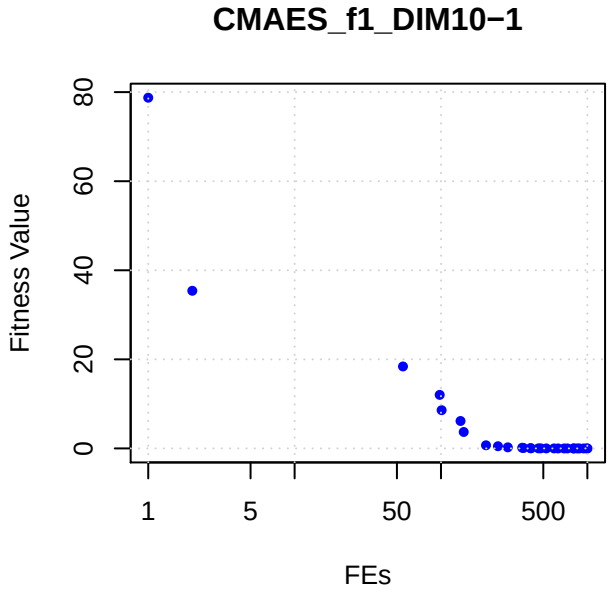
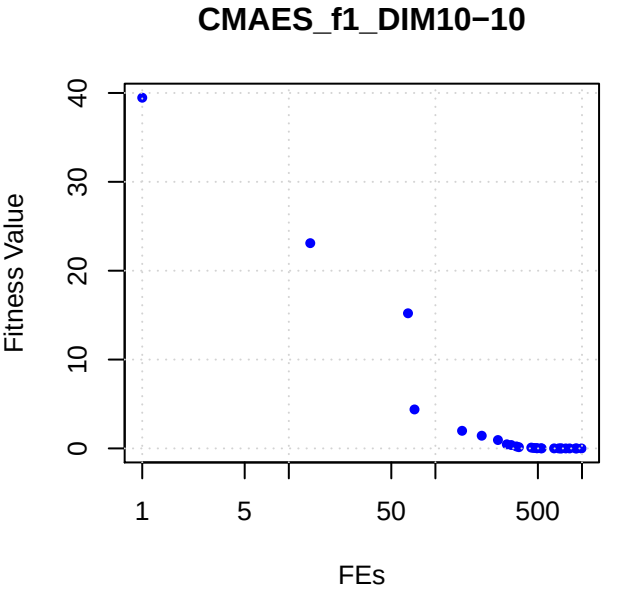
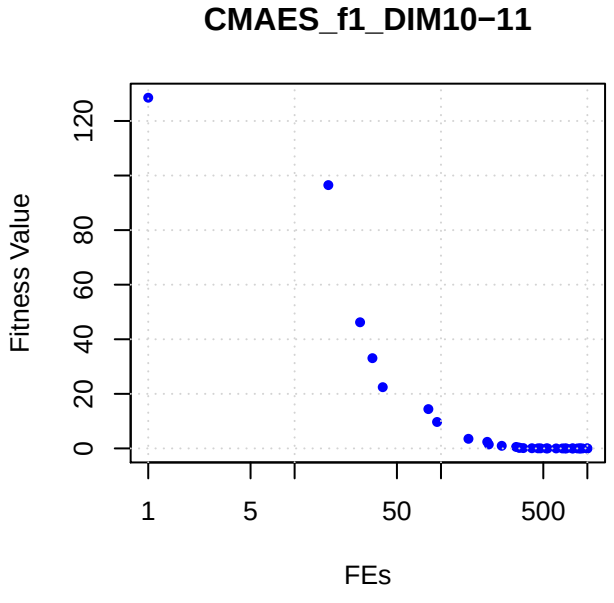

CMAES_f1_DIM10−1
Fitness Value
0
20
40
60
80
1
5
50
500
FEs


CMAES_f1_DIM10−10
Fitness Value
0
10
20
30
40
1
5
50
500
FEs


CMAES_f1_DIM10−11
Fitness Value
0
20
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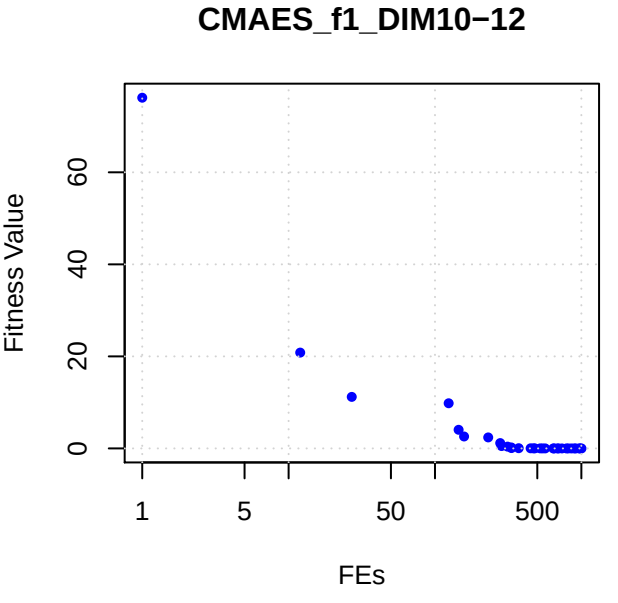
60
80
120
1
5
50
500
FEs


CMAES_f1_DIM10−12
Fitness Value
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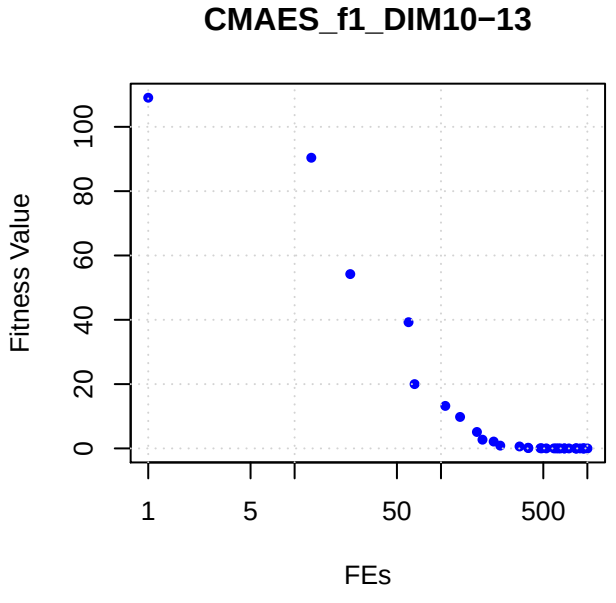
1
5
50
500
FEs


CMAES_f1_DIM10−13
Fitness Value
0
20
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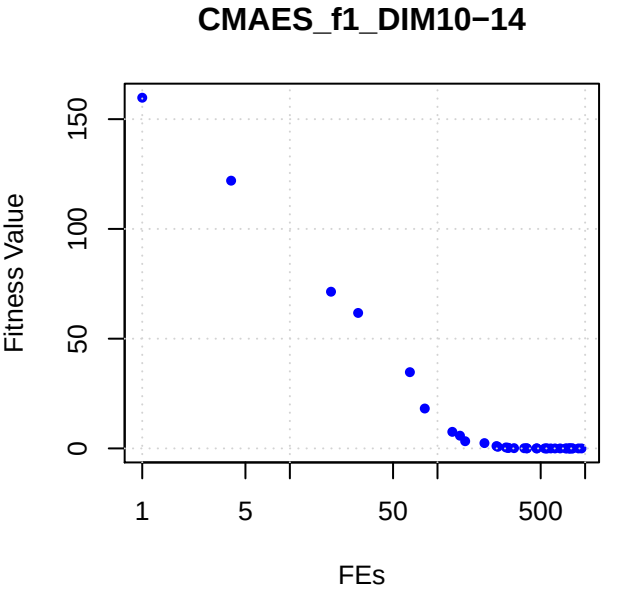
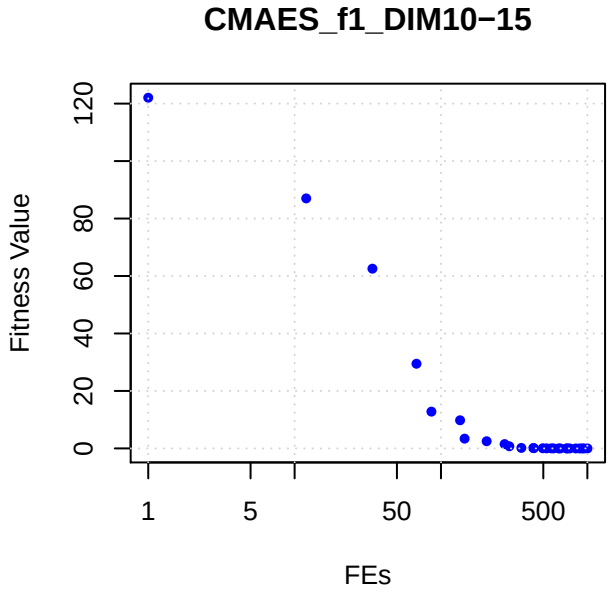
60
80
100
1
5
50
500
FEs


CMAES_f1_DIM10−14
Fitness Value
0
50
100
150
1
5
50
500
FEs


CMAES_f1_DIM10−15
Fitness Value
0
20
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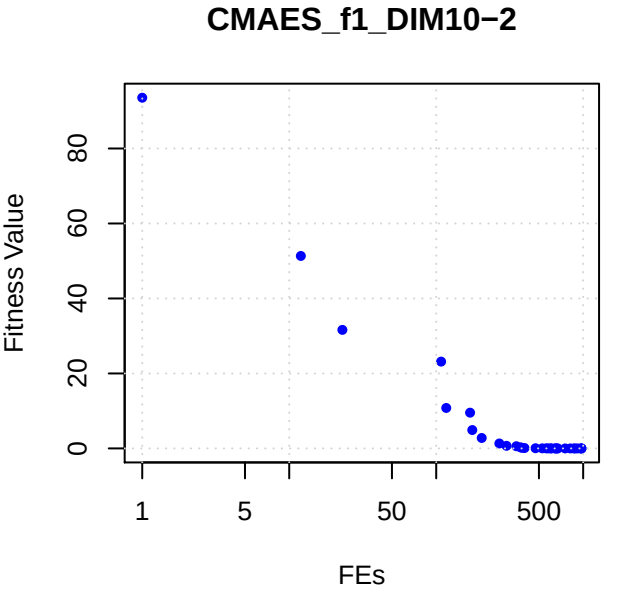
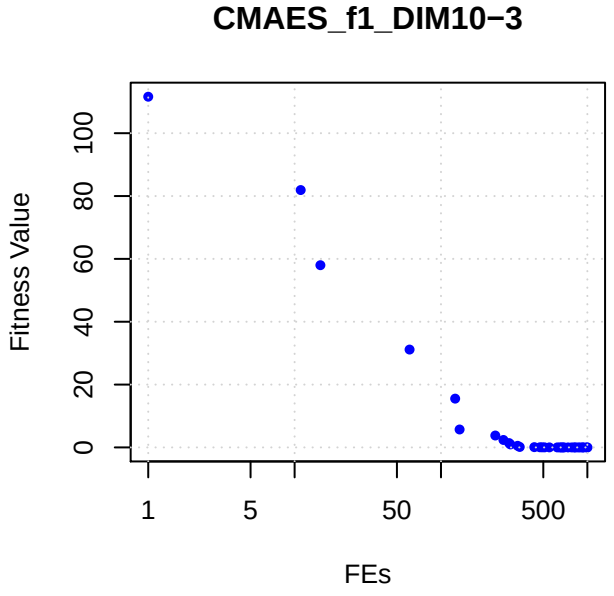
60
80
120
1
5
50
500
FEs


CMAES_f1_DIM10−2
Fitness Value
0
20
40
60
80
1
5
50
500
FEs


CMAES_f1_DIM10−3
Fitness Value
0
20
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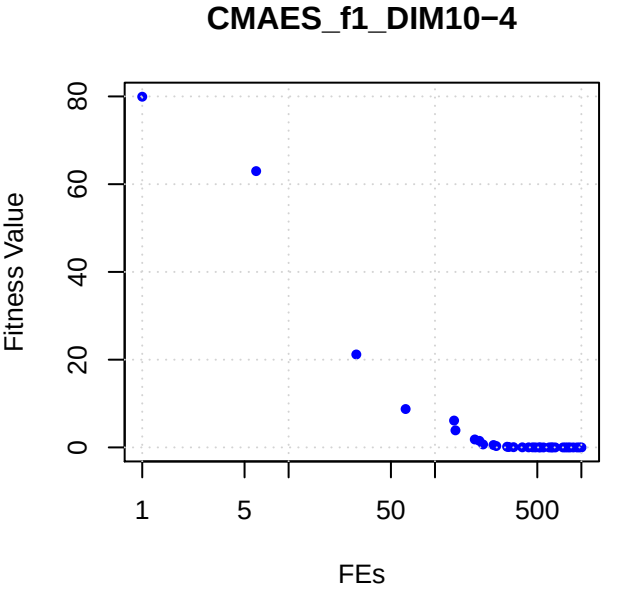
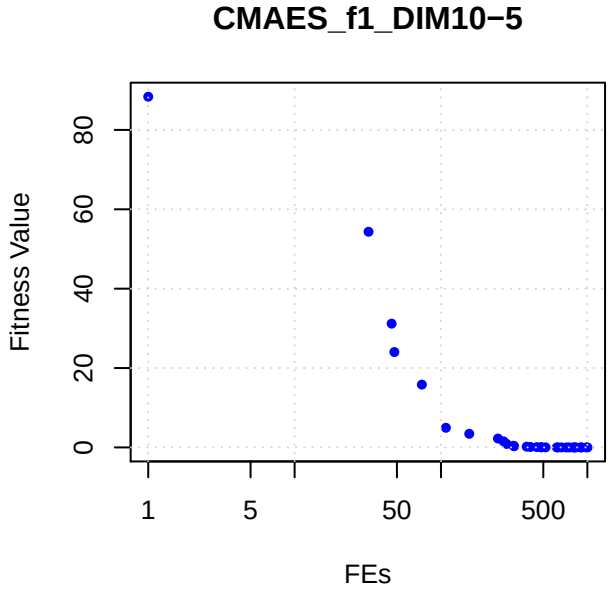
60
80
100
1
5
50
500
FEs


CMAES_f1_DIM10−4
Fitness Value
0
20
40
60
80
1
5
50
500
FEs


CMAES_f1_DIM10−5
Fitness Value
0
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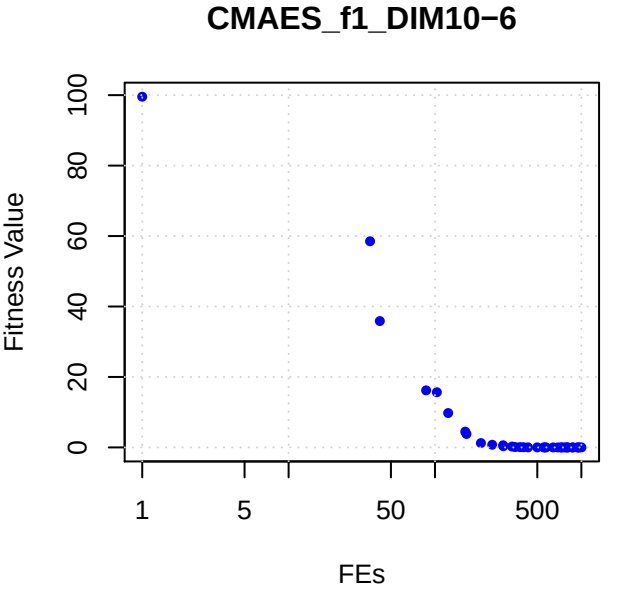
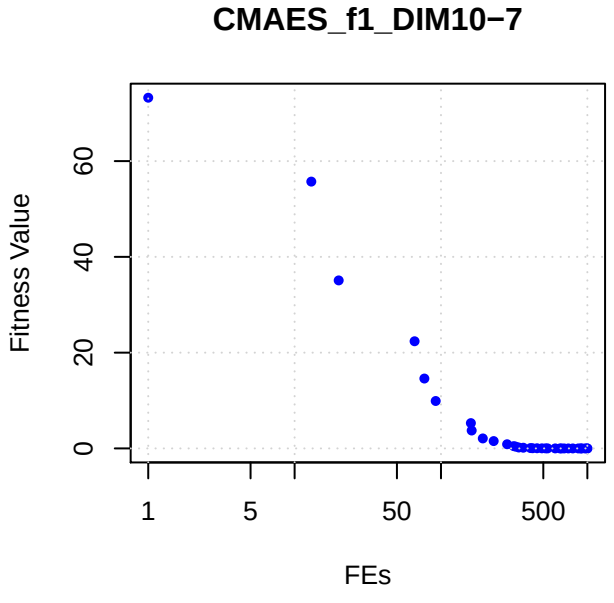
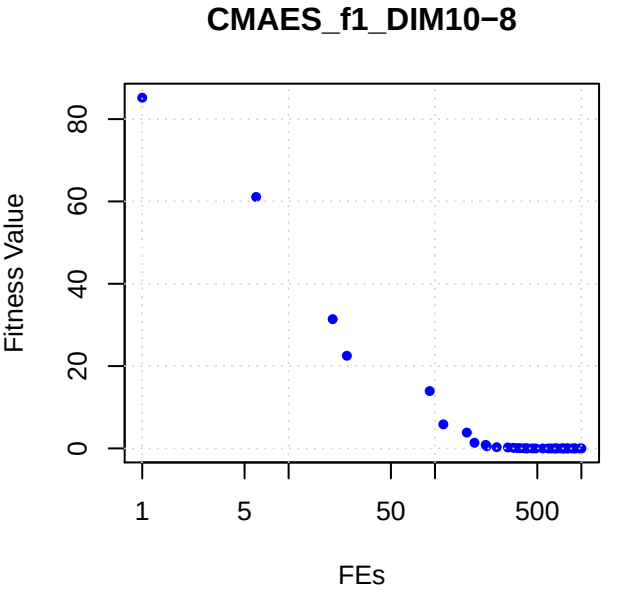
40
60
80
1
5
50
500
FEs


CMAES_f1_DIM10−6
Fitness Value
0
20
40
60
80
100
1
5
50
500
FEs


CMAES_f1_DIM10−7
Fitness Value
0
20
40
60
1
5
50
500
FEs


CMAES_f1_DIM10−8
Fitness Value
0
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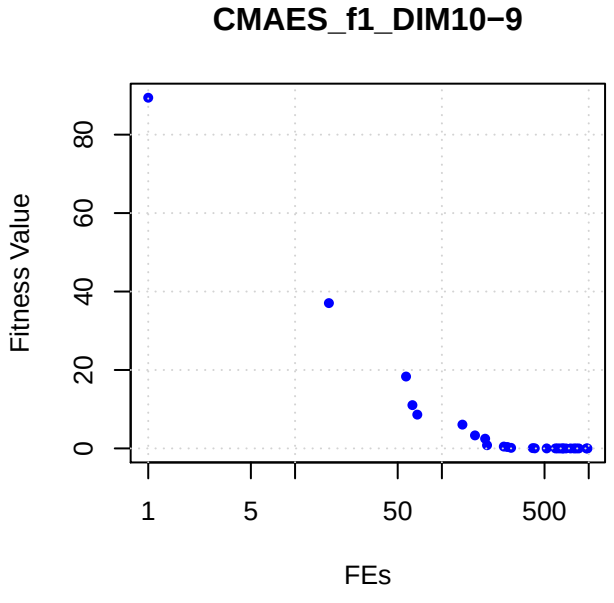
1
5
50
500
FEs


CMAES_f1_DIM10−9
Fitness Value
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1
5
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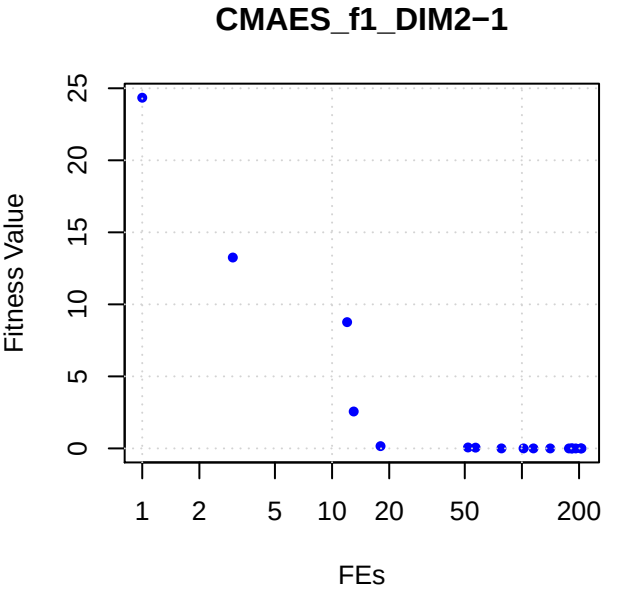
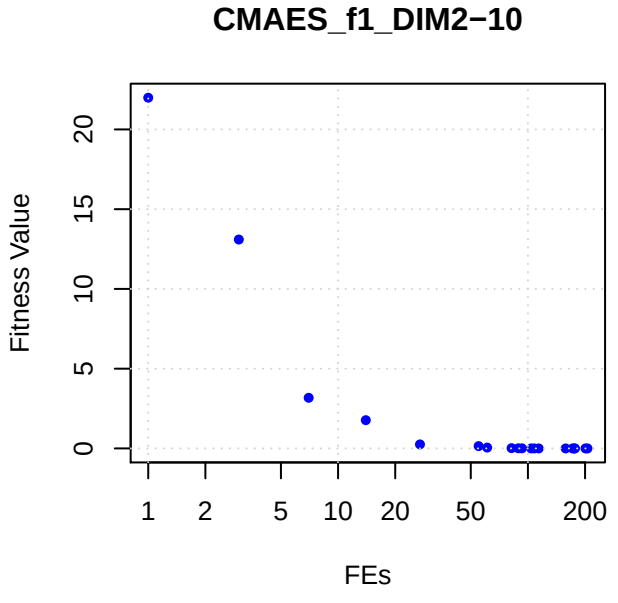
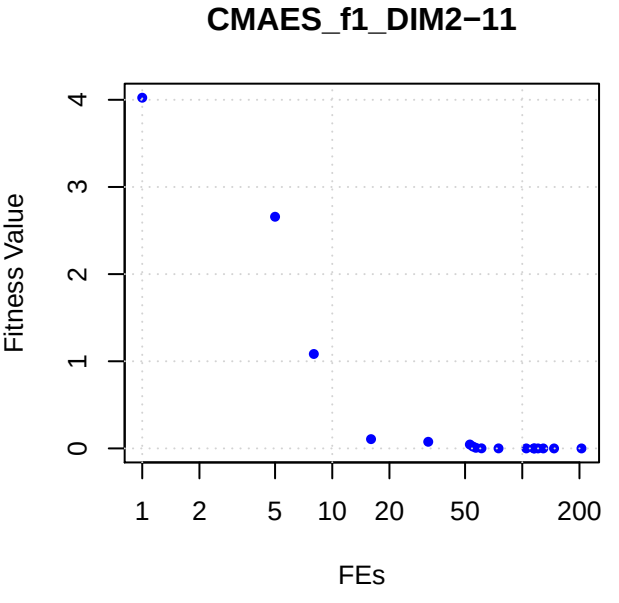
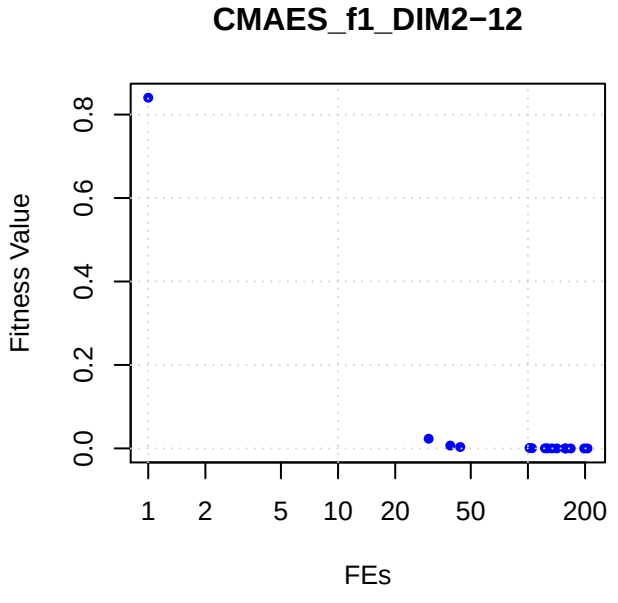
500
FEs


CMAES_f1_DIM2−1
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−10
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−11
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−12
Fitness Value
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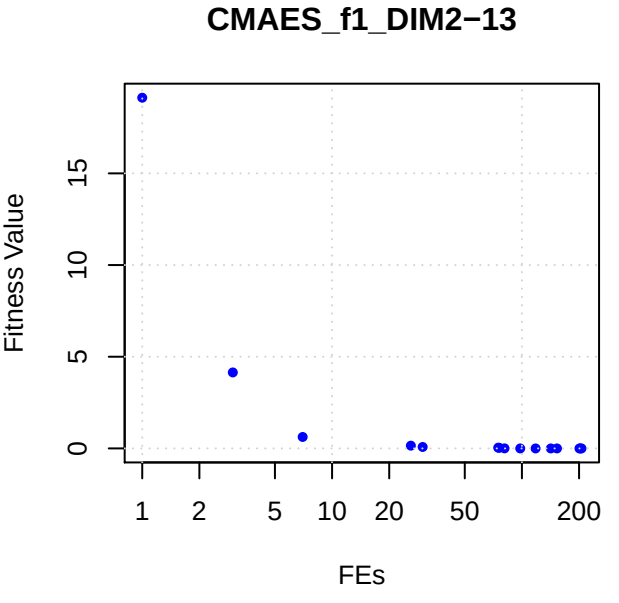
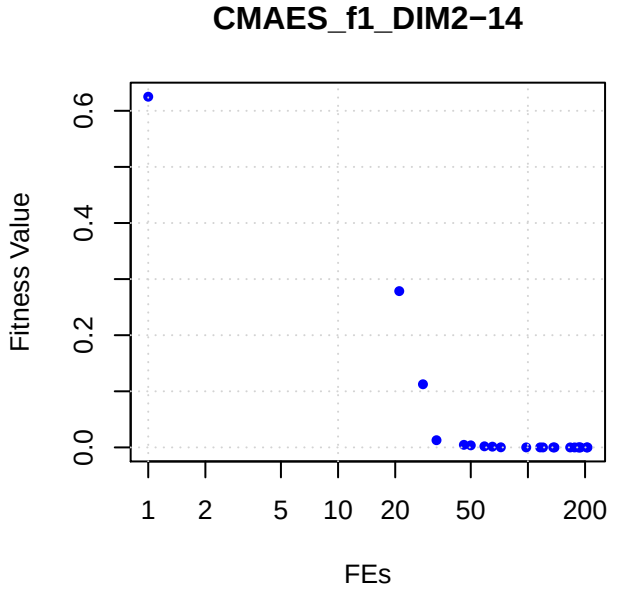
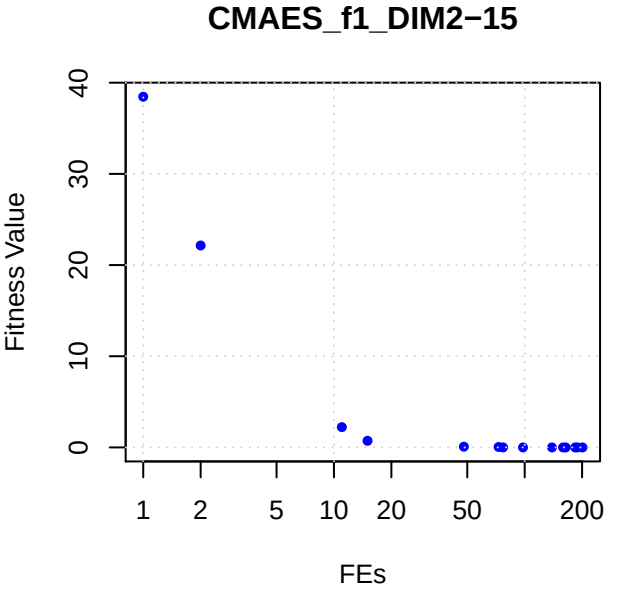
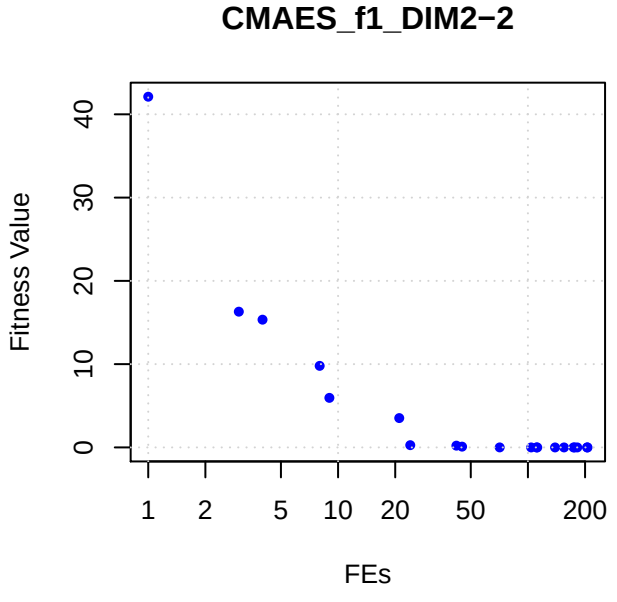
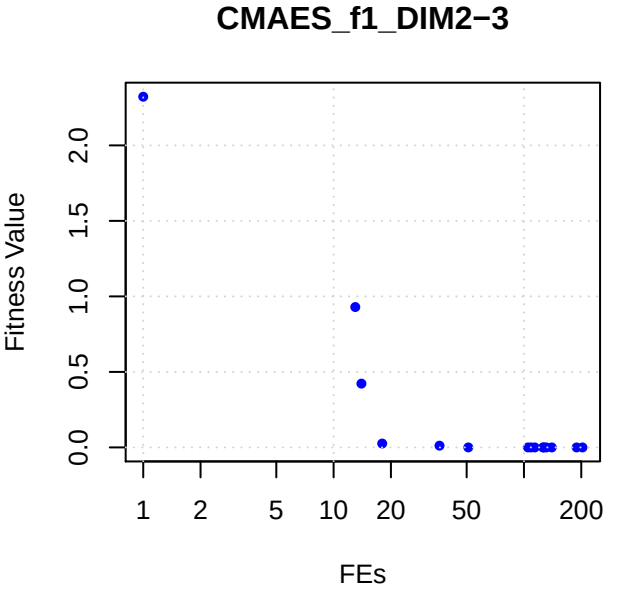
0.2
0.4
0.6
0.8
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−13
Fitness Value
0
5
10
15
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−14
Fitness Value
0.0
0.2
0.4
0.6
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−15
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−2
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−3
Fitness Value
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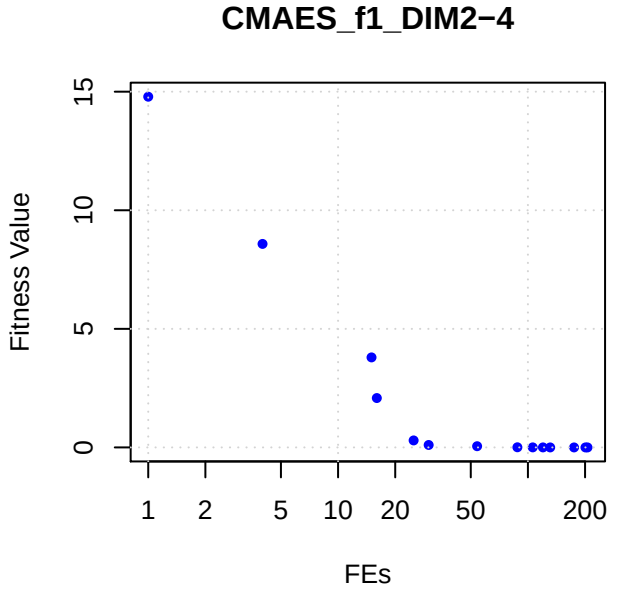
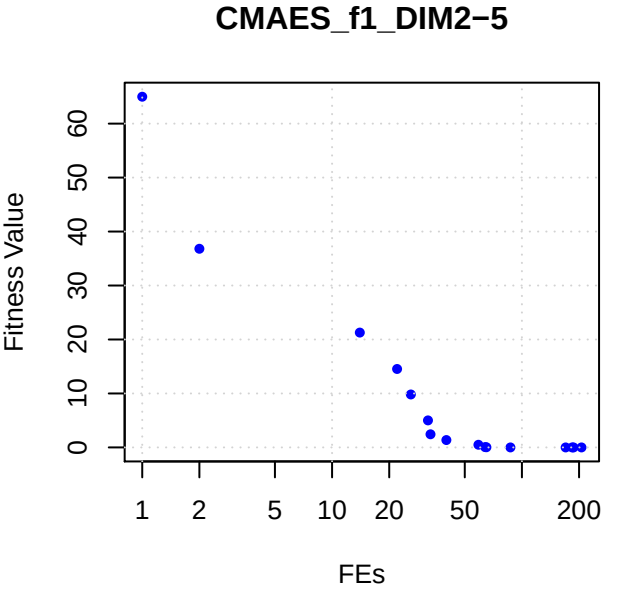
0.5
1.0
1.5
2.0
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−4
Fitness Value
0
5
10
15
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−5
Fitness Value
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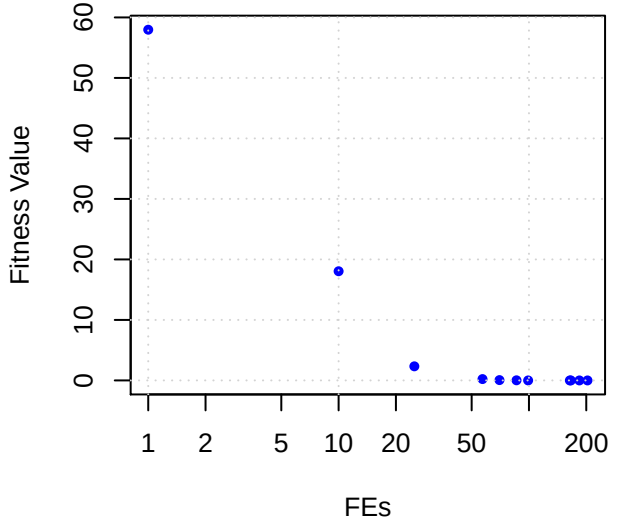
20
30
40
50
60
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−6
Fitness Value
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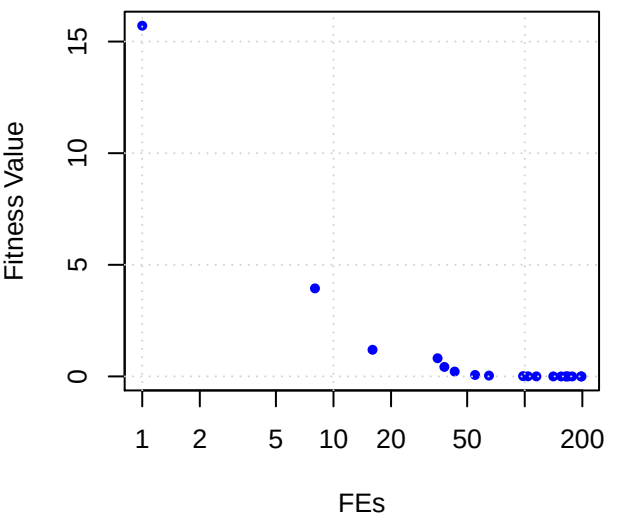
40
50
60
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−7
Fitness Value
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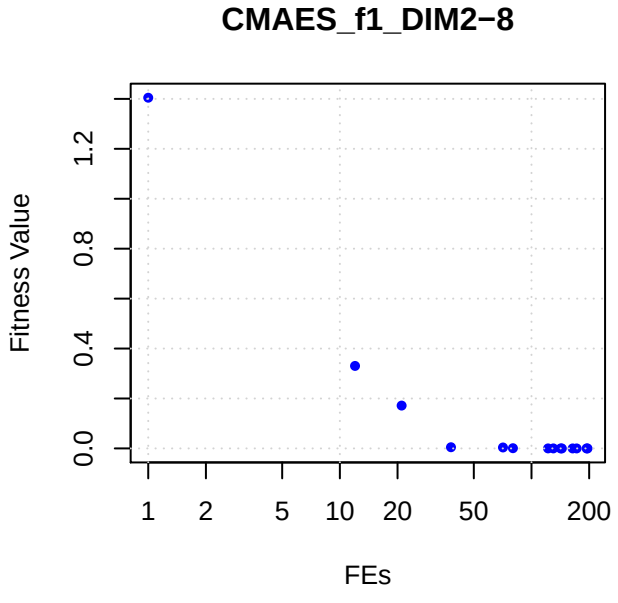
5
10
15
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−8
Fitness Value
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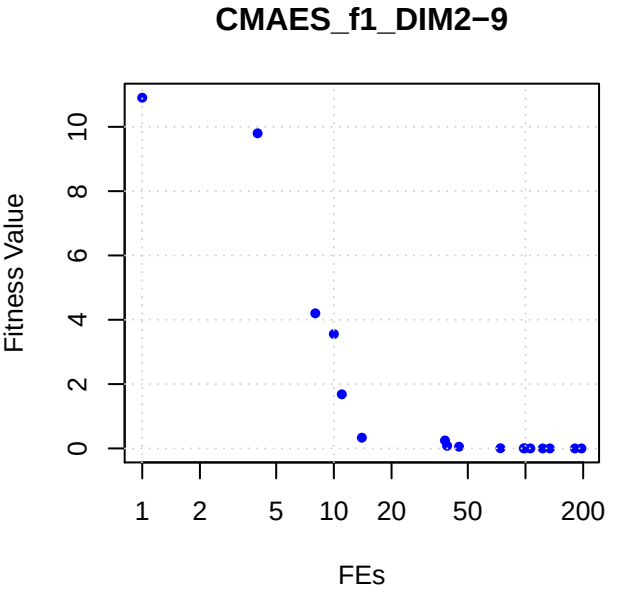
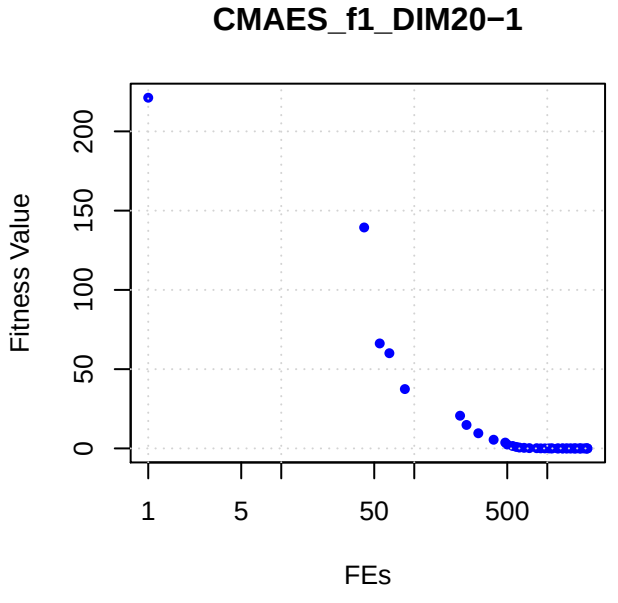
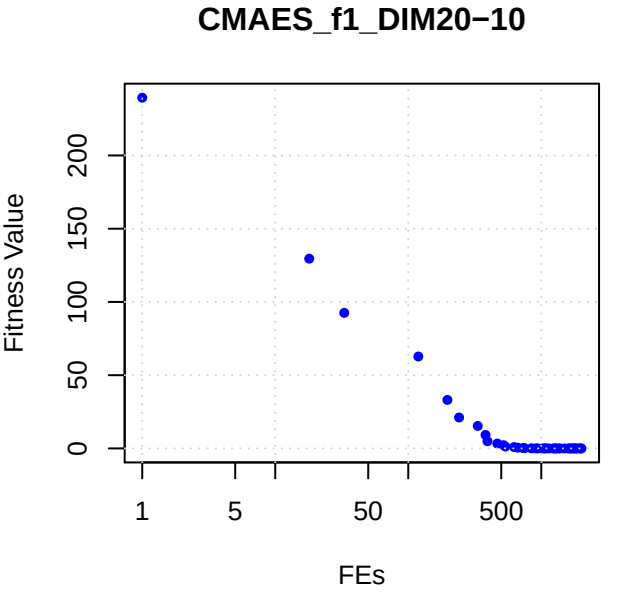
0.4
0.8
1.2
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM2−9
Fitness Value
0
2
4
6
8
10
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM20−1
Fitness Value
0
50
100
150
200
1
5
50
500
FEs


