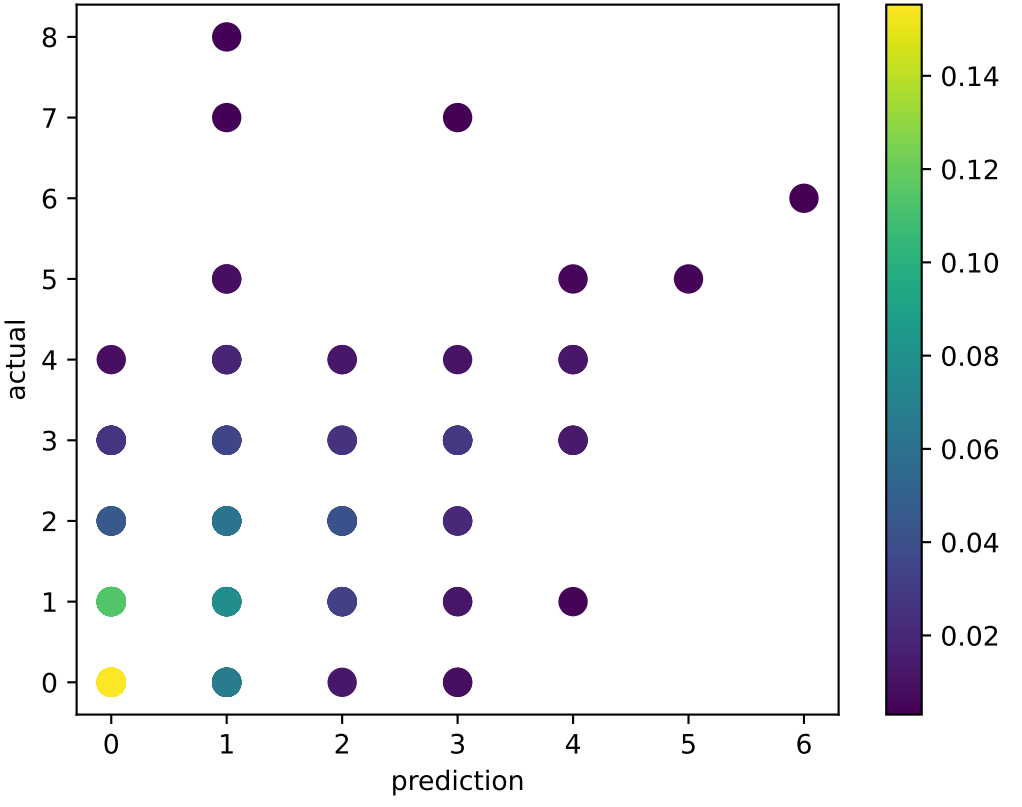

actual
prediction
0
1
2
3
4
5
6
7
8
0.07
0.06
0.05
0.04
0.03
0.02
0.01

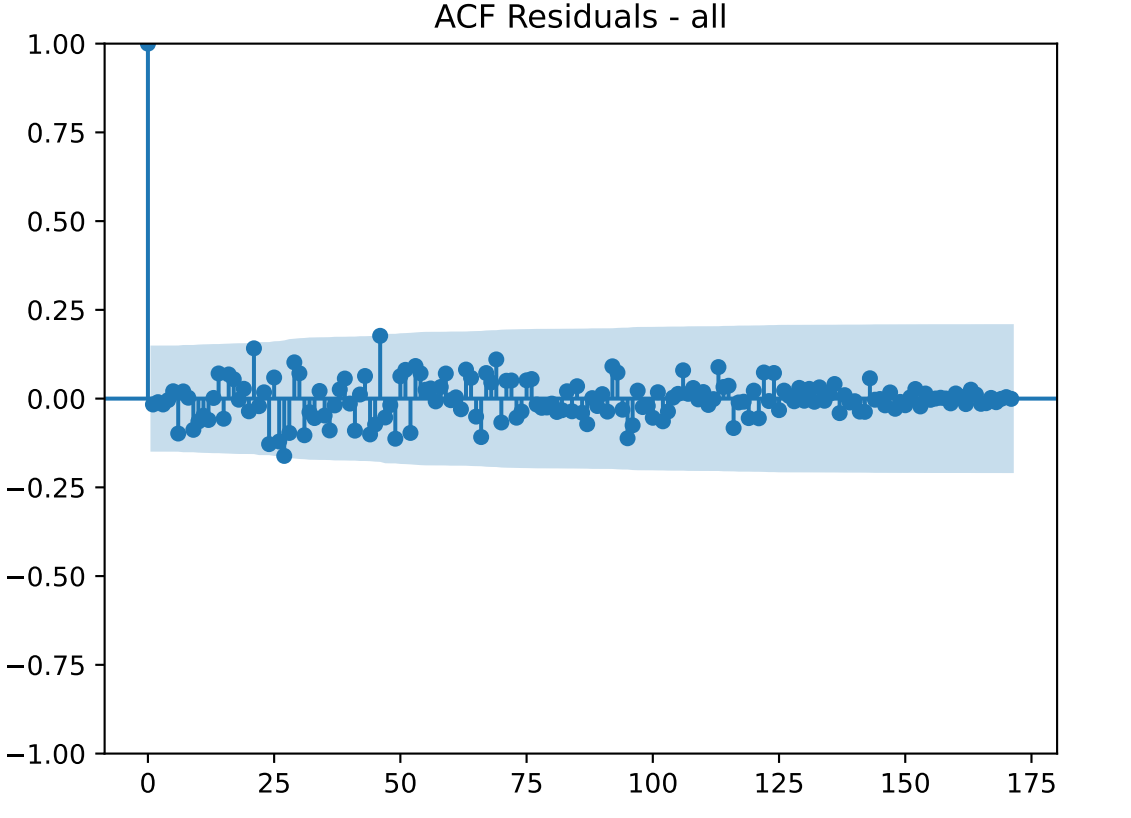

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

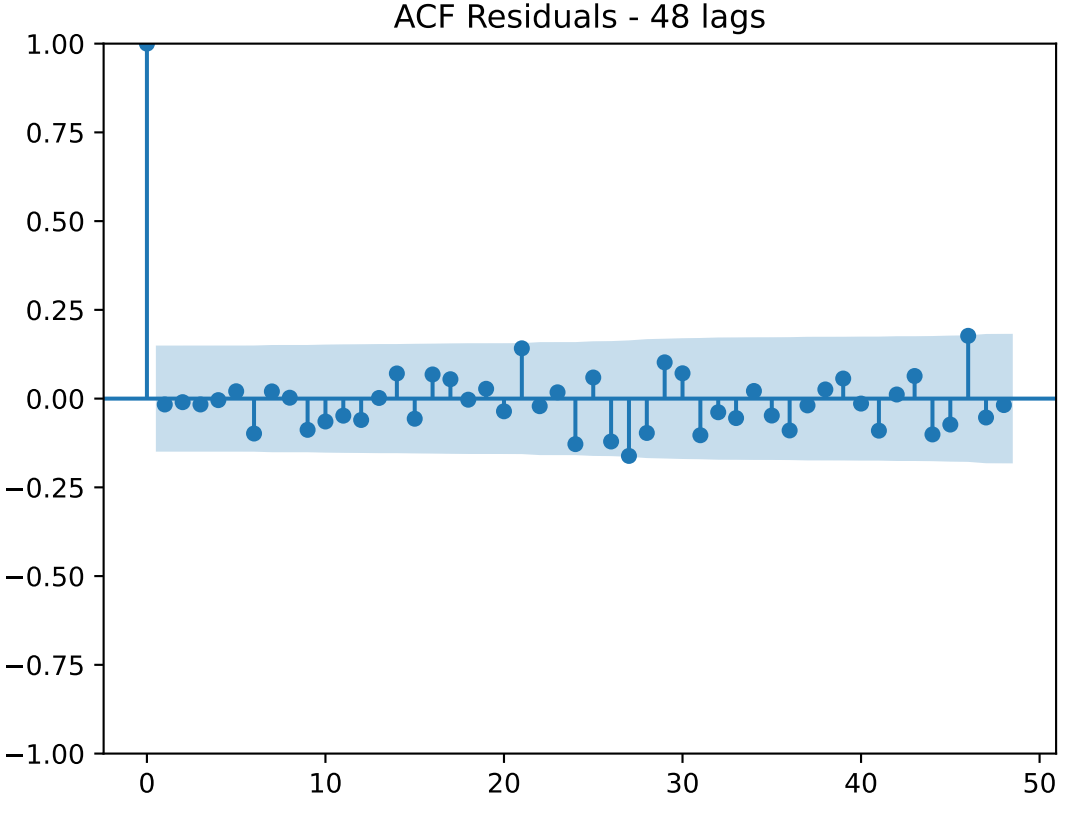

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

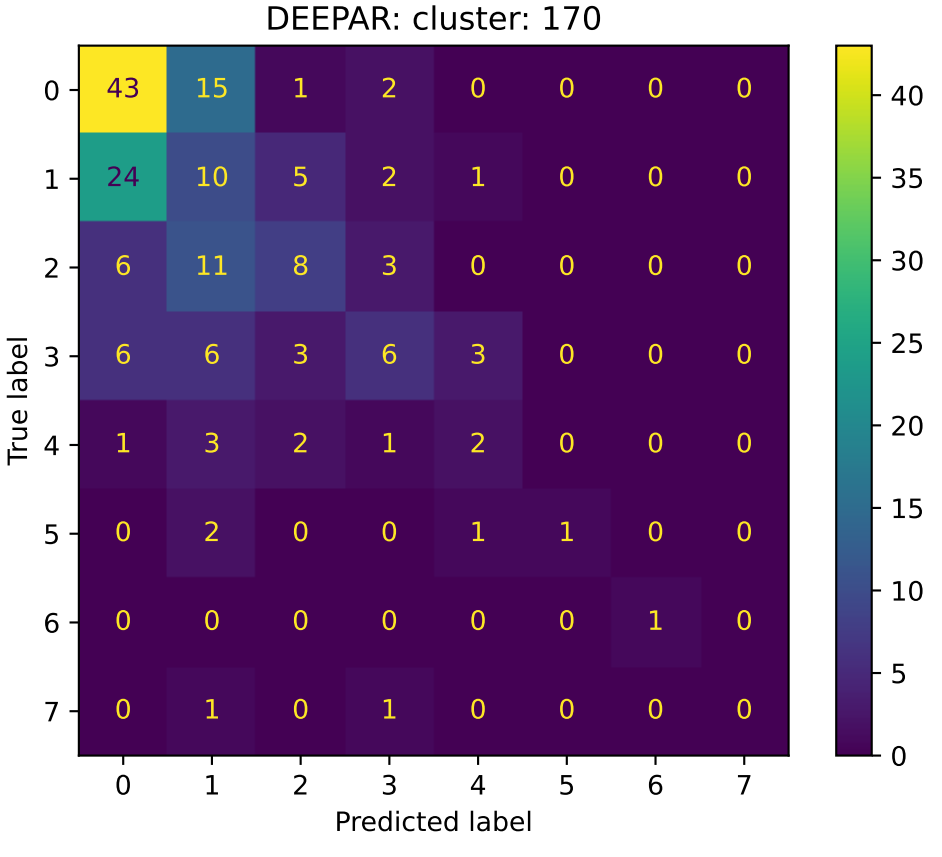

DEEPAR: cluster: 169
True label
Predicted label
0 1 2 3 4 5 6 7
24 5 7 2 0 0 0 0
14 10 8 6 0 0 0 0
9 13 7 8 2 0 0 0
3 1 10 7 3 1 0 0
1 3 3 4 2 0 0 0
1 1 2 3 0 1 0 0
0 0 0 4 1 0 0 0
0 0 1 2 0 1 1 0
0 5 10 15 20

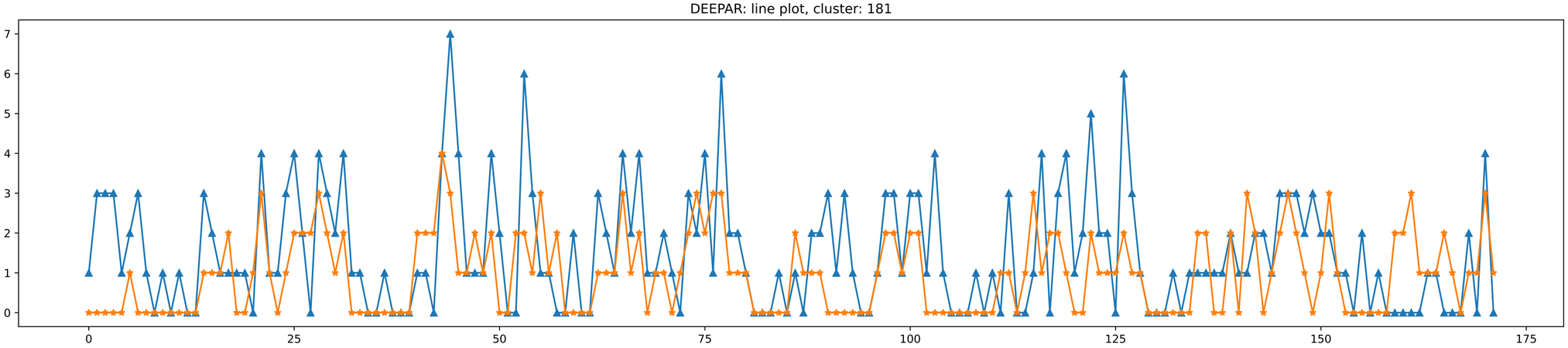

DEEPAR: line plot, cluster: 170
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