CMAES_f1_DIM20−10
Fitness Value
0
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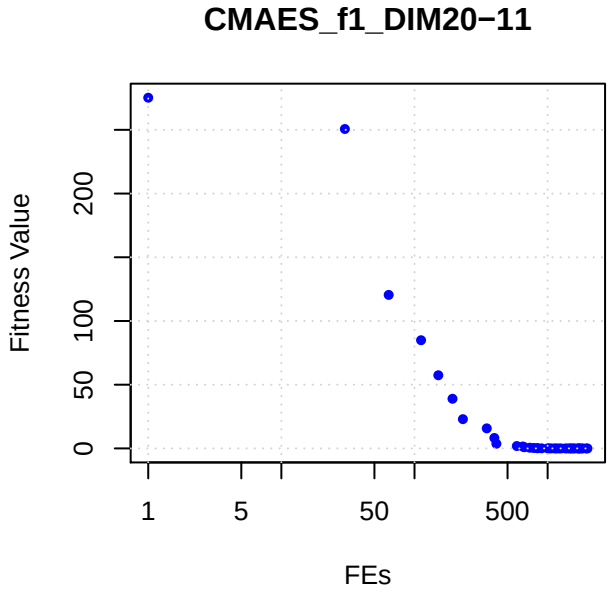
100
150
200
1
5
50
500
FEs


CMAES_f1_DIM20−11
Fitness Value
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100
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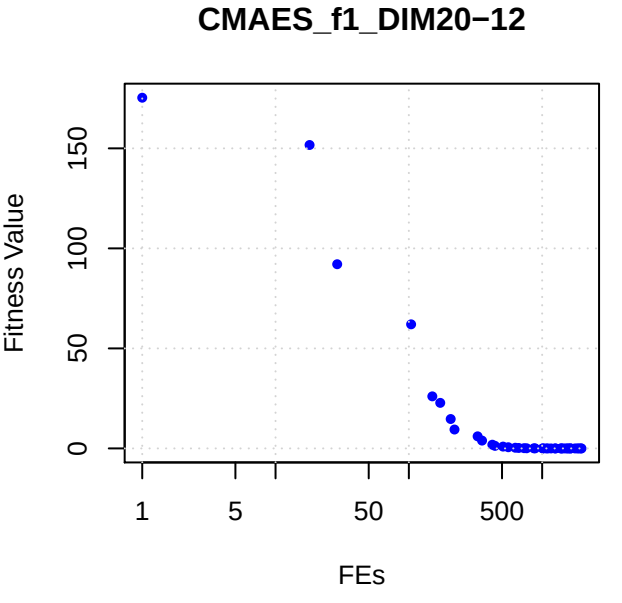
1
5
50
500
FEs


CMAES_f1_DIM20−12
Fitness Value
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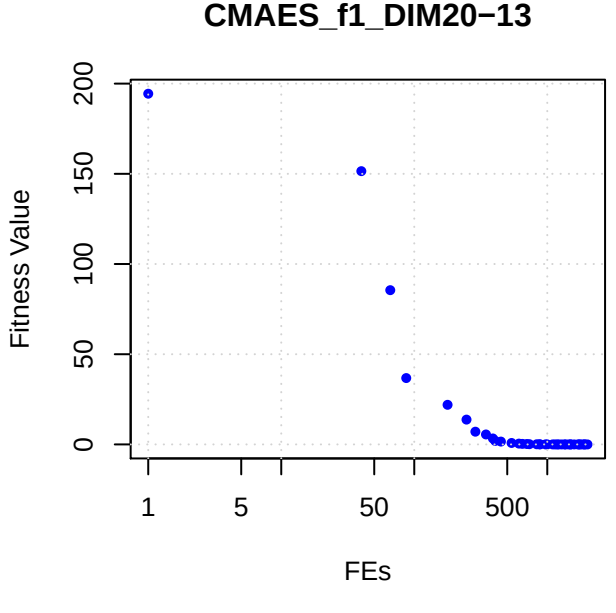
50
100
150
1
5
50
500
FEs


CMAES_f1_DIM20−13
Fitness Value
0
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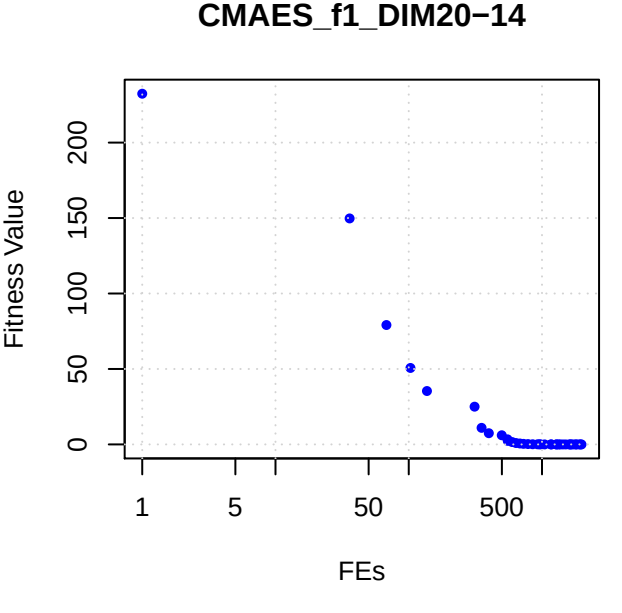
100
150
200
1
5
50
500
FEs


CMAES_f1_DIM20−14
Fitness Value
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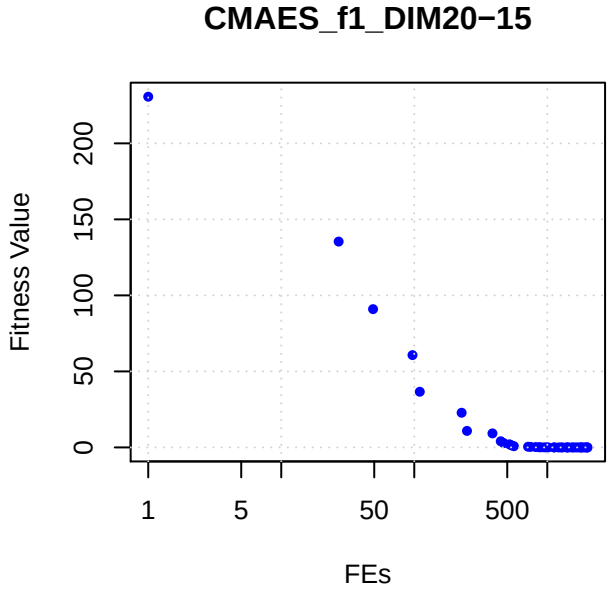
100
150
200
1
5
50
500
FEs


CMAES_f1_DIM20−15
Fitness Value
0
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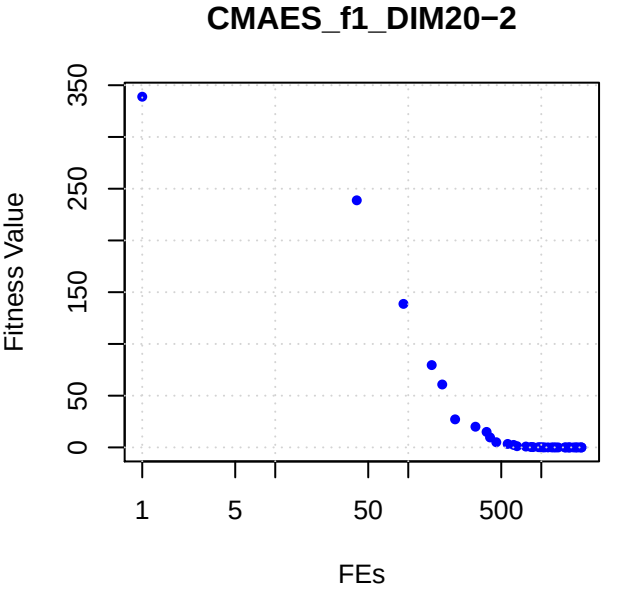
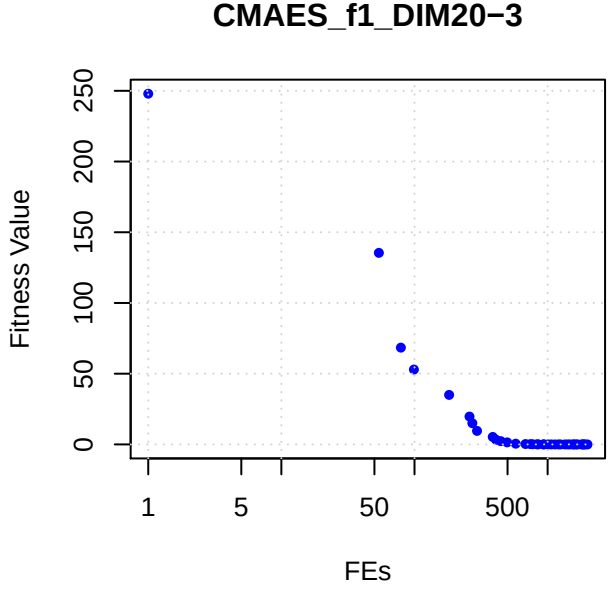
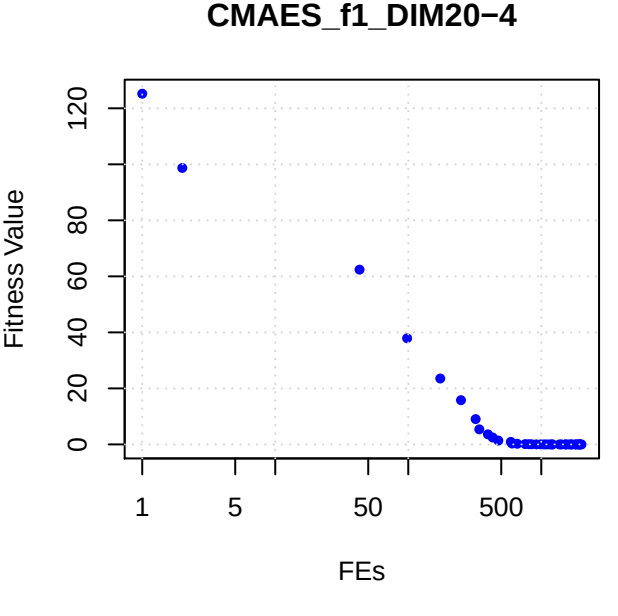
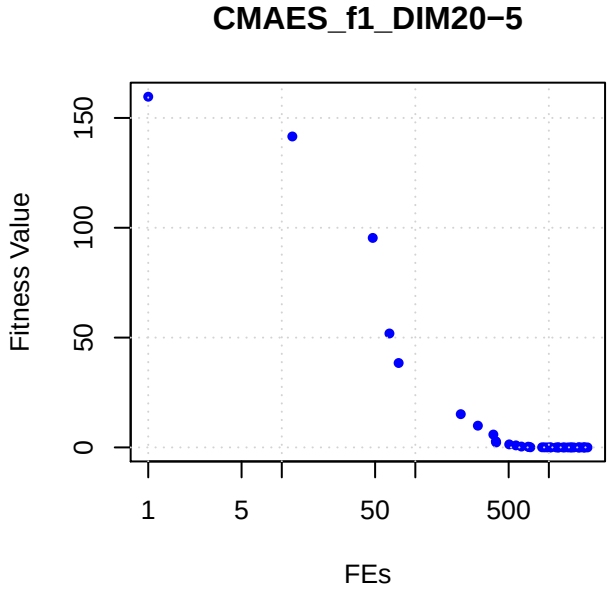
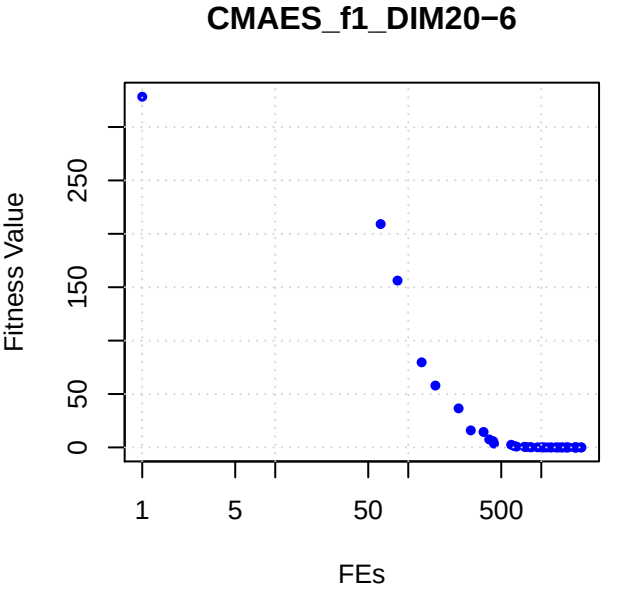
100
150
200
1
5
50
500
FEs

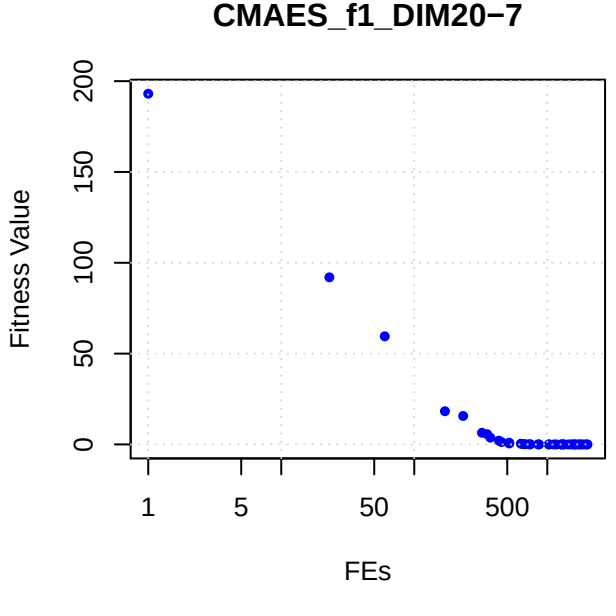

CMAES_f1_DIM20−2
Fitness Value
0
50
150
250
350
1
5
50
500
FEs

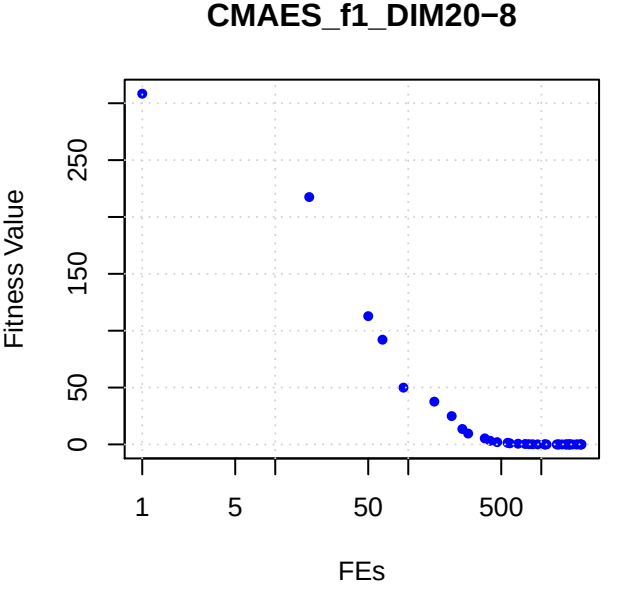

CMAES_f1_DIM20−3
Fitness Value
0
50
100
150
200
250
1
5
50
500
FEs


CMAES_f1_DIM20−4
Fitness Value
0
20
40
60
80
120
1
5
50
500
FEs


CMAES_f1_DIM20−5
Fitness Value
0
50
100
150
1
5
50
500
FEs


CMAES_f1_DIM20−6
Fitness Value
0
50
150
250
1
5
50
500
FEs


CMAES_f1_DIM20−7
Fitness Value
0
50
100
150
200
1
5
50
500
FEs


CMAES_f1_DIM20−8
Fitness Value
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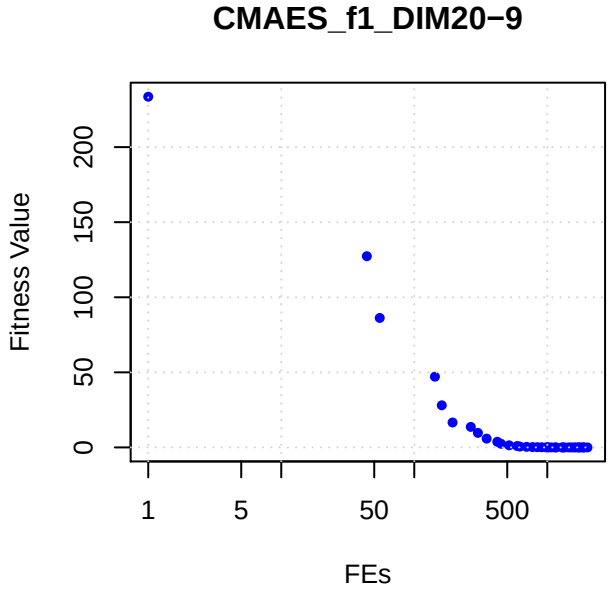
150
250
1
5
50
500
FEs


CMAES_f1_DIM20−9
Fitness Value
0
50
100
150
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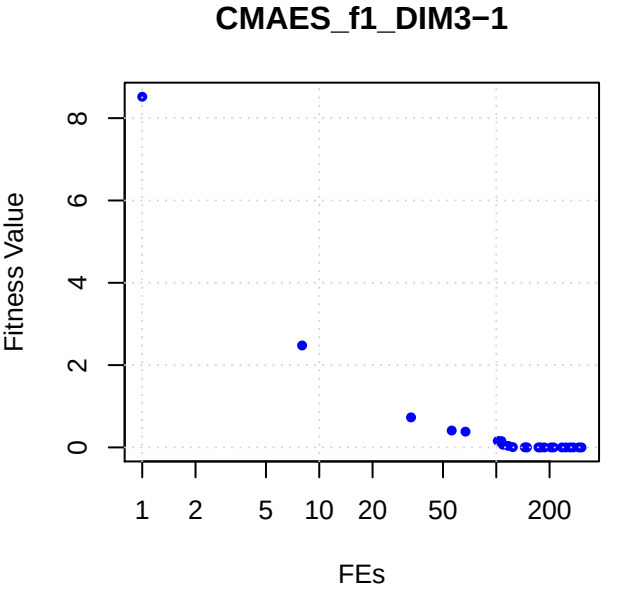
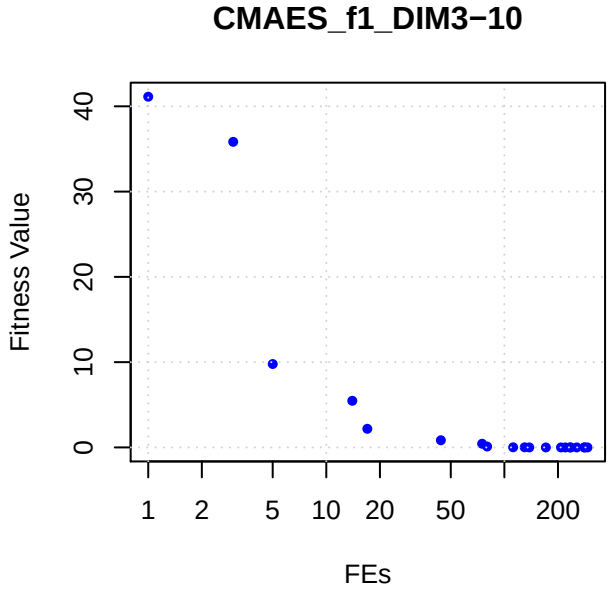
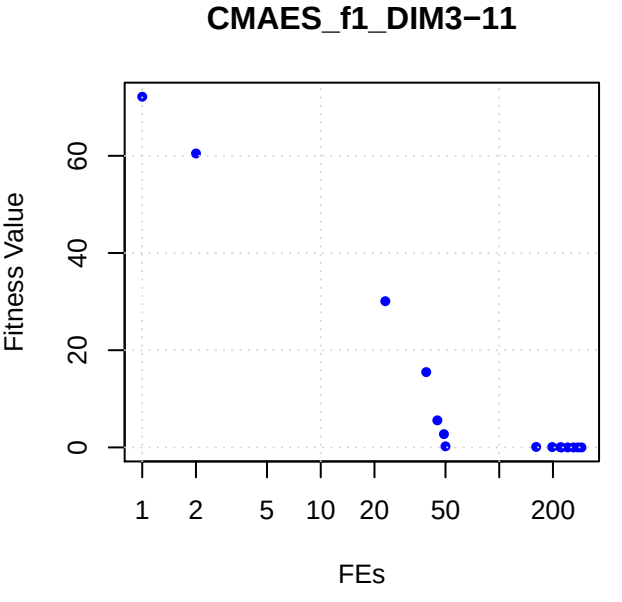
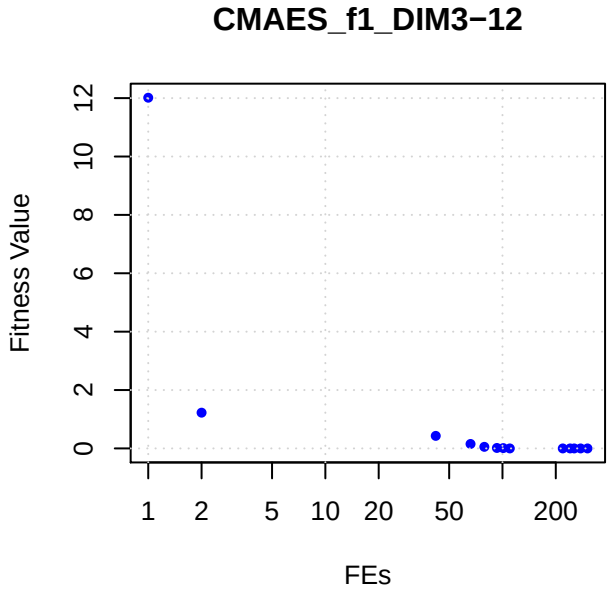
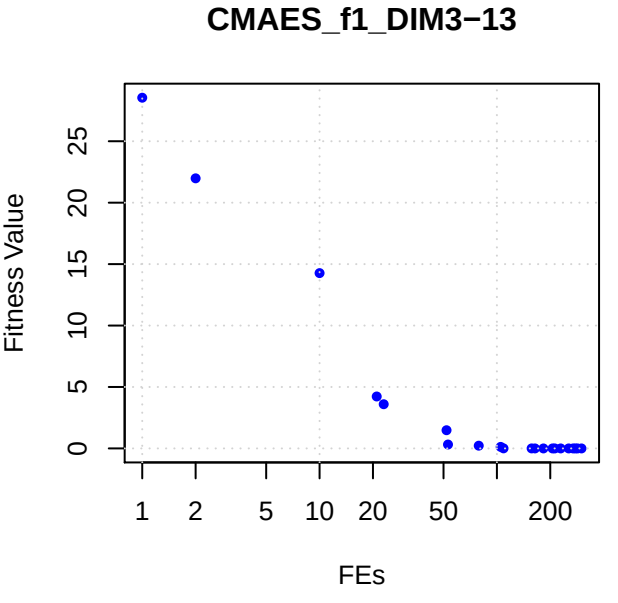
1
5
50
500
FEs

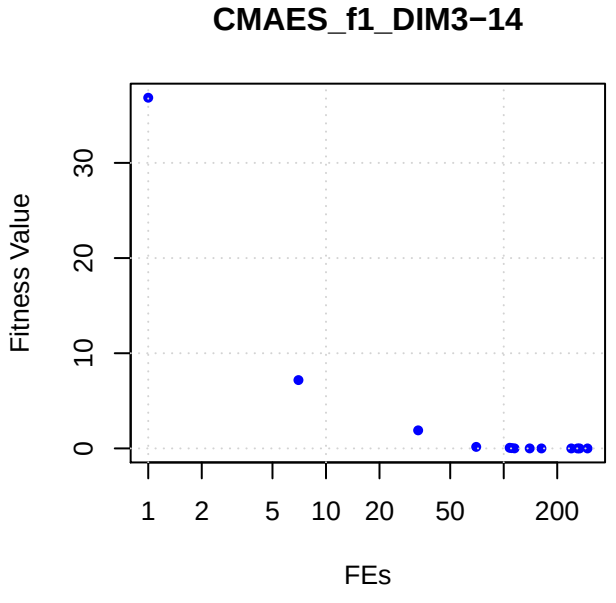

CMAES_f1_DIM3−1
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
200
FEs

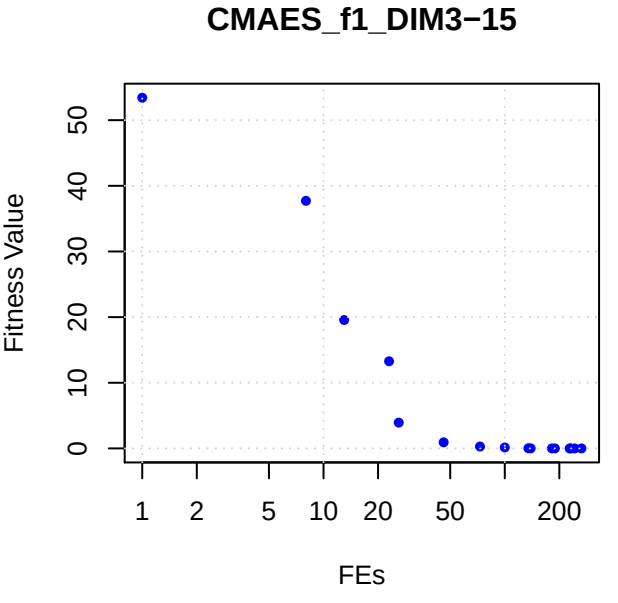

CMAES_f1_DIM3−10
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−11
Fitness Value
0
20
40
60
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−12
Fitness Value
0
2
4
6
8
10
12
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−13
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−14
Fitness Value
0
10
20
30
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−15
Fitness Value
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20
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40
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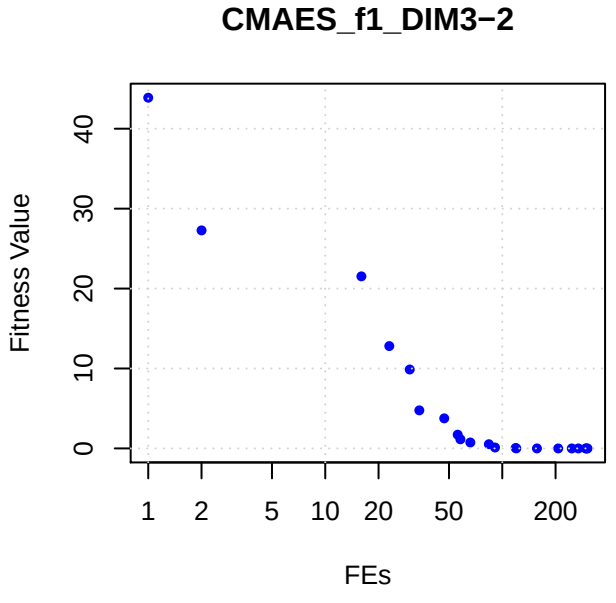
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−2
Fitness Value
0
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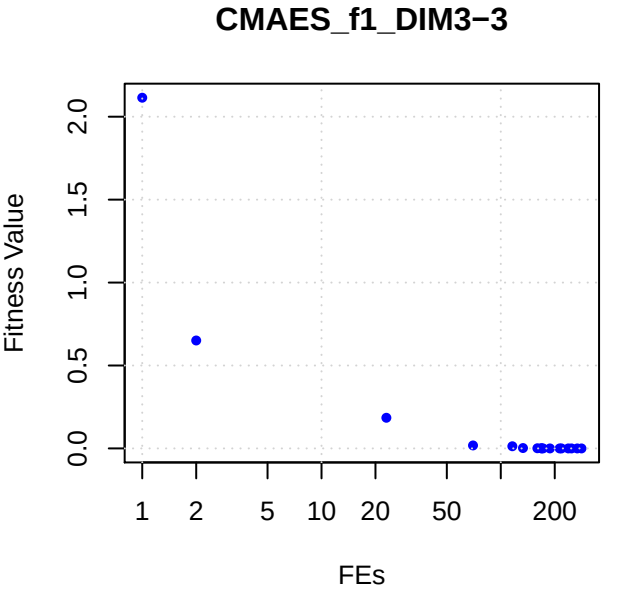
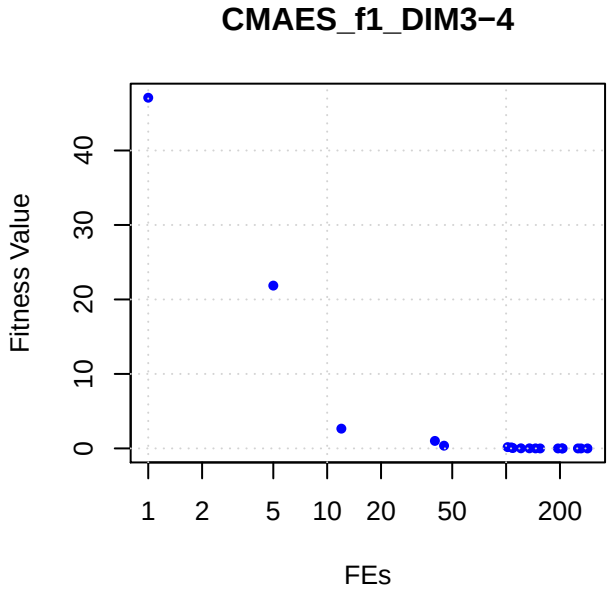
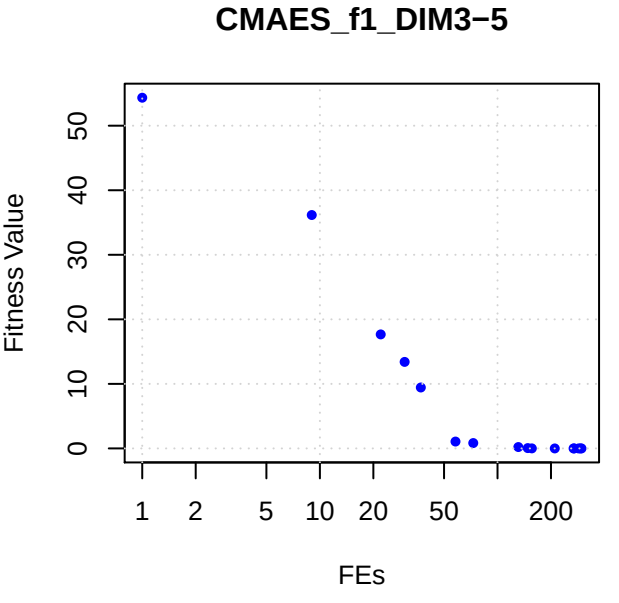
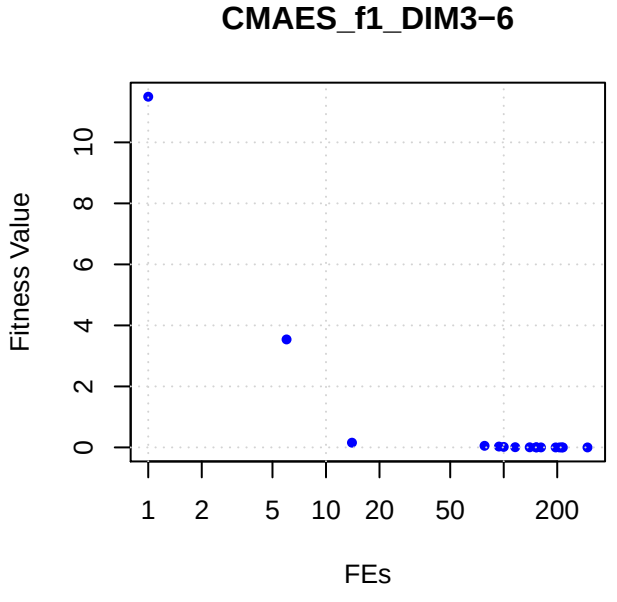
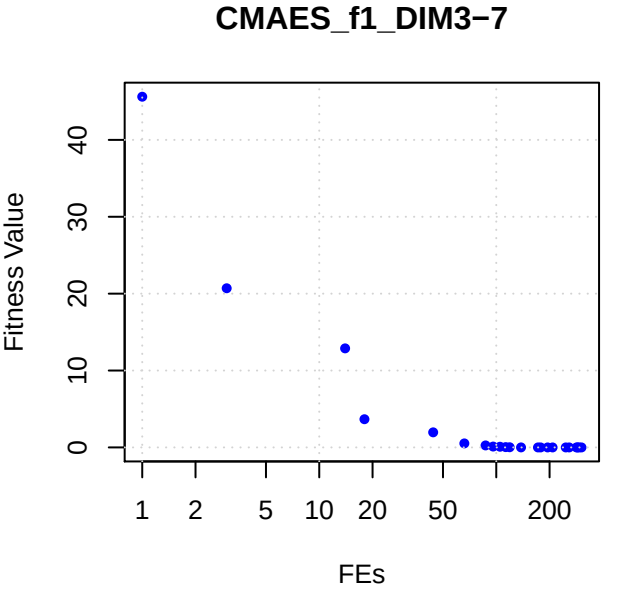
20
30
40
1
2
5
10
20
50
200
FEs

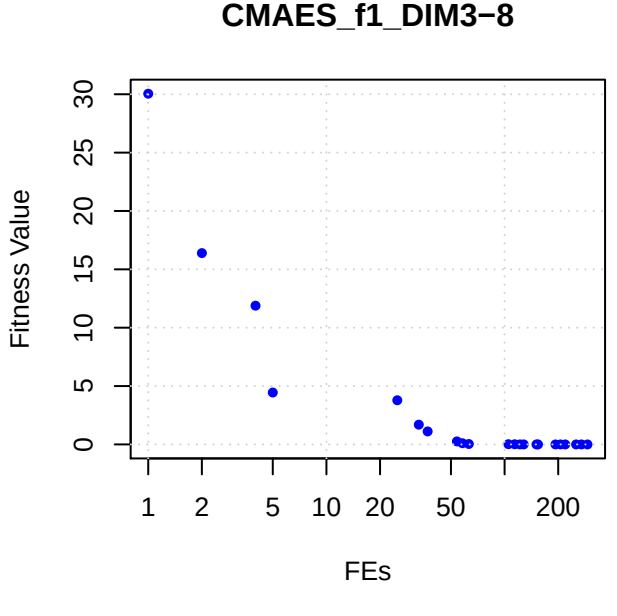

CMAES_f1_DIM3−3
Fitness Value
0.0
0.5
1.0
1.5
2.0
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−4
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−5
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−6
Fitness Value
0
2
4
6
8
10
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−7
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−8
Fitness Value
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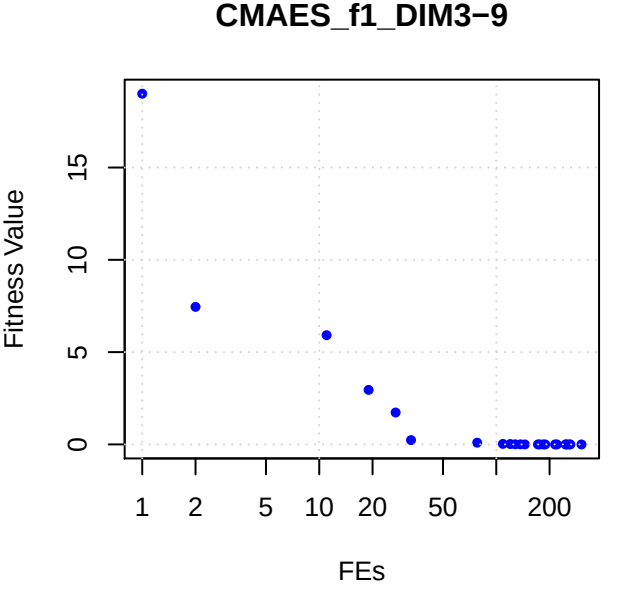
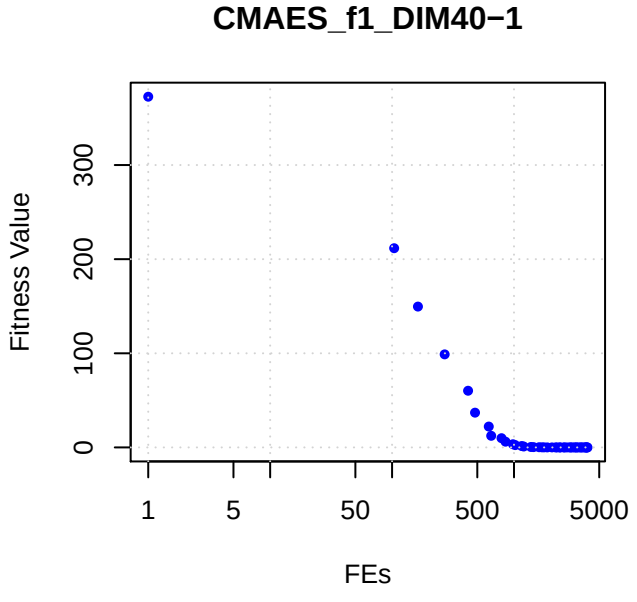
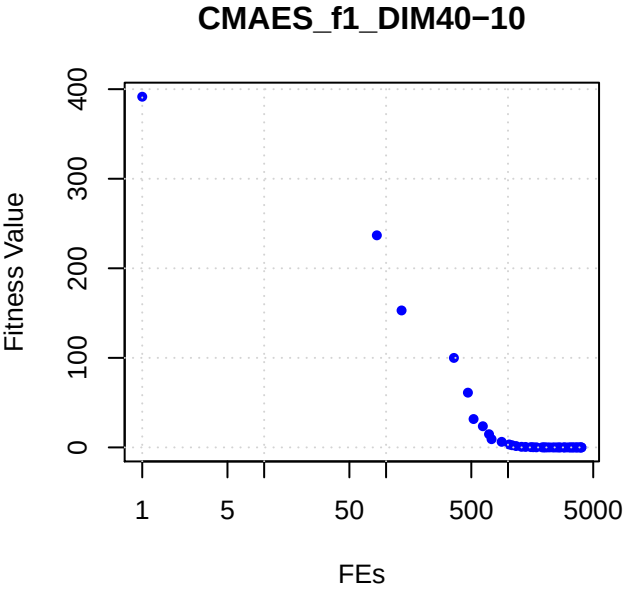
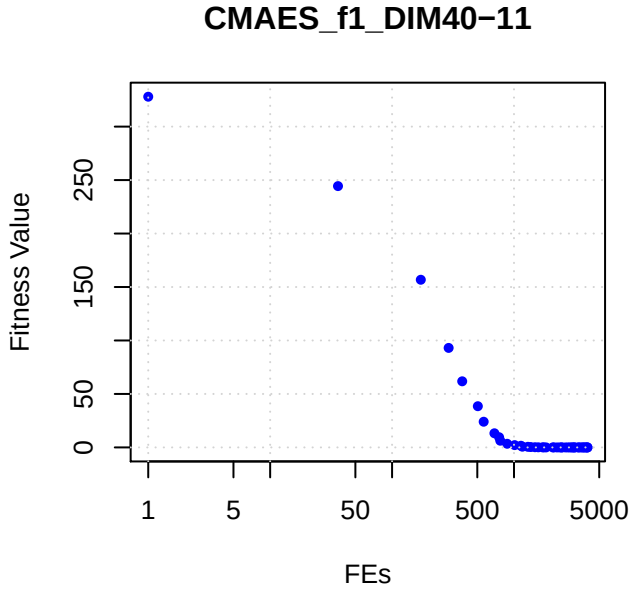
5
10
15
20
25
30
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM3−9
Fitness Value
0
5
10
15
1
2
5
10
20
50
200
FEs


CMAES_f1_DIM40−1
Fitness Value
0
100
200
300
1
5
50
500
5000
FEs


CMAES_f1_DIM40−10
Fitness Value
0
100
200
300
400
1
5
50
500
5000
FEs


CMAES_f1_DIM40−11
Fitness Value
0
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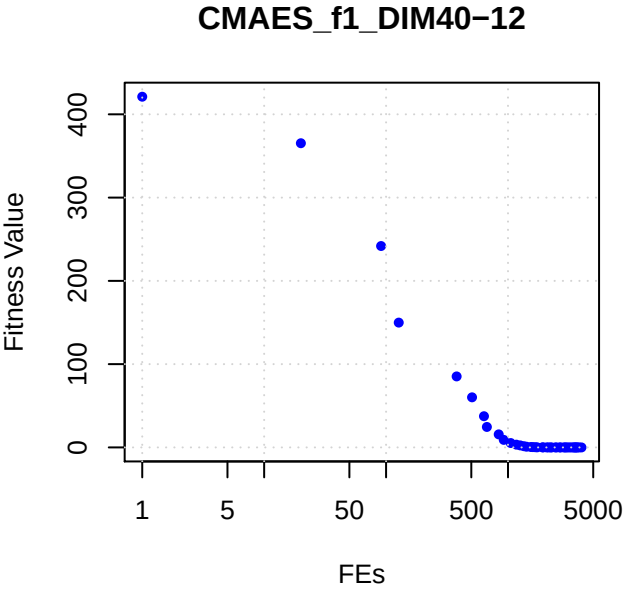
150
250
1
5
50
500
5000
FEs


CMAES_f1_DIM40−12
Fitness Value
0
100
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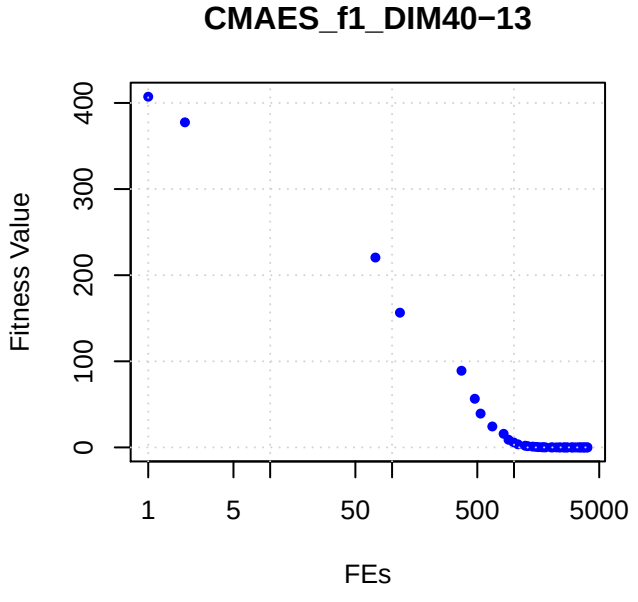
300
400
1
5
50
500
5000
FEs


CMAES_f1_DIM40−13
Fitness Value
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100
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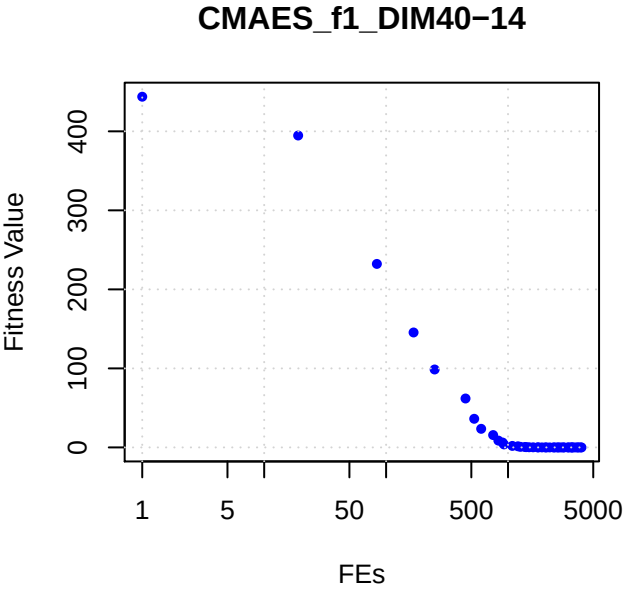
300
400
1
5
50
500
5000
FEs


CMAES_f1_DIM40−14
Fitness Value
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100
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400
1
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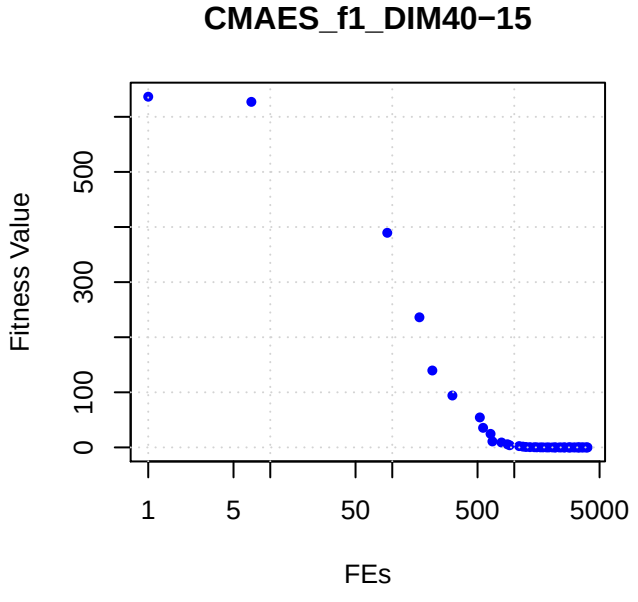
50
500
5000
FEs


CMAES_f1_DIM40−15
Fitness Value
0
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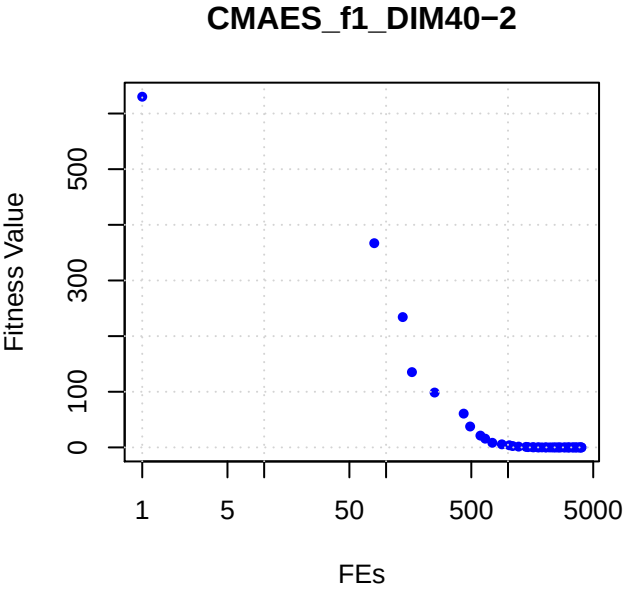
300
500
1
5
50
500
5000
FEs


CMAES_f1_DIM40−2
Fitness Value
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300
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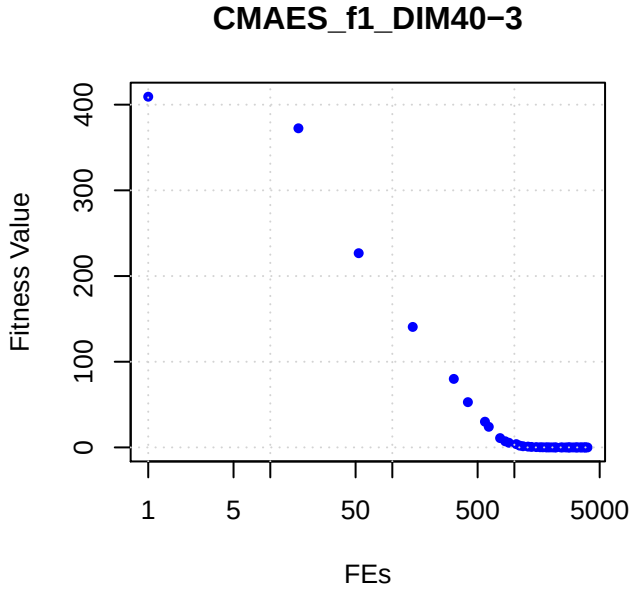
50
500
5000
FEs


CMAES_f1_DIM40−3
Fitness Value
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100
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300
400
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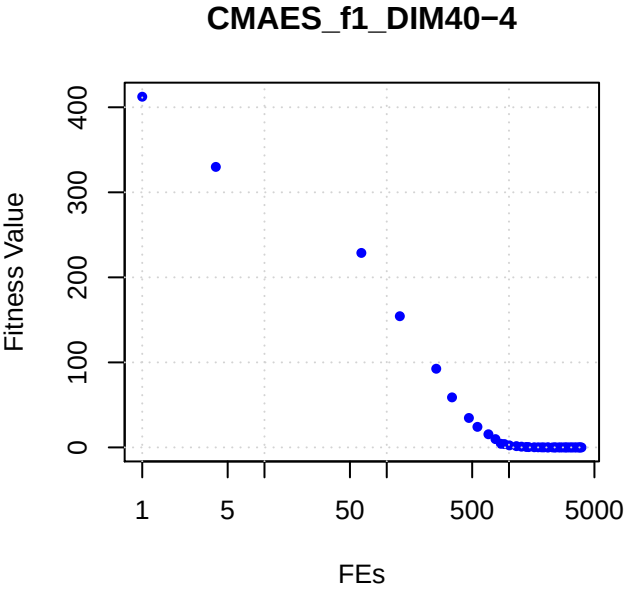
50
500
5000
FEs


CMAES_f1_DIM40−4
Fitness Value
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100
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400
1
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50
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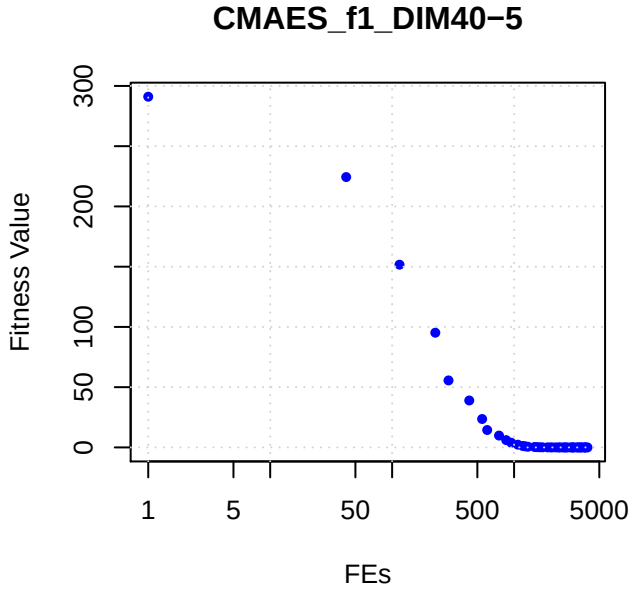
5000
FEs


CMAES_f1_DIM40−5
Fitness Value
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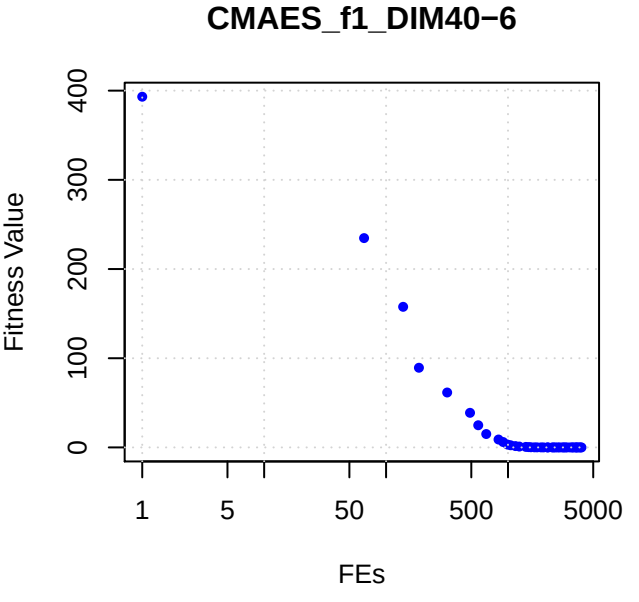
100
200
300
1
5
50
500
5000
FEs


CMAES_f1_DIM40−6
Fitness Value
0
100
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300
400
1
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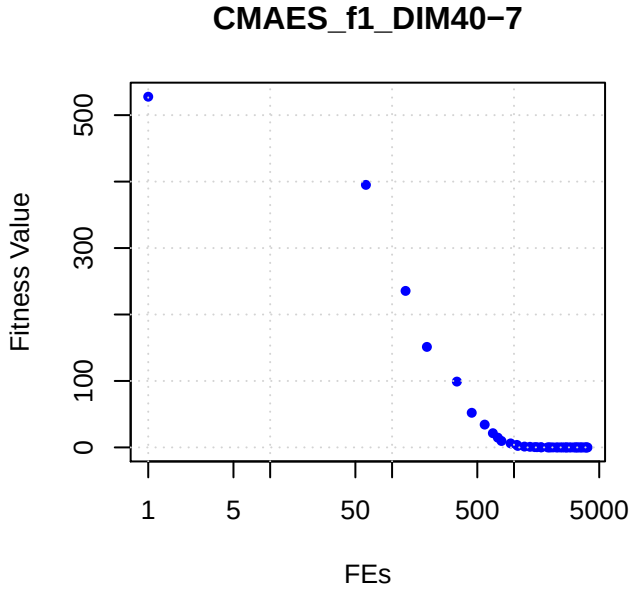
50
500
5000
FEs


CMAES_f1_DIM40−7
Fitness Value
0
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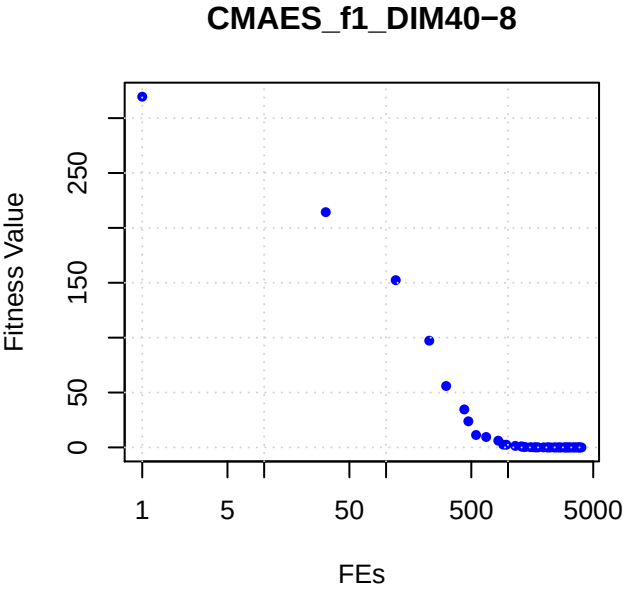
300
500
1
5
50
500
5000
FEs


CMAES_f1_DIM40−8
Fitness Value
0
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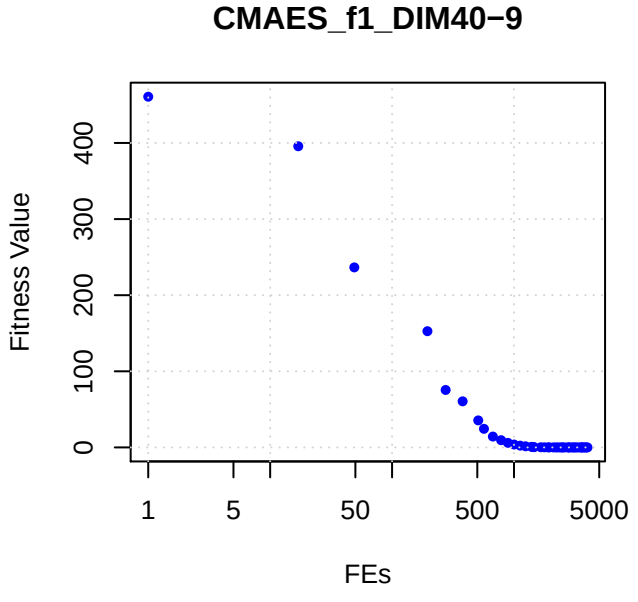
150
250
1
5
50
500
5000
FEs


CMAES_f1_DIM40−9
Fitness Value
0
100
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300
400
1
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50
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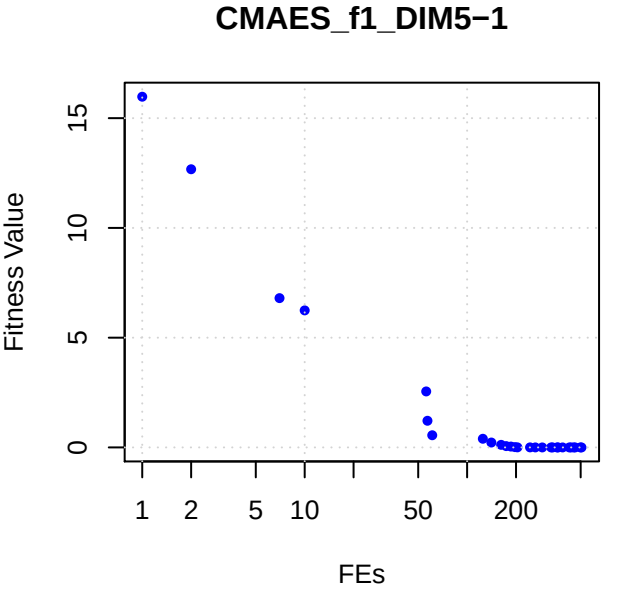
FEs


CMAES_f1_DIM5−1
Fitness Value
0
5
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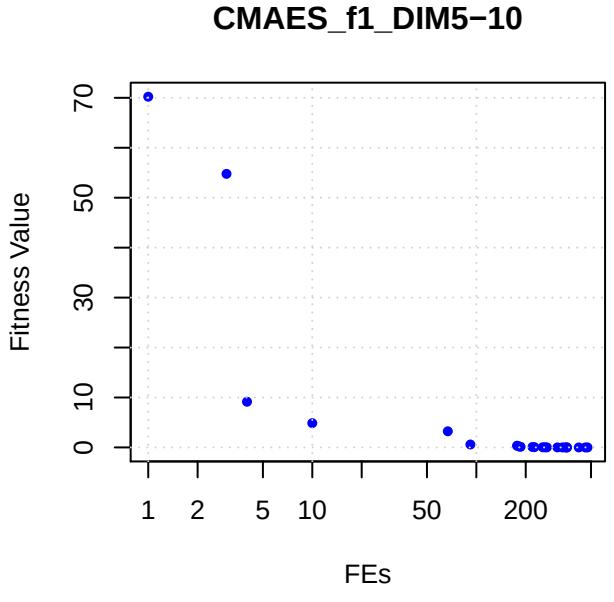
15
1
2
5
10
50
200
FEs


CMAES_f1_DIM5−10
Fitness Value
0
10
30
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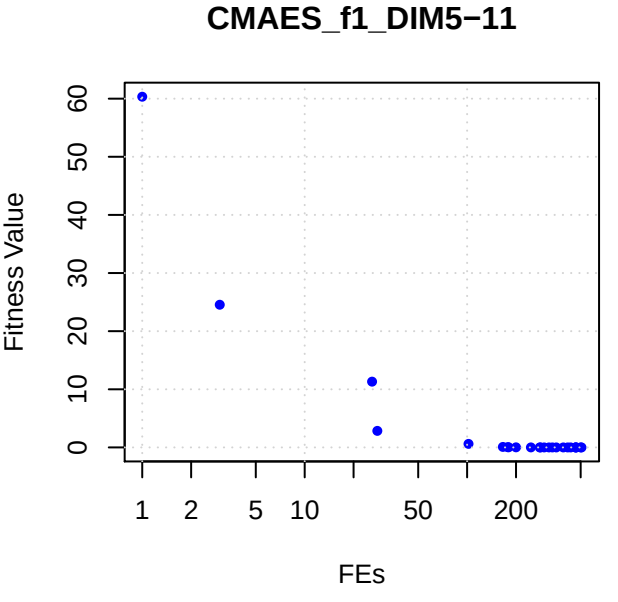
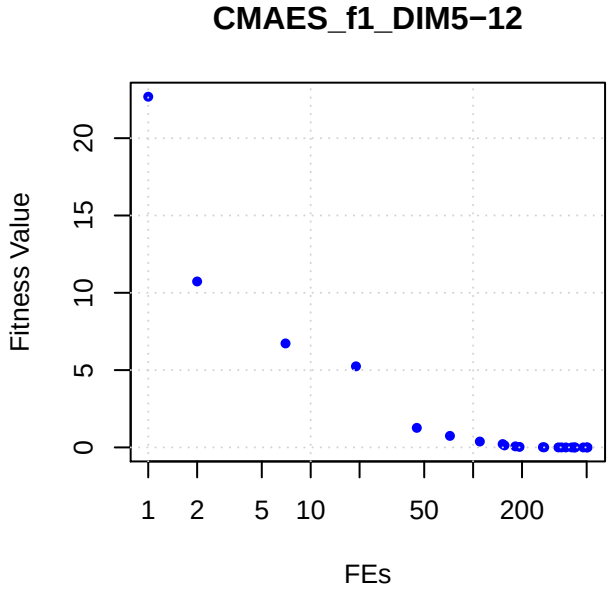
70
1
2
5
10
50
200
FEs


CMAES_f1_DIM5−11
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
50
200
FEs


CMAES_f1_DIM5−12
Fitness Value
0
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10
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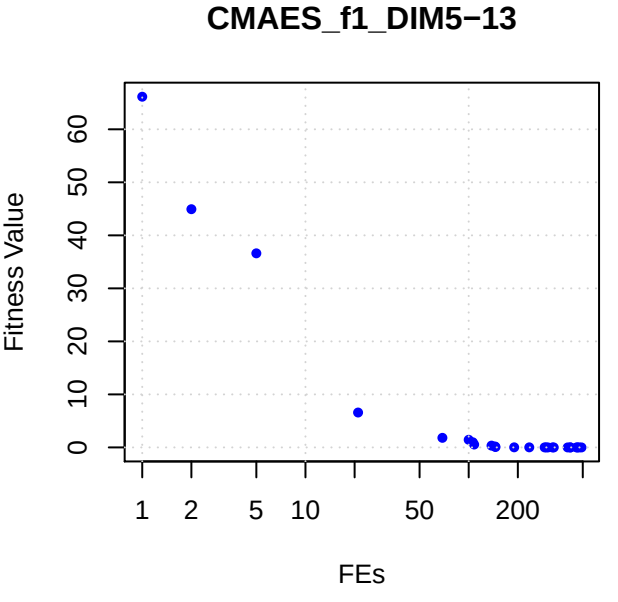
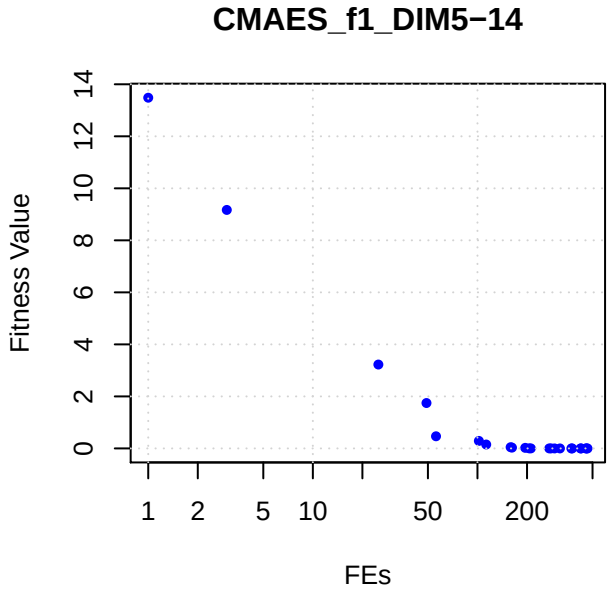
20
1
2
5
10
50
200
FEs


CMAES_f1_DIM5−13
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
50
200
FEs


CMAES_f1_DIM5−14
Fitness Value
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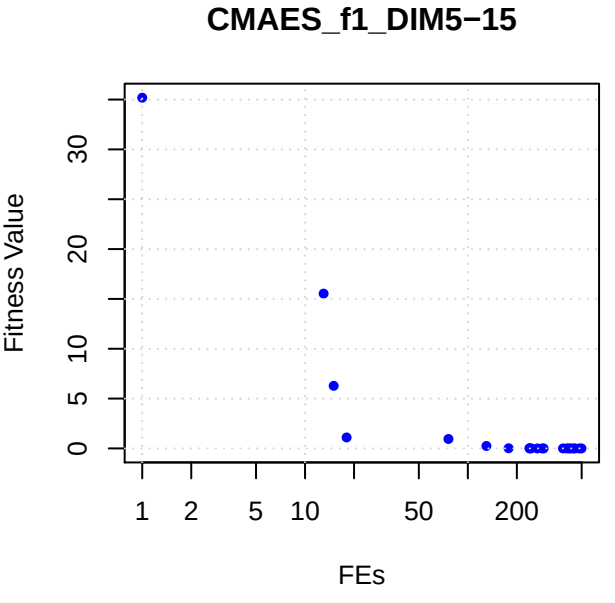
2
4
6
8
10
12
14
1
2
5
10
50
200
FEs


CMAES_f1_DIM5−15
Fitness Value
0
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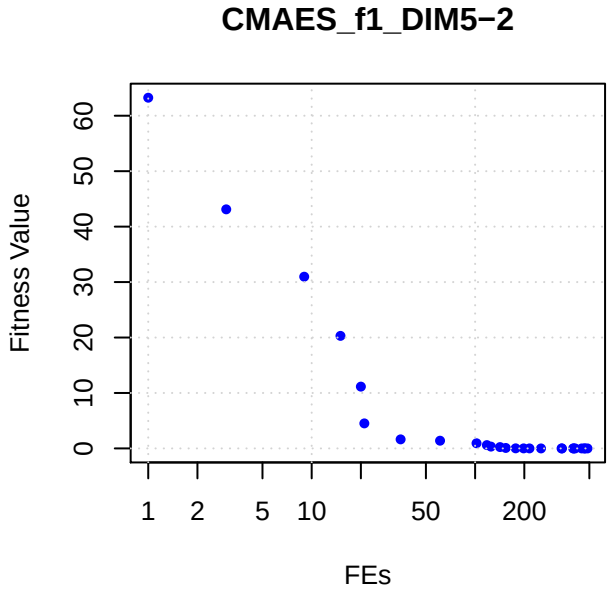
10
20
30
1
2
5
10
50
200
FEs


CMAES_f1_DIM5−2
Fitness Value
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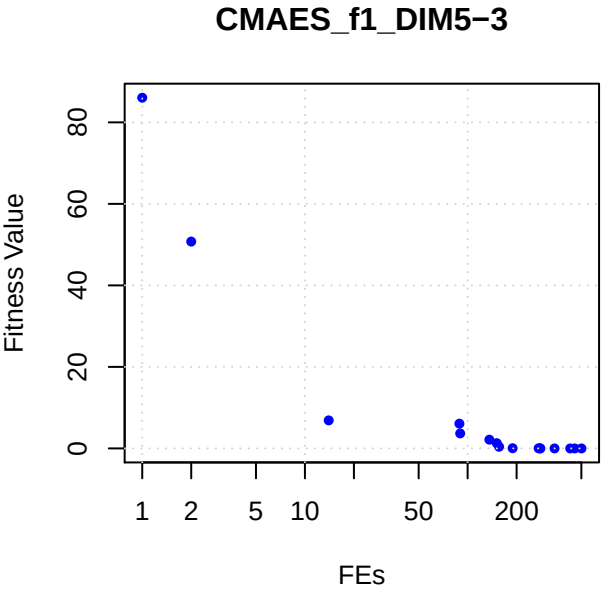
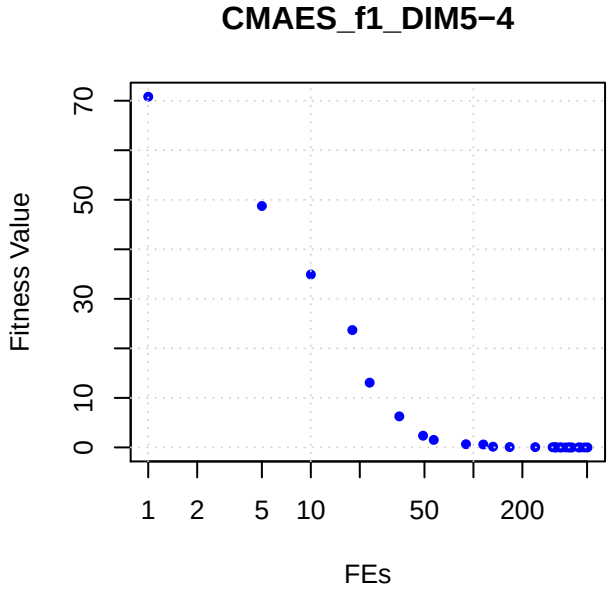
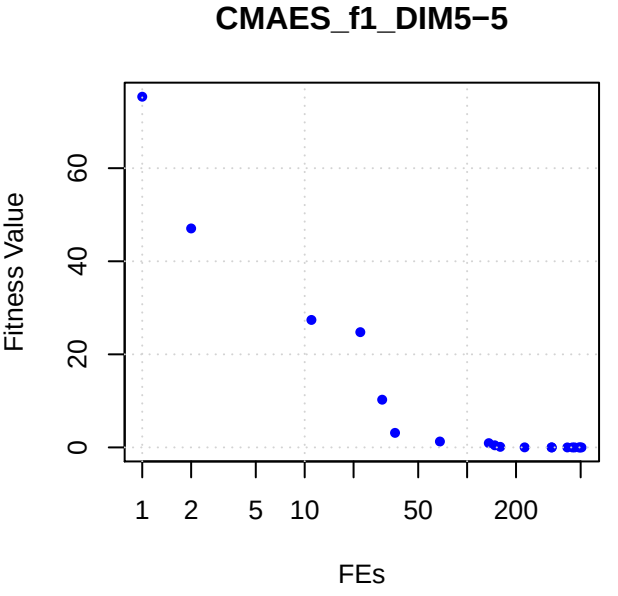
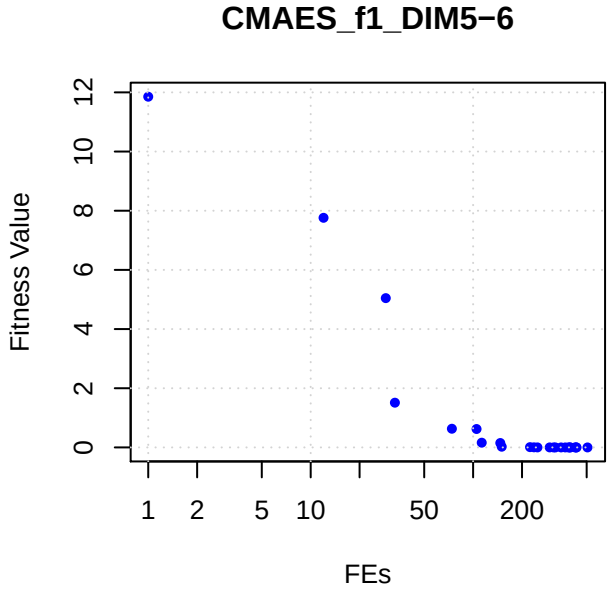
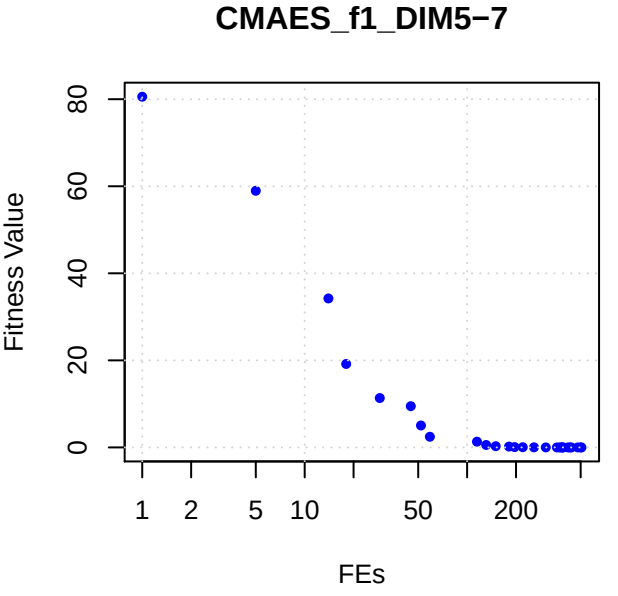
20
30
40
50
60
1
2
5
10
50
200
FEs