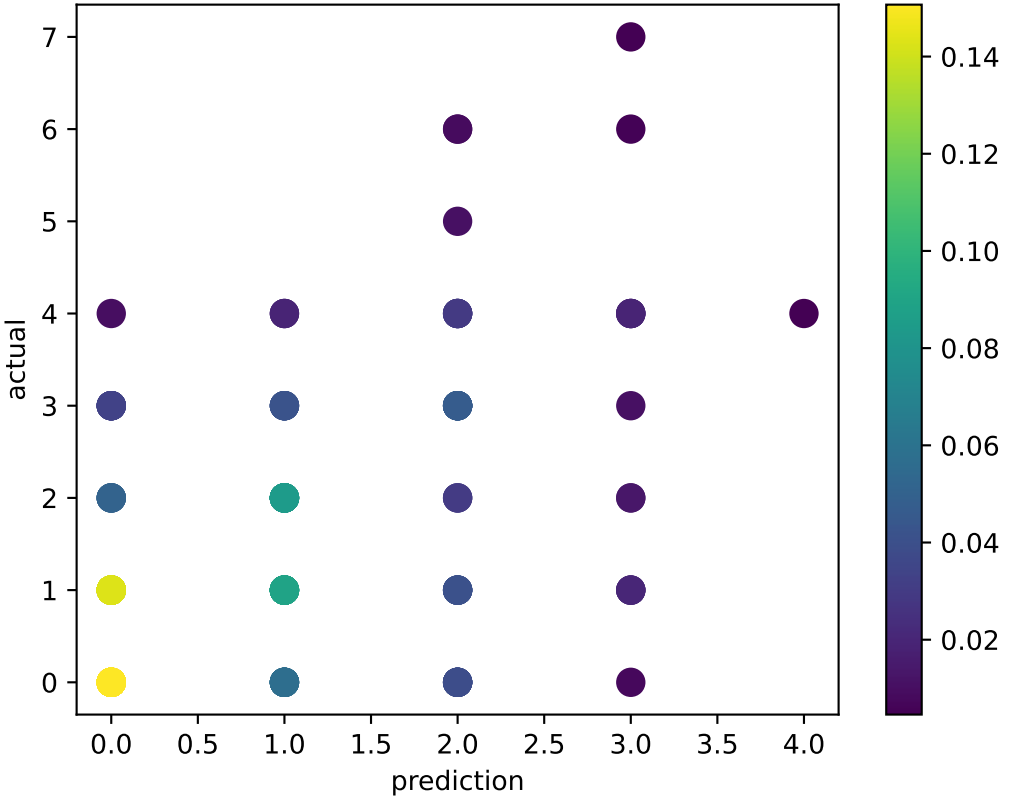

actual
prediction
0
1
2
3
4
5
6
7
8
0.14
0.12
0.10
0.08
0.06
0.04
0.02

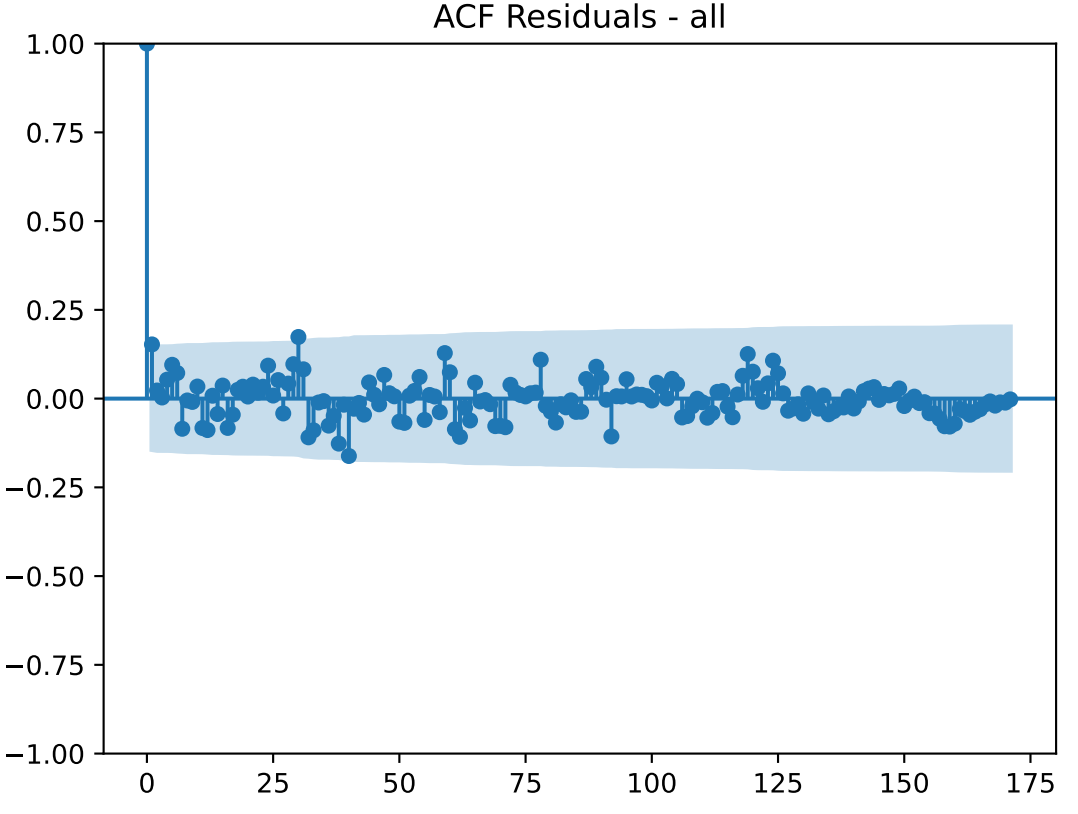

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

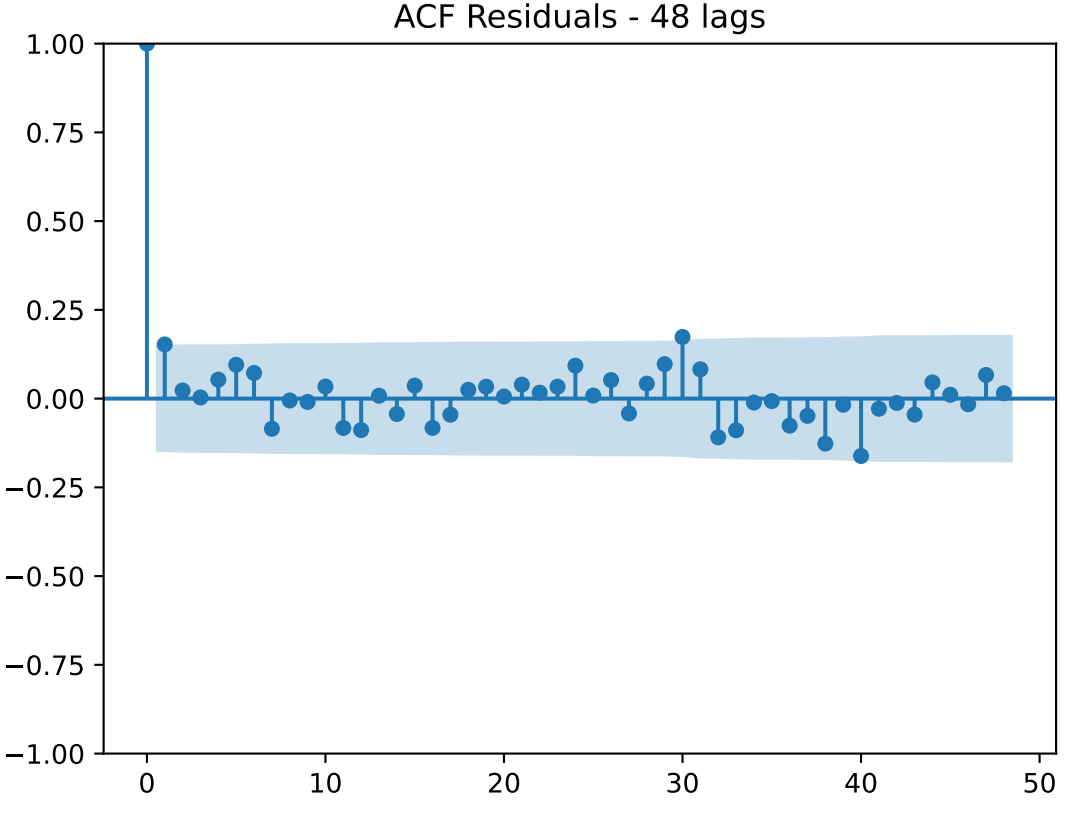

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

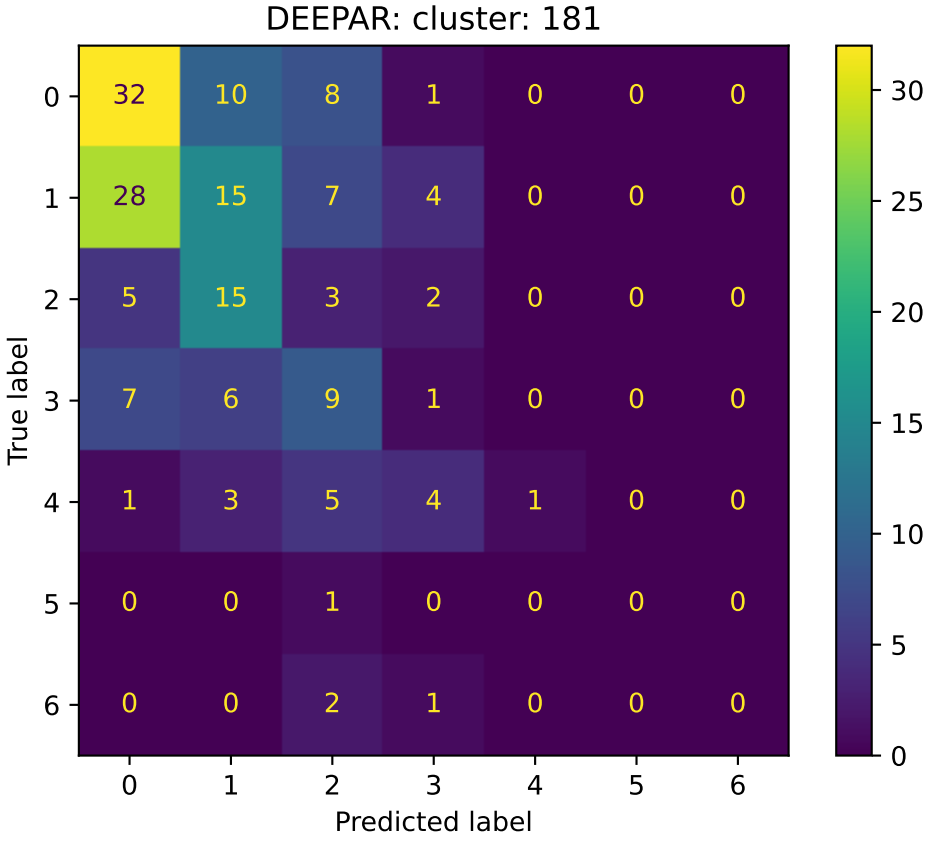

DEEPAR: cluster: 170
True label
Predicted label
0 1 2 3 4 5 6 7
43 15 1 2 0 0 0 0
24 10 5 2 1 0 0 0
6 11 8 3 0 0 0 0
6 6 3 6 3 0 0 0
1 3 2 1 2 0 0 0
0 2 0 0 1 1 0 0
0 0 0 0 0 0 1 0
0 1 0 1 0 0 0 0
0 5 10 15 20 25 30 35 40

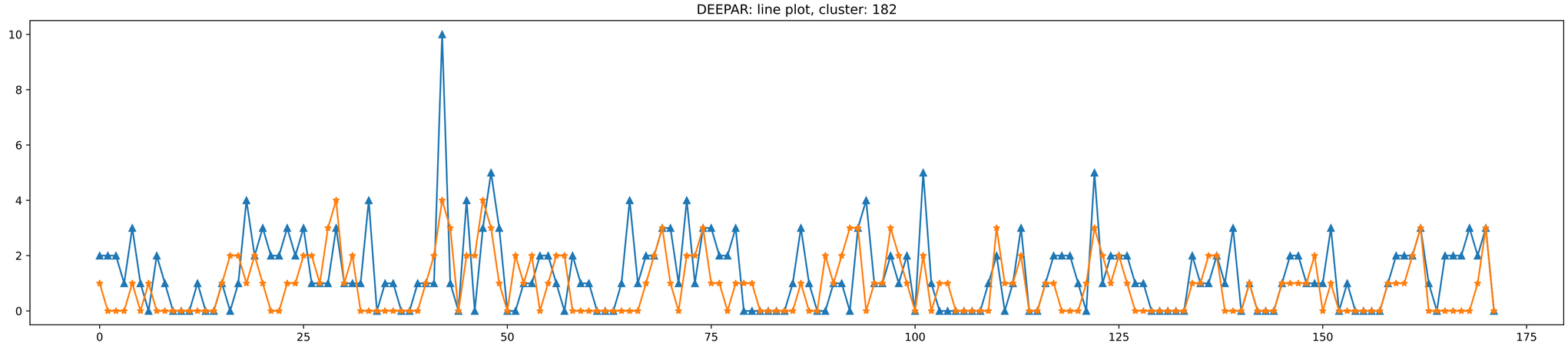

DEEPAR: line plot, cluster: 181
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

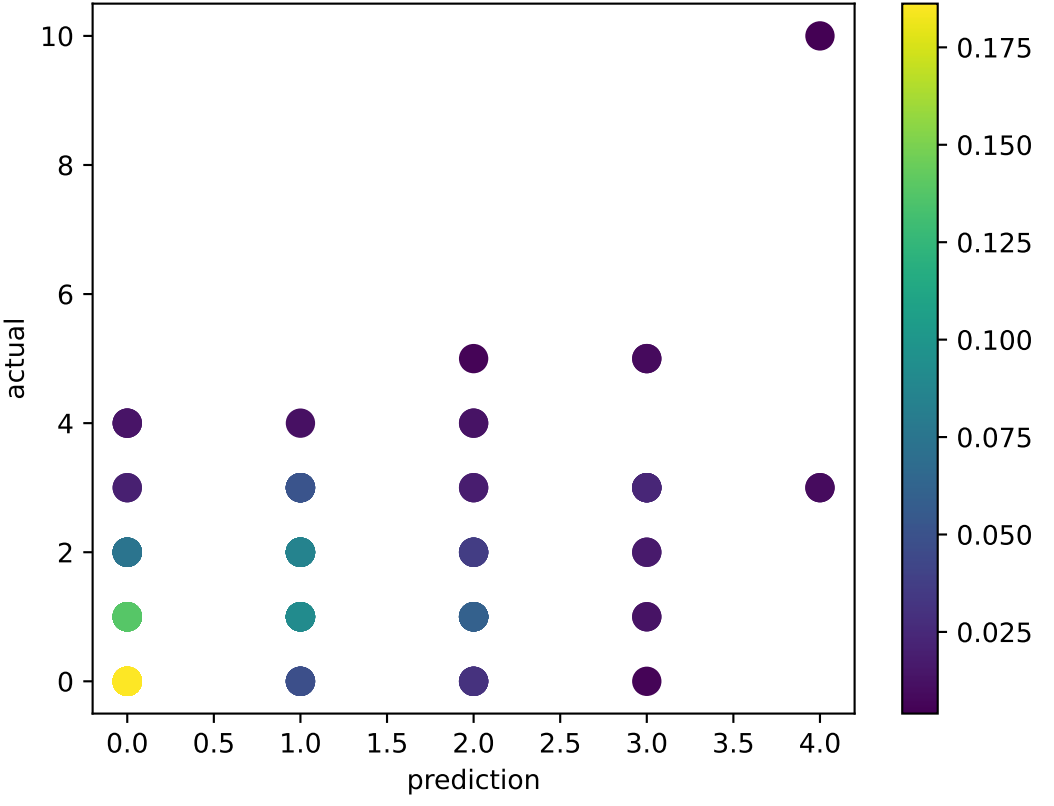

actual
prediction
0
1
2
3
4
5
6
7
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.14
0.12
0.10
0.08
0.06
0.04
0.02

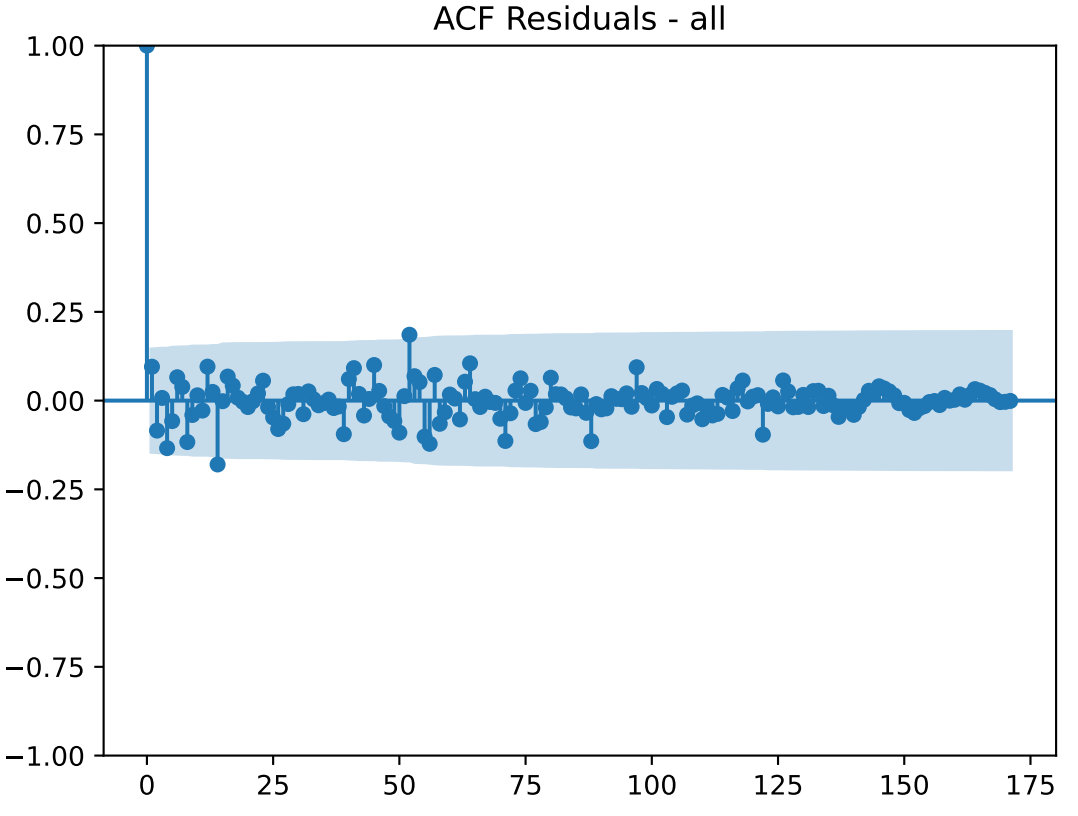

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

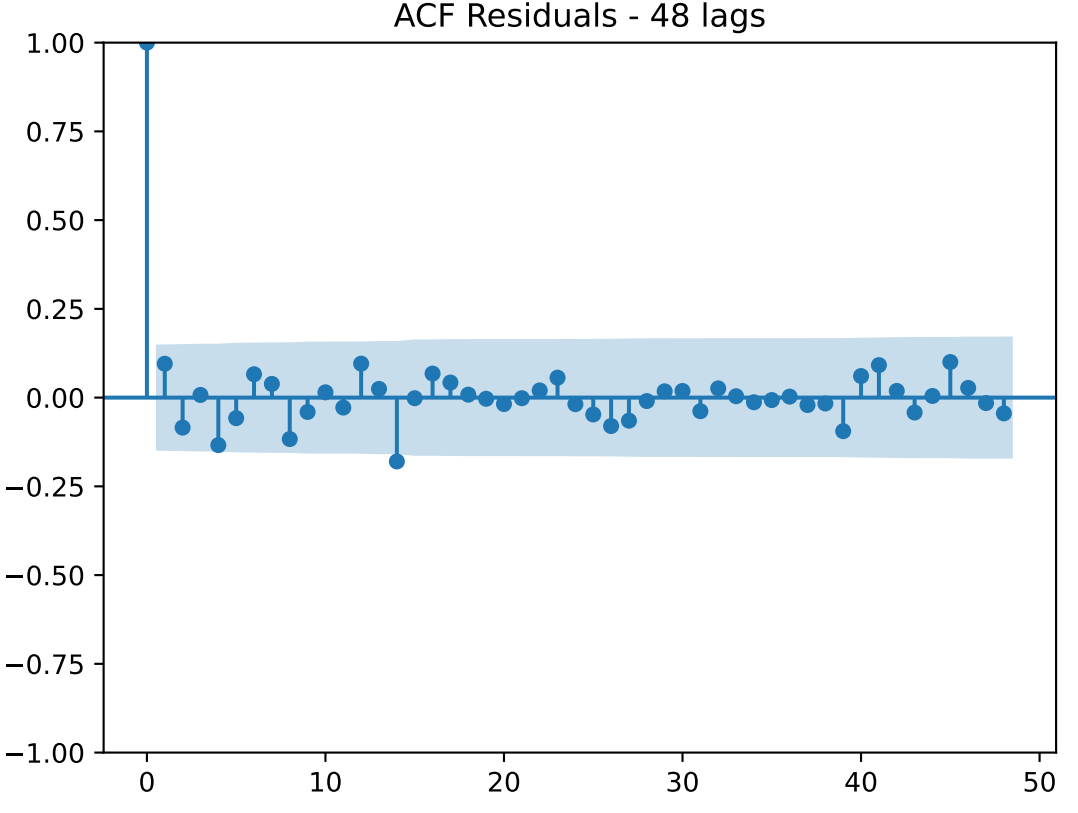

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

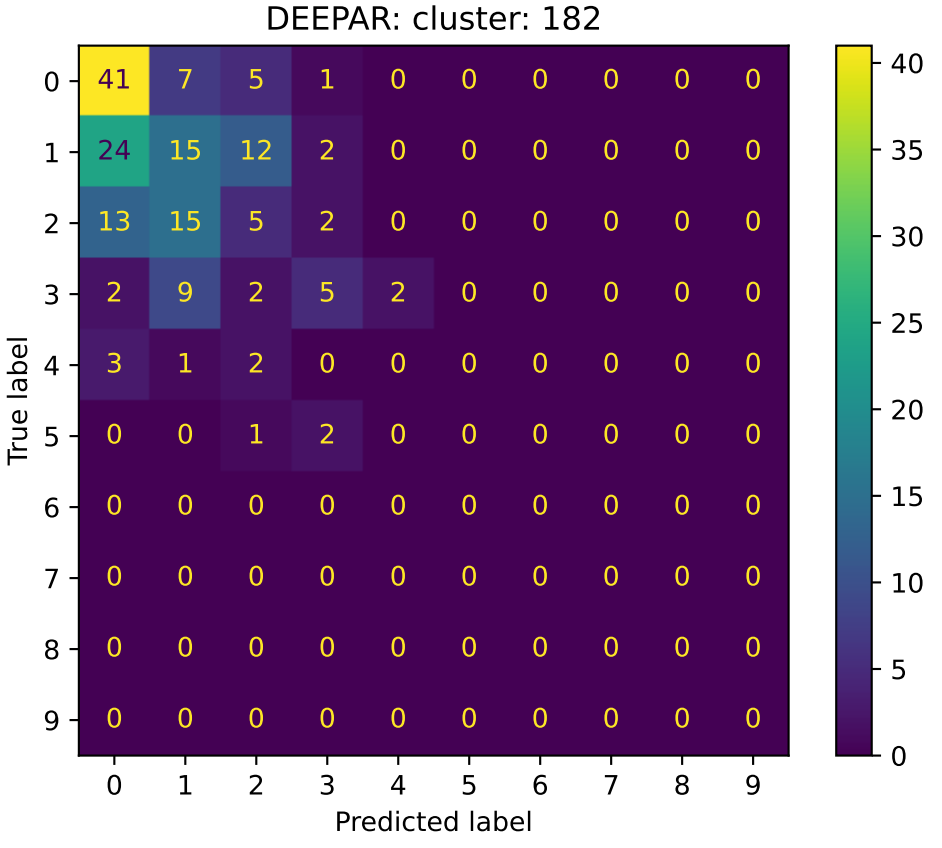

DEEPAR: cluster: 181
True label
Predicted label
0 1 2 3 4 5 6
32 10 8 1 0 0 0
28 15 7 4 0 0 0
5 15 3 2 0 0 0
7 6 9 1 0 0 0
1 3 5 4 1 0 0
0 0 1 0 0 0 0
0 0 2 1 0 0 0
30 25 20 15 10 5 0