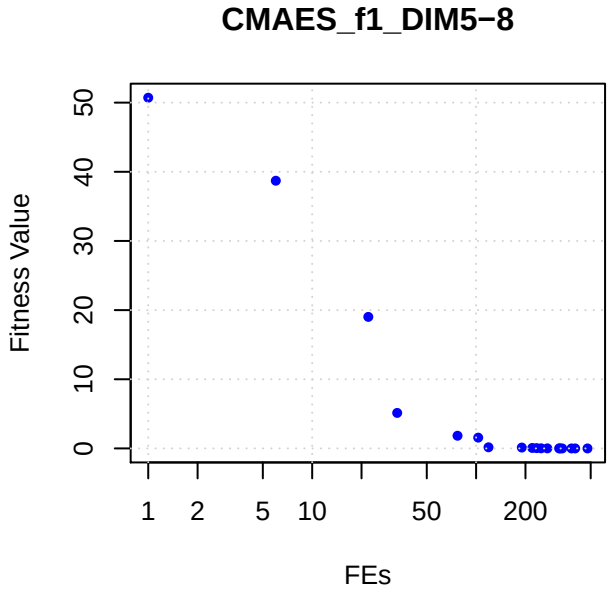

CMAES_f1_DIM5−3
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

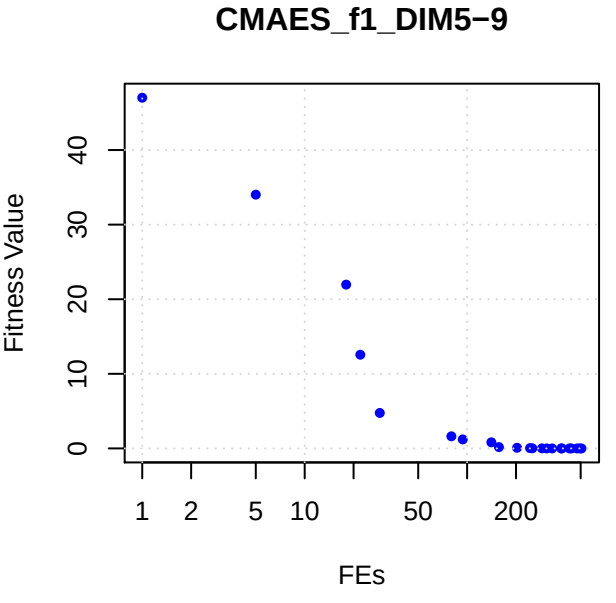

CMAES_f1_DIM5−4
Fitness Value
0
10
30
50
70
1
2
5
10
50
200
FEs

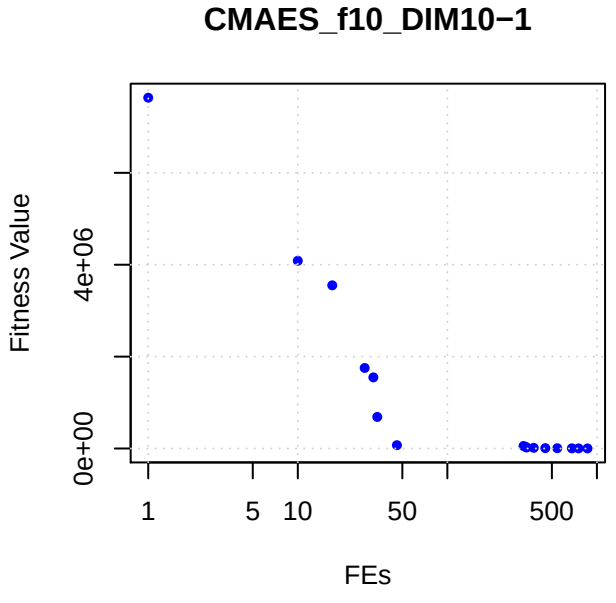

CMAES_f1_DIM5−5
Fitness Value
0
20
40
60
1
2
5
10
50
200
FEs

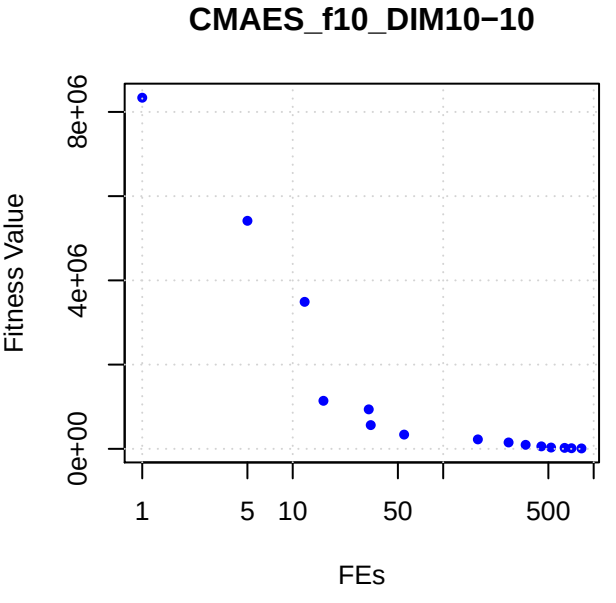

CMAES_f1_DIM5−6
Fitness Value
0
2
4
6
8
10
12
1
2
5
10
50
200
FEs

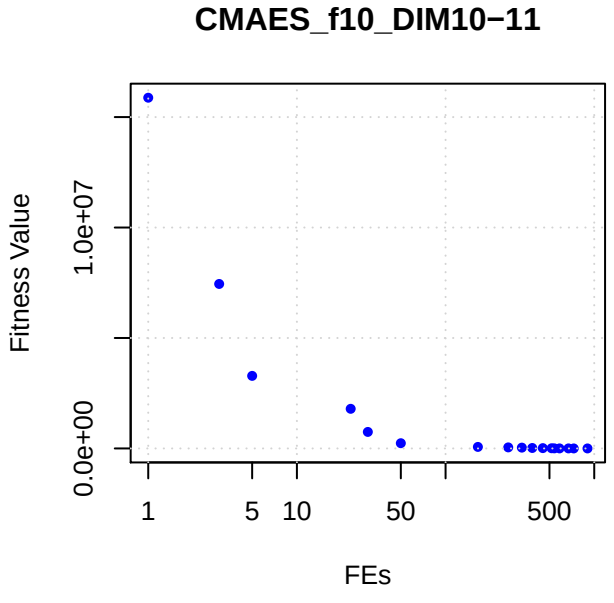

CMAES_f1_DIM5−7
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

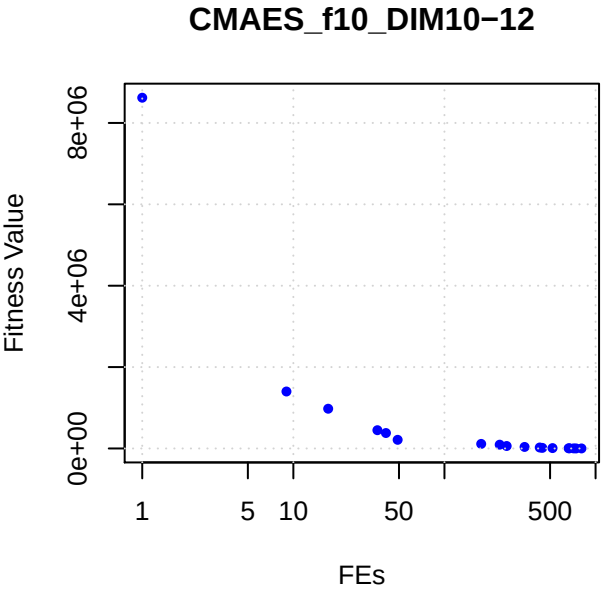

CMAES_f1_DIM5−8
Fitness Value
0
10
20
30
40
50
1
2
5
10
50
200
FEs

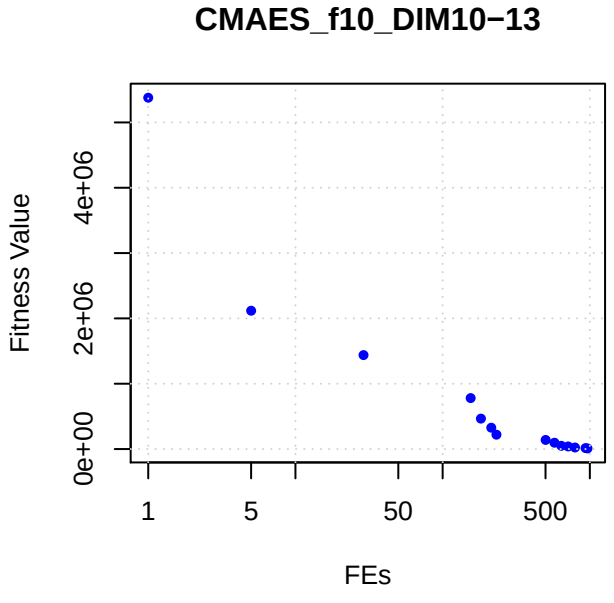

CMAES_f1_DIM5−9
Fitness Value
0
10
20
30
40
1
2
5
10
50
200
FEs

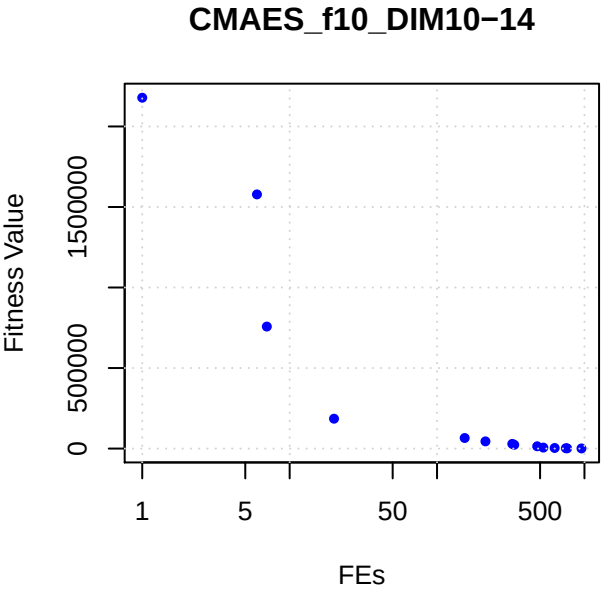

CMAES_f10_DIM10−1
Fitness Value
0e+00
4e+06
1
5
10
50
500
FEs

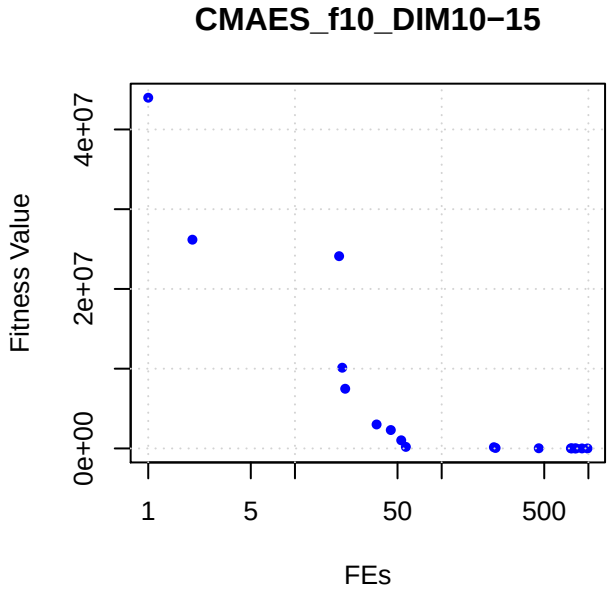

CMAES_f10_DIM10−10
Fitness Value
0e+00
4e+06
8e+06
1
5
10
50
500
FEs

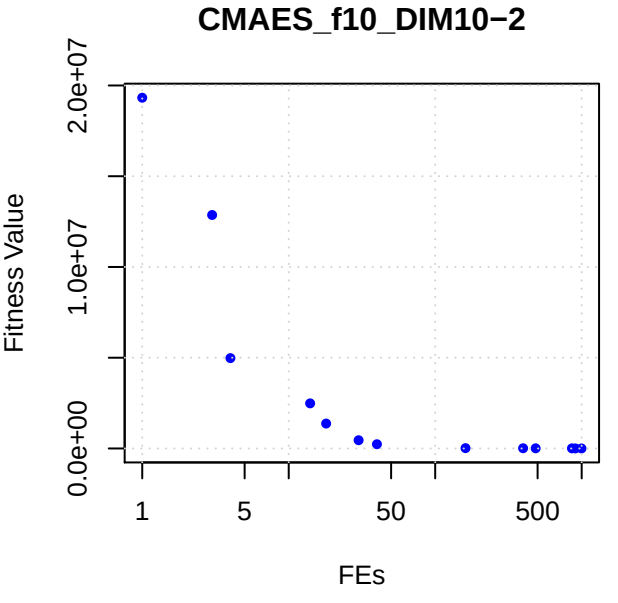

CMAES_f10_DIM10−11
Fitness Value
0.0e+00
1.0e+07
1
5
10
50
500
FEs

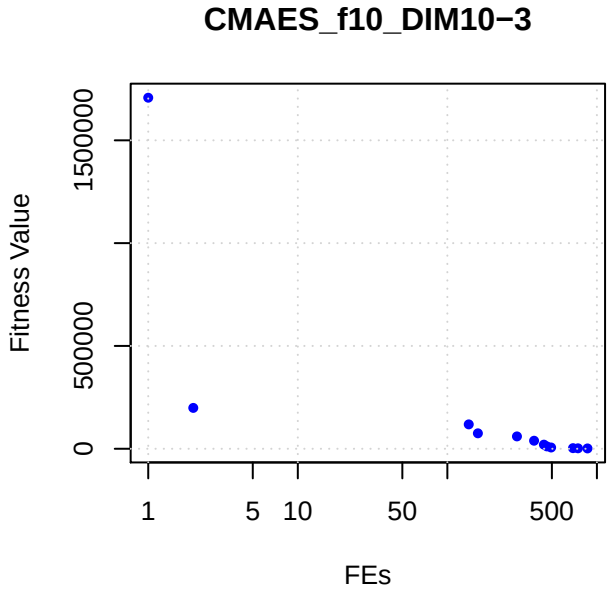

CMAES_f10_DIM10−12
Fitness Value
0e+00
4e+06
8e+06
1
5
10
50
500
FEs

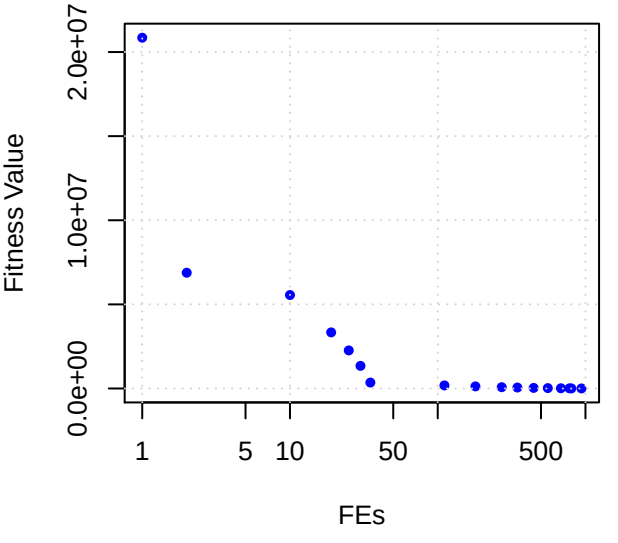

CMAES_f10_DIM10−13
Fitness Value
0e+00
2e+06
4e+06
1
5
50
500
FEs

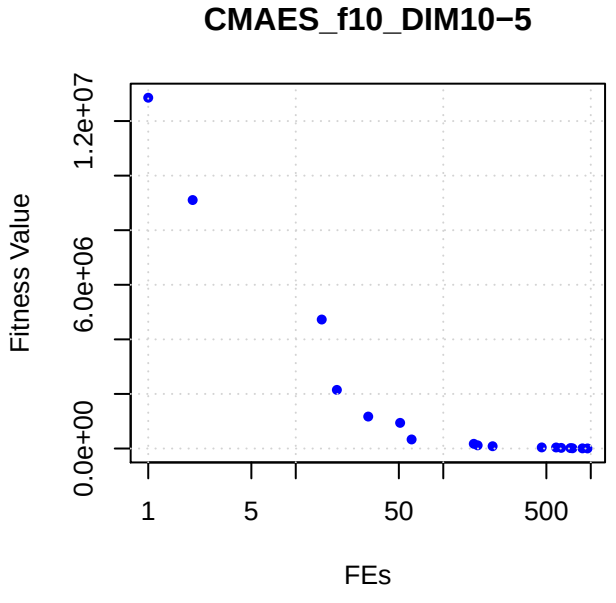

CMAES_f10_DIM10−14
Fitness Value
0
500000
1500000
1
5
50
500
FEs

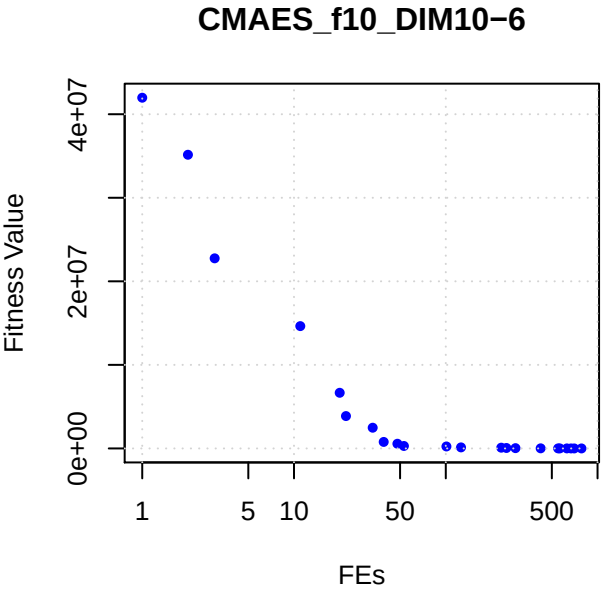

CMAES_f10_DIM10−15
Fitness Value
0e+00
2e+07
4e+07
1
5
50
500
FEs

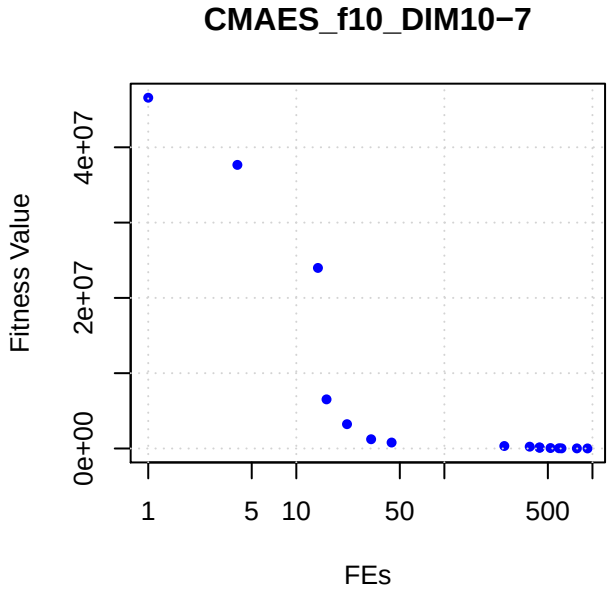

CMAES_f10_DIM10−2
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
FEs

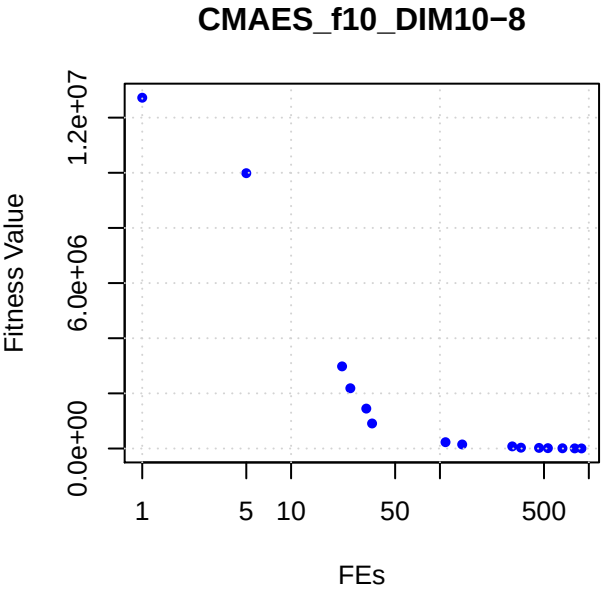

CMAES_f10_DIM10−3
Fitness Value
0
500000
1500000
1
5
10
50
500
FEs

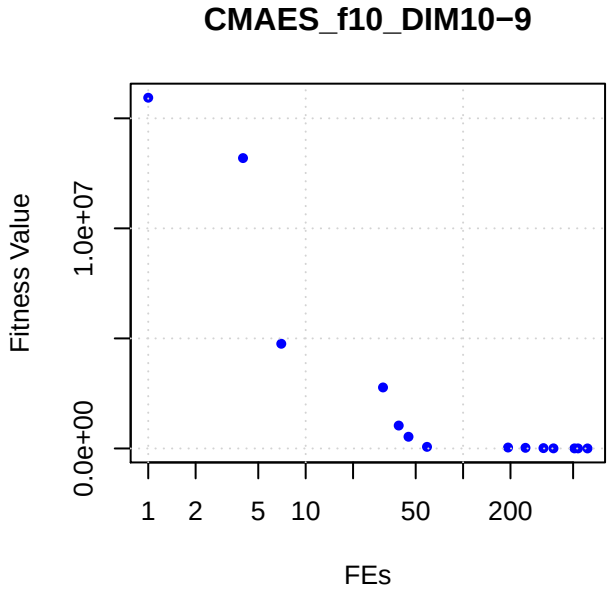

CMAES_f10_DIM10−4
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
10
50
500
FEs

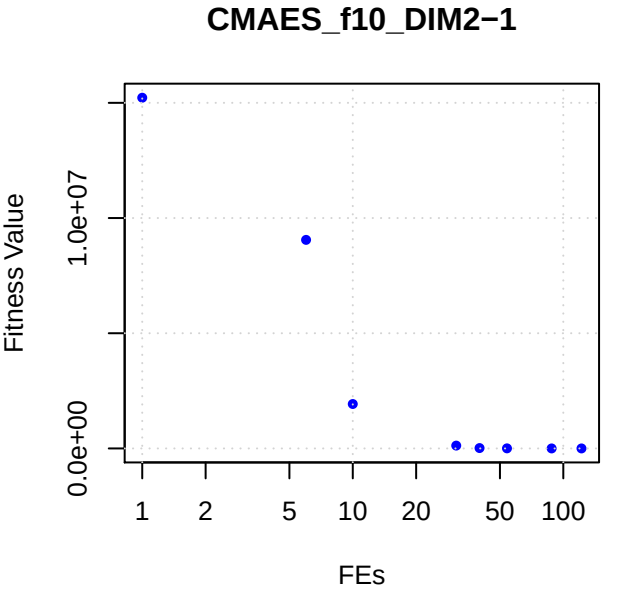

CMAES_f10_DIM10−5
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
5
50
500
FEs

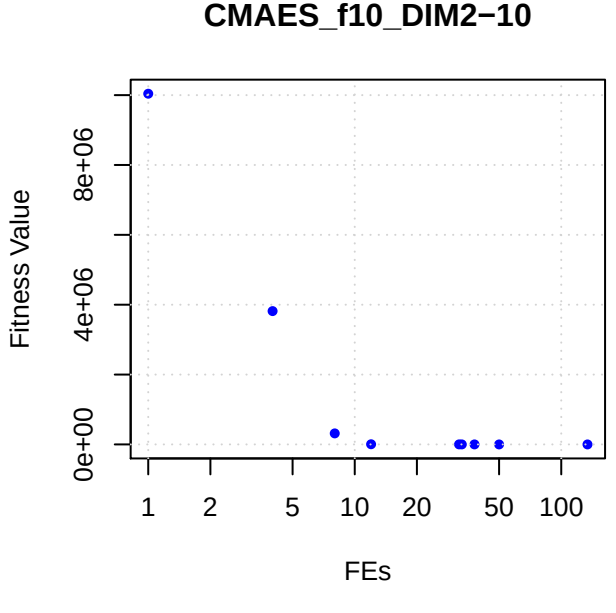

CMAES_f10_DIM10−6
Fitness Value
0e+00
2e+07
4e+07
1
5
10
50
500
FEs

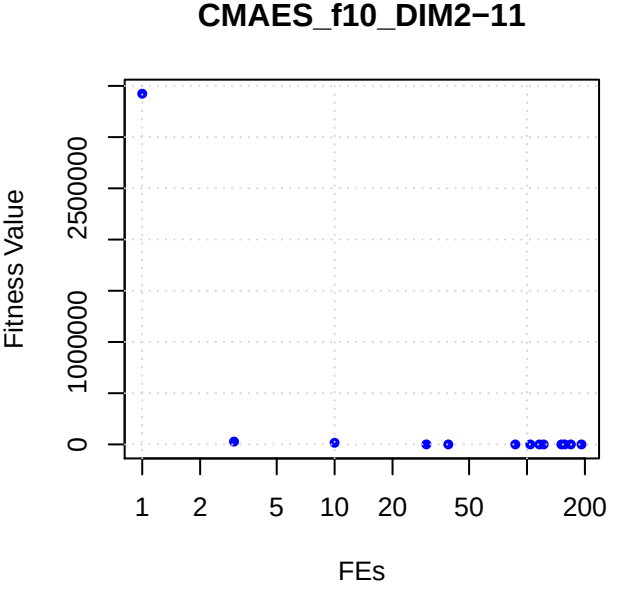

CMAES_f10_DIM10−7
Fitness Value
0e+00
2e+07
4e+07
1
5
10
50
500
FEs

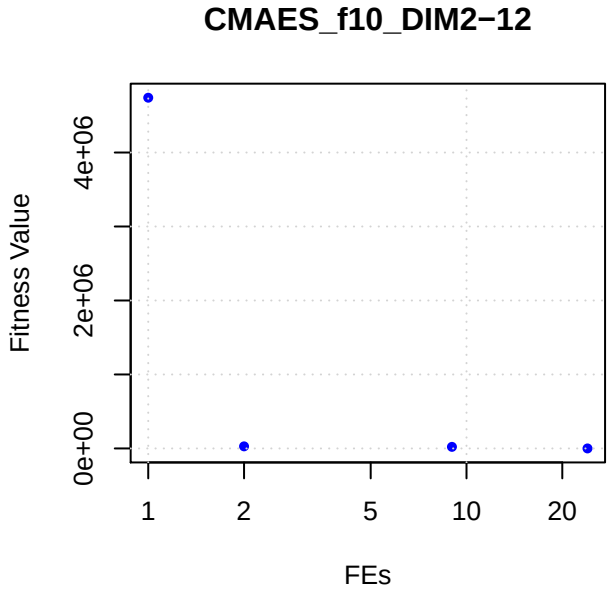

CMAES_f10_DIM10−8
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
5
10
50
500
FEs

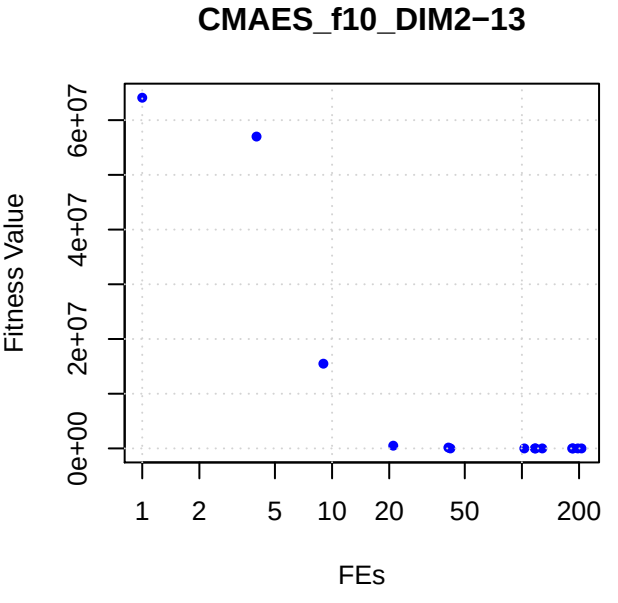

CMAES_f10_DIM10−9
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
50
200
FEs

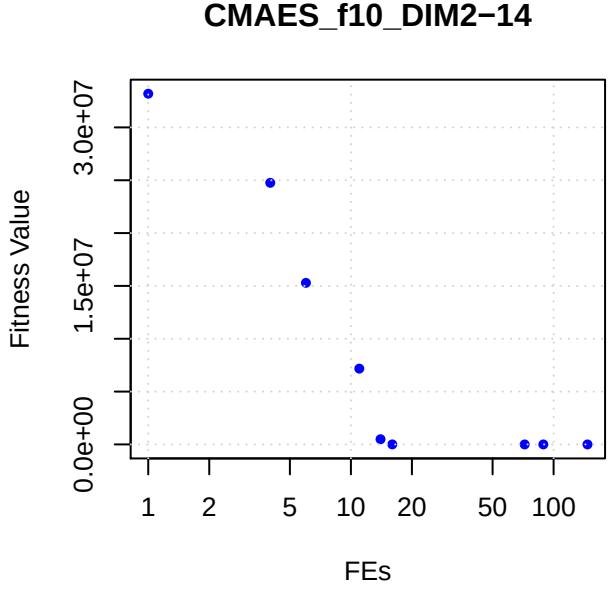

CMAES_f10_DIM2−1
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
100
FEs

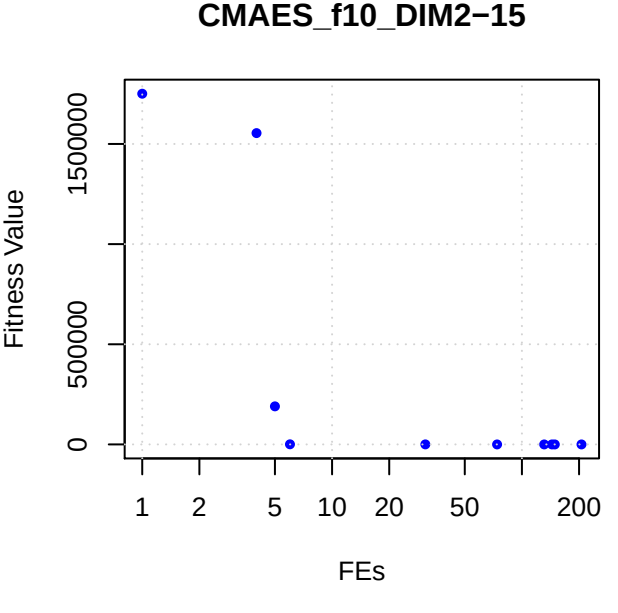

CMAES_f10_DIM2−10
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
100
FEs

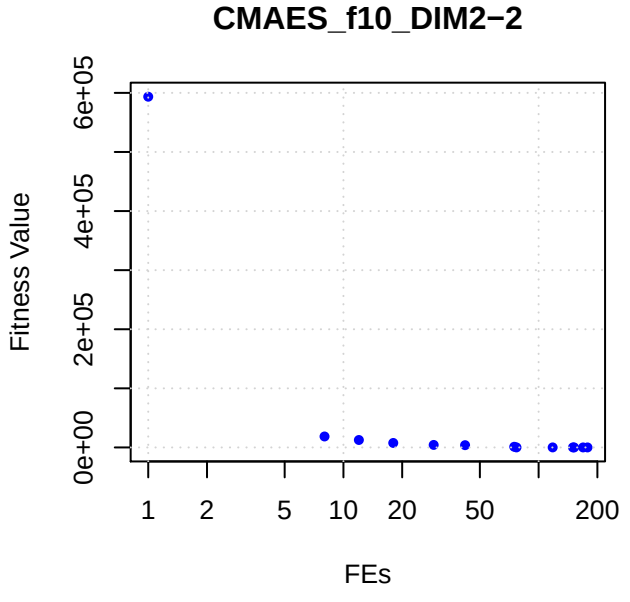

CMAES_f10_DIM2−11
Fitness Value
0
1000000
2500000
1
2
5
10
20
50
200
FEs

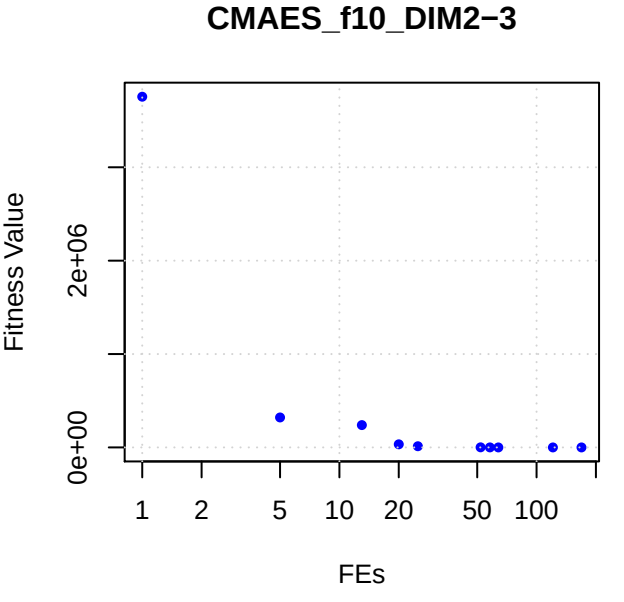

CMAES_f10_DIM2−12
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
FEs

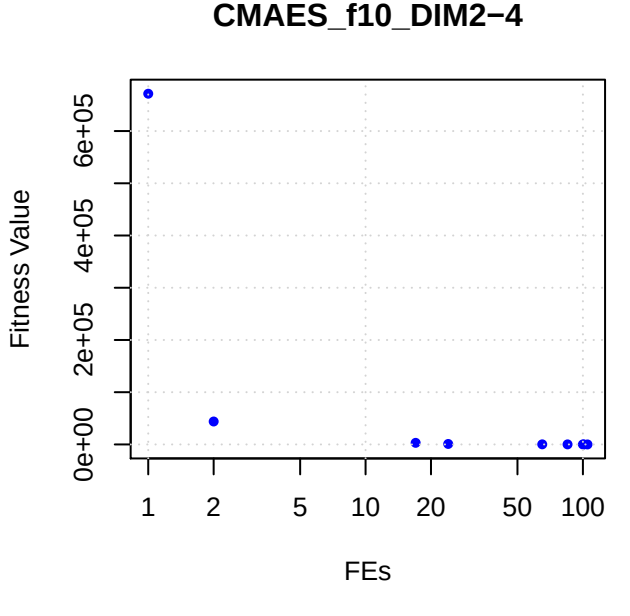

CMAES_f10_DIM2−13
Fitness Value
0e+00
2e+07
4e+07
6e+07
1
2
5
10
20
50
200
FEs

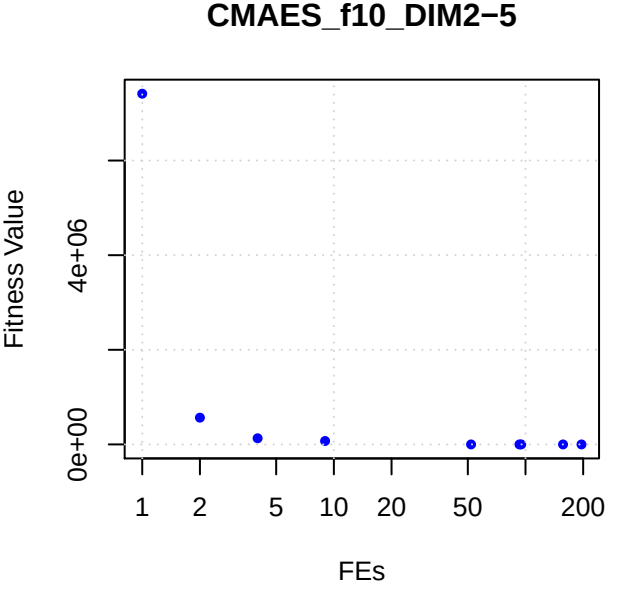

CMAES_f10_DIM2−14
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
20
50
100
FEs

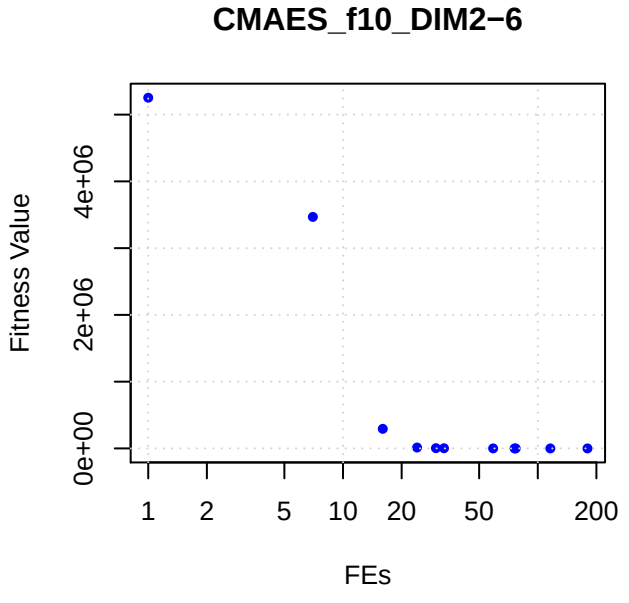

CMAES_f10_DIM2−15
Fitness Value
0
500000
1500000
1
2
5
10
20
50
200
FEs

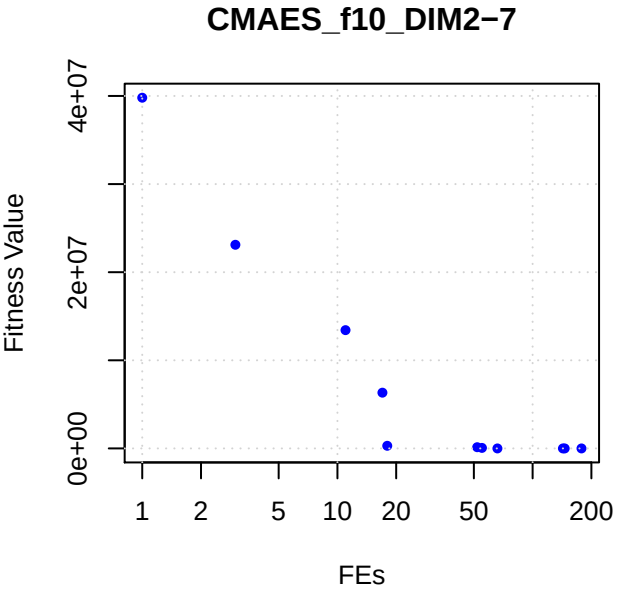

CMAES_f10_DIM2−2
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
50
200
FEs

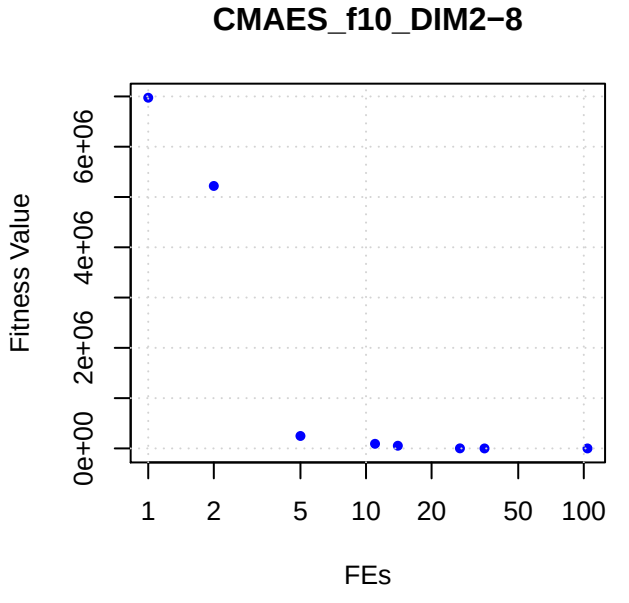

CMAES_f10_DIM2−3
Fitness Value
0e+00
2e+06
1
2
5
10
20
50
100
FEs

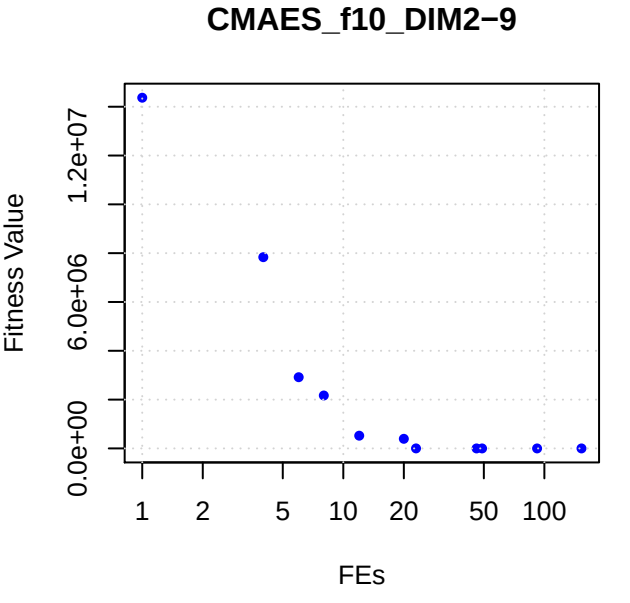

CMAES_f10_DIM2−4
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
50
100
FEs

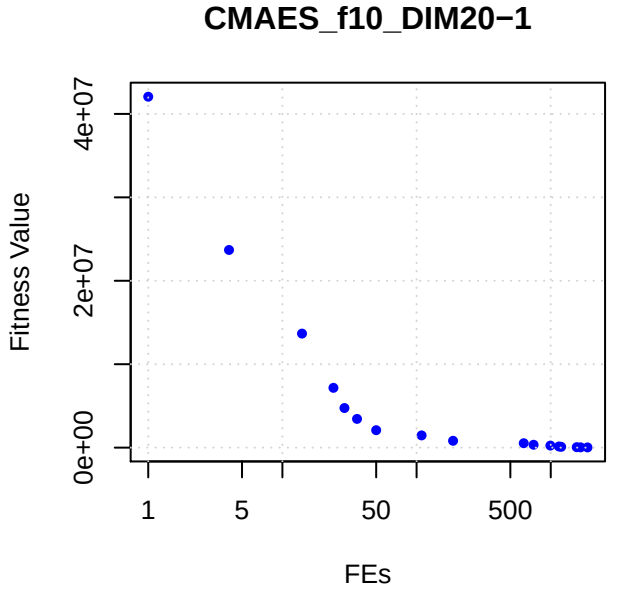

CMAES_f10_DIM2−5
Fitness Value
0e+00
4e+06
1
2
5
10
20
50
200
FEs

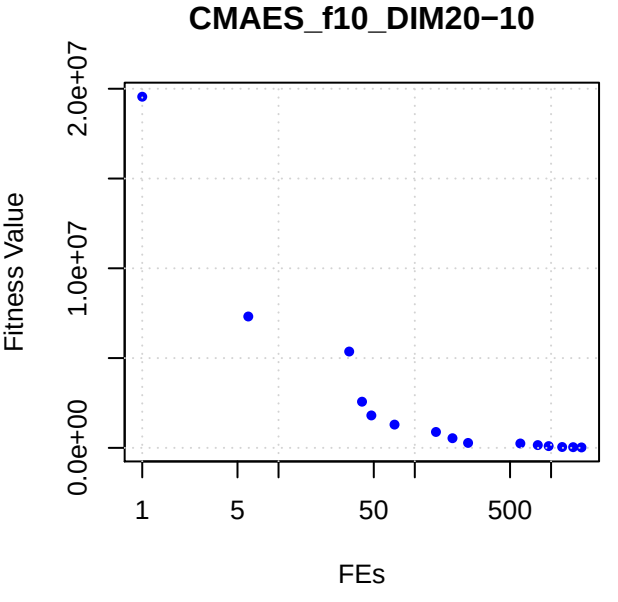

CMAES_f10_DIM2−6
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
200
FEs

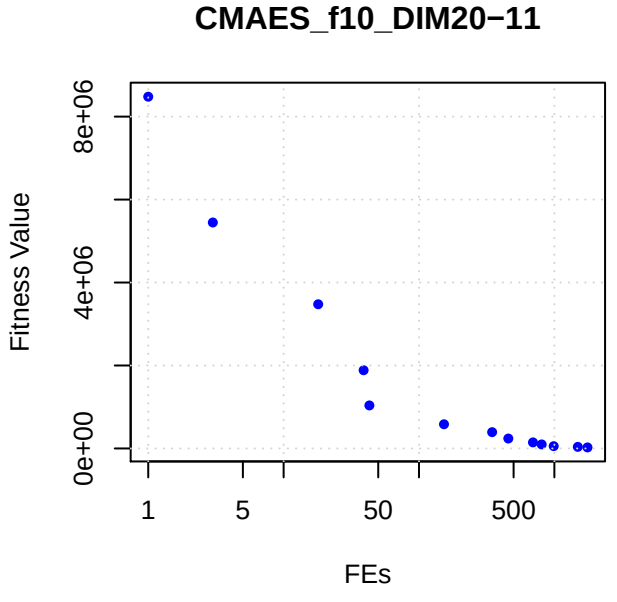

CMAES_f10_DIM2−7
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
20
50
200
FEs

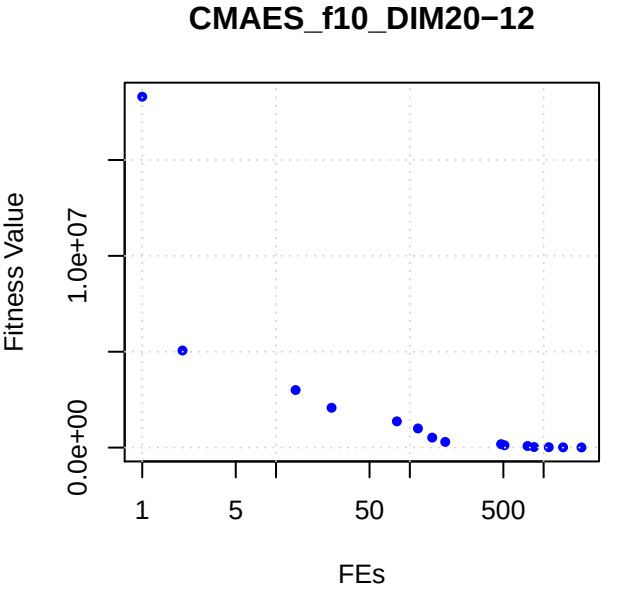

CMAES_f10_DIM2−8
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
50
100
FEs

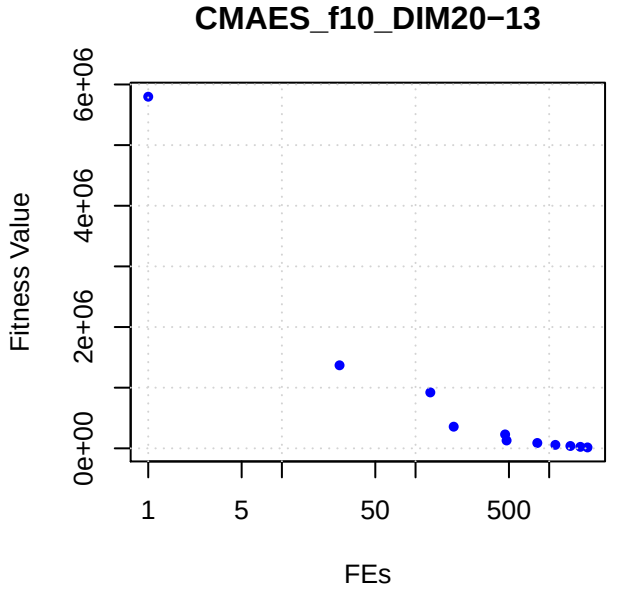

CMAES_f10_DIM2−9
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
2
5
10
20
50
100
FEs

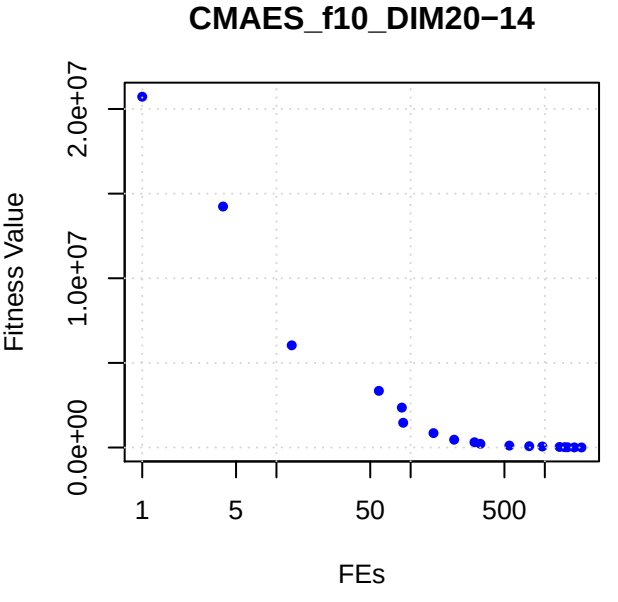

CMAES_f10_DIM20−1
Fitness Value
0e+00
2e+07
4e+07
1
5
50
500
FEs


CMAES_f10_DIM20−10
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
FEs


CMAES_f10_DIM20−11
Fitness Value
0e+00
4e+06
8e+06
1
5
50
500
FEs


CMAES_f10_DIM20−12
Fitness Value
0.0e+00
1.0e+07
1
5
50
500
FEs


CMAES_f10_DIM20−13
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
5
50
500
FEs


CMAES_f10_DIM20−14
Fitness Value
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1.0e+07
2.0e+07
1
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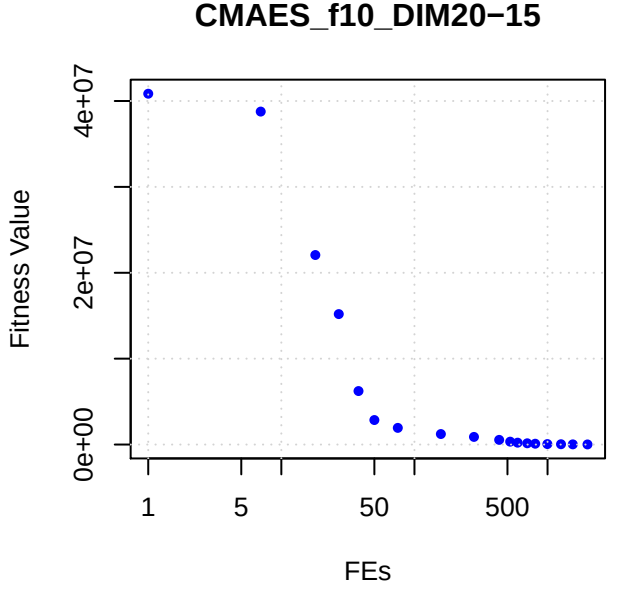
500
FEs


CMAES_f10_DIM20−15
Fitness Value
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4e+07
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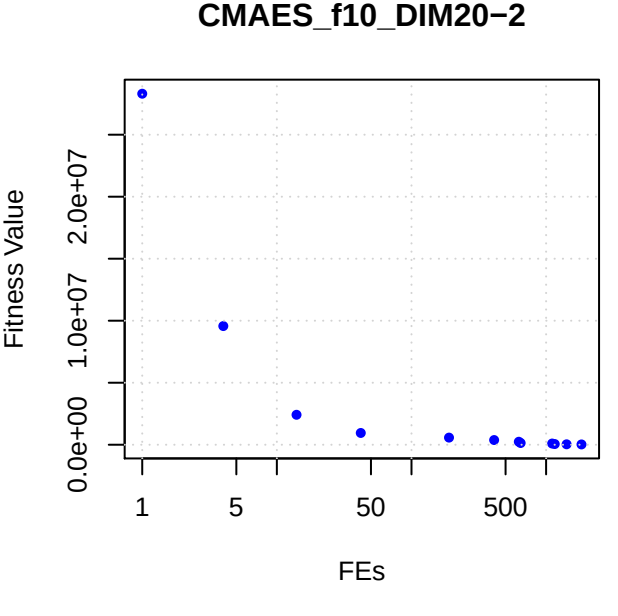
FEs


CMAES_f10_DIM20−2
Fitness Value
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1.0e+07
2.0e+07
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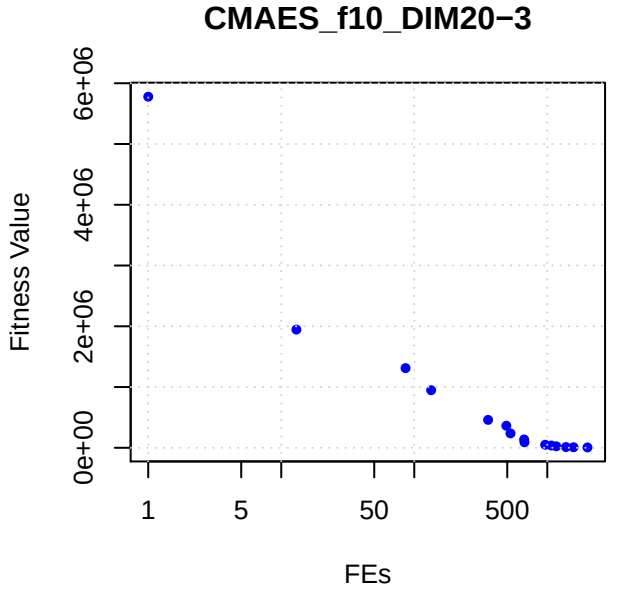
500
FEs


CMAES_f10_DIM20−3
Fitness Value
0e+00
2e+06
4e+06
6e+06
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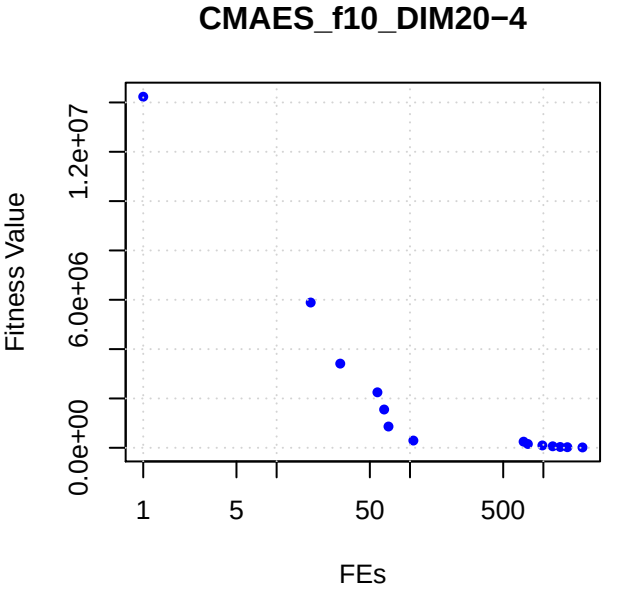
FEs


CMAES_f10_DIM20−4
Fitness Value
0.0e+00
6.0e+06
1.2e+07
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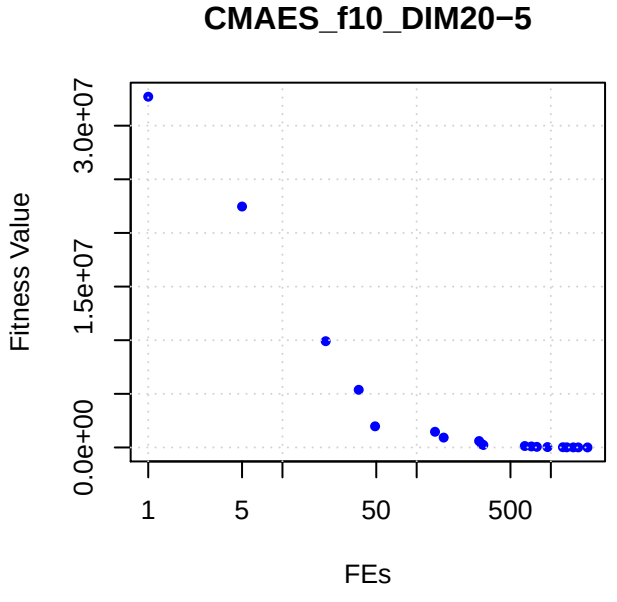
500
FEs


CMAES_f10_DIM20−5
Fitness Value
0.0e+00
1.5e+07
3.0e+07
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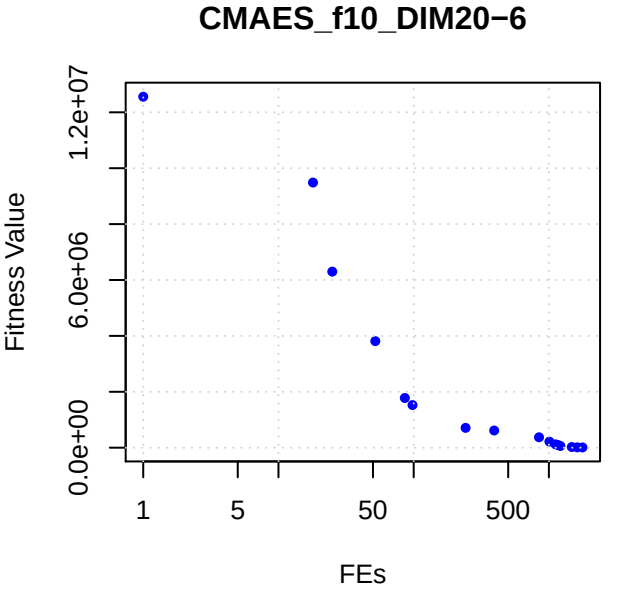
FEs


CMAES_f10_DIM20−6
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
5
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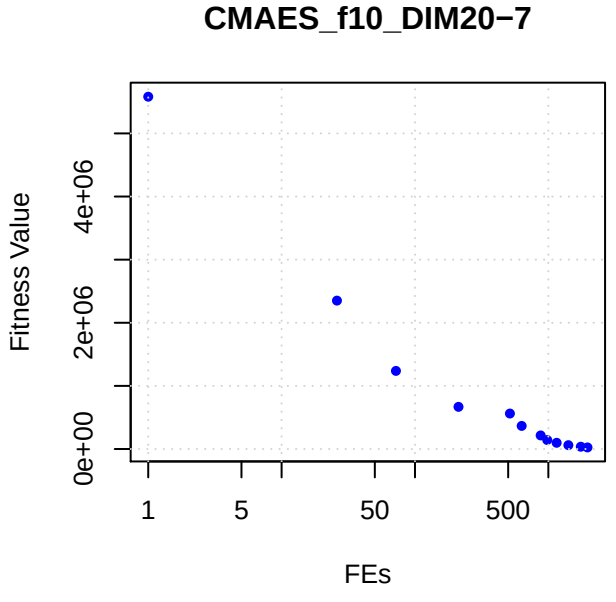
500
FEs


CMAES_f10_DIM20−7
Fitness Value
0e+00
2e+06
4e+06
1
5
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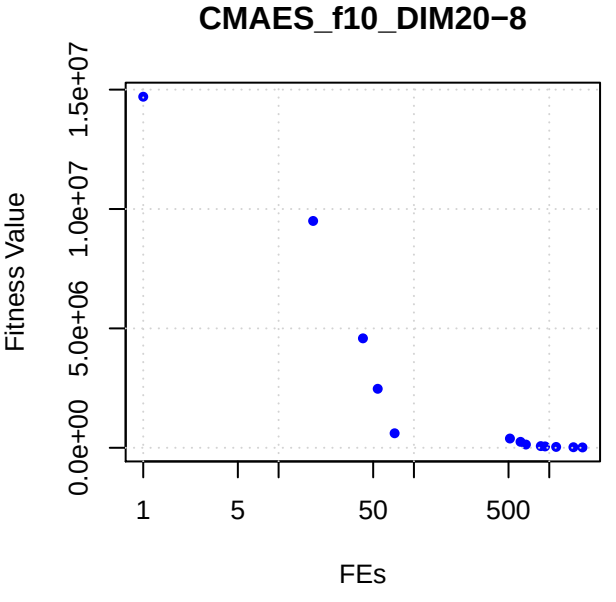
500
FEs


CMAES_f10_DIM20−8
Fitness Value
0.0e+00
5.0e+06
1.0e+07
1.5e+07
1
5
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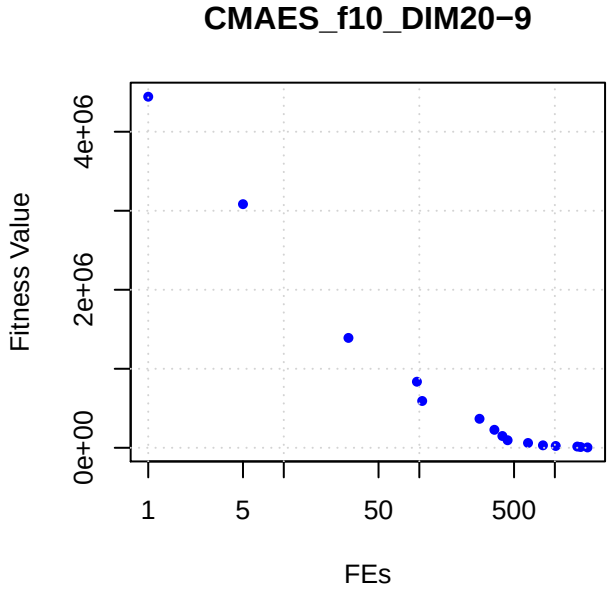
500
FEs


CMAES_f10_DIM20−9
Fitness Value
0e+00
2e+06
4e+06
1
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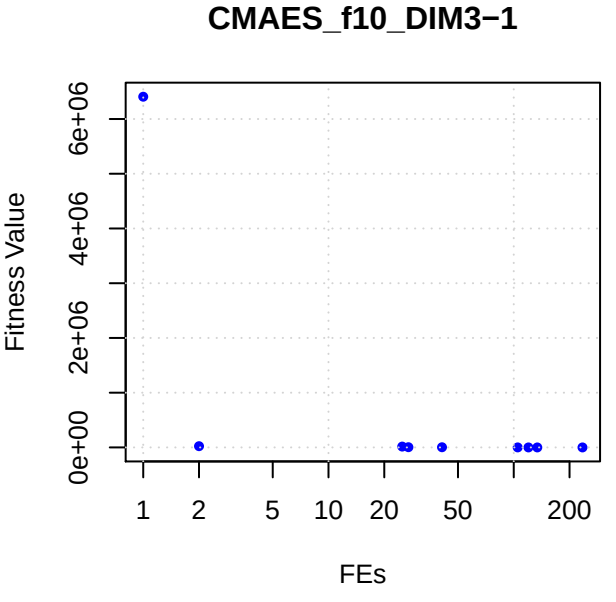
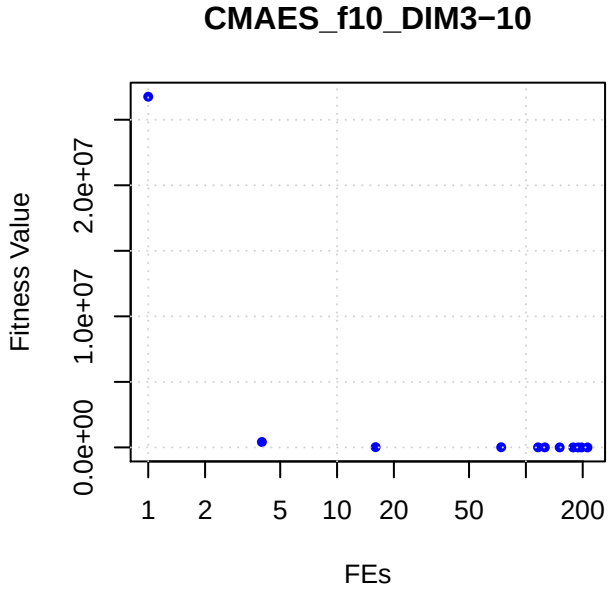
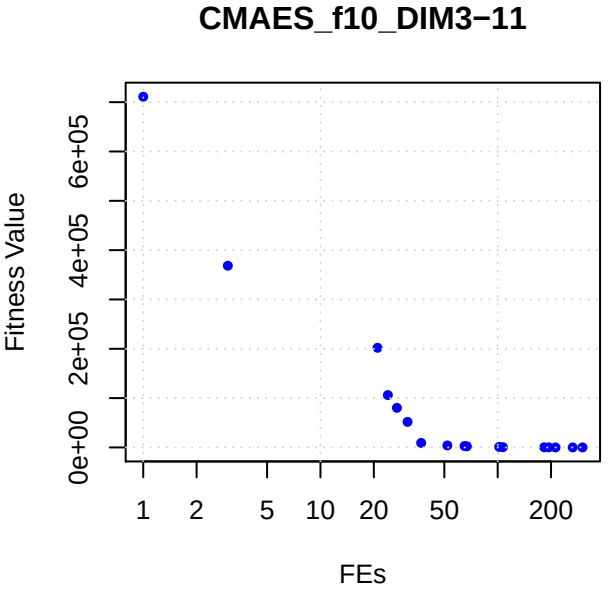
500
FEs


CMAES_f10_DIM3−1
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
50
200
FEs


CMAES_f10_DIM3−10
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f10_DIM3−11
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
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10
20
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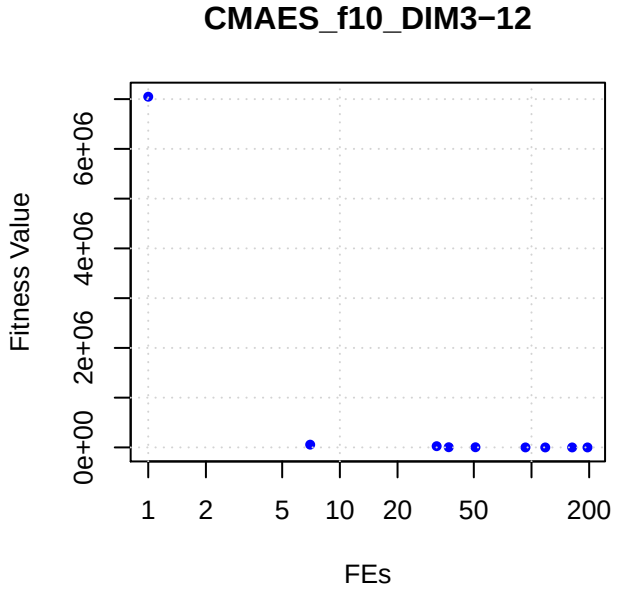
200
FEs


CMAES_f10_DIM3−12
Fitness Value
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2e+06
4e+06
6e+06
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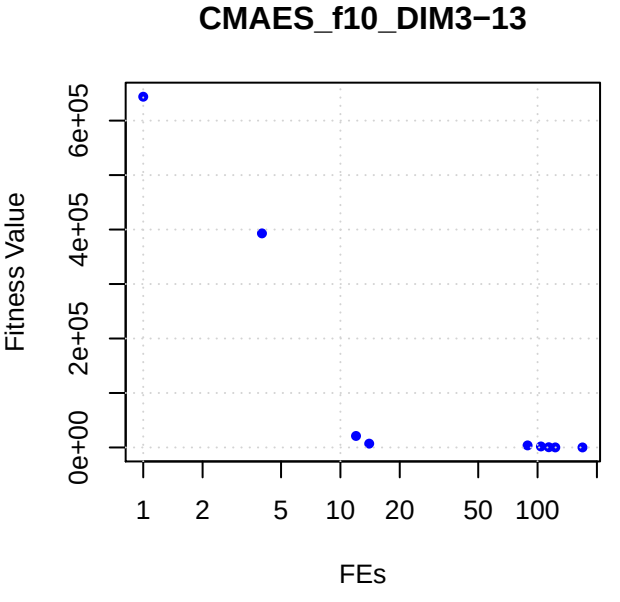
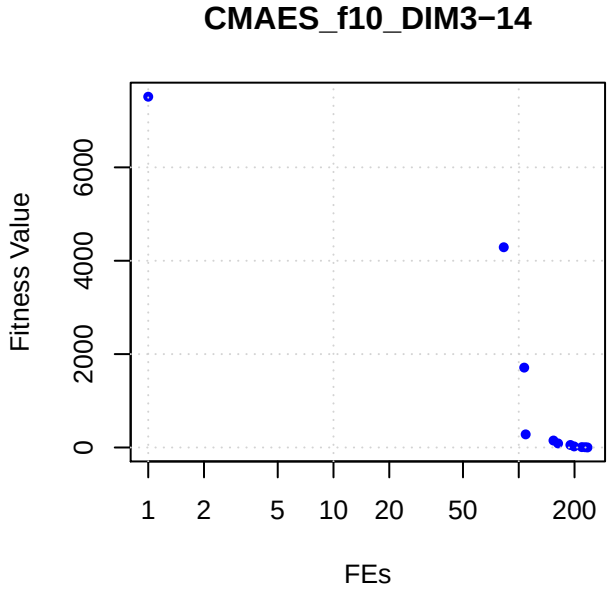
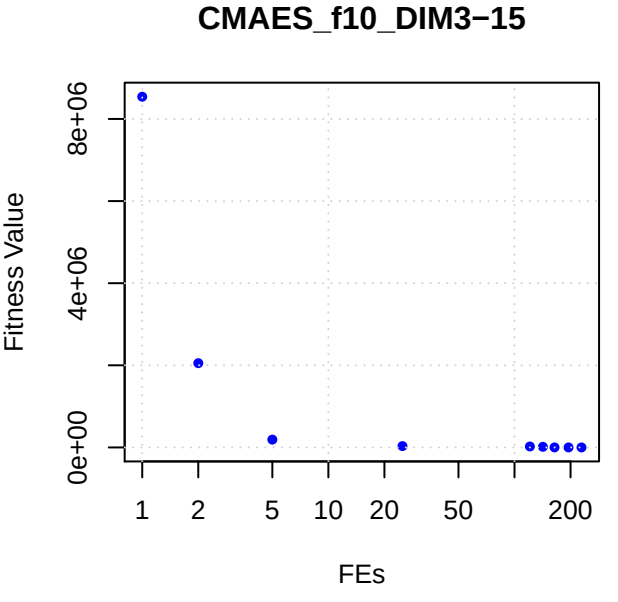
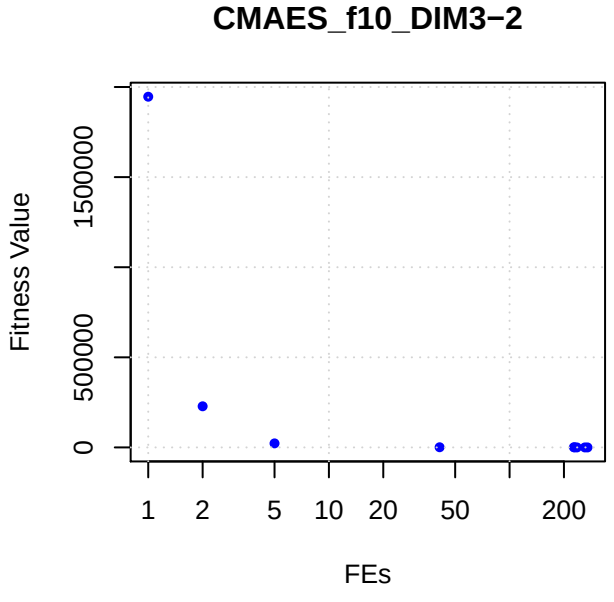
2
5
10
20
50
200
FEs


CMAES_f10_DIM3−13
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
50
100
FEs


CMAES_f10_DIM3−14
Fitness Value
0
2000
4000
6000
1
2
5
10
20
50
200
FEs


CMAES_f10_DIM3−15
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
200
FEs


CMAES_f10_DIM3−2
Fitness Value
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2
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10
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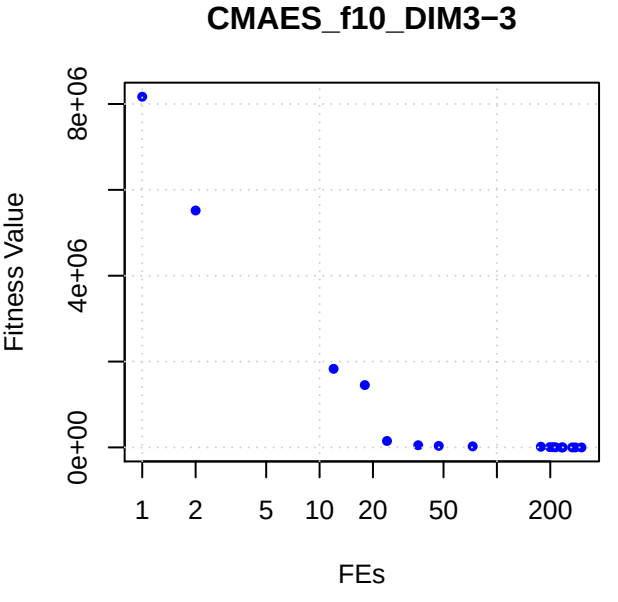
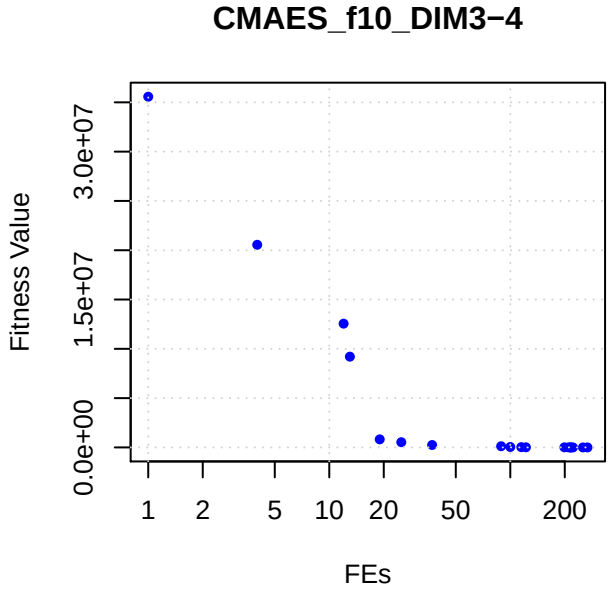
200
FEs


CMAES_f10_DIM3−3
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
200
FEs


CMAES_f10_DIM3−4
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
20
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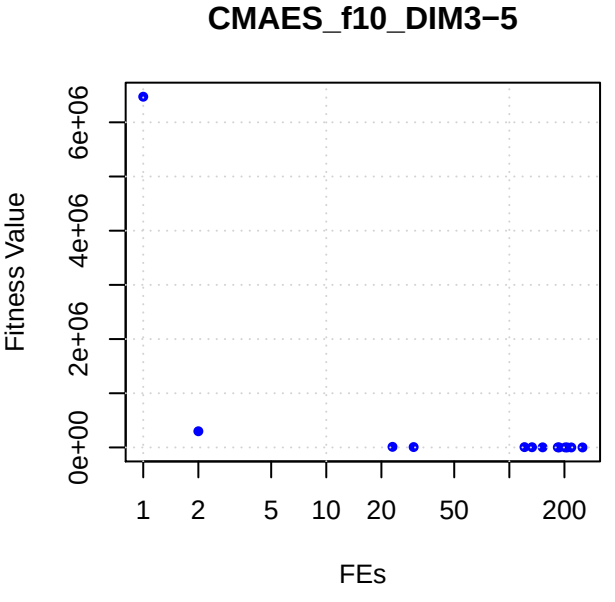
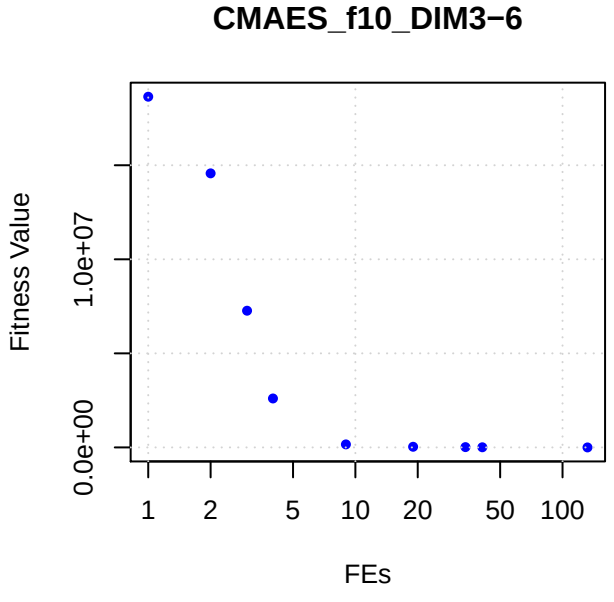
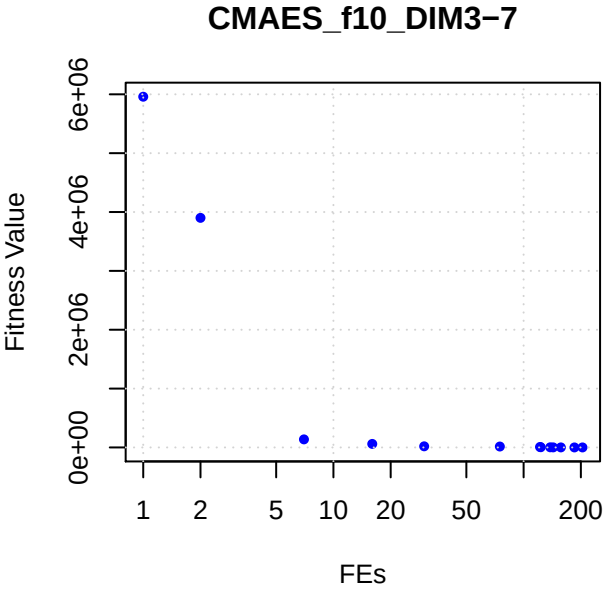
200
FEs


CMAES_f10_DIM3−5
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
50
200
FEs


CMAES_f10_DIM3−6
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
100
FEs


CMAES_f10_DIM3−7
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
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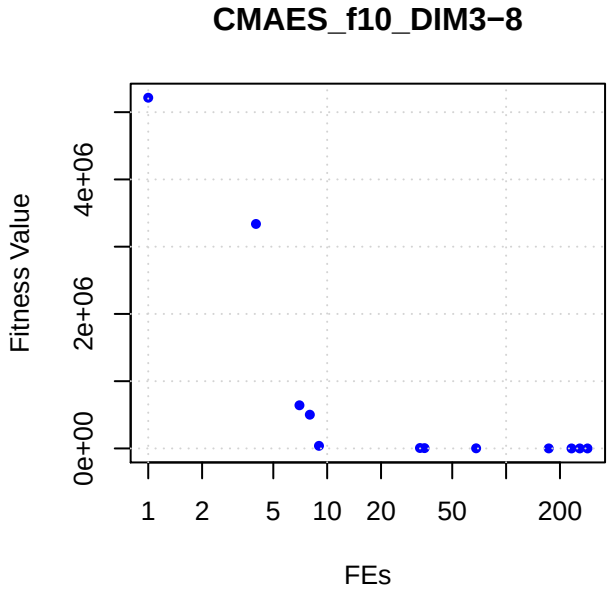
200
FEs


CMAES_f10_DIM3−8
Fitness Value
0e+00
2e+06
4e+06
1
2
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10
20
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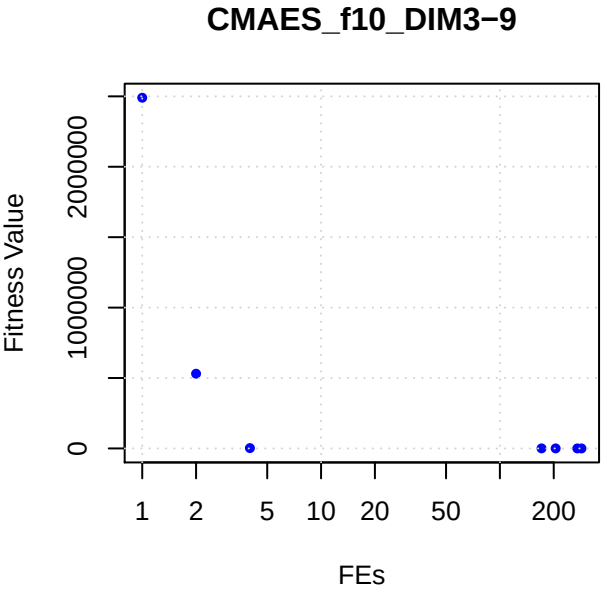
200
FEs


CMAES_f10_DIM3−9
Fitness Value
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2
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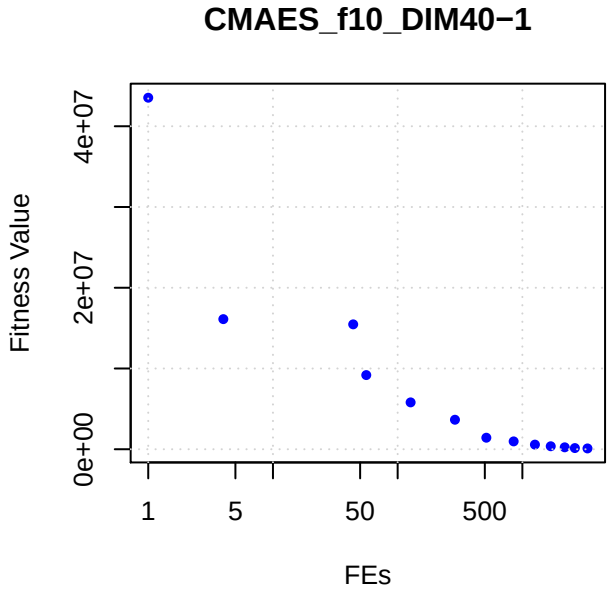
FEs


CMAES_f10_DIM40−1
Fitness Value
0e+00
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4e+07
1
5
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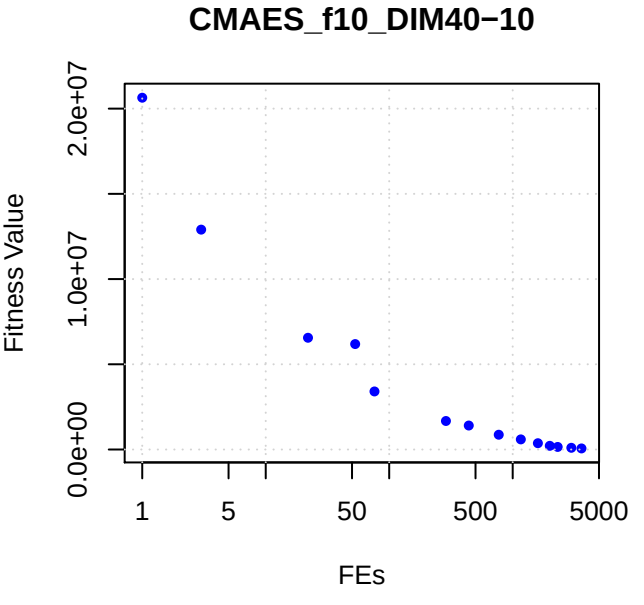
500
FEs


CMAES_f10_DIM40−10
Fitness Value
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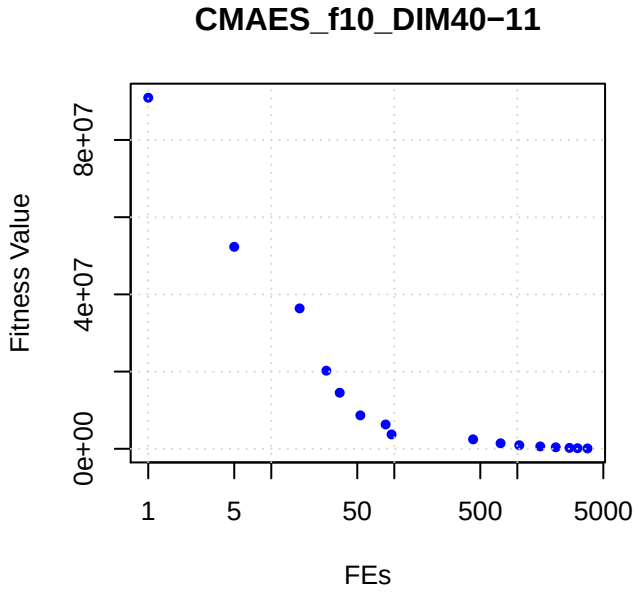
1.0e+07
2.0e+07
1
5
50
500
5000
FEs


CMAES_f10_DIM40−11
Fitness Value
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4e+07
8e+07
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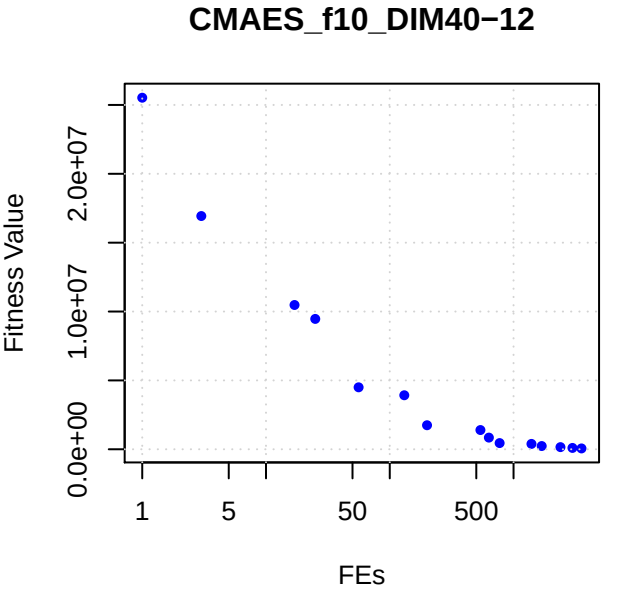
500
5000
FEs


CMAES_f10_DIM40−12
Fitness Value
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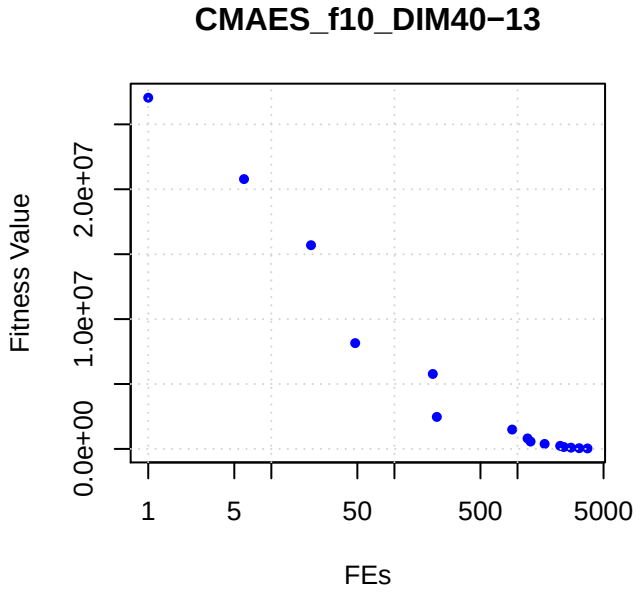
1.0e+07
2.0e+07
1
5
50
500
FEs