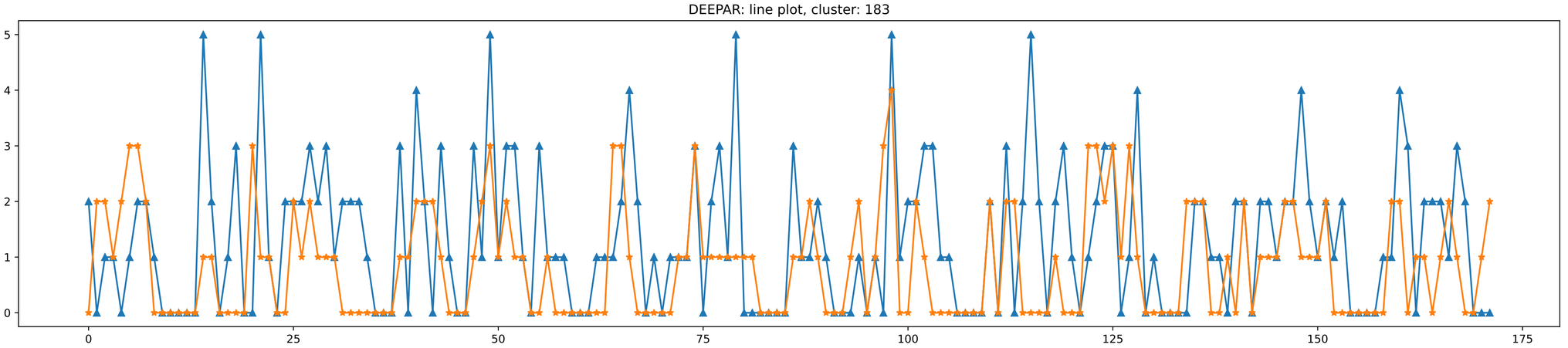

DEEPAR: line plot, cluster: 182
10
8
6
4
2
0
0
25
50
75
100
125
150
175

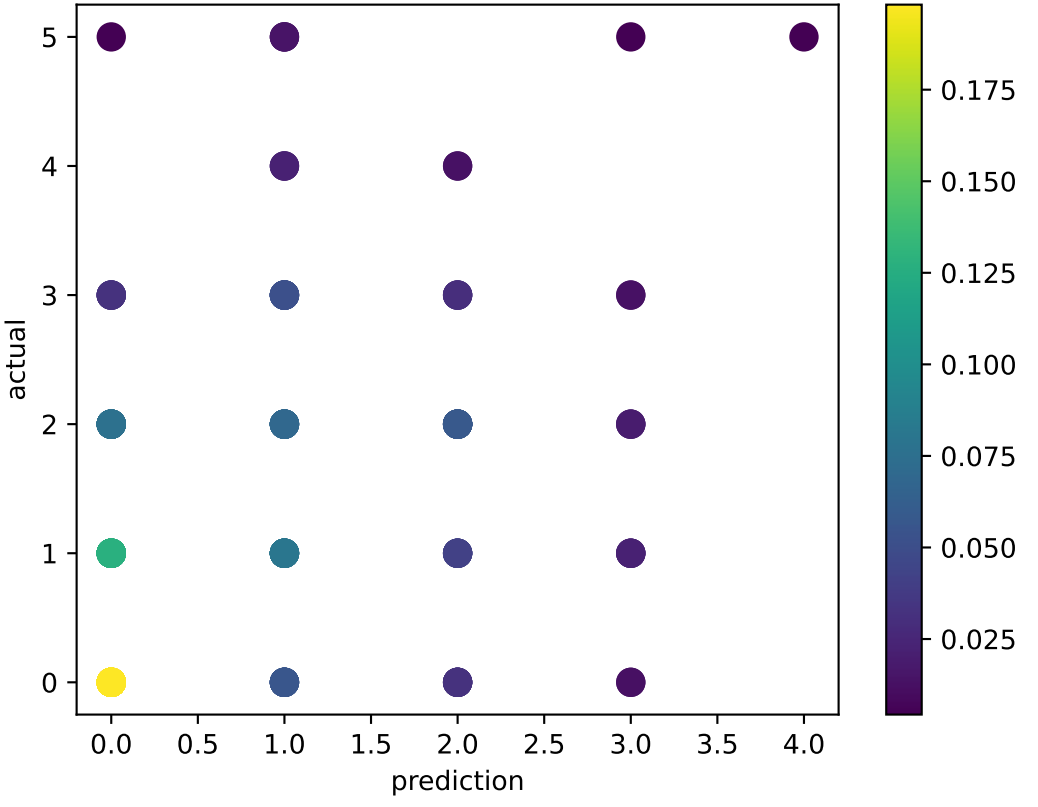

actual
prediction
0
2
4
6
8
10
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.175
0.150
0.125
0.100
0.075
0.050
0.025

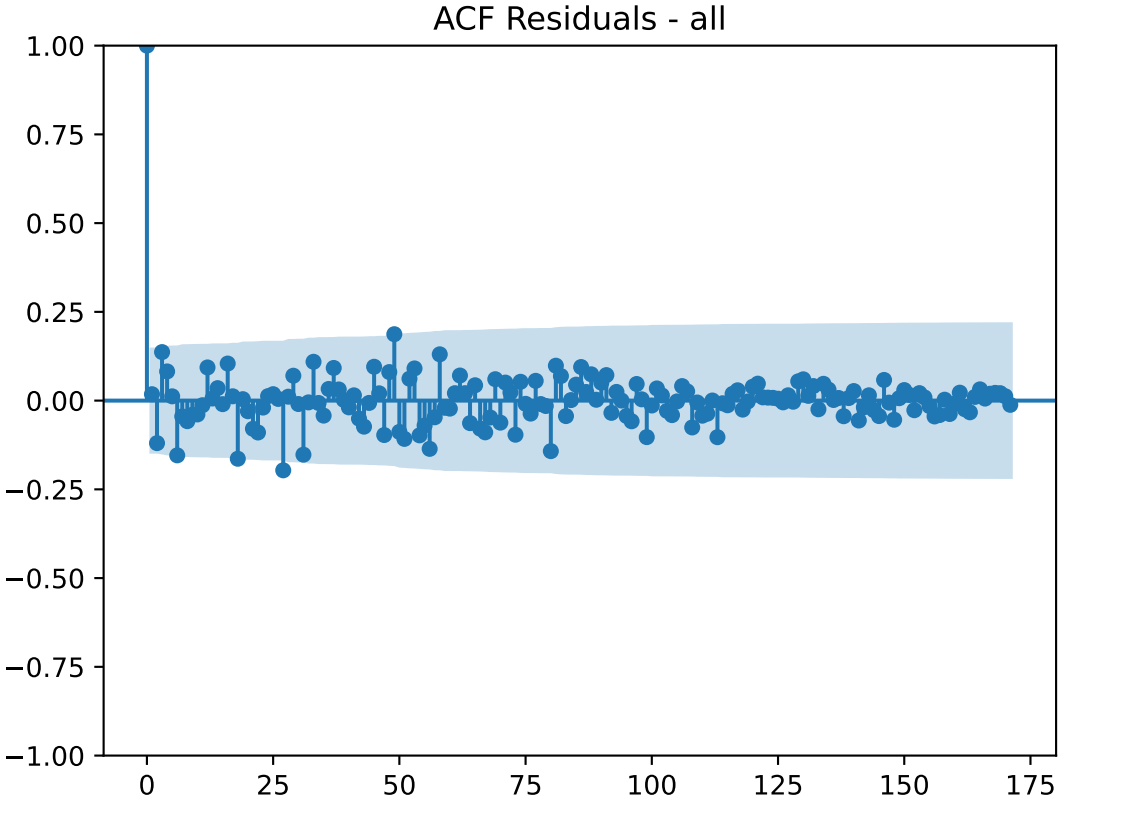

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

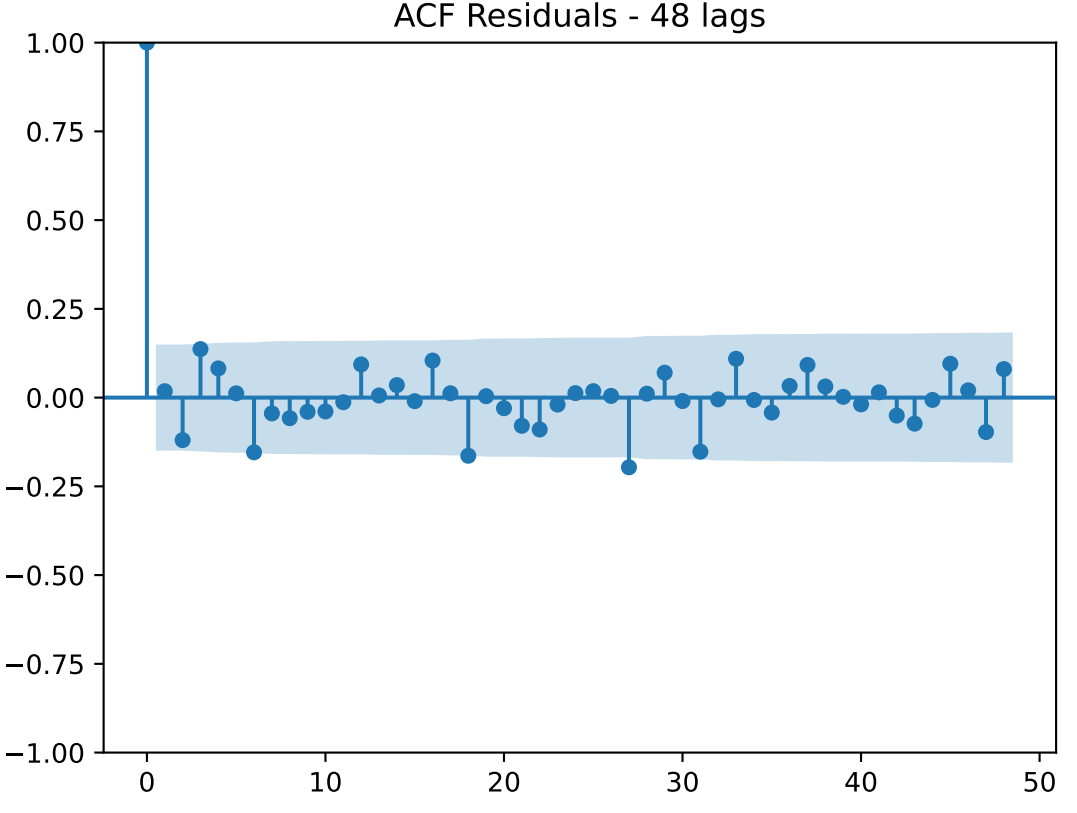

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

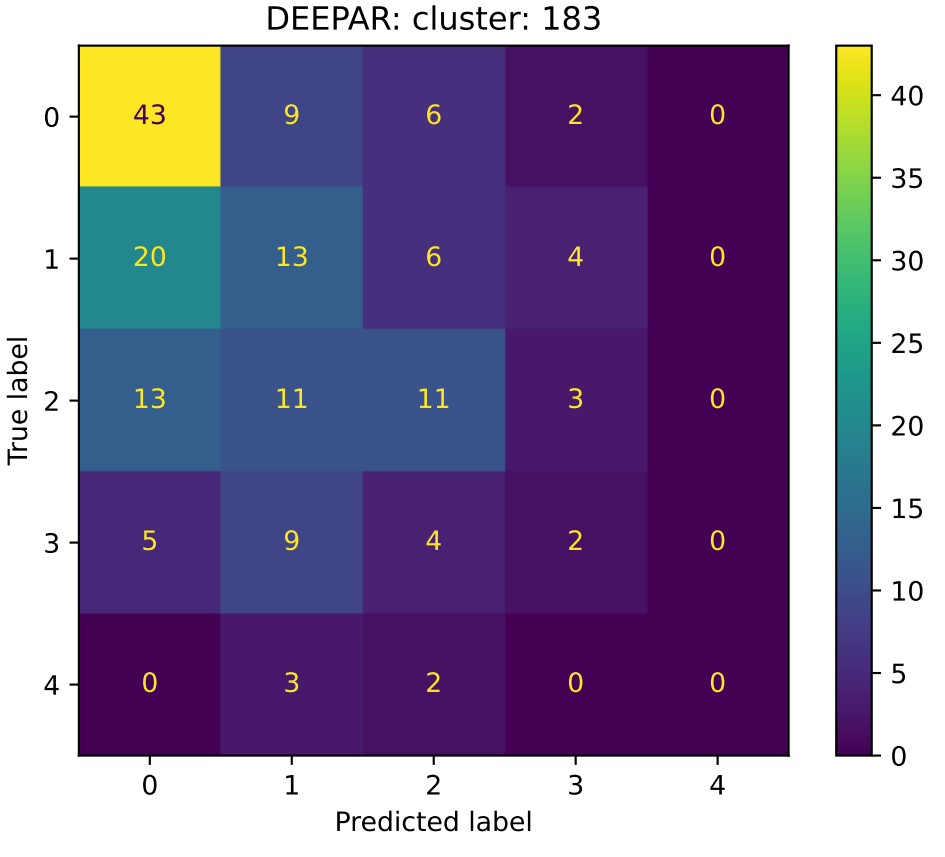

DEEPAR: cluster: 182
True label
Predicted label
0 1 2 3 4 5 6 7 8 9
41 7 5 1 0 0 0 0 0 0
24 15 12 2 0 0 0 0 0 0
13 15 5 2 0 0 0 0 0 0
2 9 2 5 2 0 0 0 0 0
3 1 2 0 0 0 0 0 0 0
0 0 1 2 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
40 35 30 25 20 15 10 5 0

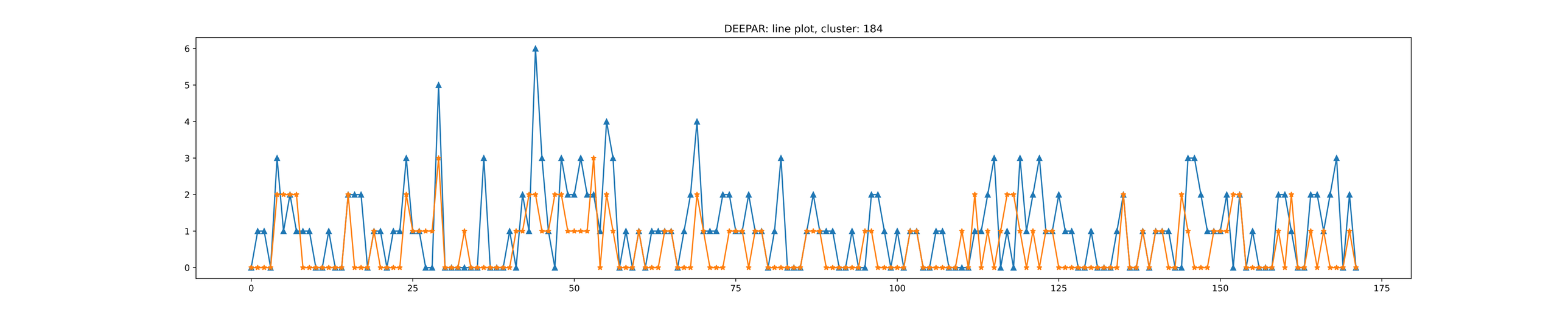

DEEPAR: line plot, cluster: 183
0
1
2
3
4
5
0
25
50
75
100
125
150
175

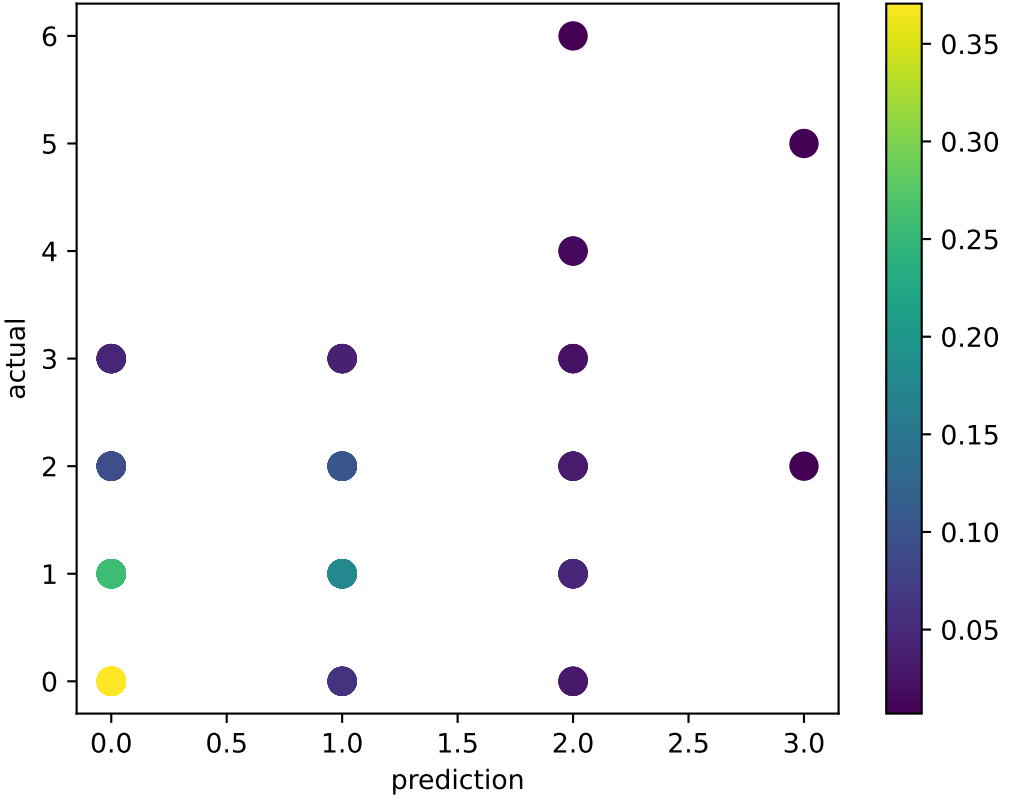

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.175
0.150
0.125
0.100
0.075
0.050
0.025