CMAES_f10_DIM40−13
Fitness Value
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1.0e+07
2.0e+07
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500
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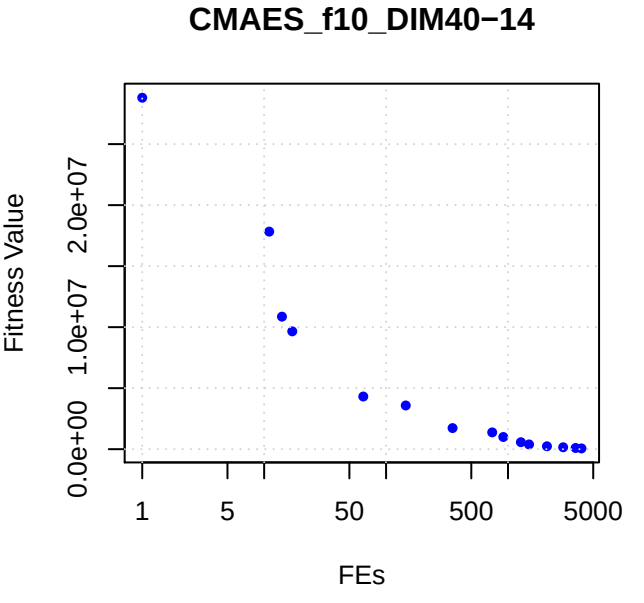
FEs


CMAES_f10_DIM40−14
Fitness Value
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1.0e+07
2.0e+07
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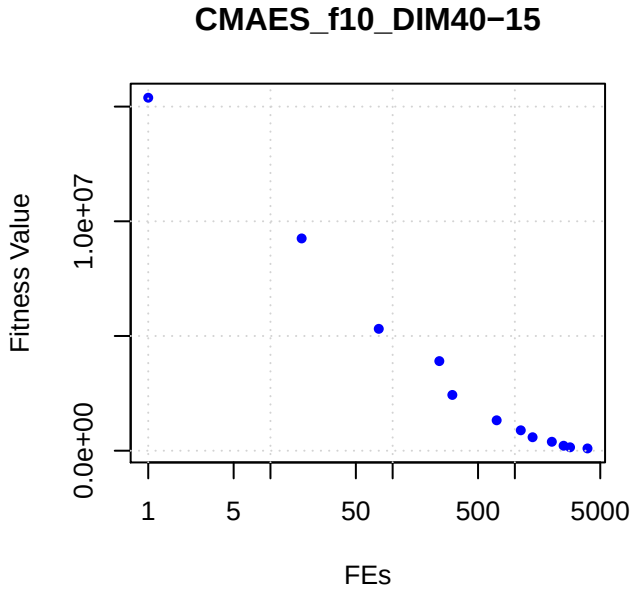
500
5000
FEs


CMAES_f10_DIM40−15
Fitness Value
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1.0e+07
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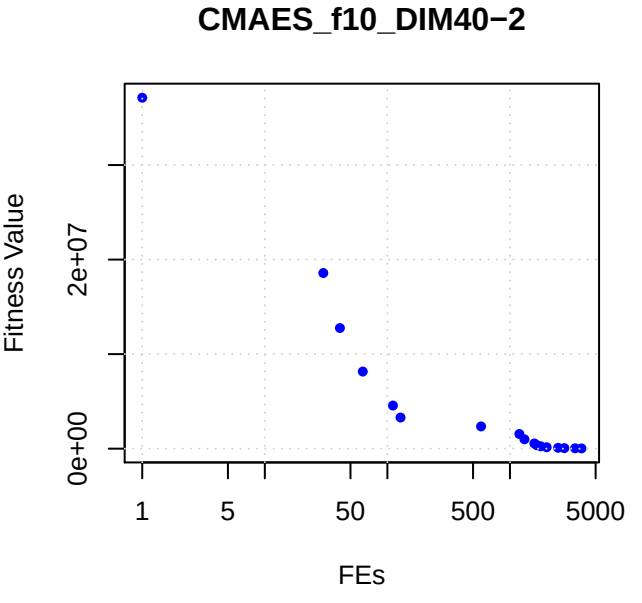
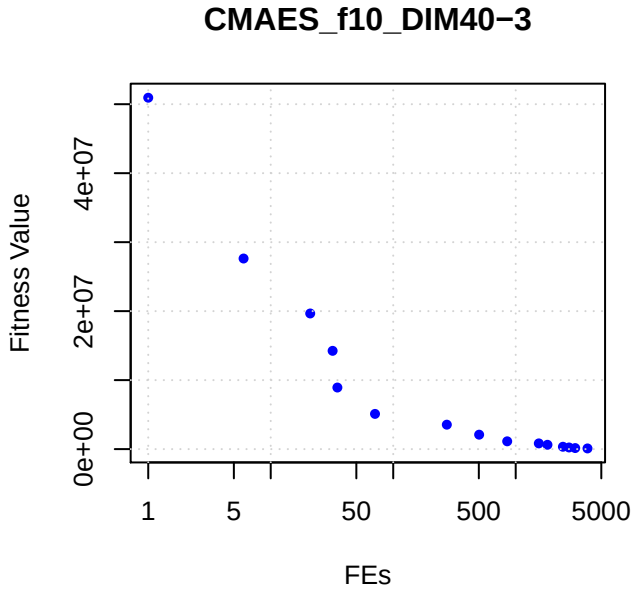
5000
FEs


CMAES_f10_DIM40−2
Fitness Value
0e+00
2e+07
1
5
50
500
5000
FEs


CMAES_f10_DIM40−3
Fitness Value
0e+00
2e+07
4e+07
1
5
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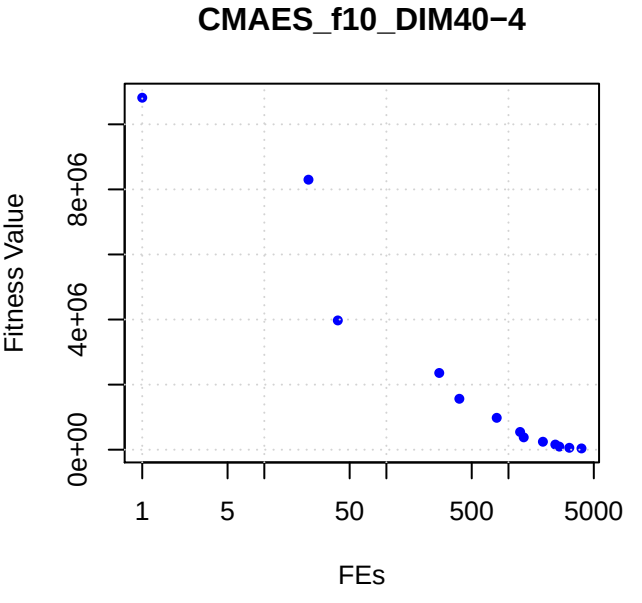
5000
FEs


CMAES_f10_DIM40−4
Fitness Value
0e+00
4e+06
8e+06
1
5
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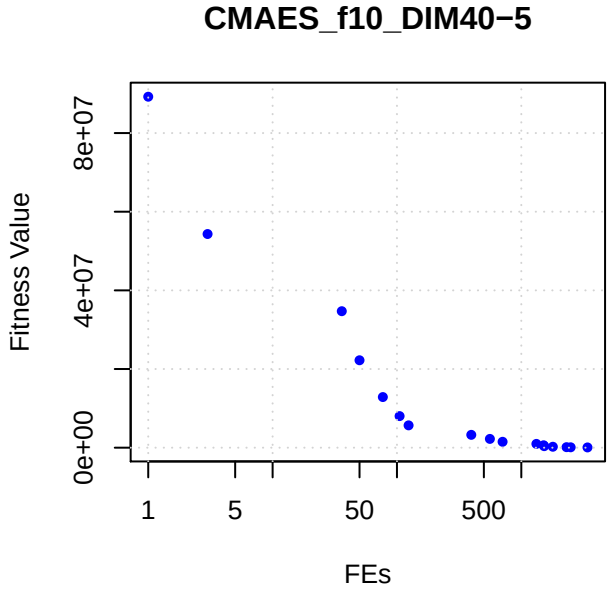
5000
FEs


CMAES_f10_DIM40−5
Fitness Value
0e+00
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8e+07
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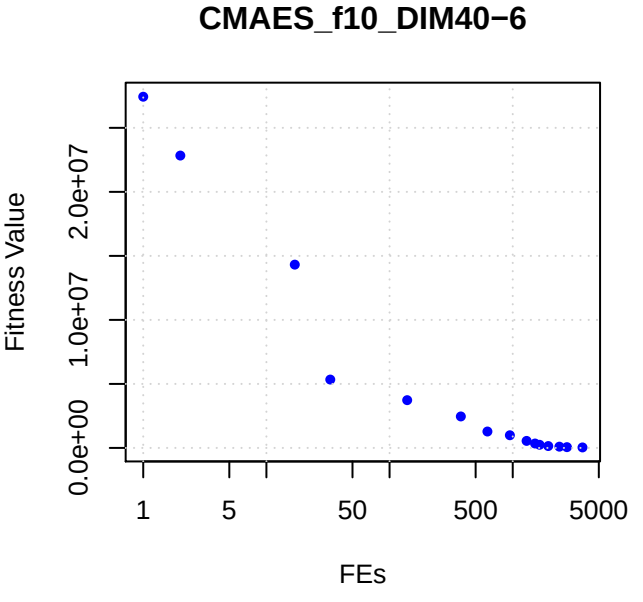
FEs


CMAES_f10_DIM40−6
Fitness Value
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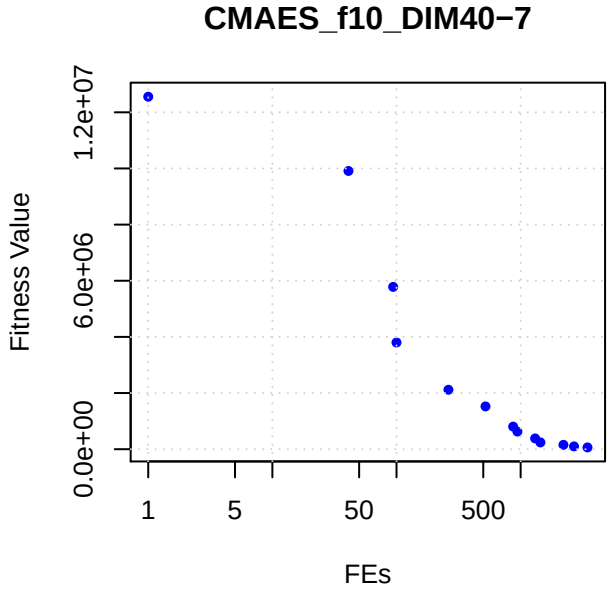
1.0e+07
2.0e+07
1
5
50
500
5000
FEs


CMAES_f10_DIM40−7
Fitness Value
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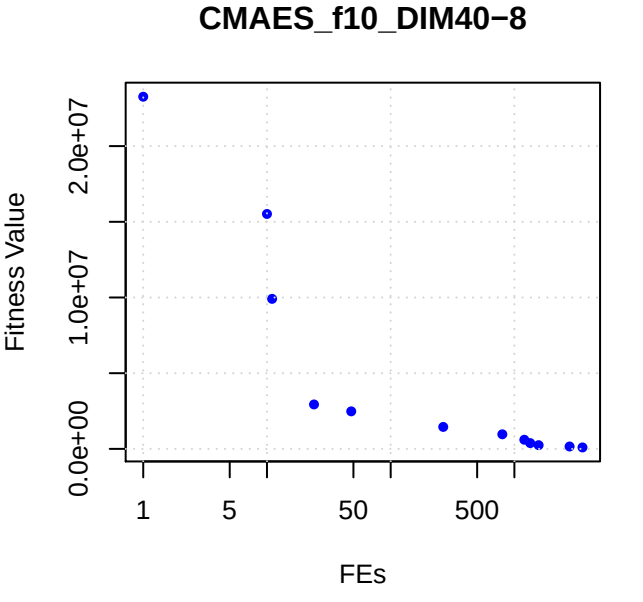
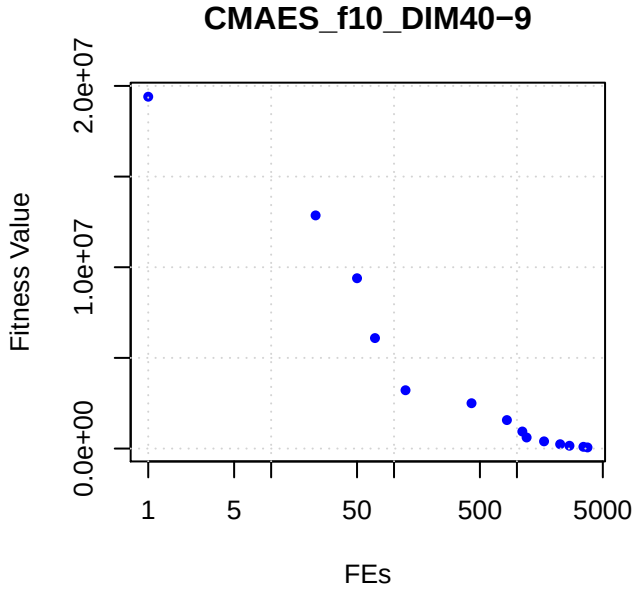
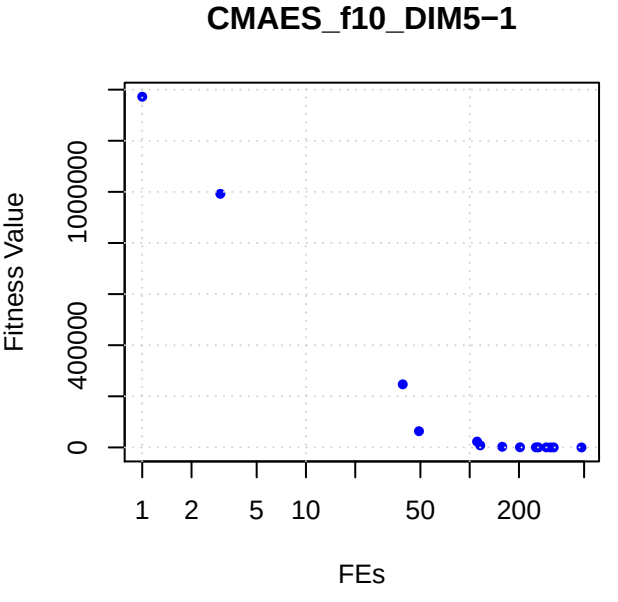
6.0e+06
1.2e+07
1
5
50
500
FEs


CMAES_f10_DIM40−8
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
FEs


CMAES_f10_DIM40−9
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
5000
FEs


CMAES_f10_DIM5−1
Fitness Value
0
400000
1000000
1
2
5
10
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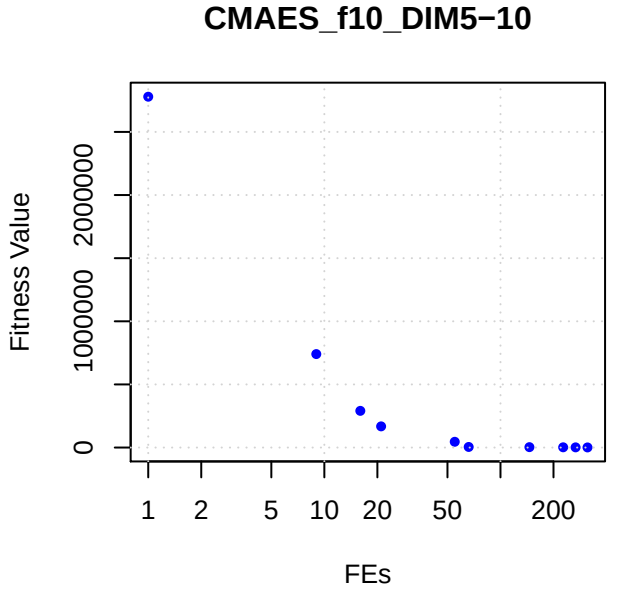
200
FEs


CMAES_f10_DIM5−10
Fitness Value
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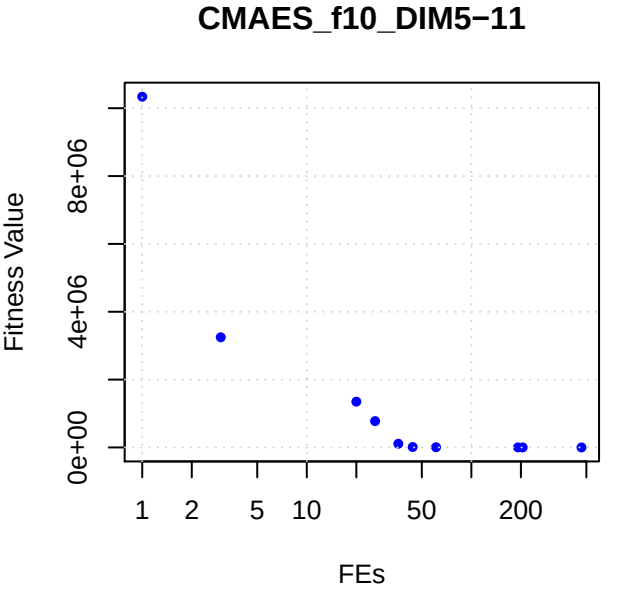
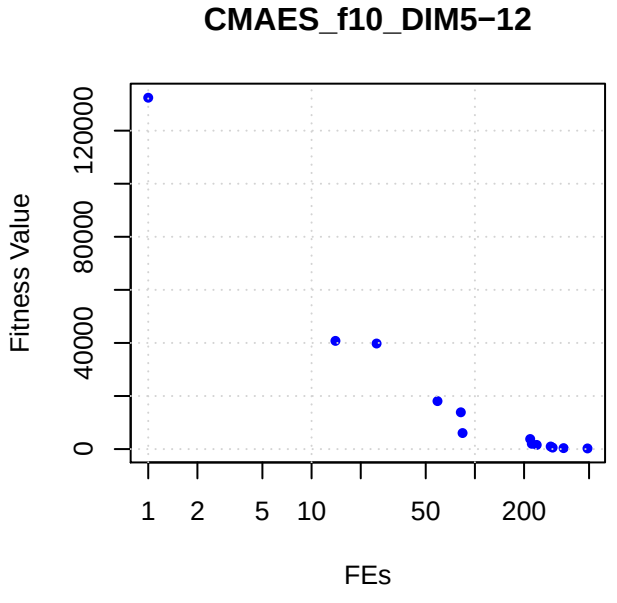
1000000
2000000
1
2
5
10
20
50
200
FEs


CMAES_f10_DIM5−11
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
50
200
FEs


CMAES_f10_DIM5−12
Fitness Value
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40000
80000
120000
1
2
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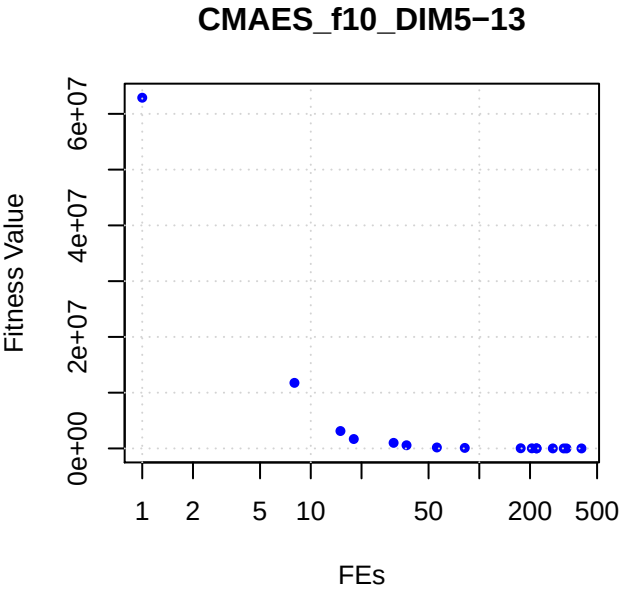
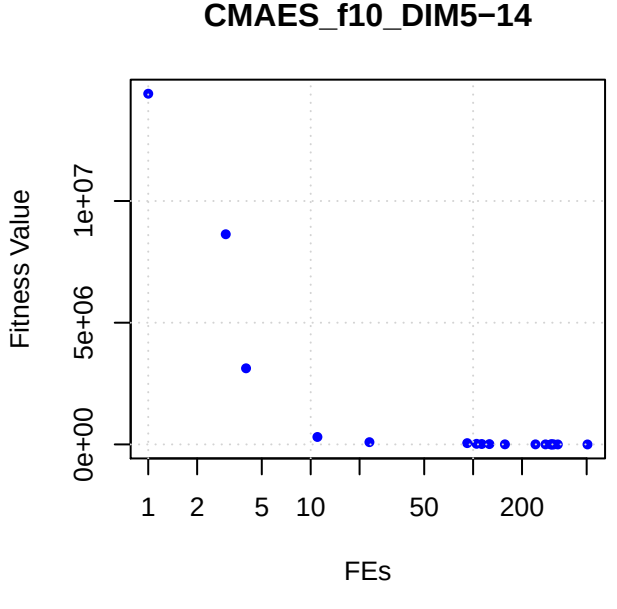
10
50
200
FEs


CMAES_f10_DIM5−13
Fitness Value
0e+00
2e+07
4e+07
6e+07
1
2
5
10
50
200
500
FEs


CMAES_f10_DIM5−14
Fitness Value
0e+00
5e+06
1e+07
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2
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10
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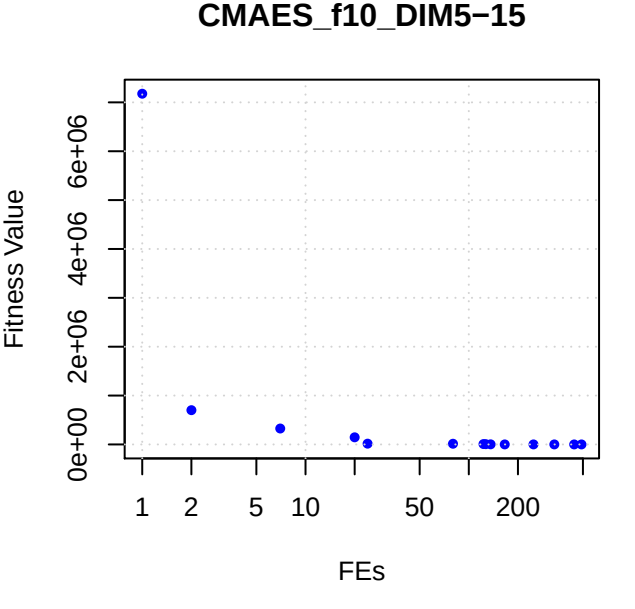
200
FEs


CMAES_f10_DIM5−15
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
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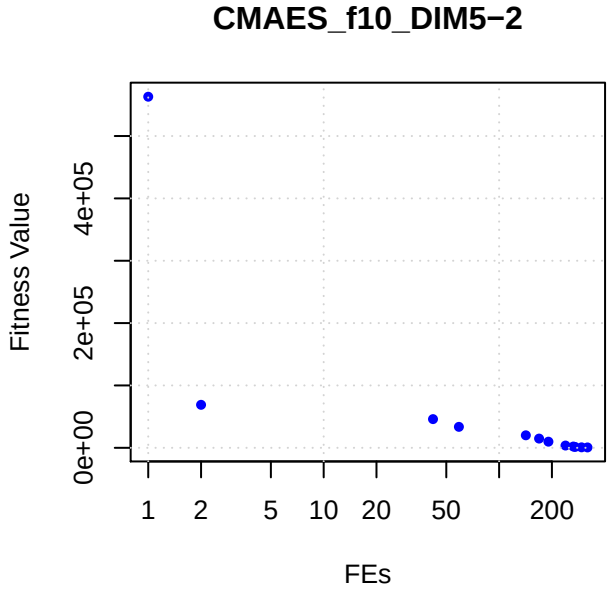
FEs


CMAES_f10_DIM5−2
Fitness Value
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2e+05
4e+05
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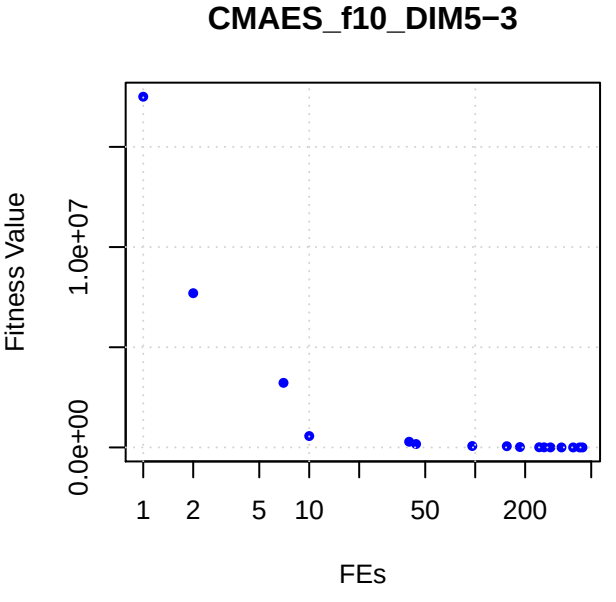
2
5
10
20
50
200
FEs


CMAES_f10_DIM5−3
Fitness Value
0.0e+00
1.0e+07
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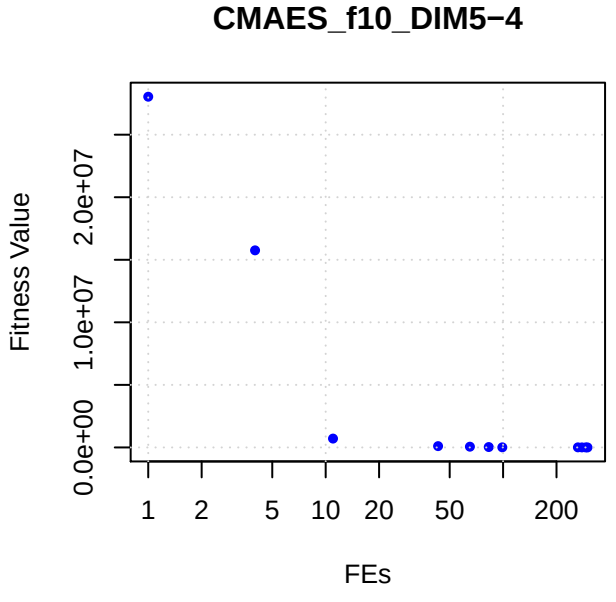
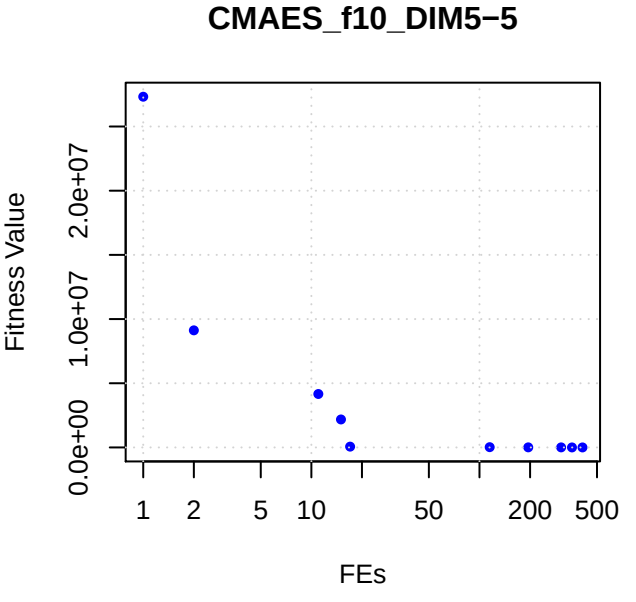
2
5
10
50
200
FEs


CMAES_f10_DIM5−4
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f10_DIM5−5
Fitness Value
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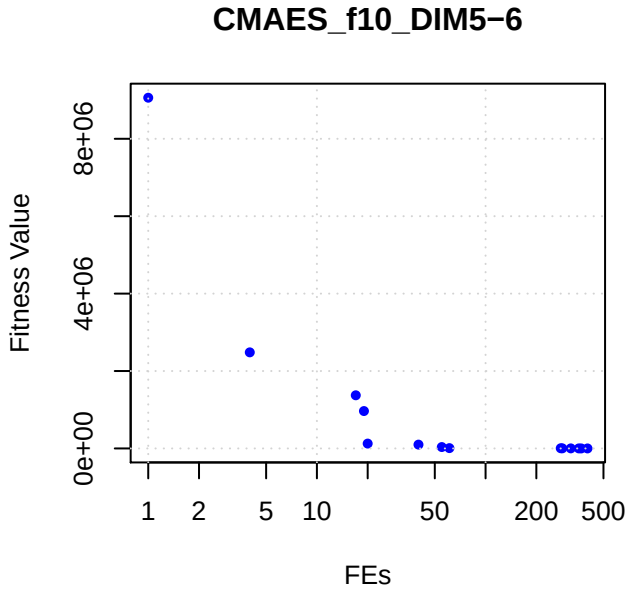
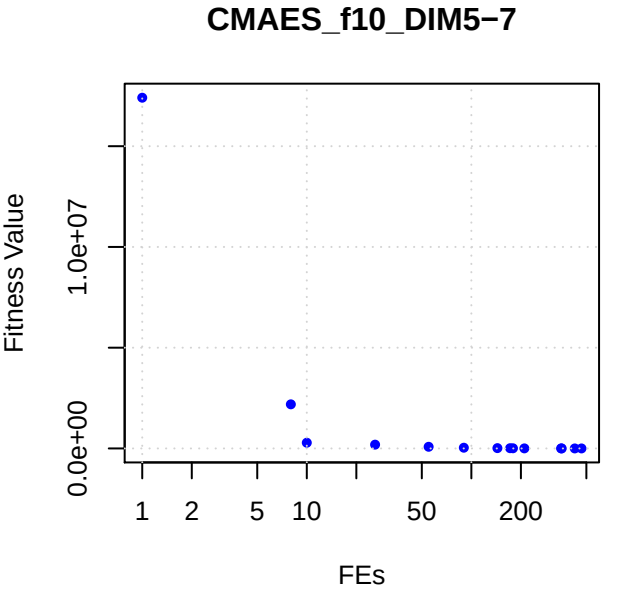
1.0e+07
2.0e+07
1
2
5
10
50
200
500
FEs


CMAES_f10_DIM5−6
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
50
200
500
FEs


CMAES_f10_DIM5−7
Fitness Value
0.0e+00
1.0e+07
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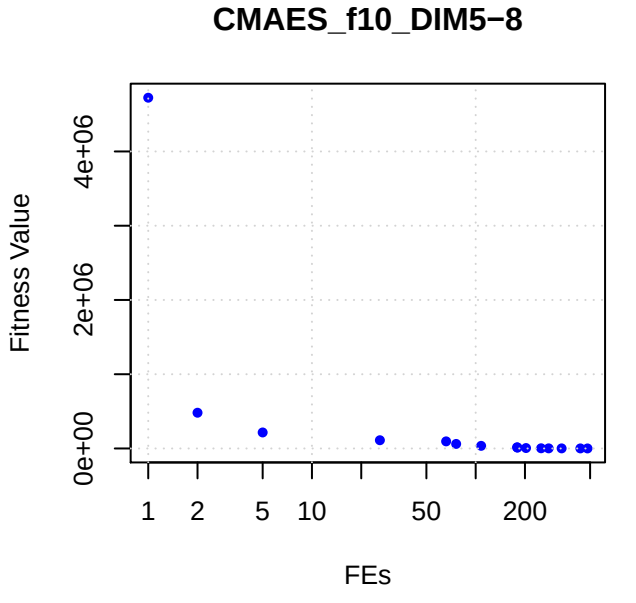
2
5
10
50
200
FEs


CMAES_f10_DIM5−8
Fitness Value
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2e+06
4e+06
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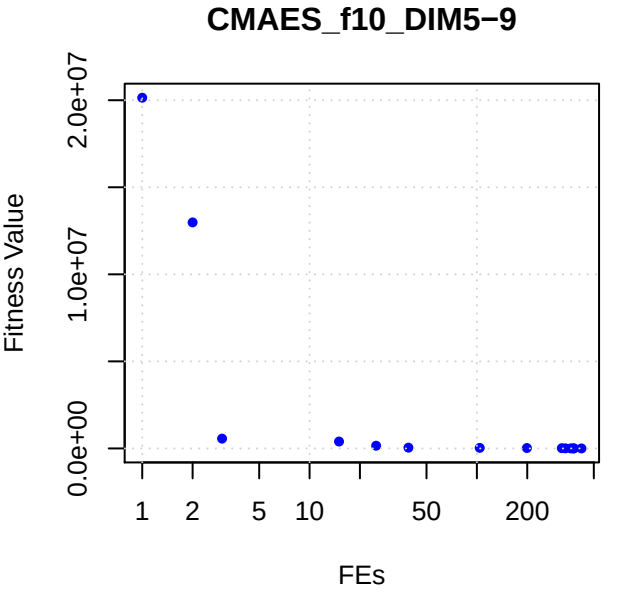
2
5
10
50
200
FEs


CMAES_f10_DIM5−9
Fitness Value
0.0e+00
1.0e+07
2.0e+07
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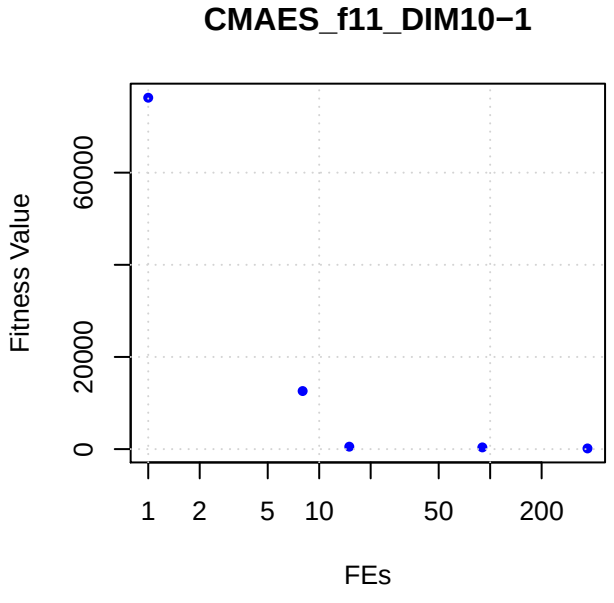
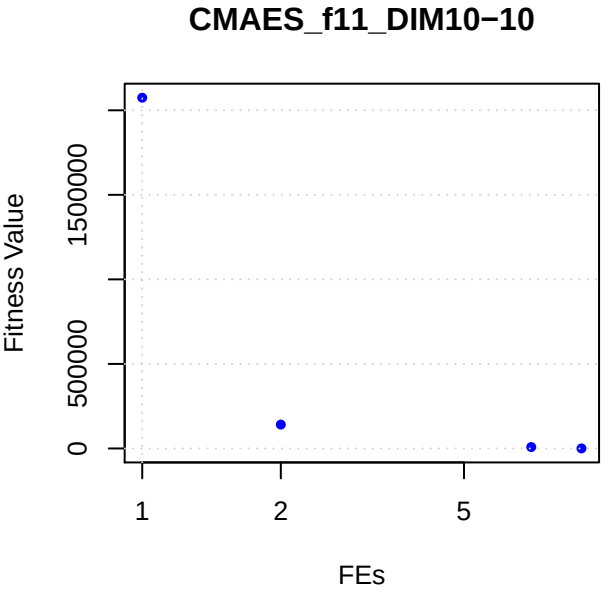
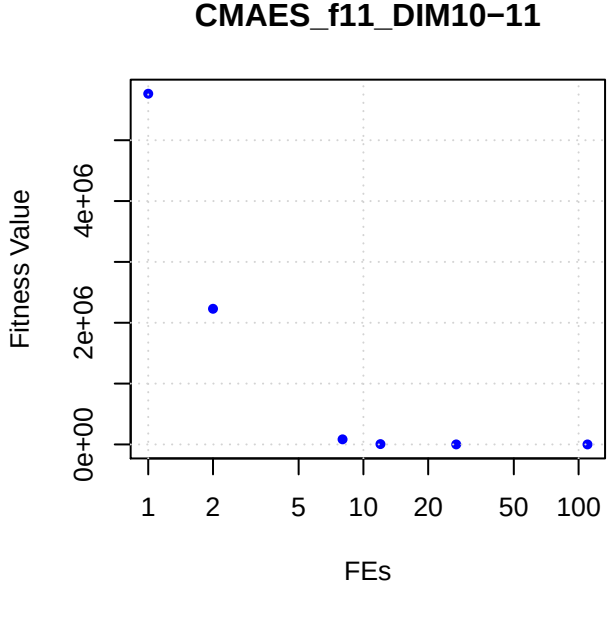
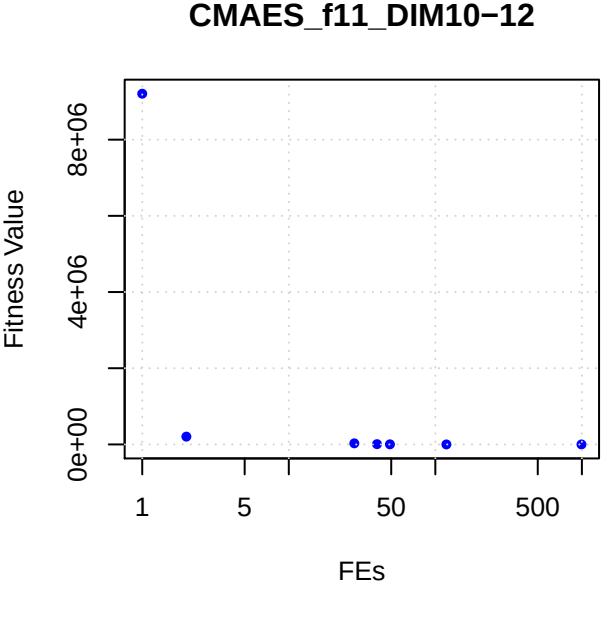
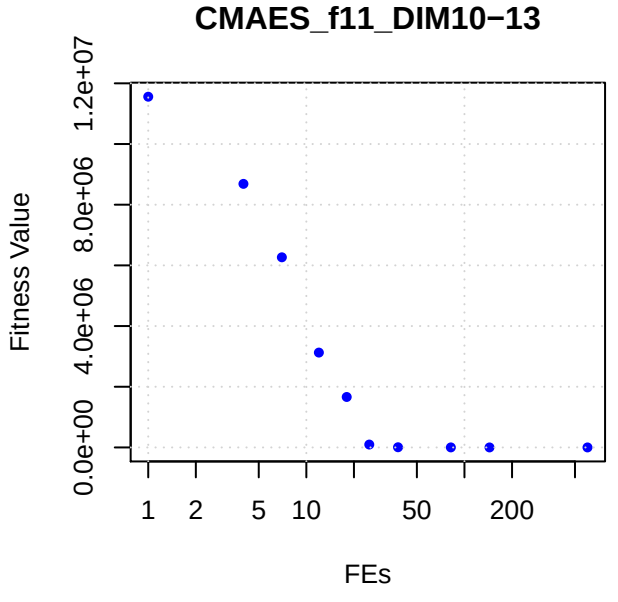
2
5
10
50
200
FEs