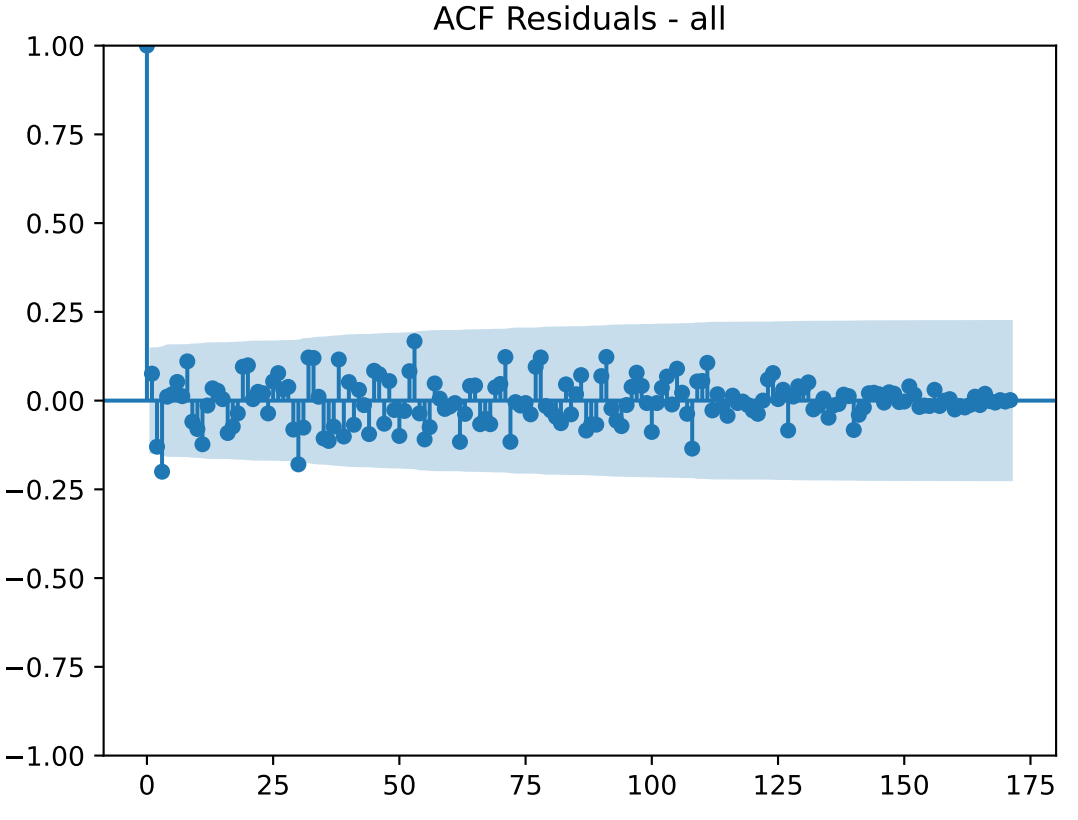

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

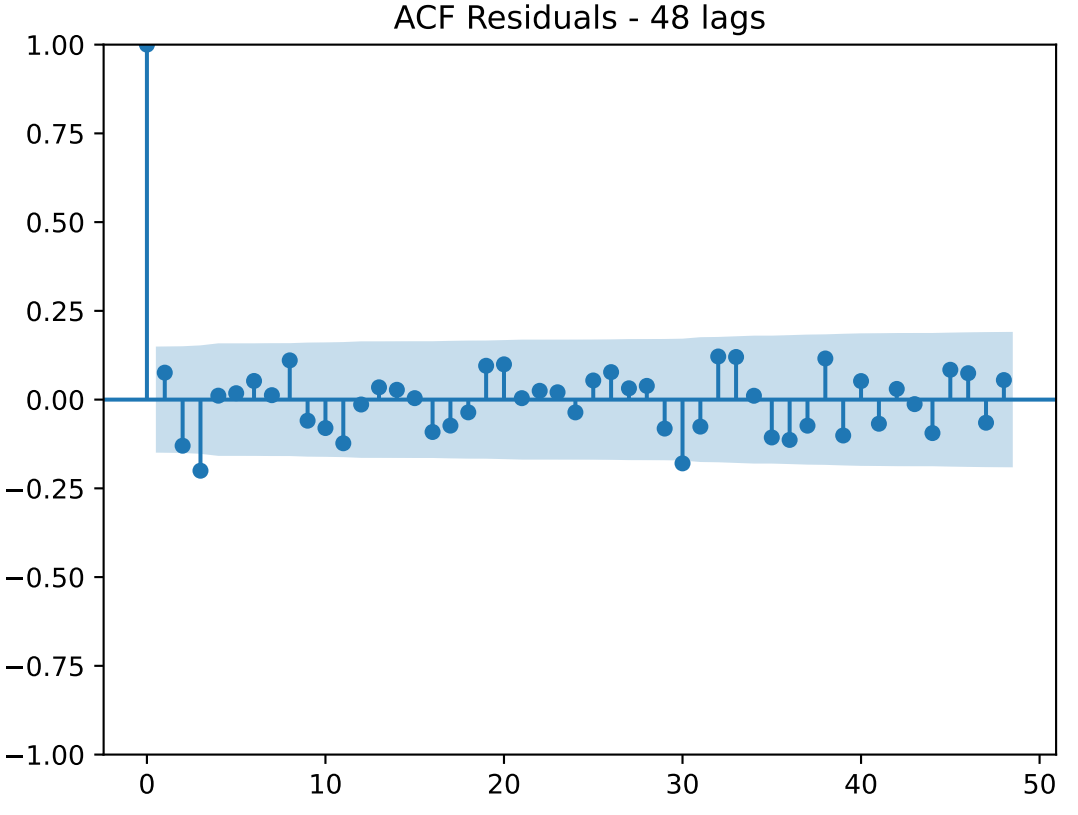

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

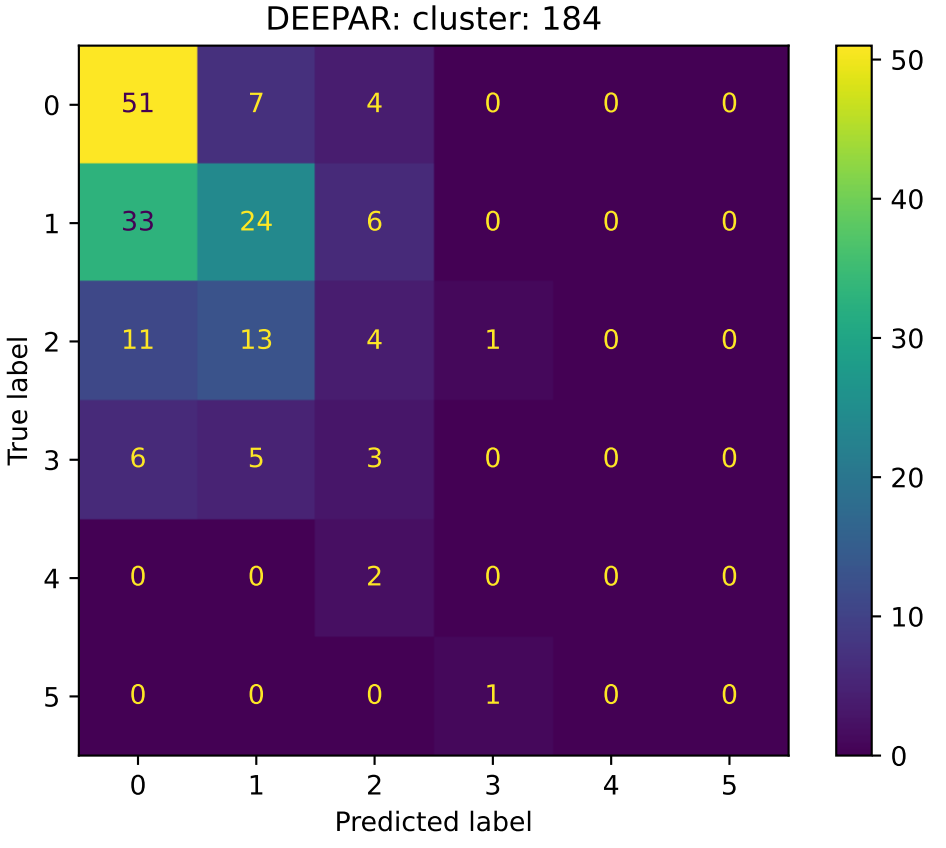

DEEPAR: cluster: 183
True label
Predicted label
0
1
2
3
4
43
9
6
2
0
20
13
6
4
0
13
11
11
3
0
5
9
4
2
0
0
3
2
0
0
40
35
30
25
20
15
10
5
0

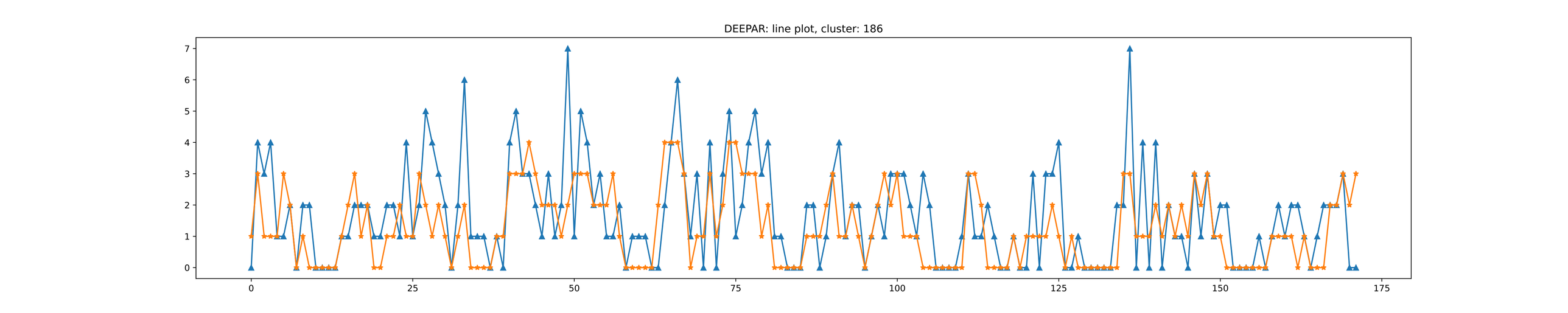

DEEPAR: line plot, cluster: 184
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

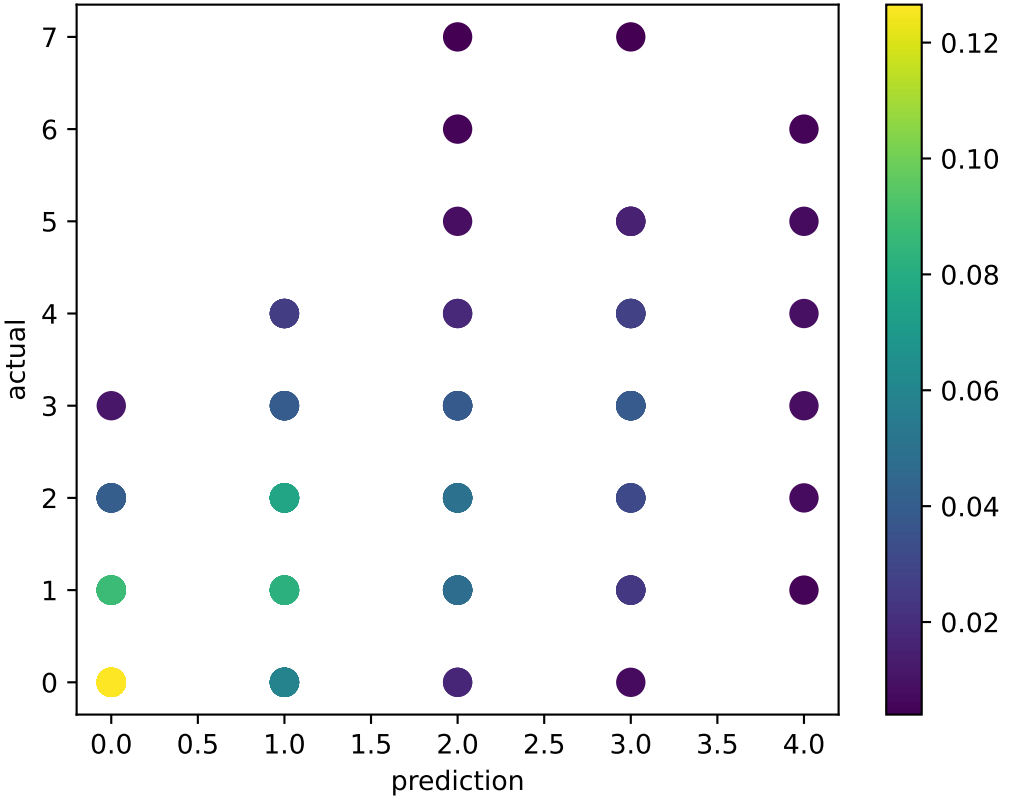

actual
prediction
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.35
0.30
0.25
0.20
0.15
0.10
0.05