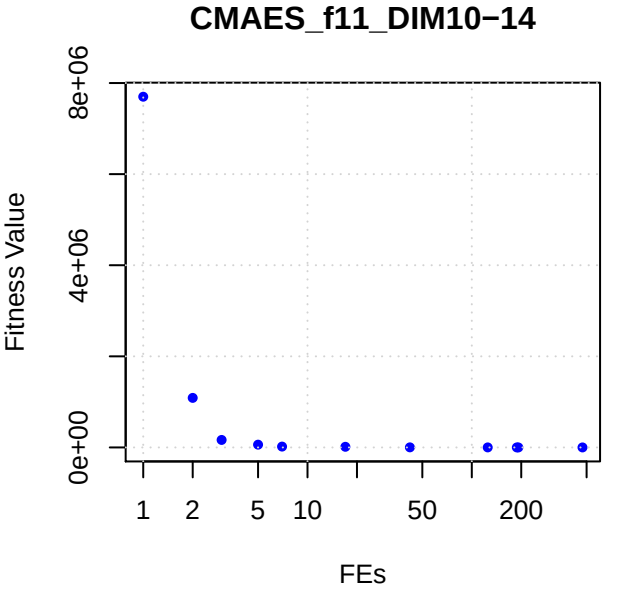

CMAES_f11_DIM10−1
Fitness Value
0
20000
60000
1
2
5
10
50
200
FEs


CMAES_f11_DIM10−10
Fitness Value
0
500000
1500000
1
2
5
FEs


CMAES_f11_DIM10−11
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM10−12
Fitness Value
0e+00
4e+06
8e+06
1
5
50
500
FEs


CMAES_f11_DIM10−13
Fitness Value
0.0e+00
4.0e+06
8.0e+06
1.2e+07
1
2
5
10
50
200
FEs


CMAES_f11_DIM10−14
Fitness Value
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4e+06
8e+06
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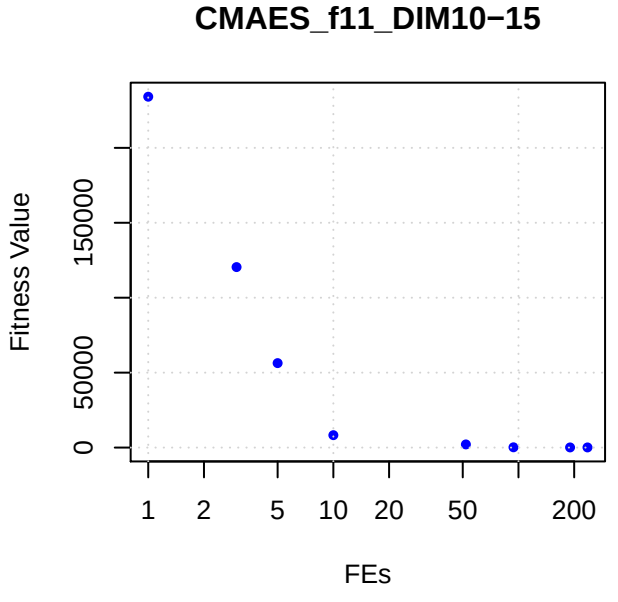
2
5
10
50
200
FEs


CMAES_f11_DIM10−15
Fitness Value
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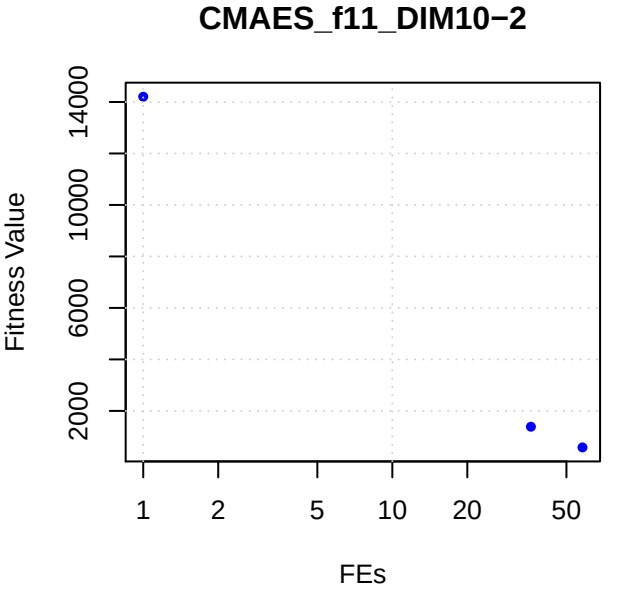
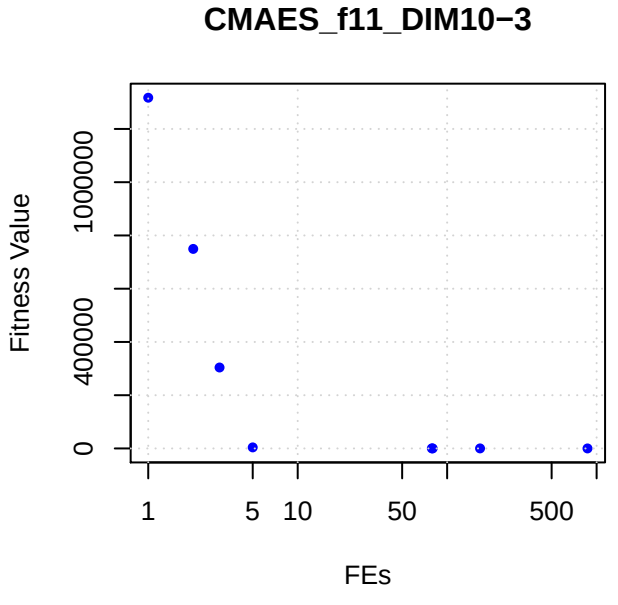
50000
150000
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM10−2
Fitness Value
2000
6000
10000
14000
1
2
5
10
20
50
FEs


CMAES_f11_DIM10−3
Fitness Value
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1000000
1
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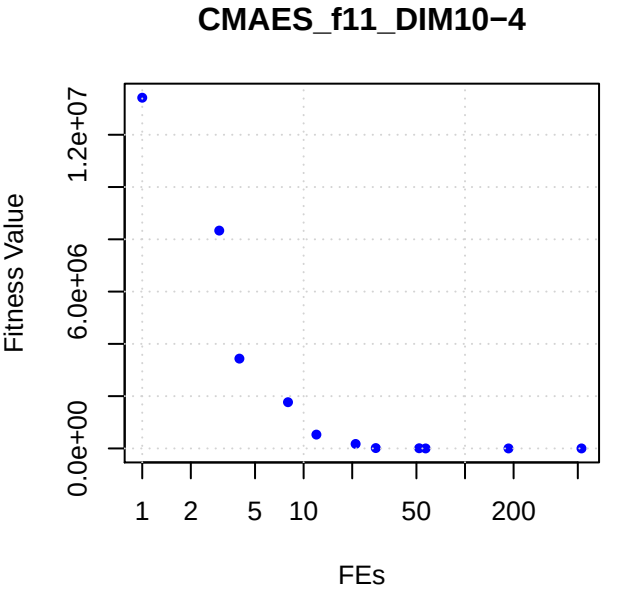
50
500
FEs


CMAES_f11_DIM10−4
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
2
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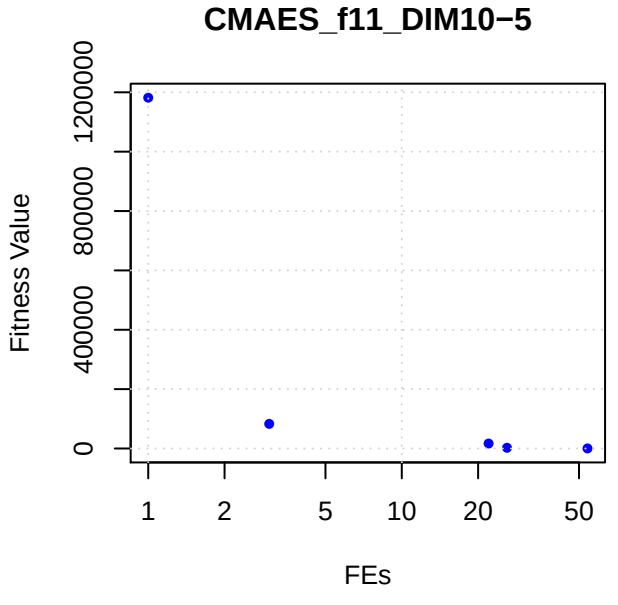
10
50
200
FEs


CMAES_f11_DIM10−5
Fitness Value
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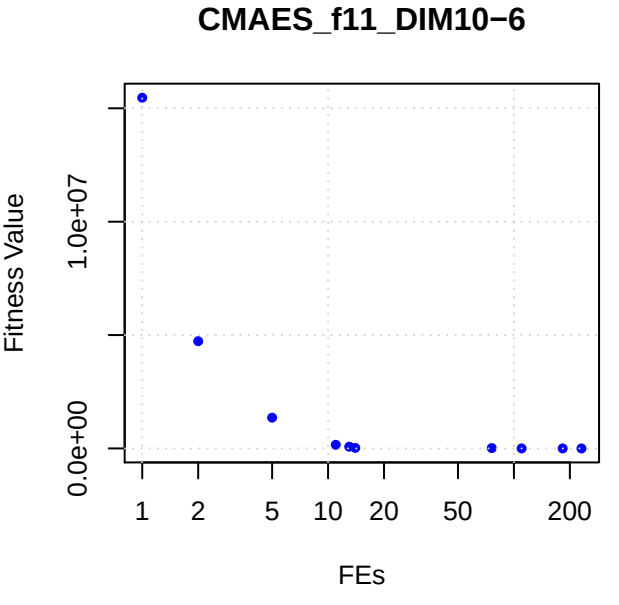
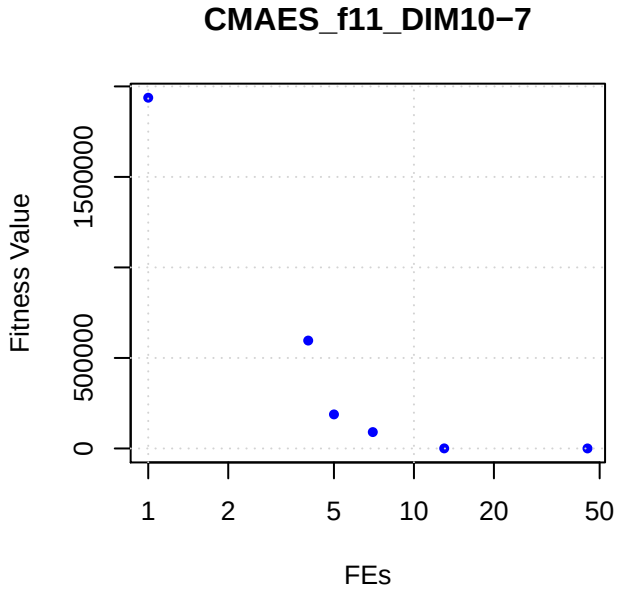
800000
1200000
1
2
5
10
20
50
FEs


CMAES_f11_DIM10−6
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM10−7
Fitness Value
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500000
1500000
1
2
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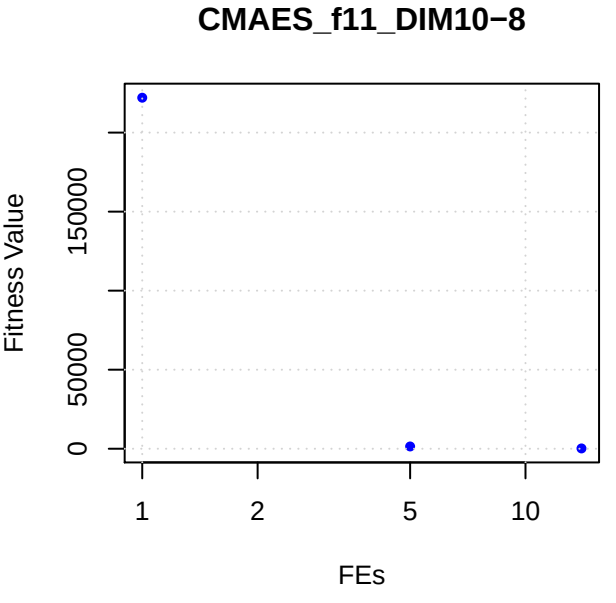
10
20
50
FEs


CMAES_f11_DIM10−8
Fitness Value
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50000
150000
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2
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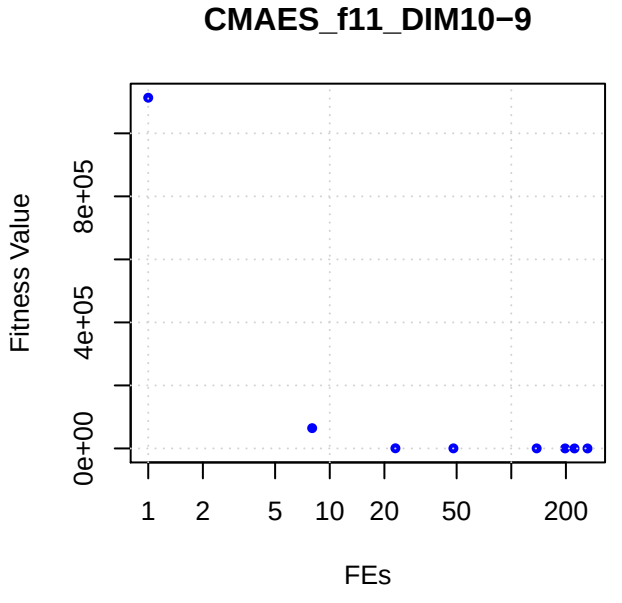
10
FEs


CMAES_f11_DIM10−9
Fitness Value
0e+00
4e+05
8e+05
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2
5
10
20
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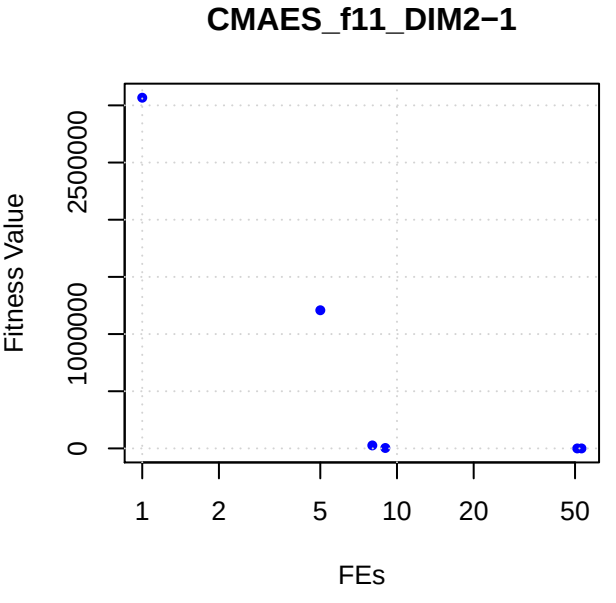
200
FEs


CMAES_f11_DIM2−1
Fitness Value
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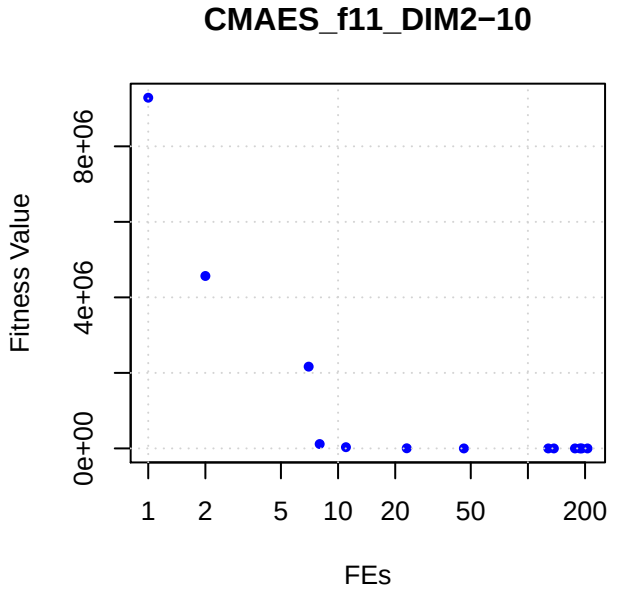
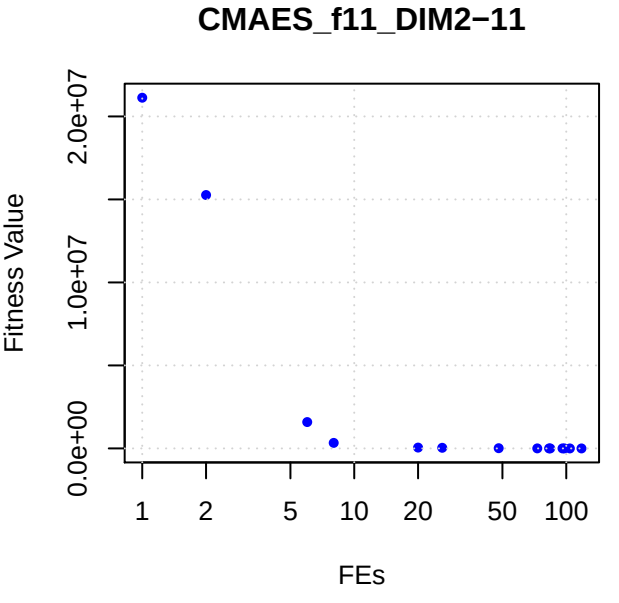
1000000
2500000
1
2
5
10
20
50
FEs


CMAES_f11_DIM2−10
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM2−11
Fitness Value
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1.0e+07
2.0e+07
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2
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10
20
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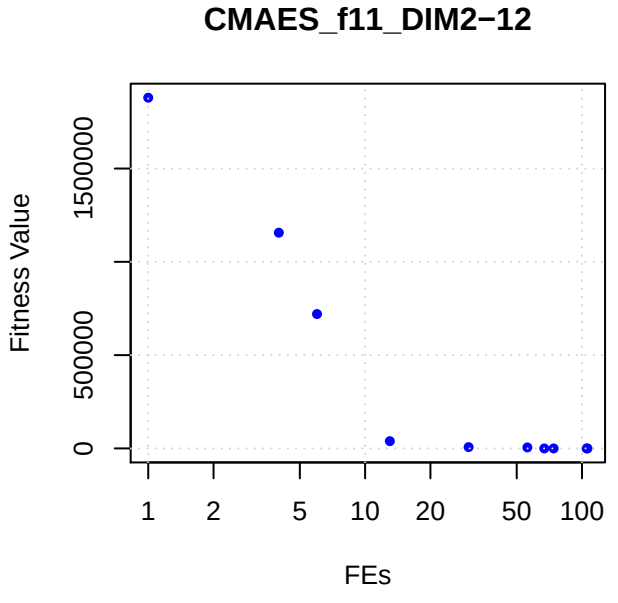
100
FEs


CMAES_f11_DIM2−12
Fitness Value
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500000
1500000
1
2
5
10
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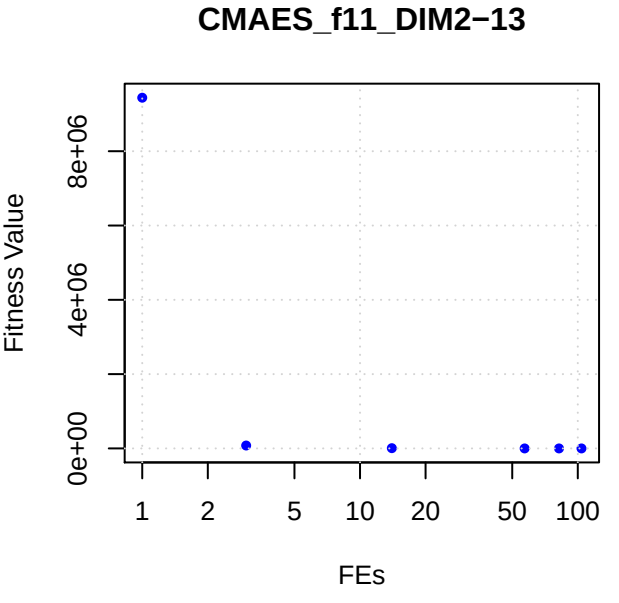
100
FEs


CMAES_f11_DIM2−13
Fitness Value
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4e+06
8e+06
1
2
5
10
20
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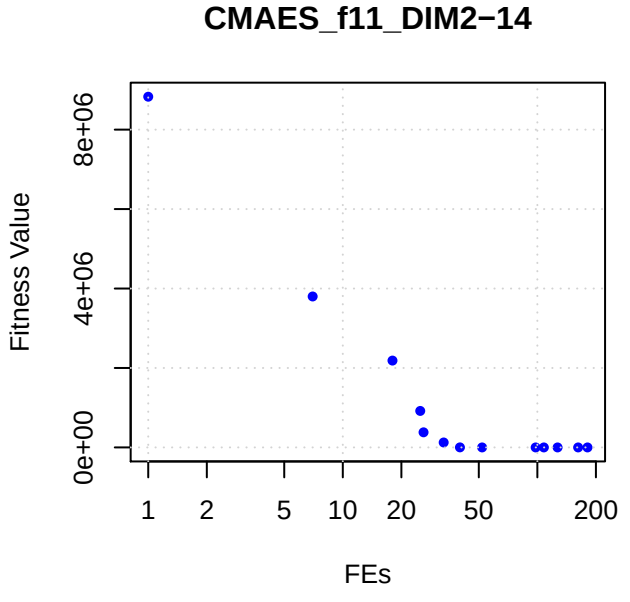
100
FEs


CMAES_f11_DIM2−14
Fitness Value
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4e+06
8e+06
1
2
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20
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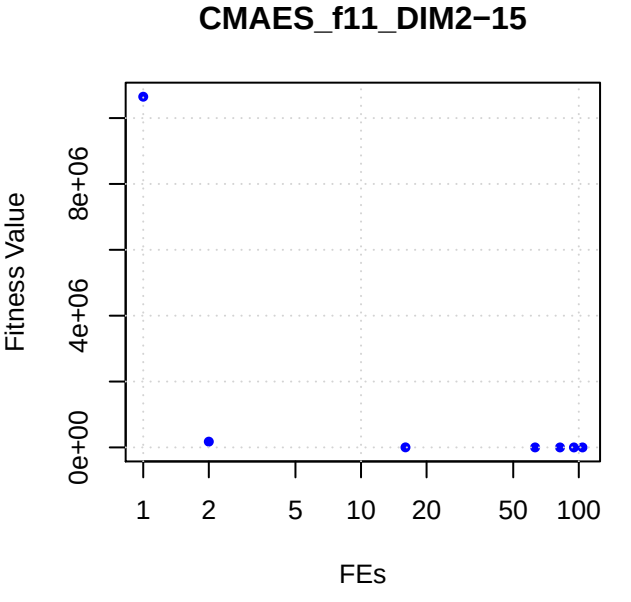
200
FEs


CMAES_f11_DIM2−15
Fitness Value
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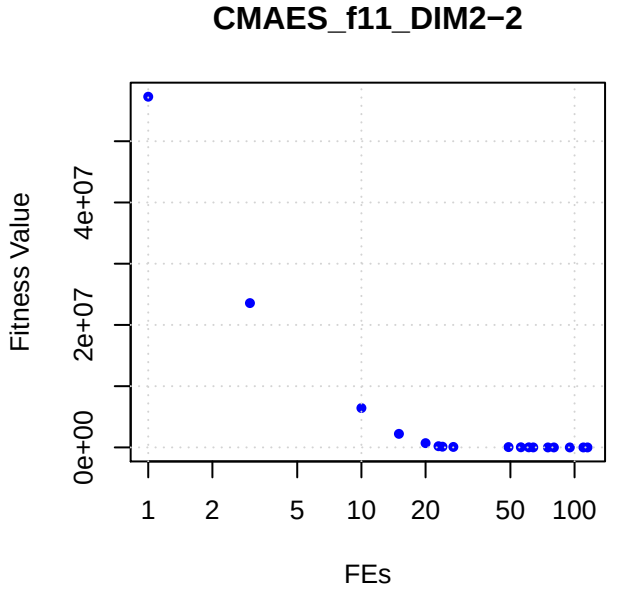
4e+06
8e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM2−2
Fitness Value
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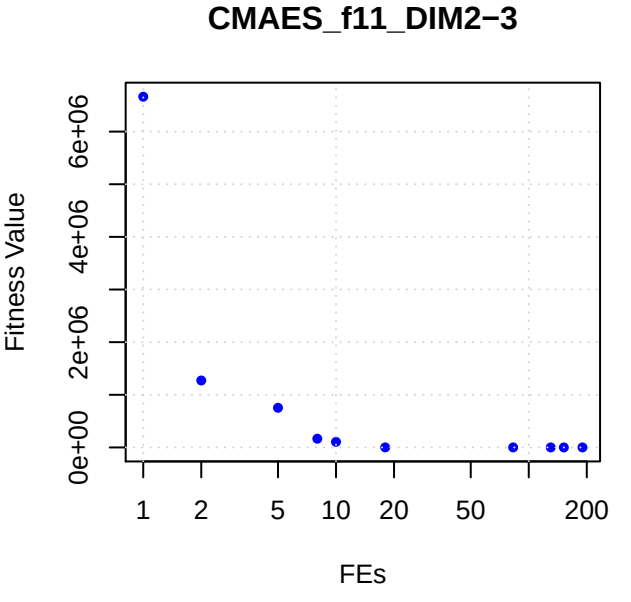
2e+07
4e+07
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM2−3
Fitness Value
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2e+06
4e+06
6e+06
1
2
5
10
20
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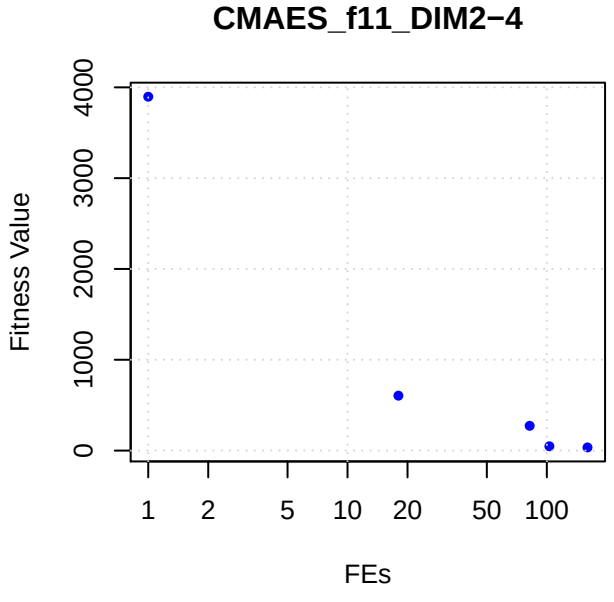
200
FEs


CMAES_f11_DIM2−4
Fitness Value
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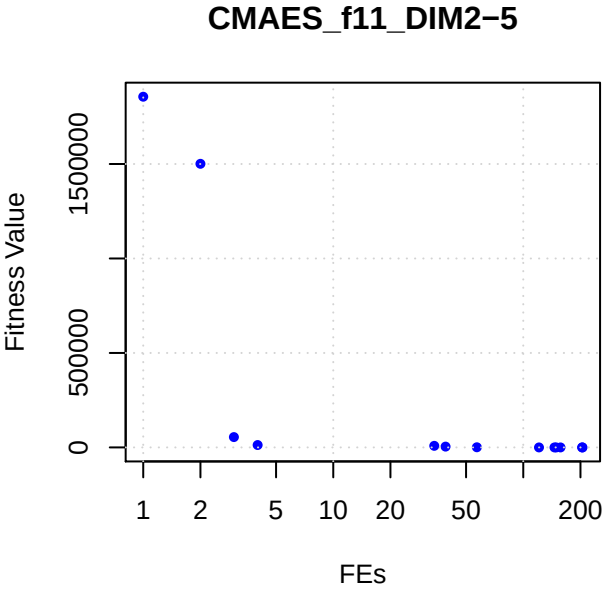
1000
2000
3000
4000
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM2−5
Fitness Value
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500000
1500000
1
2
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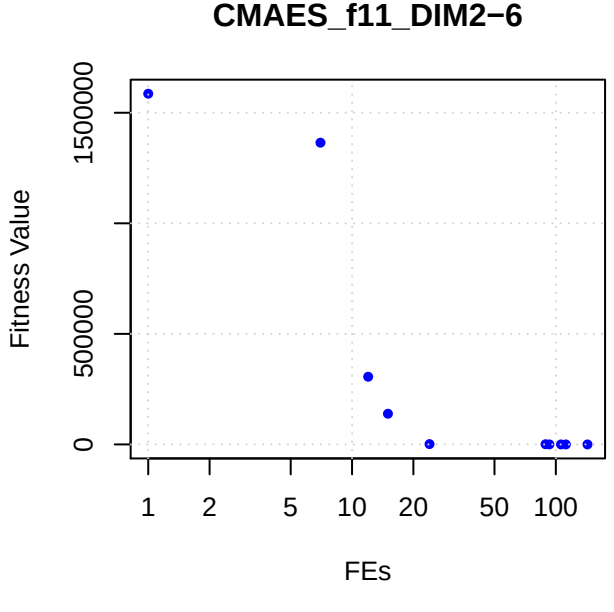
200
FEs


CMAES_f11_DIM2−6
Fitness Value
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500000
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1
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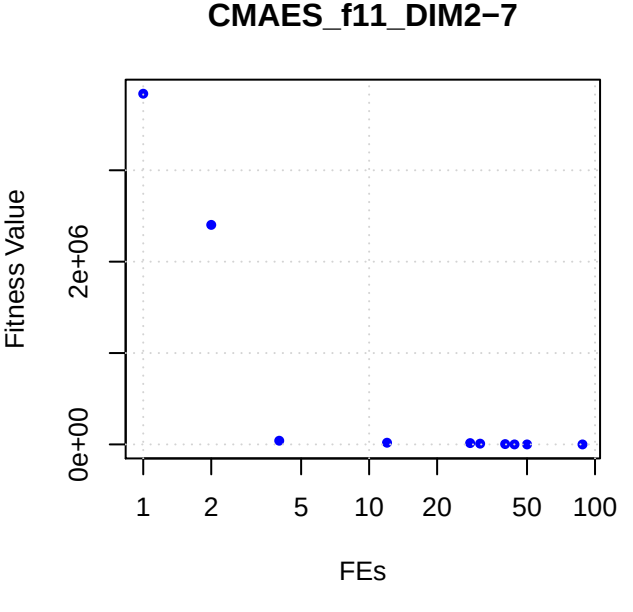
100
FEs


CMAES_f11_DIM2−7
Fitness Value
0e+00
2e+06
1
2
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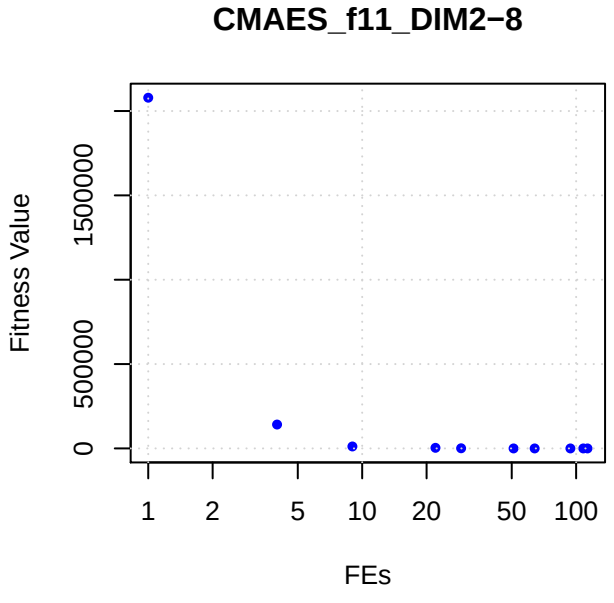
20
50
100
FEs


CMAES_f11_DIM2−8
Fitness Value
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500000
1500000
1
2
5
10
20
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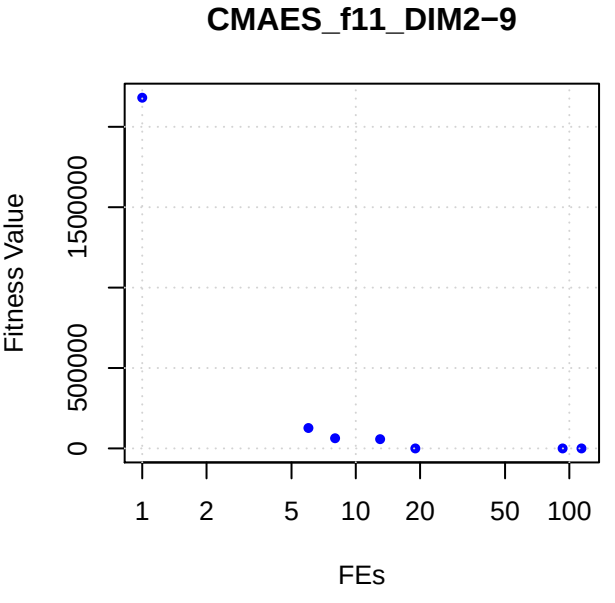
100
FEs


CMAES_f11_DIM2−9
Fitness Value
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500000
1500000
1
2
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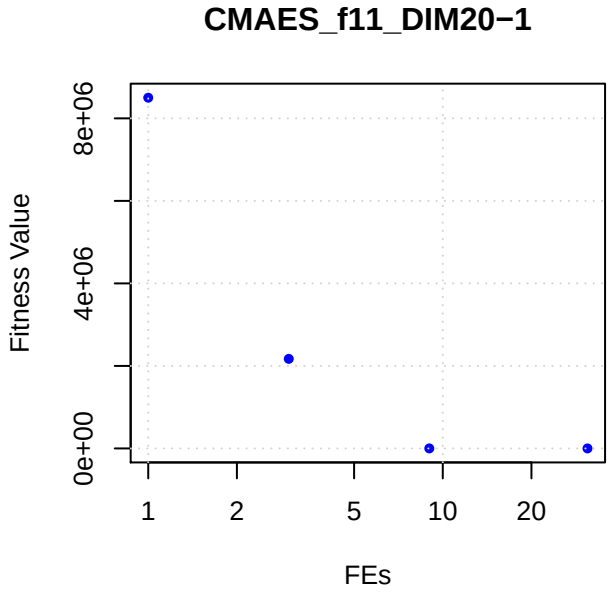
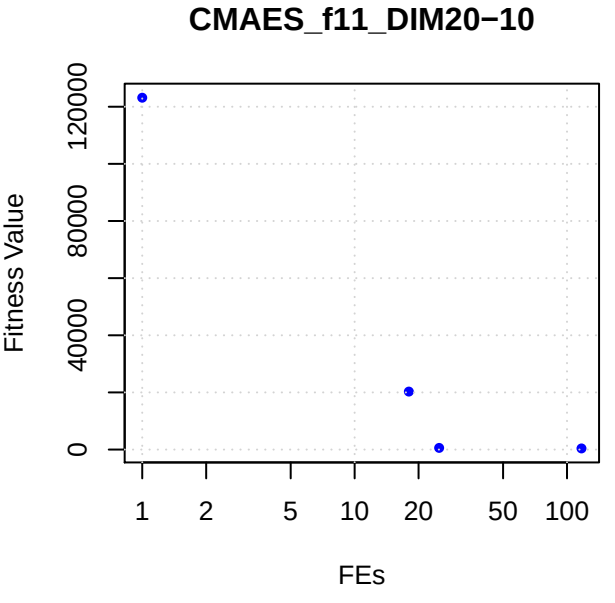
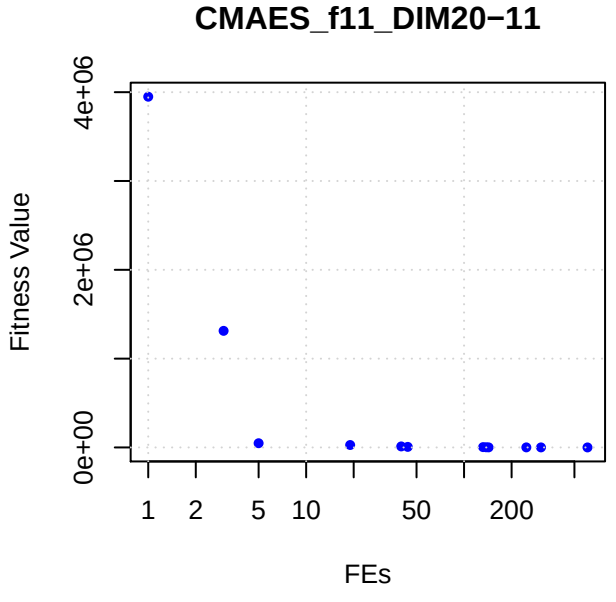
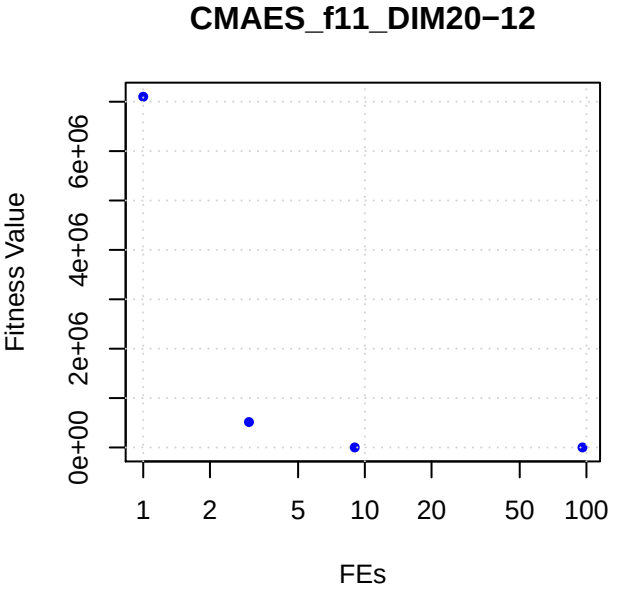
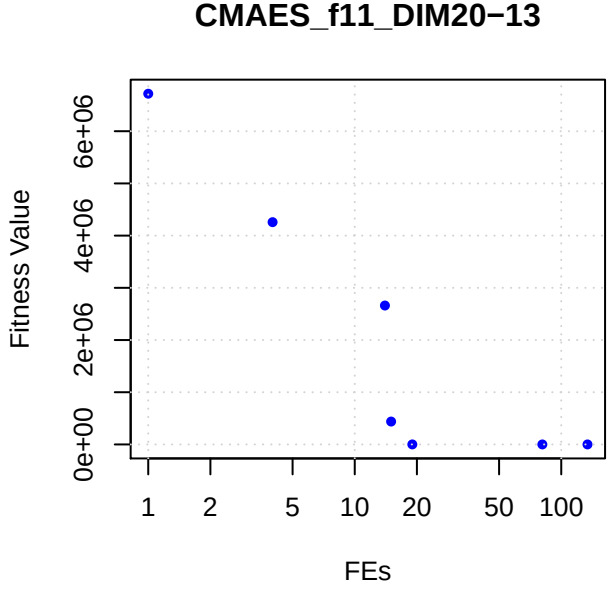
100
FEs