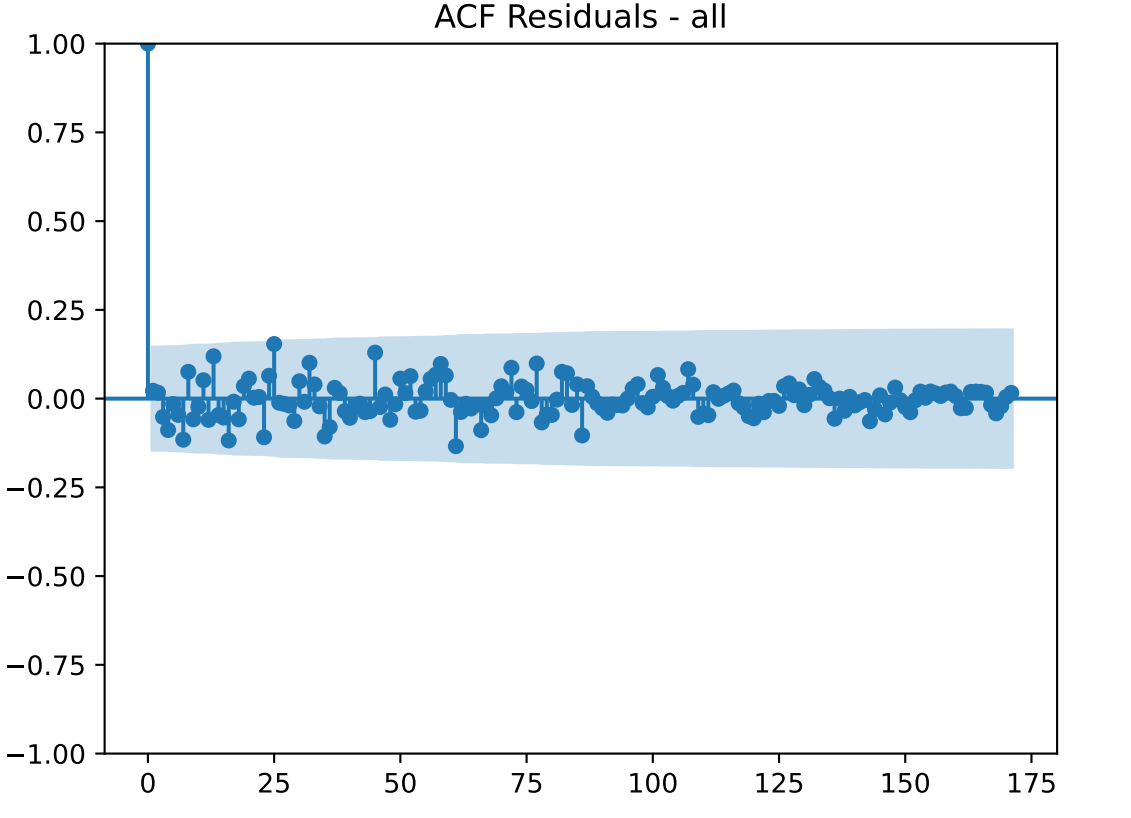

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

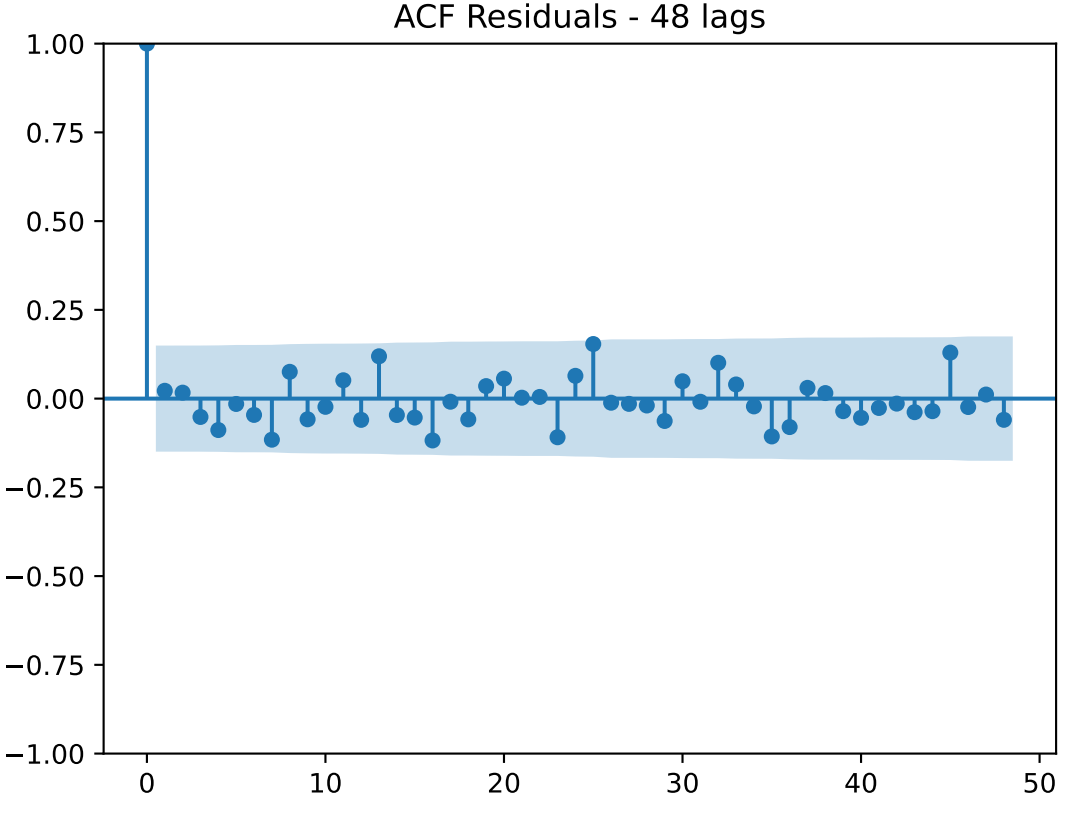

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

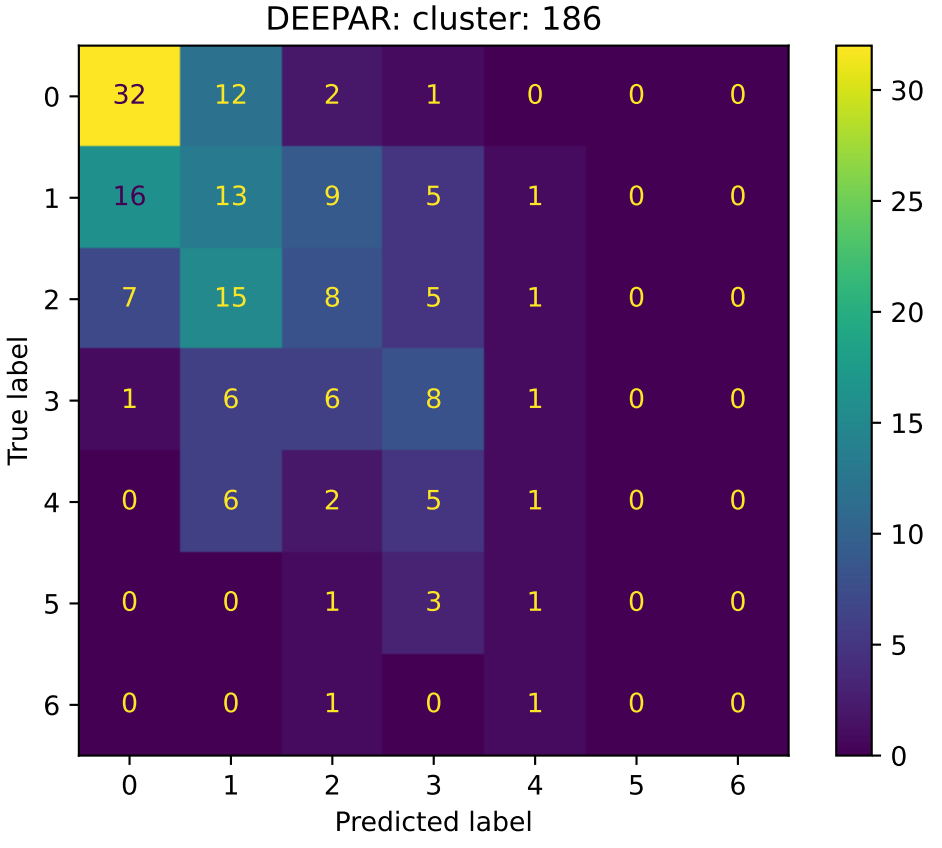

DEEPAR: cluster: 184
True label
Predicted label
0
1
2
3
4
5
51 7 4 0 0 0
33 24 6 0 0 0
11 13 4 1 0 0
6 5 3 0 0 0
0 0 2 0 0 0
0 0 0 1 0 0
50
40
30
20
10
0

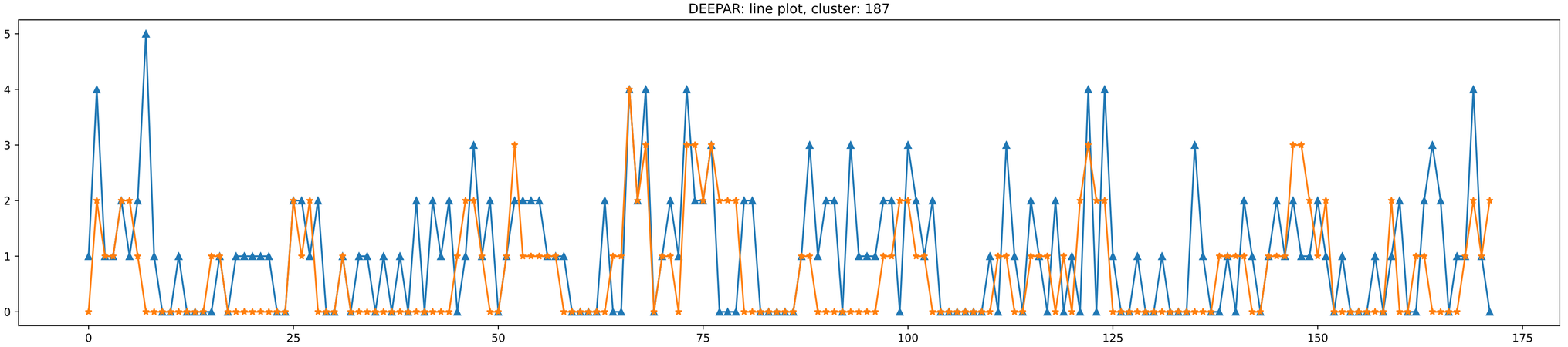

DEEPAR: line plot, cluster: 186
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

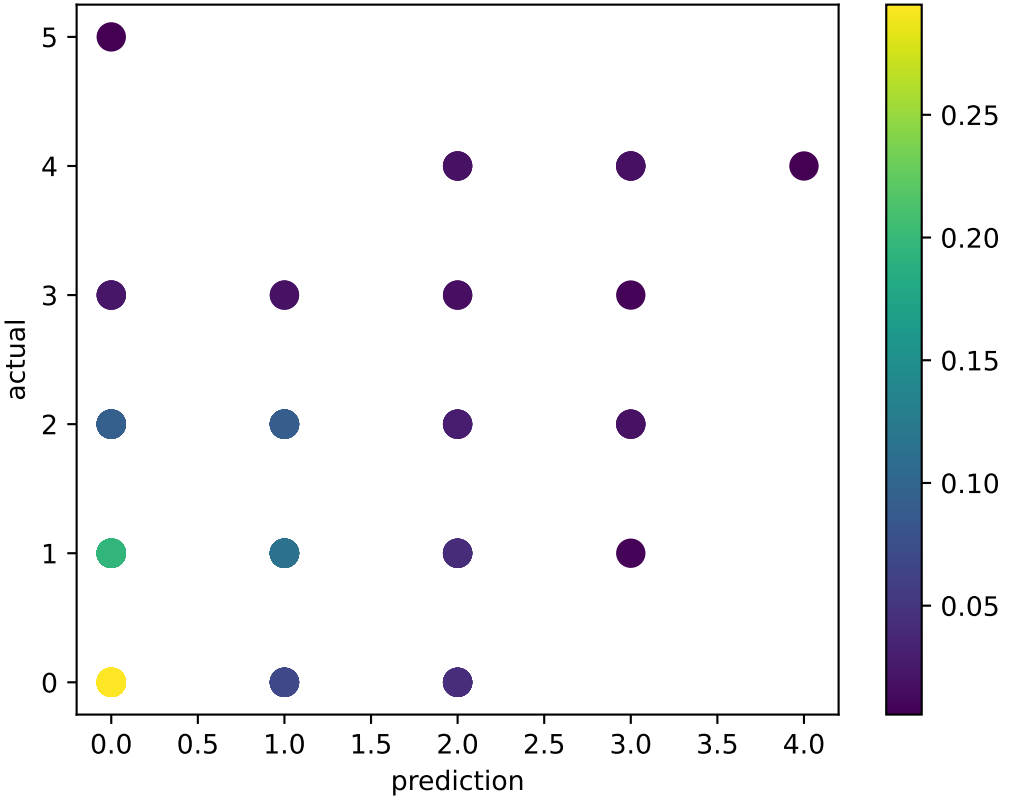

actual
prediction
0
1
2
3
4
5
6
7
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.12
0.10
0.08
0.06
0.04
0.02

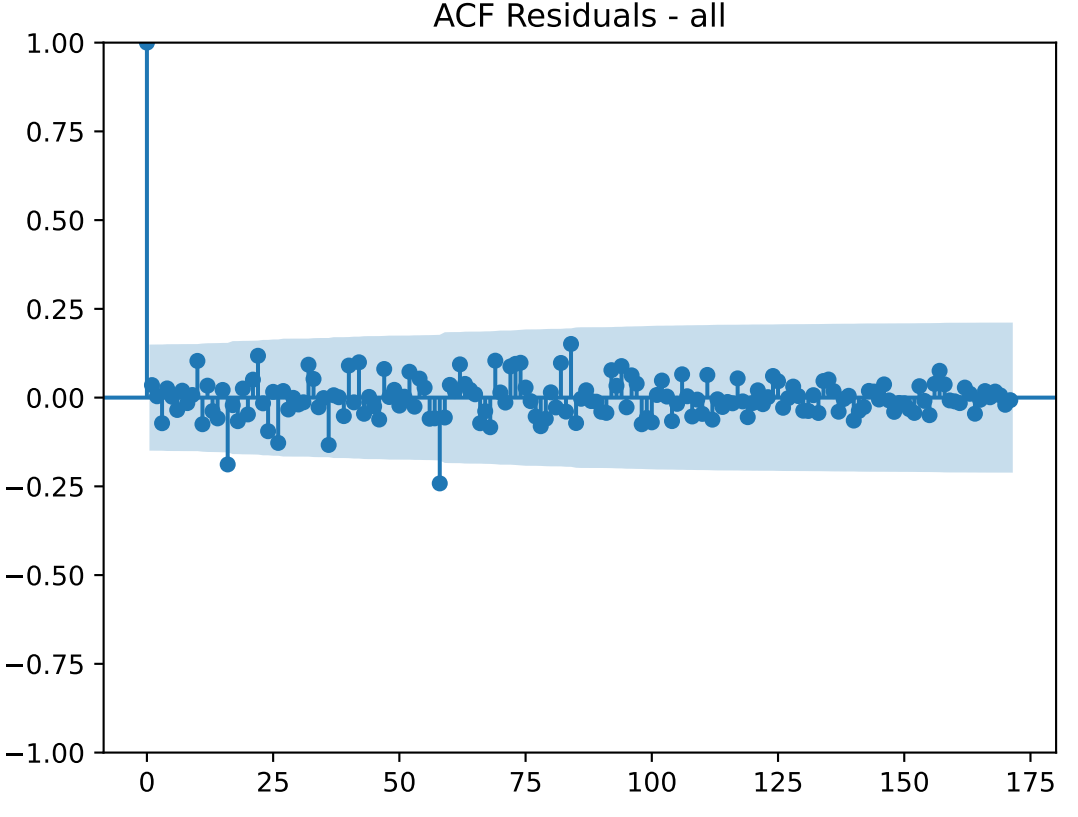

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

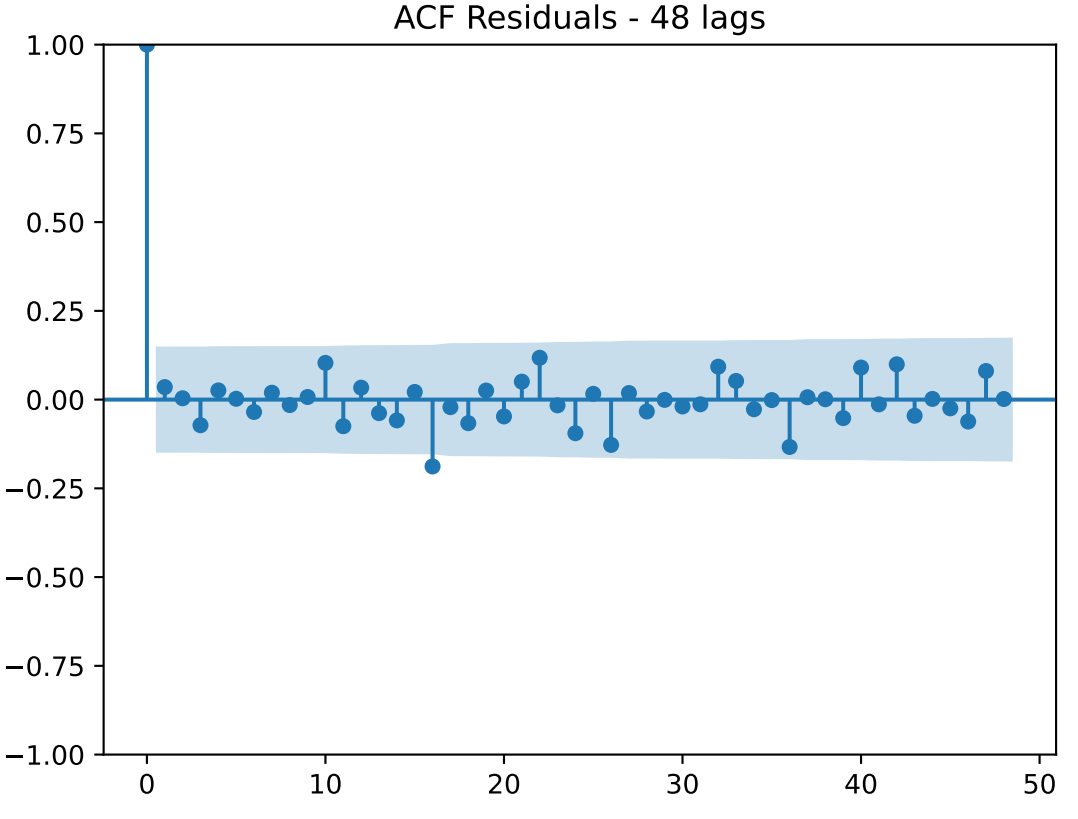

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

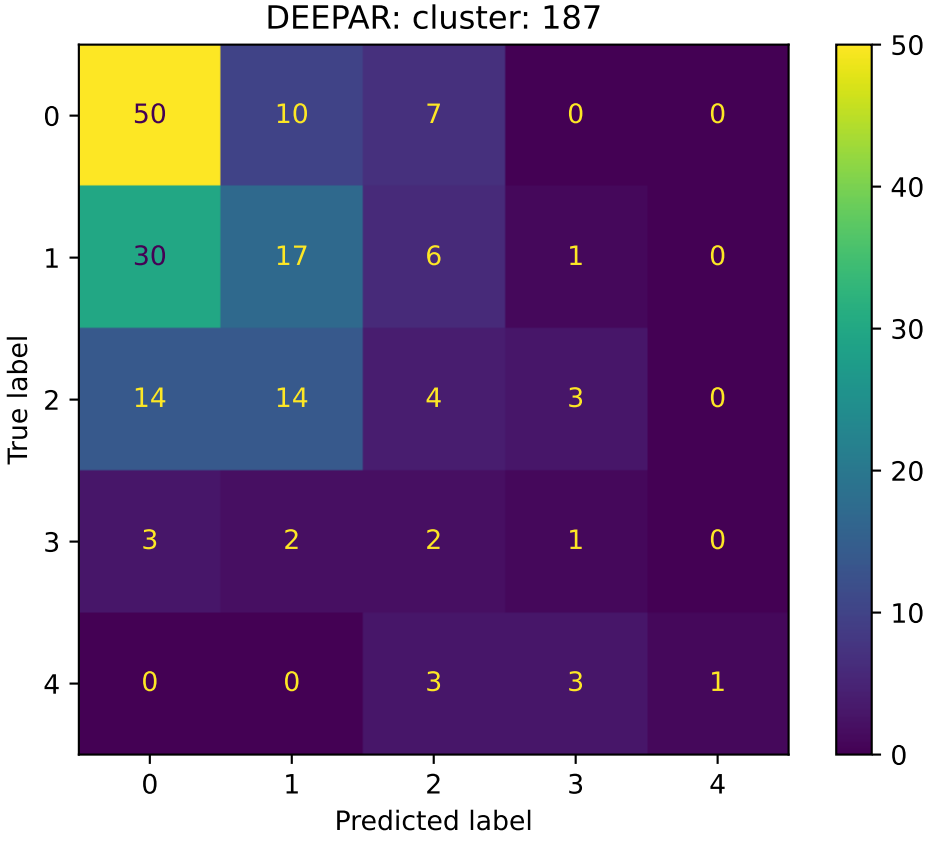

DEEPAR: cluster: 186
True label
Predicted label
0 1 2 3 4 5 6
32 12 2 1 0 0 0
16 13 9 5 1 0 0
7 15 8 5 1 0 0
1 6 6 8 1 0 0
0 6 2 5 1 0 0
0 0 1 3 1 0 0
0 0 1 0 1 0 0
30 25 20 15 10 5 0

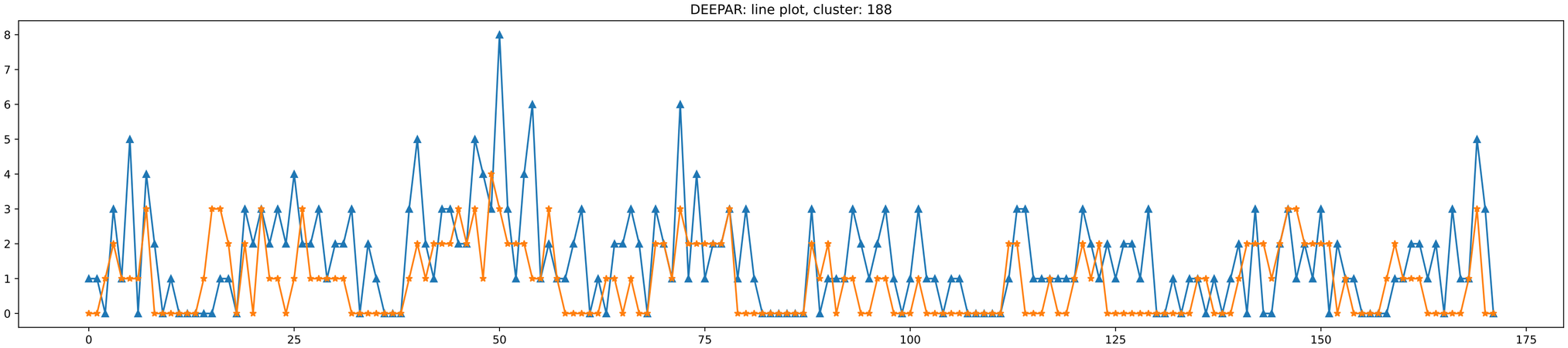

DEEPAR: line plot, cluster: 187
0
1
2
3
4
5
0
25
50
75
100
125
150
175

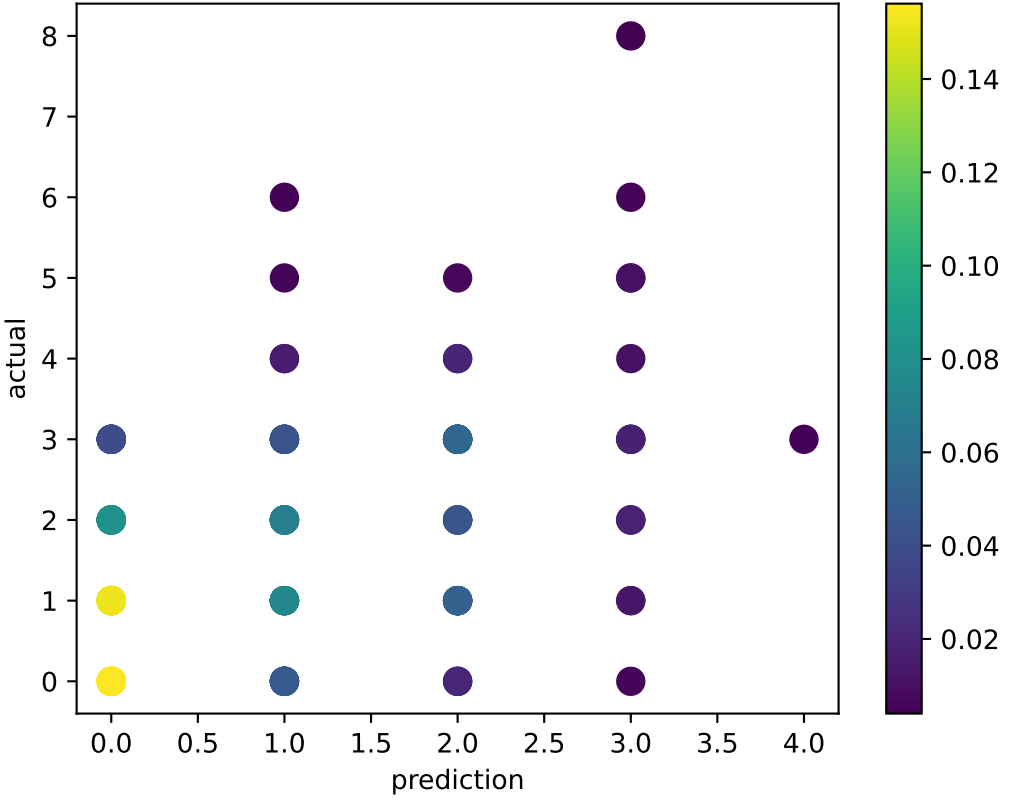

actual
prediction
0
1
2
3
4
5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.25
0.20
0.15
0.10
0.05

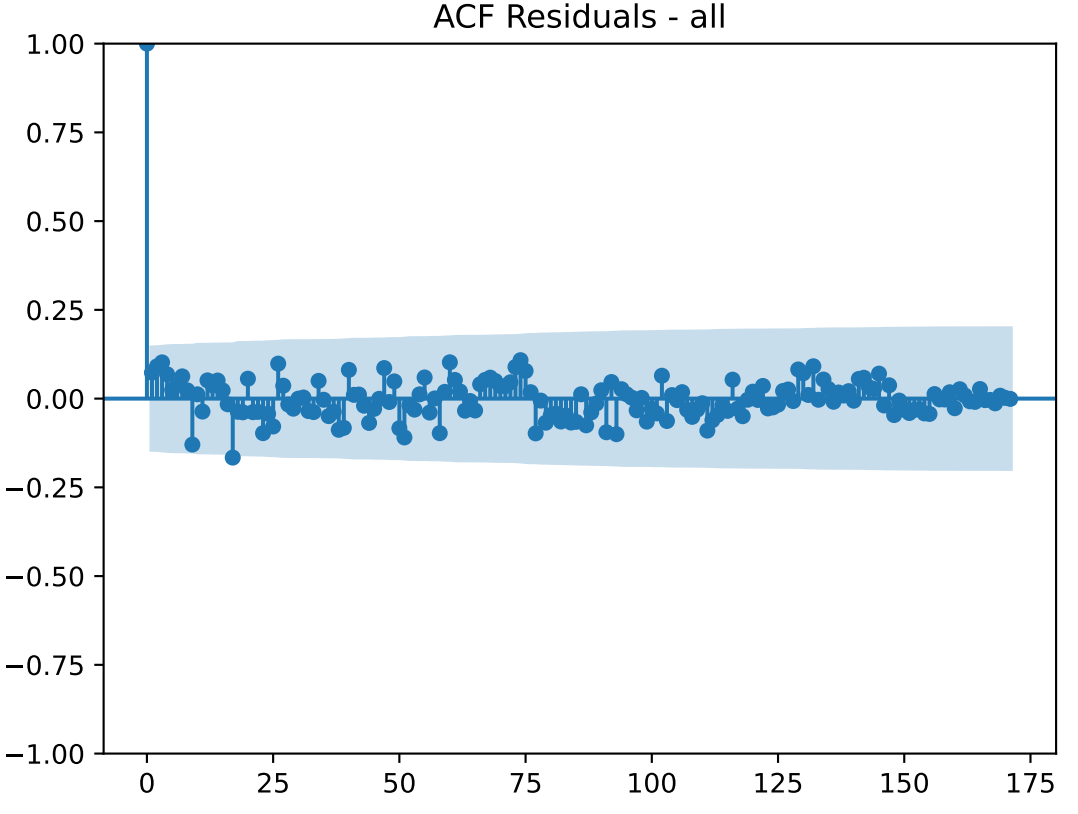

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

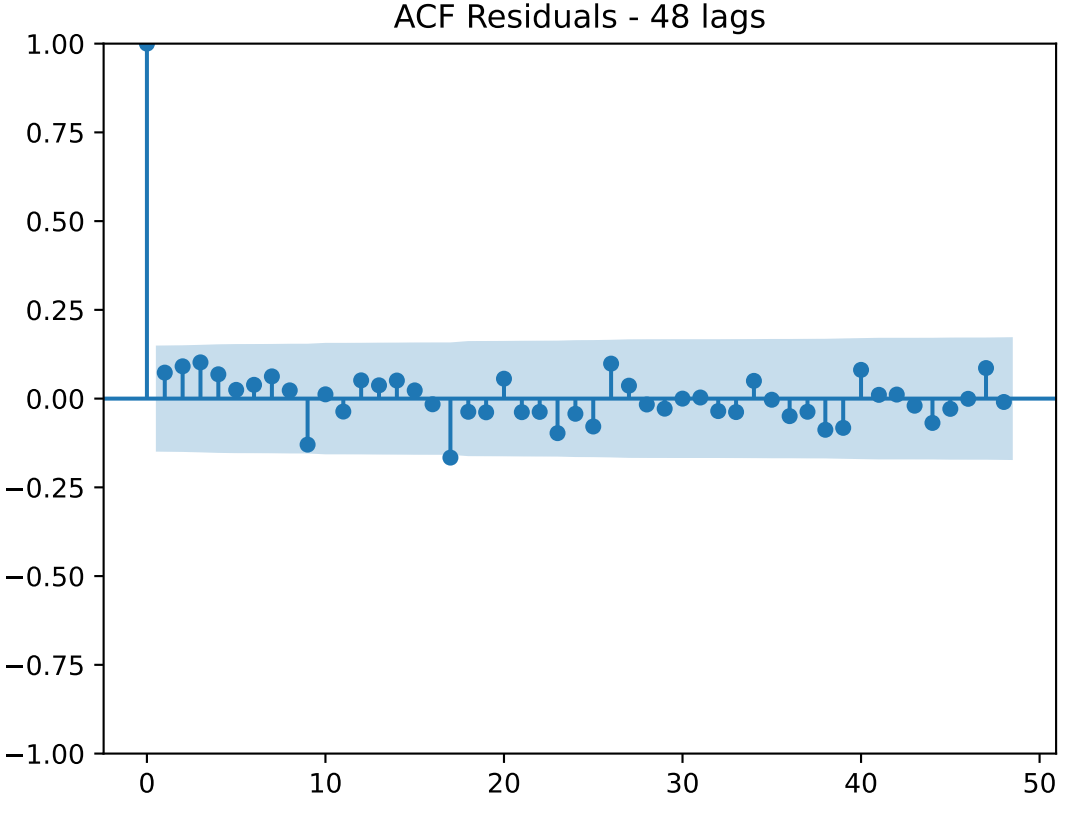

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

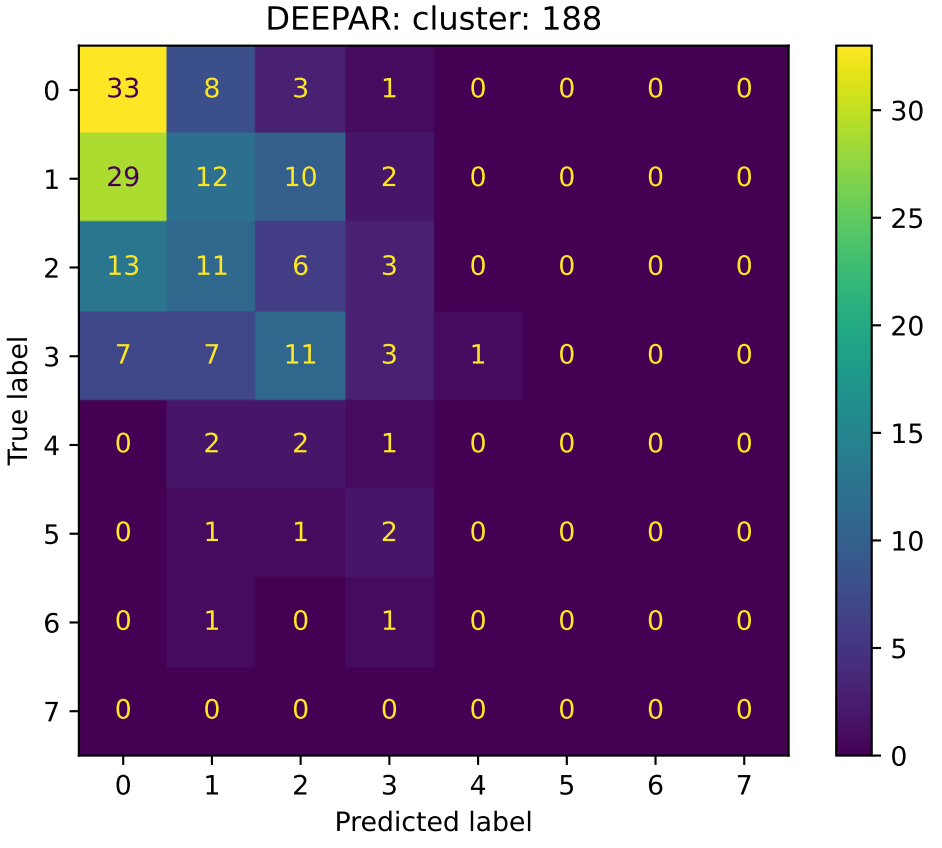

DEEPAR: cluster: 187
True label
Predicted label
0
1
2
3
4
50
10
7
0
0
30
17
6
1
0
14
14
4
3
0
3
2
2
1
0
0
0
3
3
1
50
40
30
20
10
0

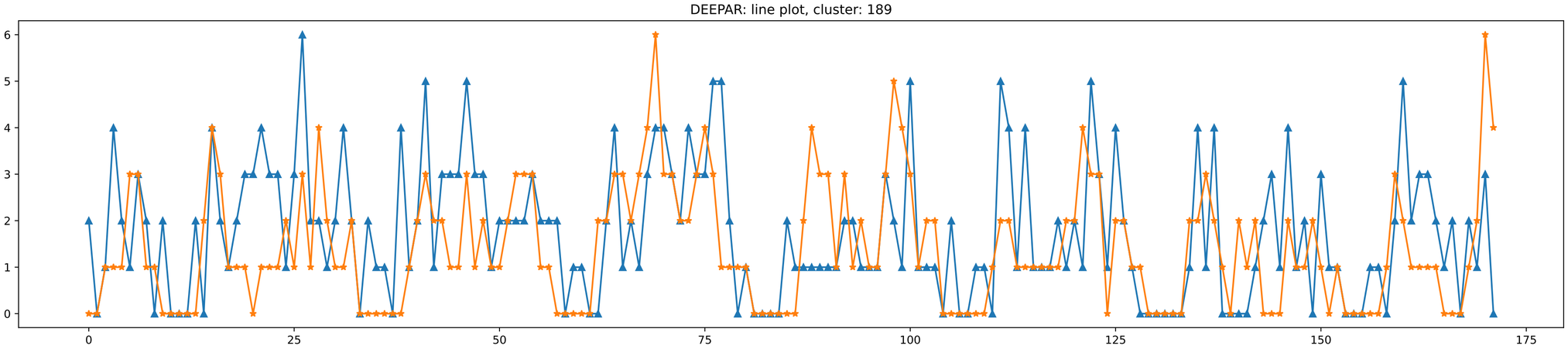

DEEPAR: line plot, cluster: 188
8
7
6
5
4
3
2
1
0
0
25
50
75
100
125
150
175

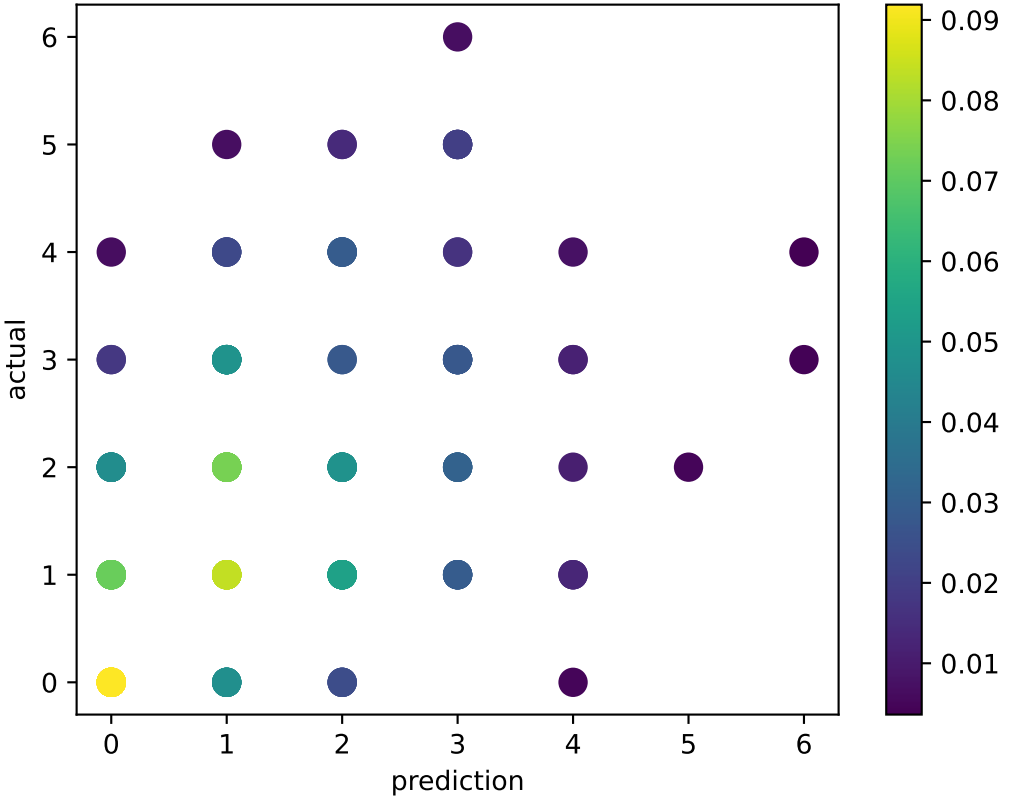

actual
prediction
0
1
2
3
4
5
6
7
8
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.14
0.12
0.10
0.08
0.06
0.04
0.02

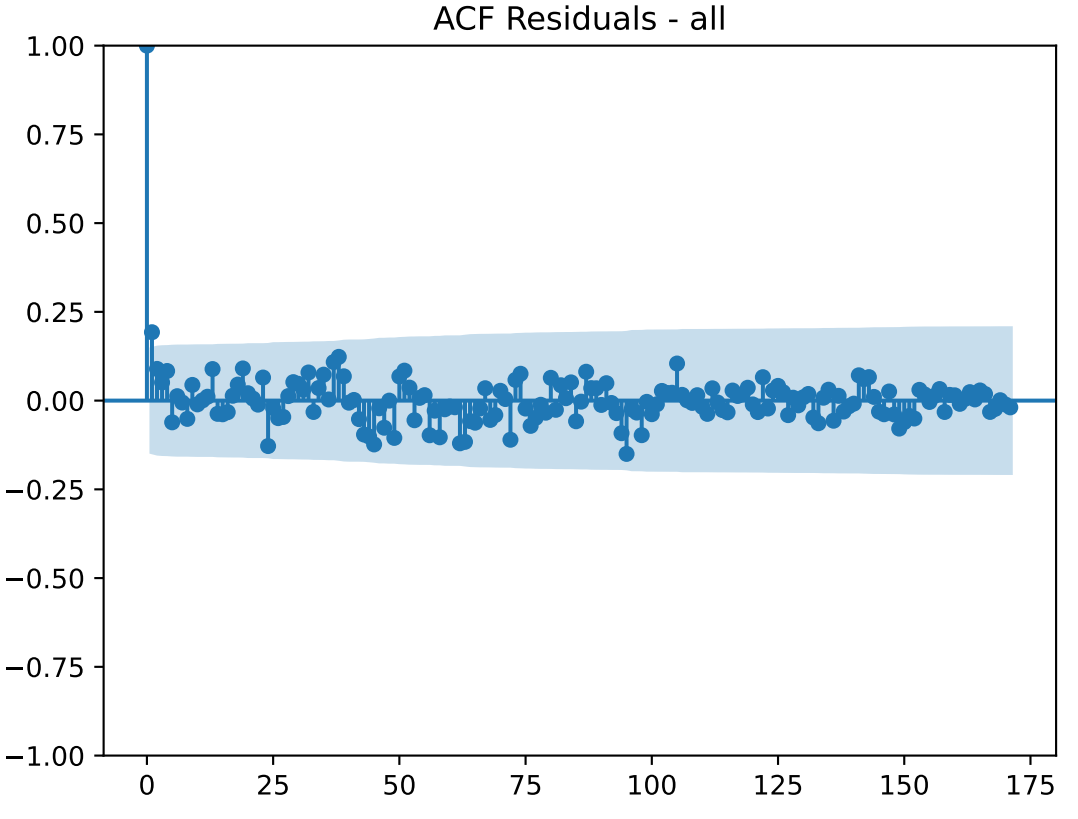

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

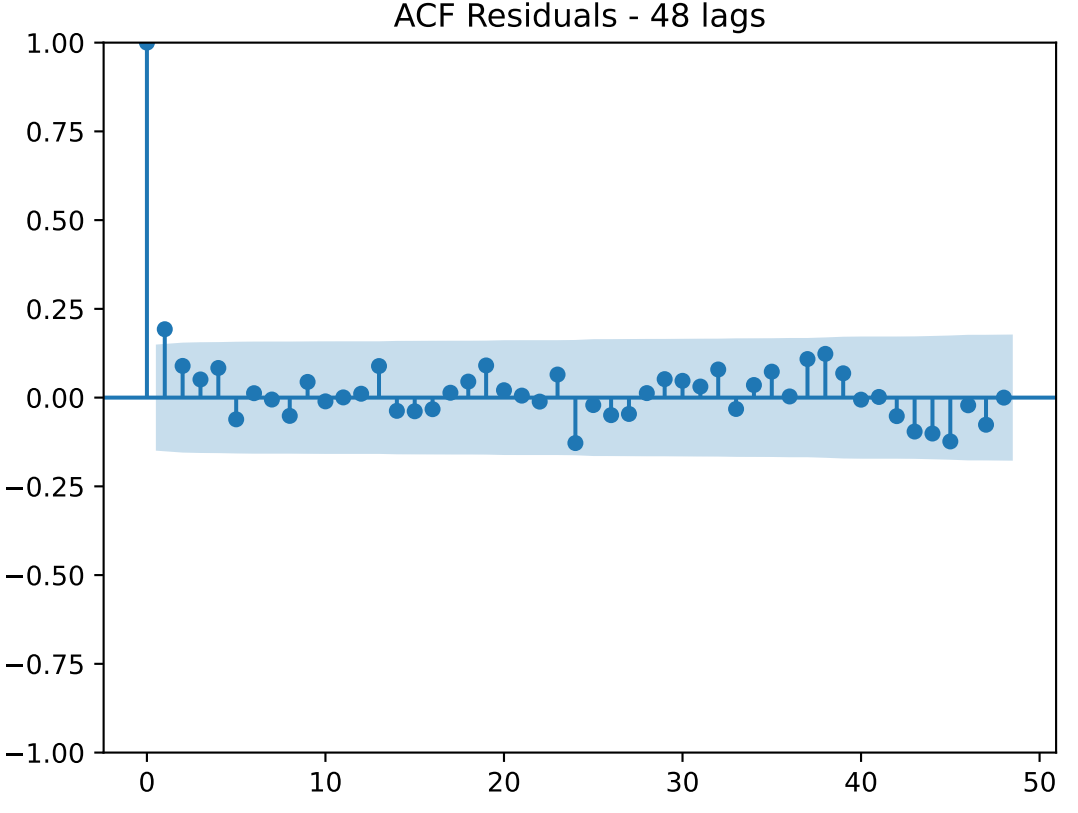

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

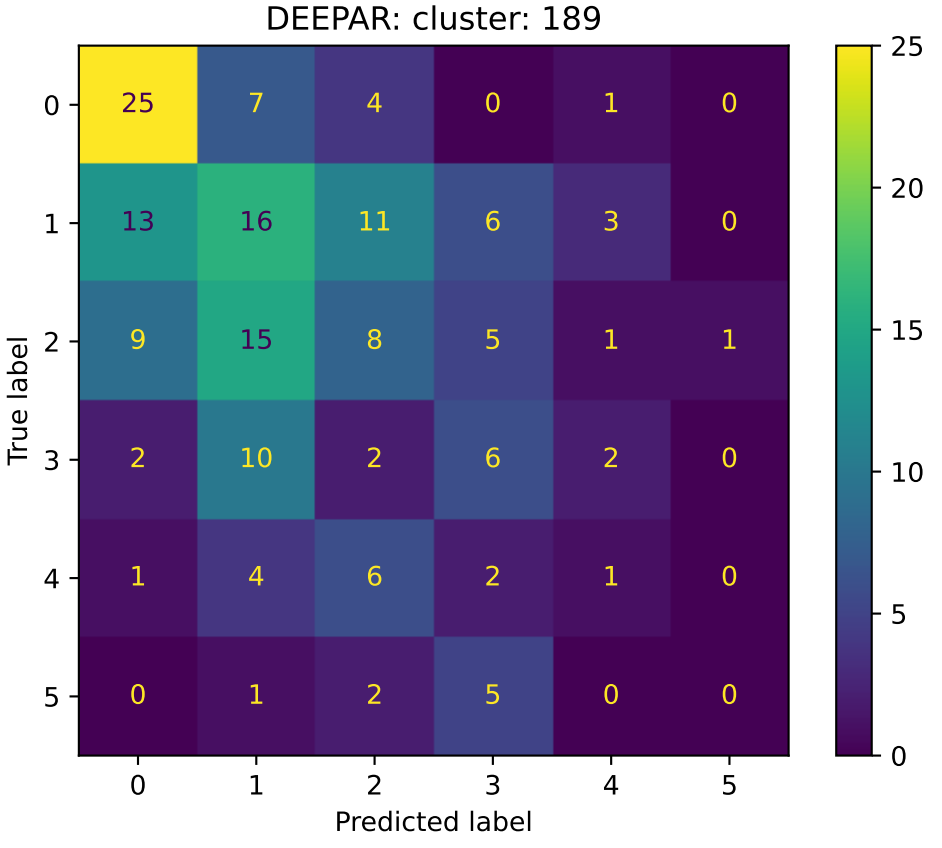

DEEPAR: cluster: 188
True label
Predicted label
0 1 2 3 4 5 6 7
33 8 3 1 0 0 0 0
29 12 10 2 0 0 0 0
13 11 6 3 0 0 0 0
7 7 11 3 1 0 0 0
0 2 2 1 0 0 0 0
0 1 1 2 0 0 0 0
0 1 0 1 0 0 0 0
0 0 0 0 0 0 0 0
30
25
20
15
10
5
0

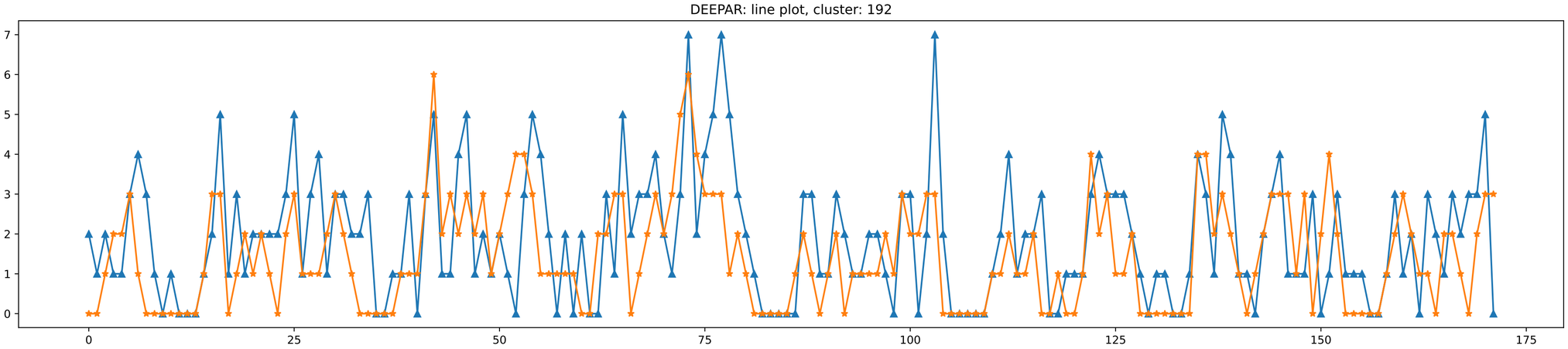

DEEPAR: line plot, cluster: 189
0
1
2
3
4
5
6
0
25
50
75
100
125
150
175

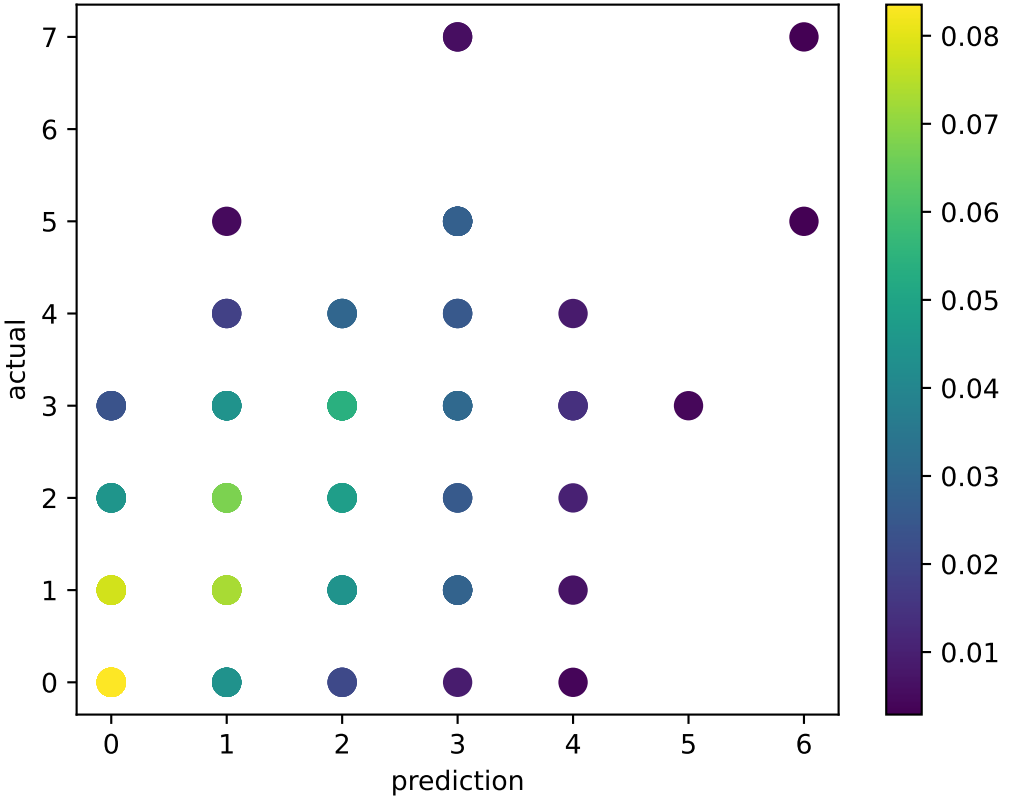

actual
prediction
0
1
2
3
4
5
6
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

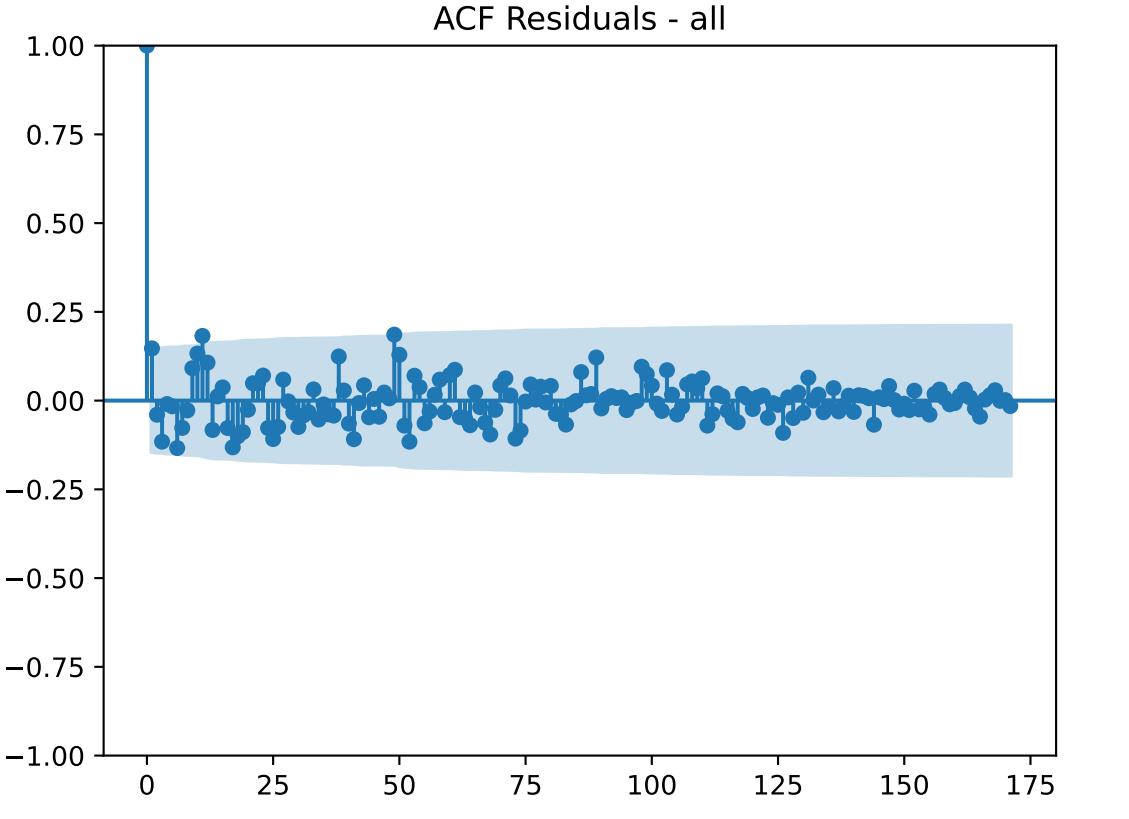

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

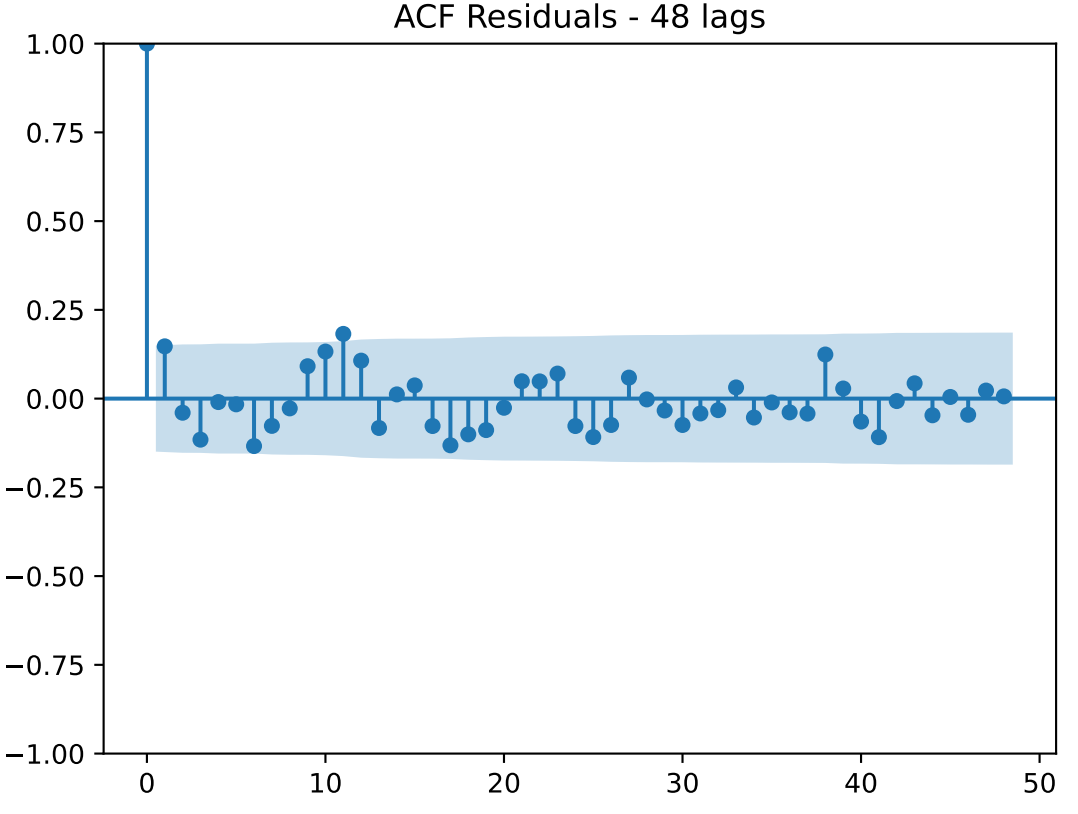

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

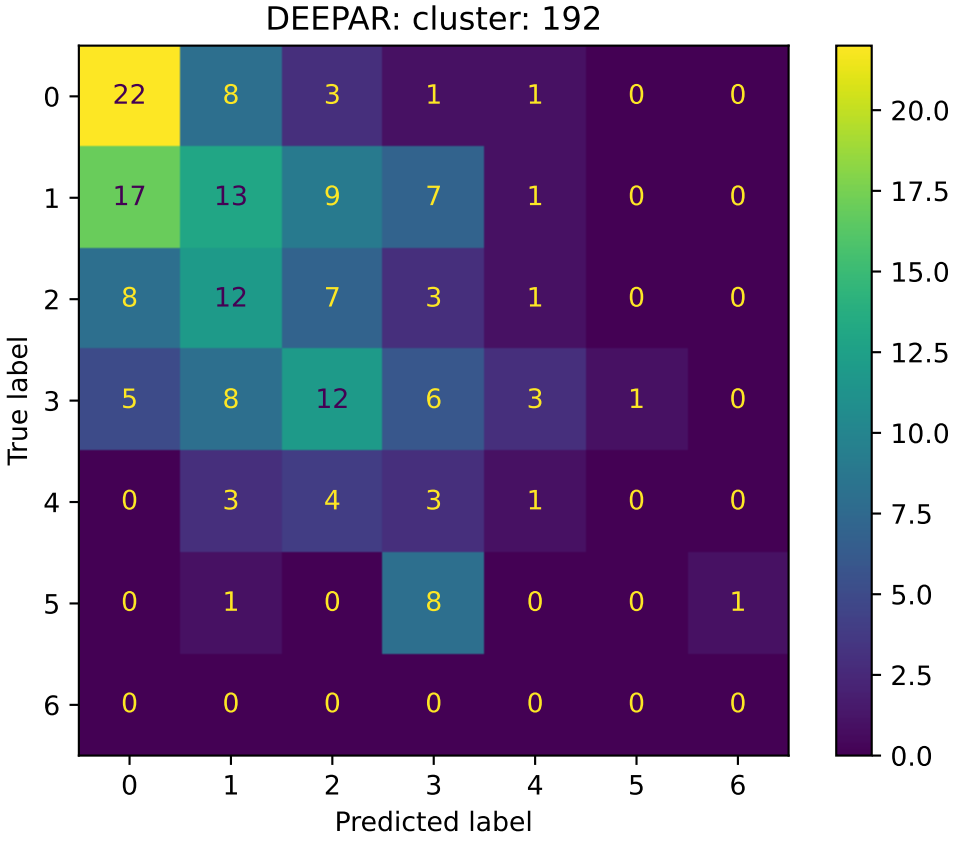

DEEPAR: cluster: 189
True label
Predicted label
0
1
2
3
4
5
25
7
4
0
1
0
13
16
11
6
3
0
9
15
8
5
1
1
2
10
2
6
2
0
1
4
6
2
1
0
0
1
2
5
0
0
25
20
15
10
5
0

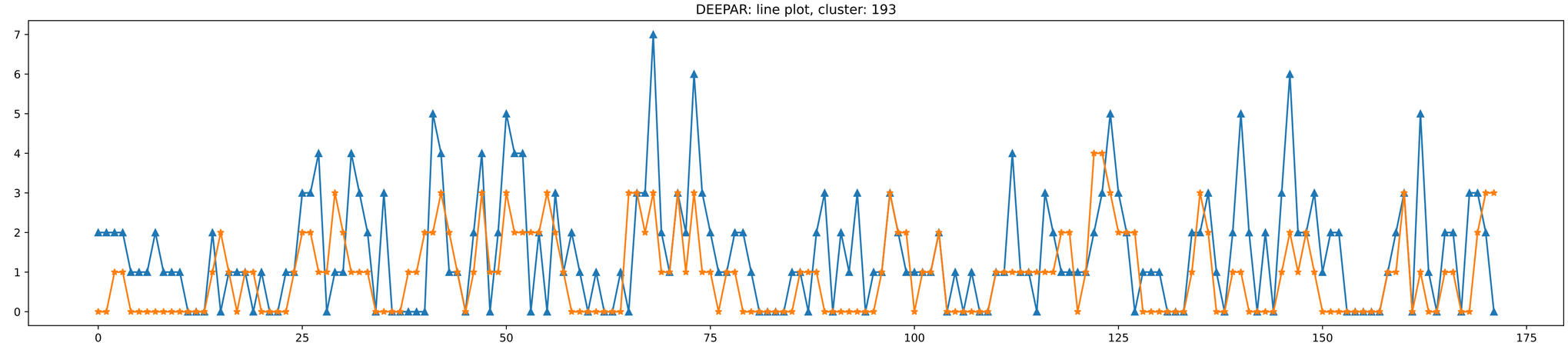

DEEPAR: line plot, cluster: 192
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175

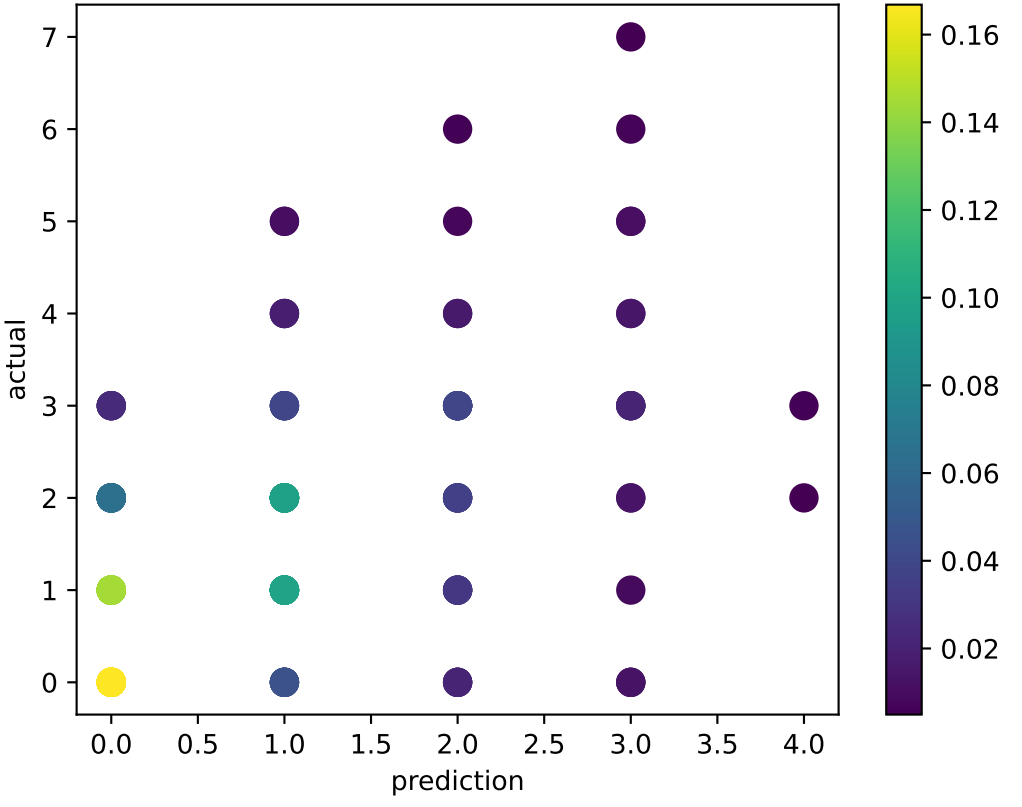

actual
prediction
0
1
2
3
4
5
6
7
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

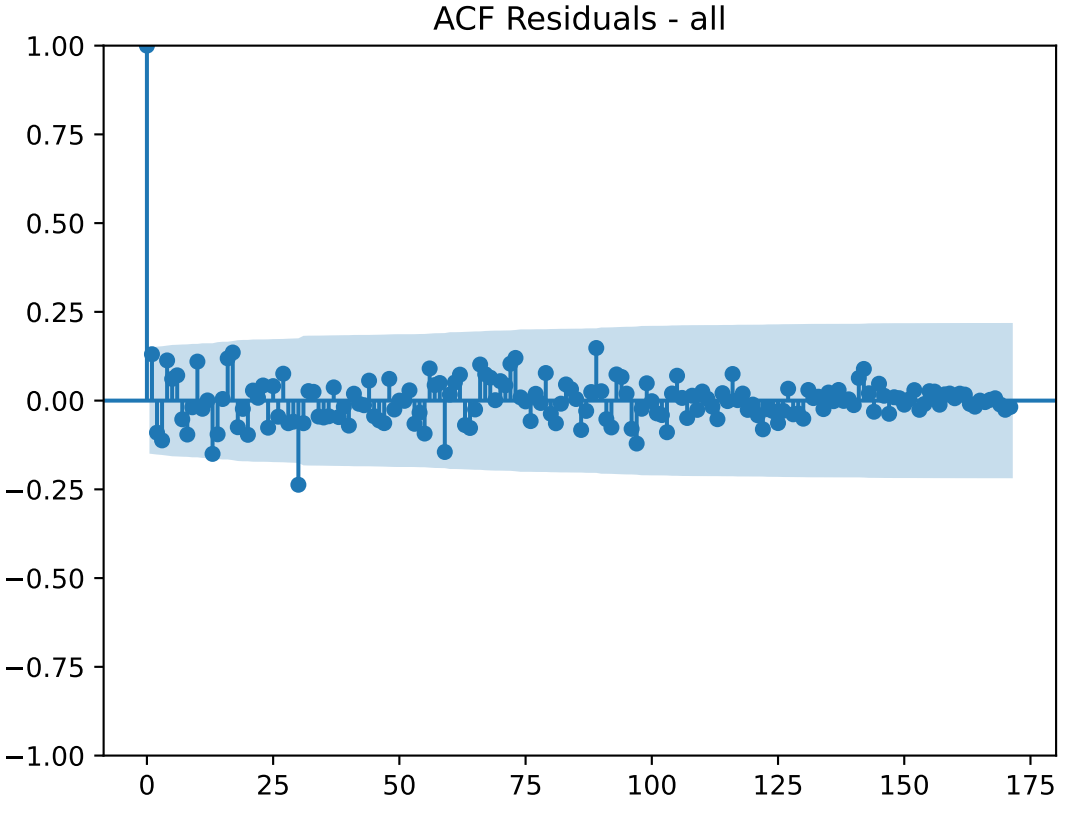

ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175

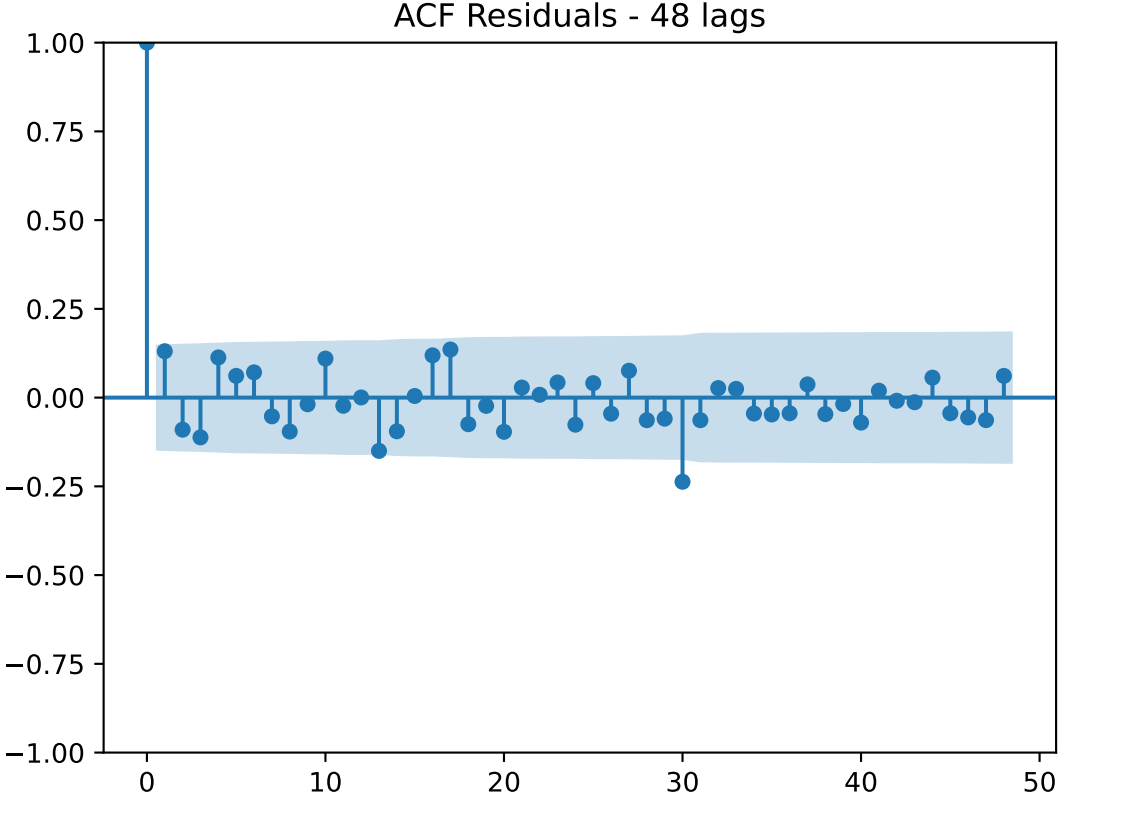

ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50

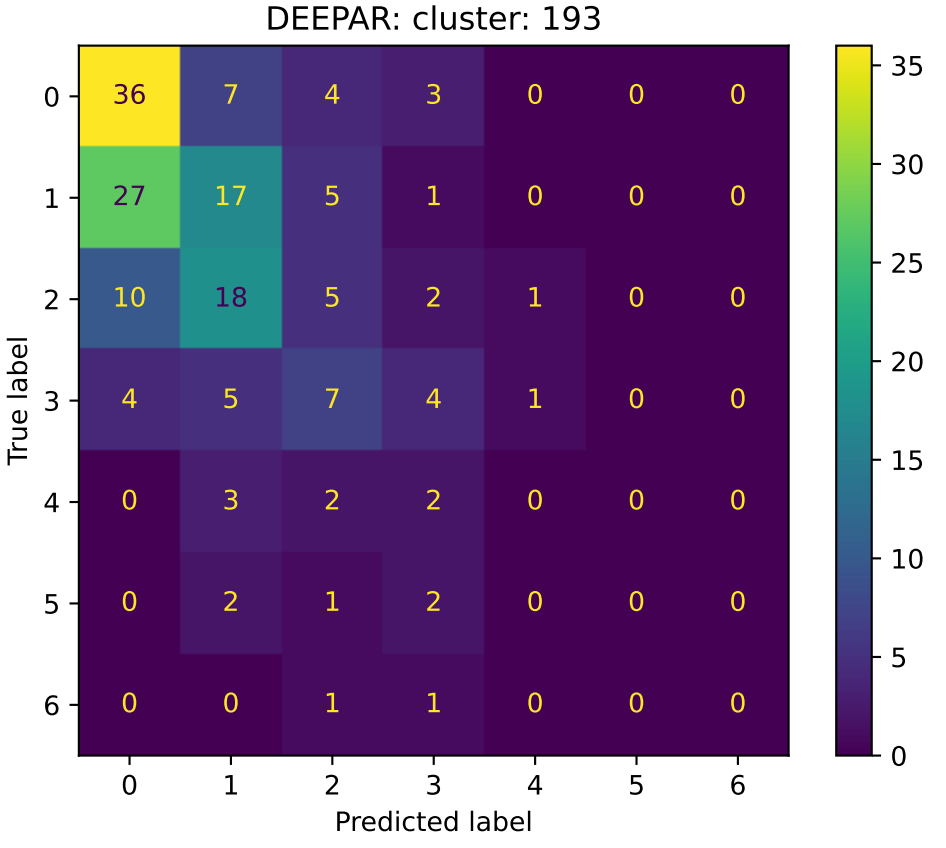

DEEPAR: cluster: 192
True label
Predicted label
0 1 2 3 4 5 6
22 8 3 1 1 0 0
17 13 9 7 1 0 0
8 12 7 3 1 0 0
5 8 12 6 3 1 0
0 3 4 3 1 0 0
0 1 0 8 0 0 1
0 0 0 0 0 0 0
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0

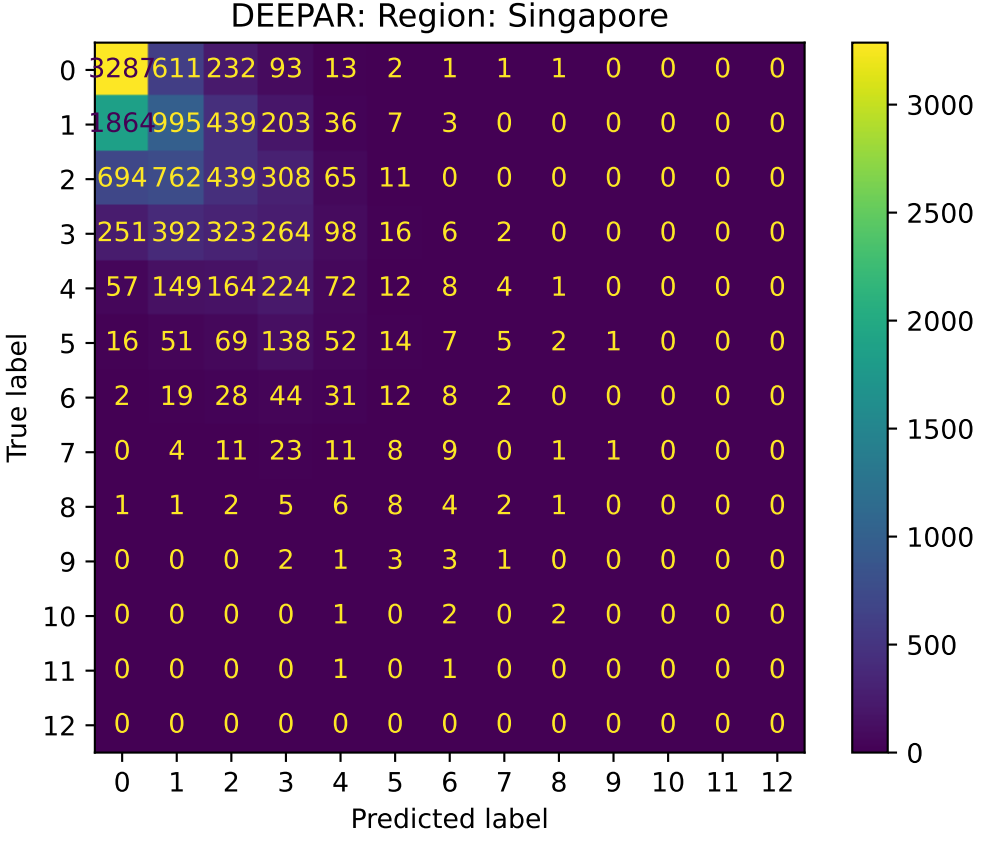

DEEPAR: line plot, cluster: 193
0
1
2
3
4
5
6
7
0
25
50
75
100
125
150
175


actual
prediction
0
1
2
3
4
5
6
7
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02


ACF Residuals - all
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
25
50
75
100
125
150
175


ACF Residuals - 48 lags
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
10
20
30
40
50


DEEPAR: cluster: 193
True label
Predicted label
0 1 2 3 4 5 6
36 7 4 3 0 0 0
27 17 5 1 0 0 0
10 18 5 2 1 0 0
4 5 7 4 1 0 0
0 3 2 2 0 0 0
0 2 1 2 0 0 0
0 0 1 1 0 0 0
35 30 25 20 15 10 5 0


DEEPAR: Region: Singapore
True label
Predicted label
0 3287 611 232 93 13 2 1 1 1 0 0 0 0
1 1864 995 439 203 36 7 3 0 0 0 0 0 0
2 694 762 439 308 65 11 0 0 0 0 0 0 0
3 251 392 323 264 98 16 6 2 0 0 0 0 0
4 57 149 164 224 72 12 8 4 1 0 0 0 0
5 16 51 69 138 52 14 7 5 2 1 0 0 0
6 2 19 28 44 31 12 8 2 0 0 0 0 0
7 0 4 11 23 11 8 9 0 1 1 0 0 0
8 1 1 2 5 6 8 4 2 1 0 0 0 0
9 0 0 0 2 1 3 3 1 0 0 0 0 0
10 0 0 0 0 1 0 2 0 2 0 0 0 0
11 0 0 0 0 1 0 1 0 0 0 0 0 0
12 0 0 0 0 0 0 0 0 0 0 0 0 0
0 1 2 3 4 5 6 7 8 9 10 11 12
3000
2500
2000
1500
1000
500
0