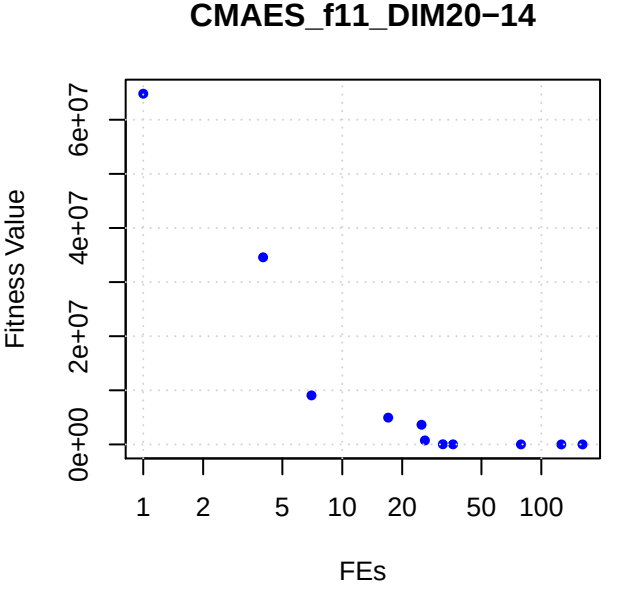

CMAES_f11_DIM20−1
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
FEs

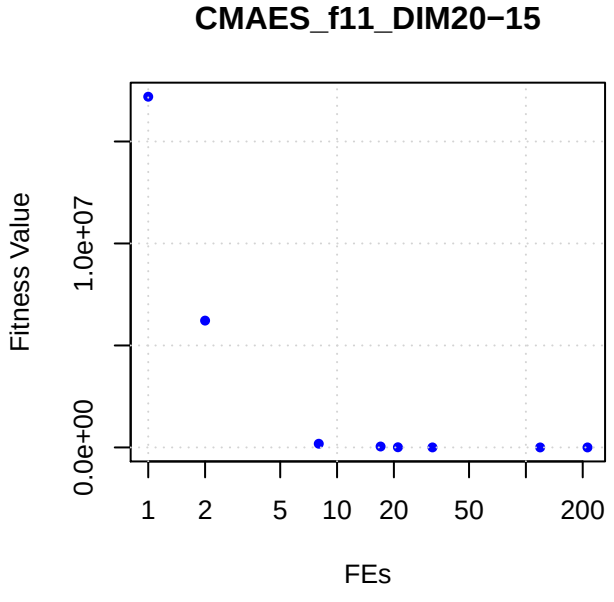

CMAES_f11_DIM20−10
Fitness Value
0
40000
80000
120000
1
2
5
10
20
50
100
FEs

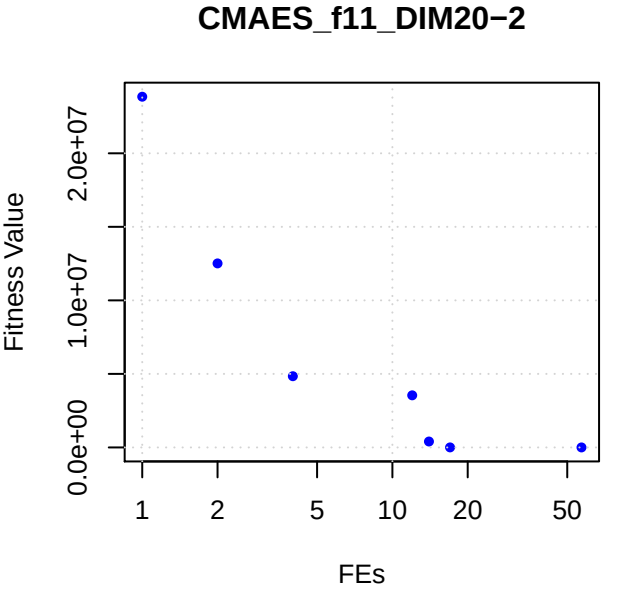

CMAES_f11_DIM20−11
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
50
200
FEs

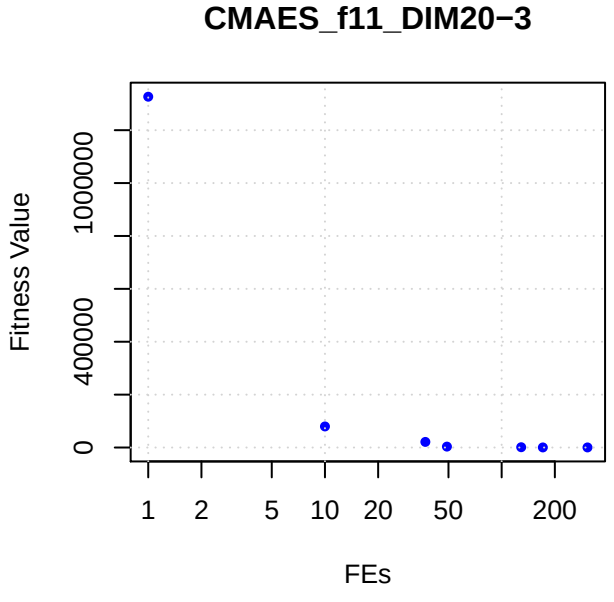

CMAES_f11_DIM20−12
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM20−13
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM20−14
Fitness Value
0e+00
2e+07
4e+07
6e+07
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM20−15
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM20−2
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
FEs


CMAES_f11_DIM20−3
Fitness Value
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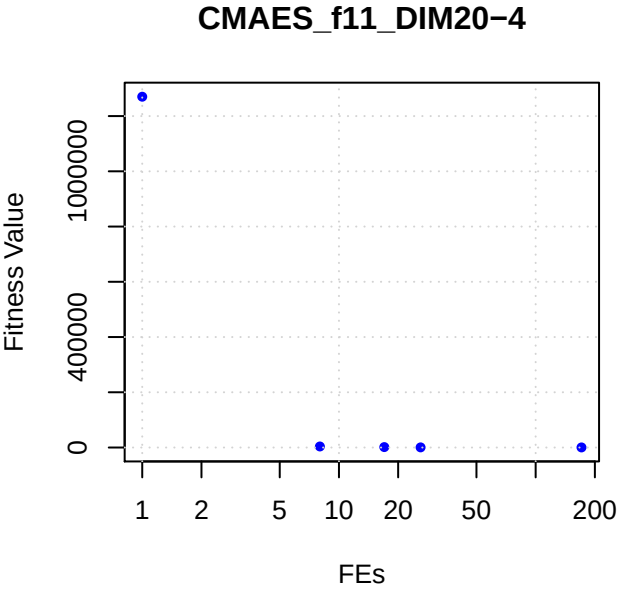
400000
1000000
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM20−4
Fitness Value
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400000
1000000
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2
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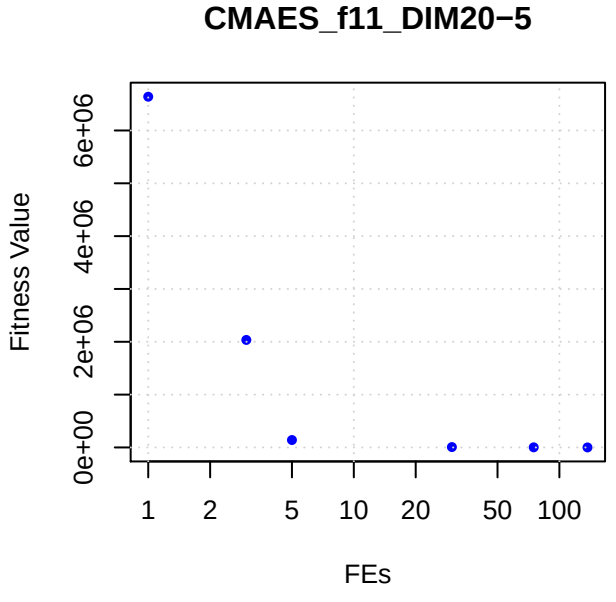
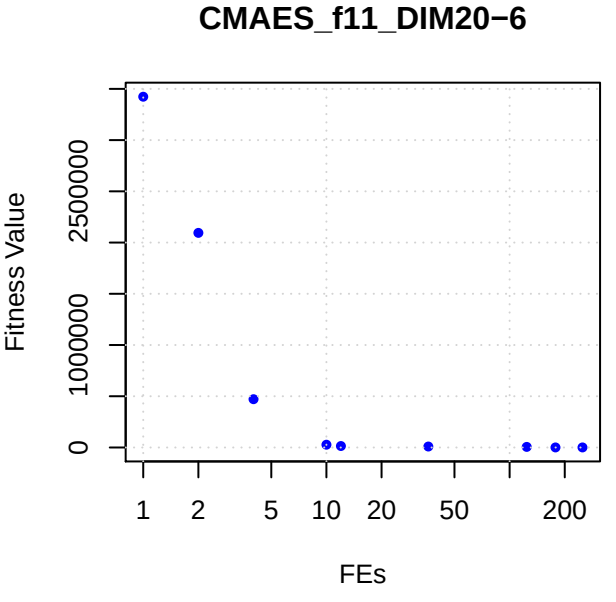
20
50
200
FEs


CMAES_f11_DIM20−5
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM20−6
Fitness Value
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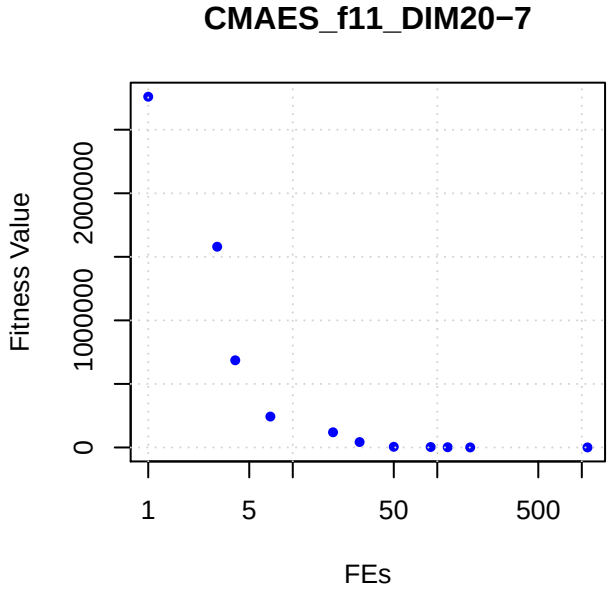
1000000
2500000
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM20−7
Fitness Value
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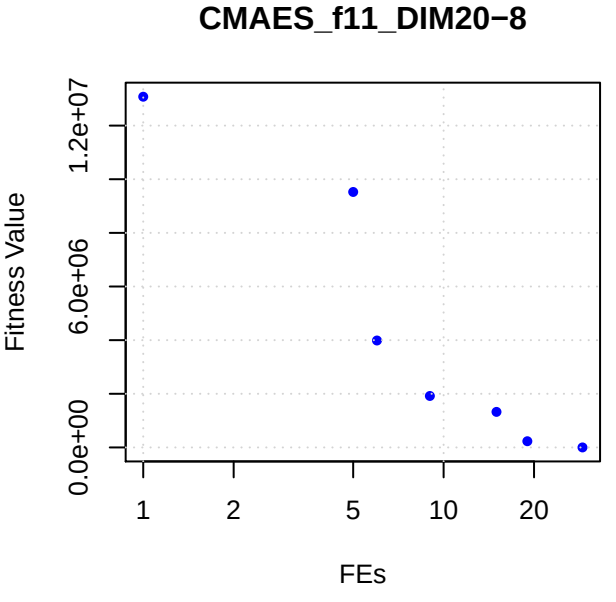
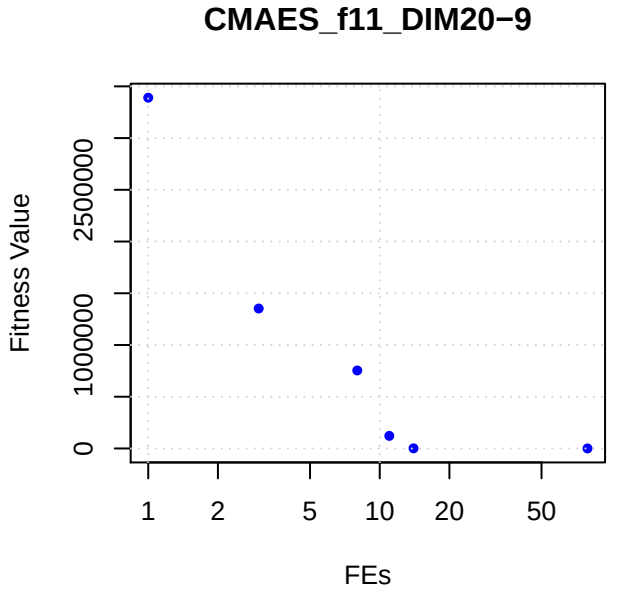
1000000
2000000
1
5
50
500
FEs


CMAES_f11_DIM20−8
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
2
5
10
20
FEs


CMAES_f11_DIM20−9
Fitness Value
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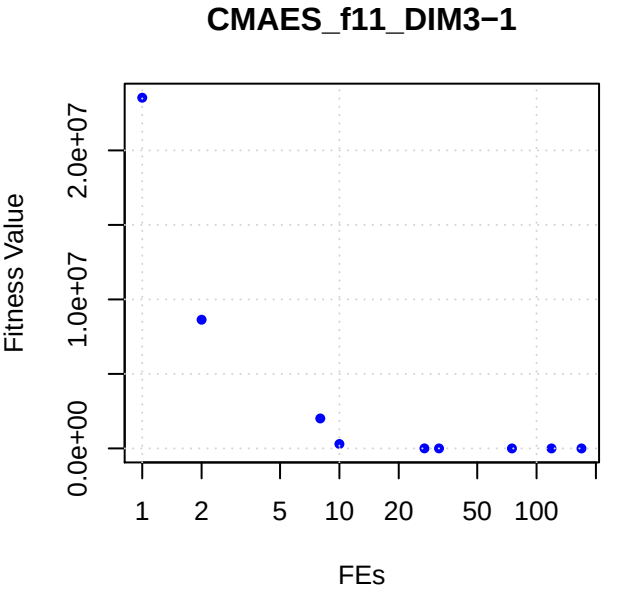
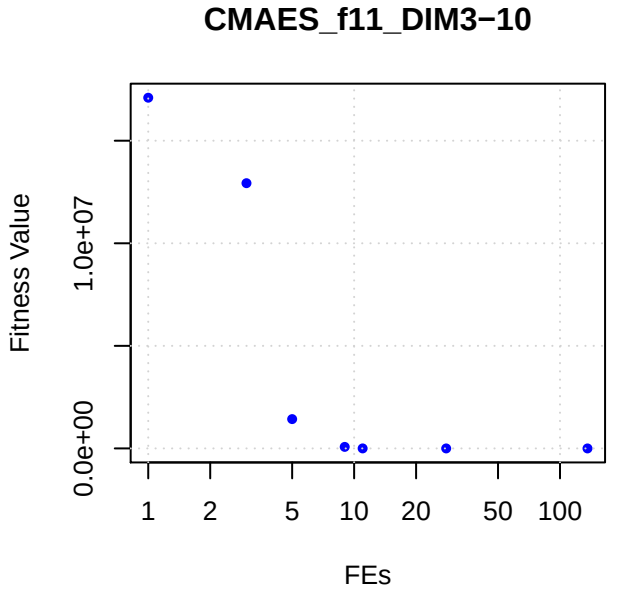
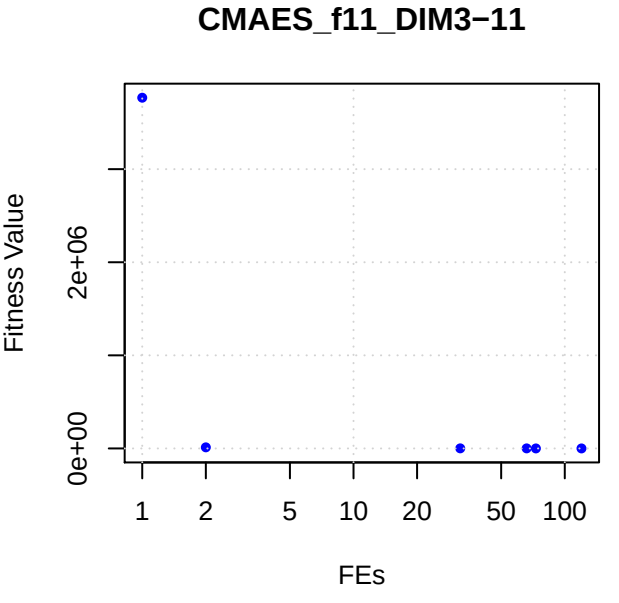
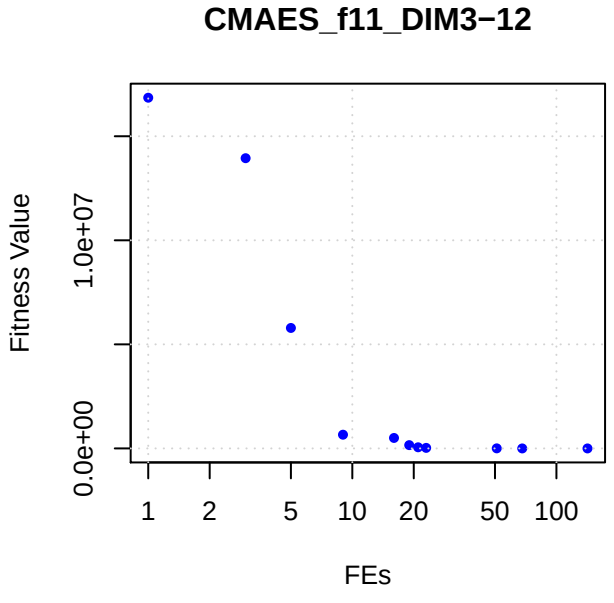
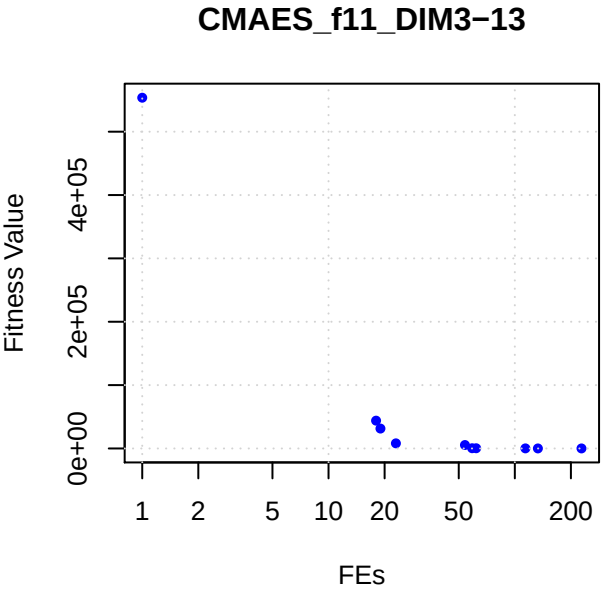
1000000
2500000
1
2
5
10
20
50
FEs


CMAES_f11_DIM3−1
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM3−10
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM3−11
Fitness Value
0e+00
2e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM3−12
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM3−13
Fitness Value
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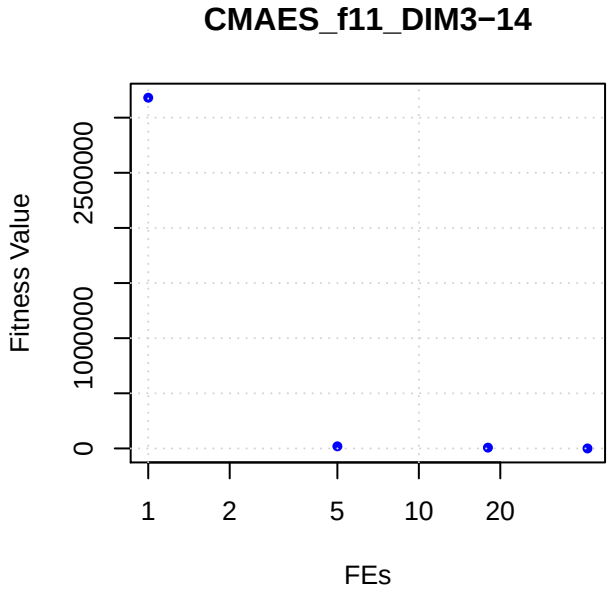
2e+05
4e+05
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM3−14
Fitness Value
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2500000
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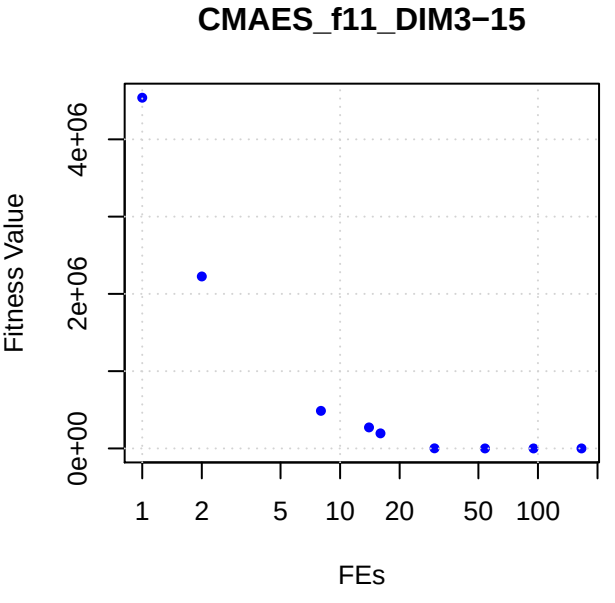
2
5
10
20
FEs


CMAES_f11_DIM3−15
Fitness Value
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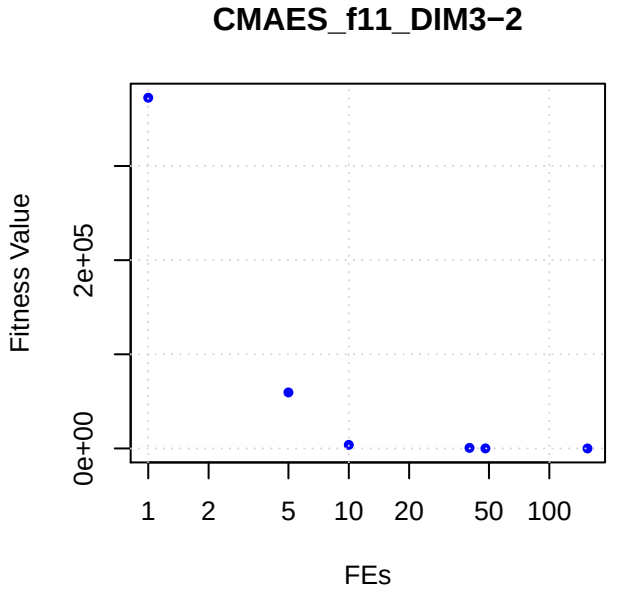
2e+06
4e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM3−2
Fitness Value
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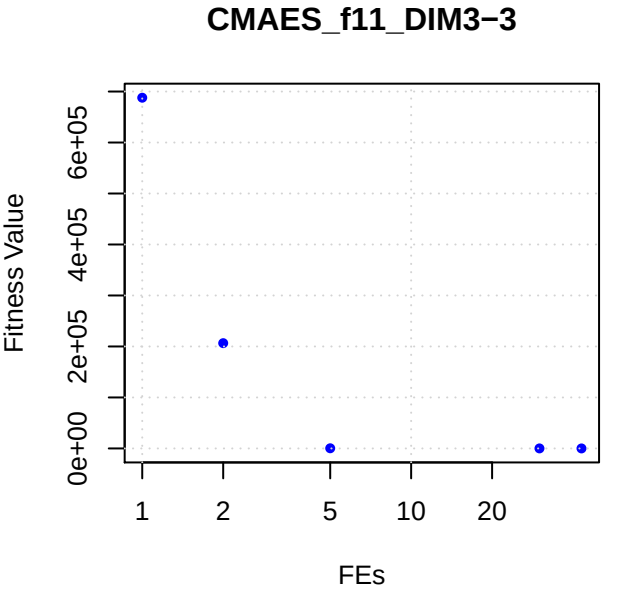
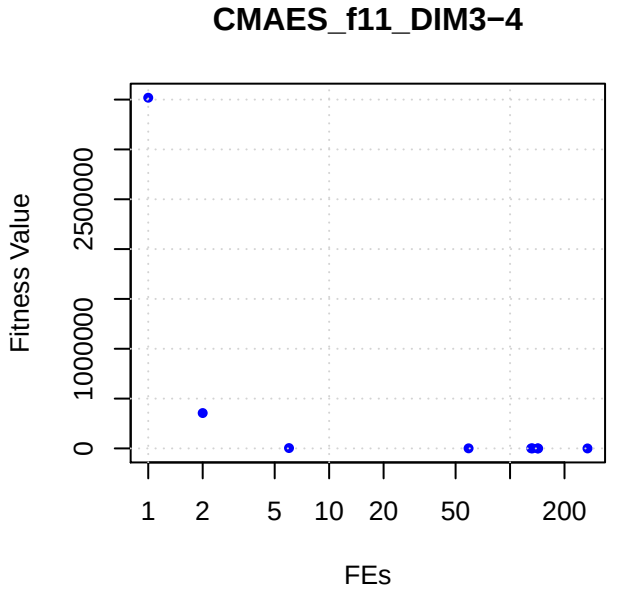
2e+05
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM3−3
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
FEs


CMAES_f11_DIM3−4
Fitness Value
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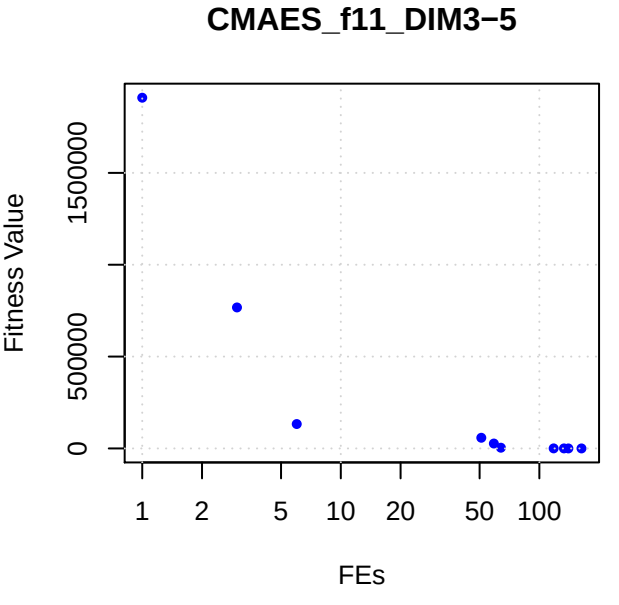
1000000
2500000
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM3−5
Fitness Value
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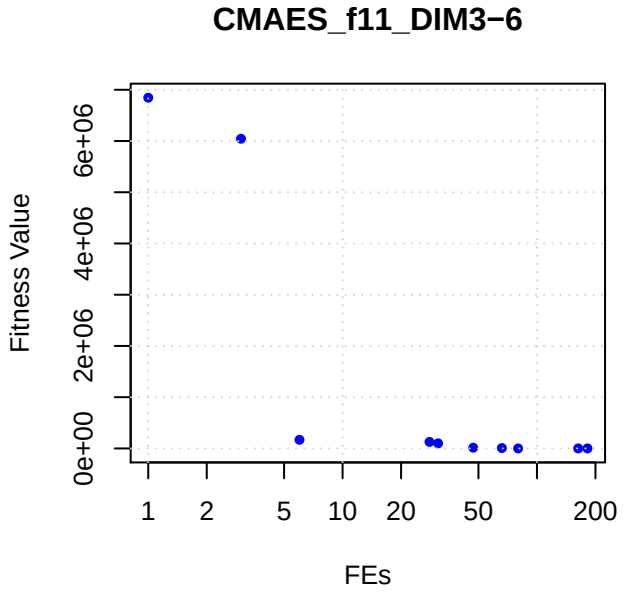
500000
1500000
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM3−6
Fitness Value
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2e+06
4e+06
6e+06
1
2
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10
20
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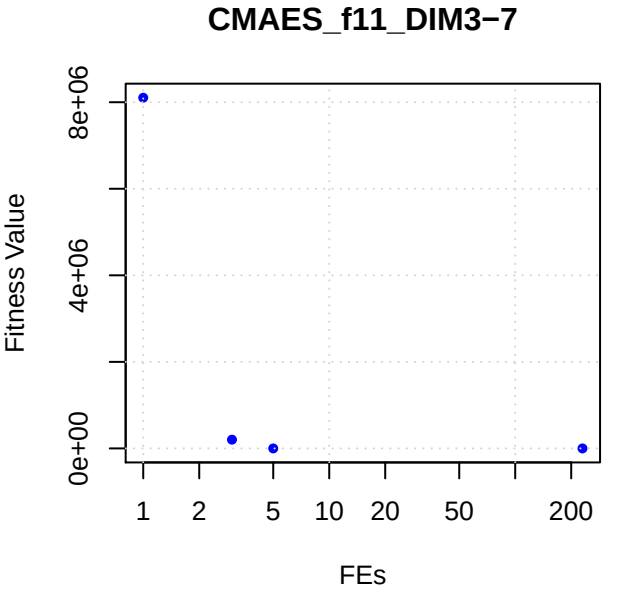
200
FEs


CMAES_f11_DIM3−7
Fitness Value
0e+00
4e+06
8e+06
1
2
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10
20
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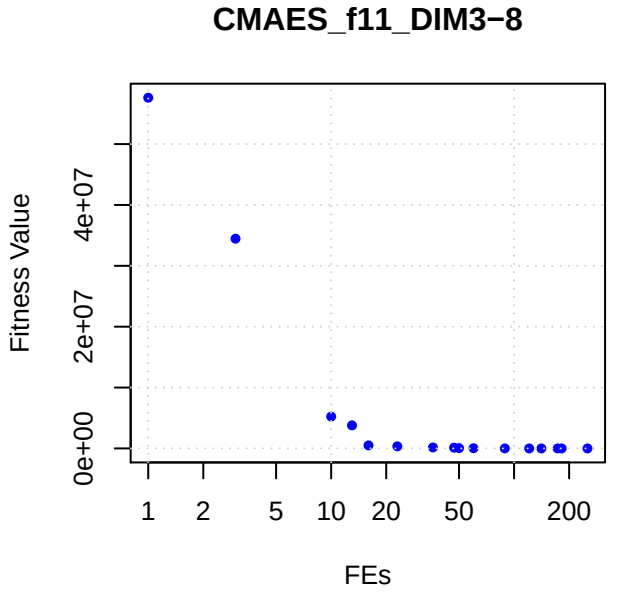
200
FEs


CMAES_f11_DIM3−8
Fitness Value
0e+00
2e+07
4e+07
1
2
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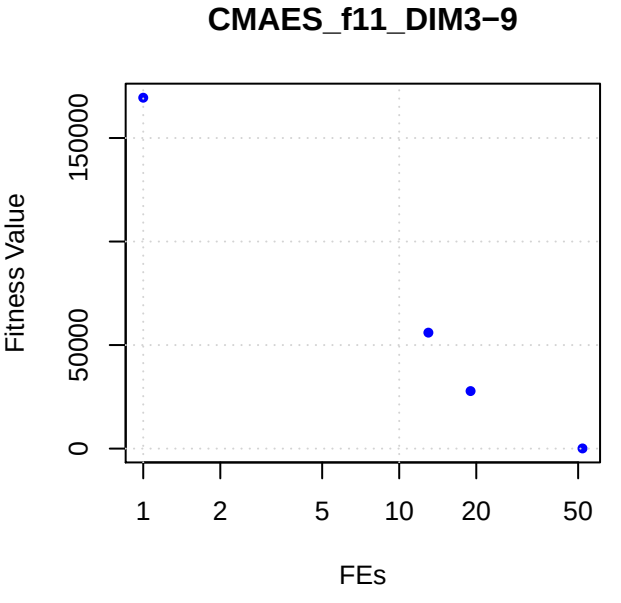
10
20
50
200
FEs


CMAES_f11_DIM3−9
Fitness Value
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150000
1
2
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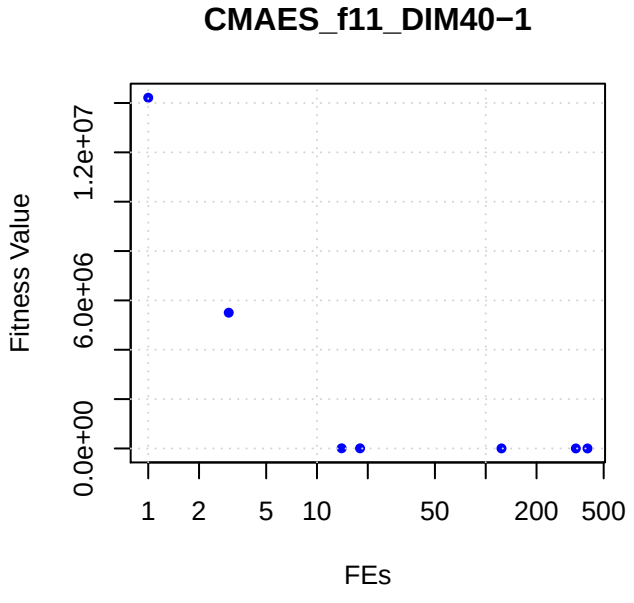
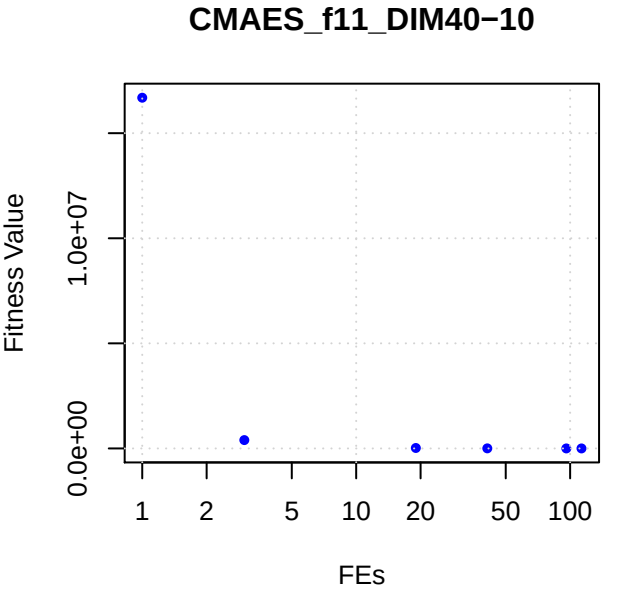
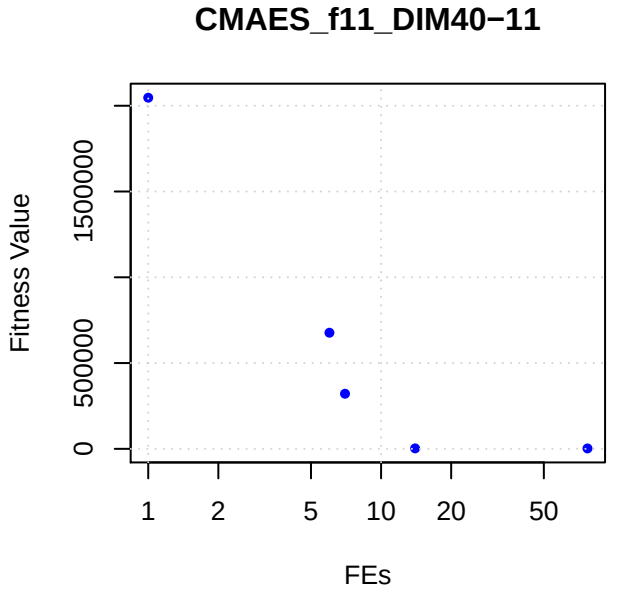
50
FEs


CMAES_f11_DIM40−1
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
2
5
10
50
200
500
FEs


CMAES_f11_DIM40−10
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM40−11
Fitness Value
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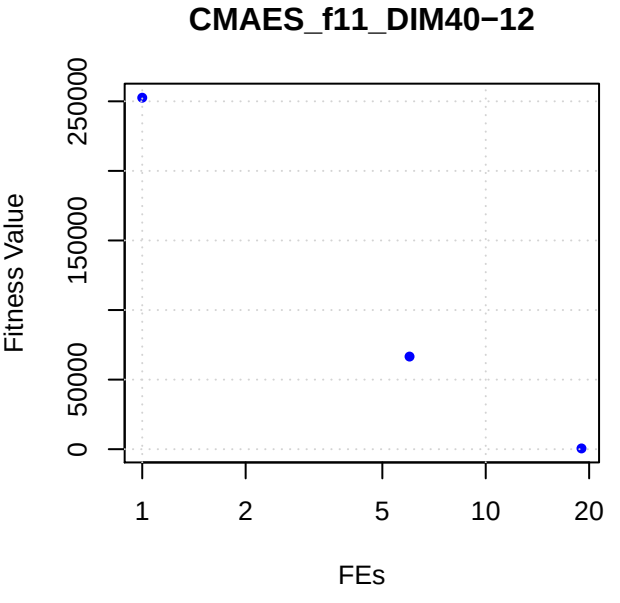
500000
1500000
1
2
5
10
20
50
FEs


CMAES_f11_DIM40−12
Fitness Value
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50000
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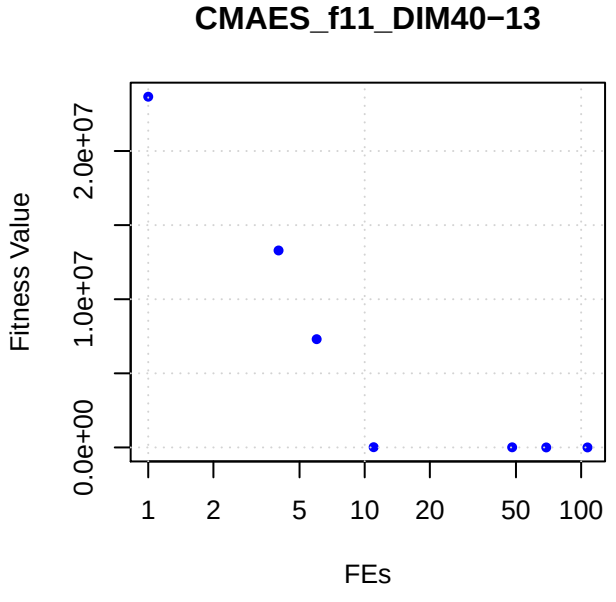
250000
1
2
5
10
20
FEs


CMAES_f11_DIM40−13
Fitness Value
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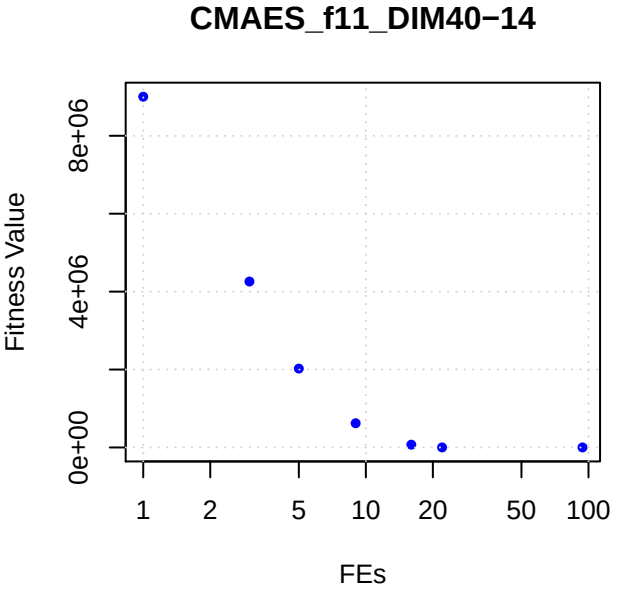
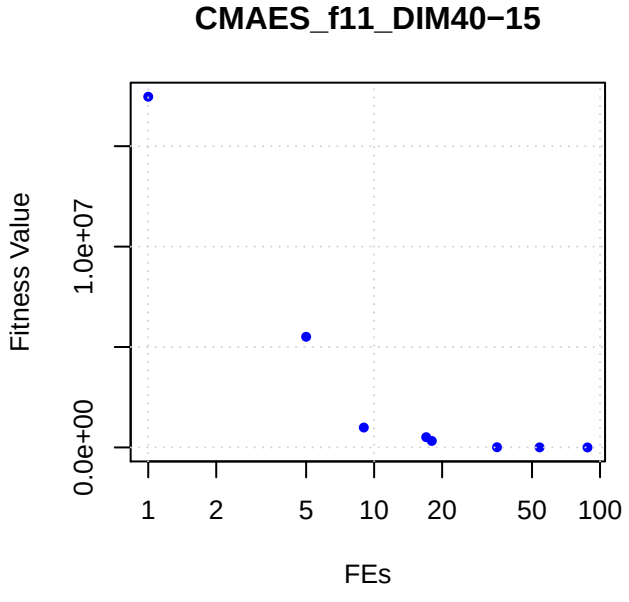
1.0e+07
2.0e+07
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM40−14
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM40−15
Fitness Value
0.0e+00
1.0e+07
1
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5
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20
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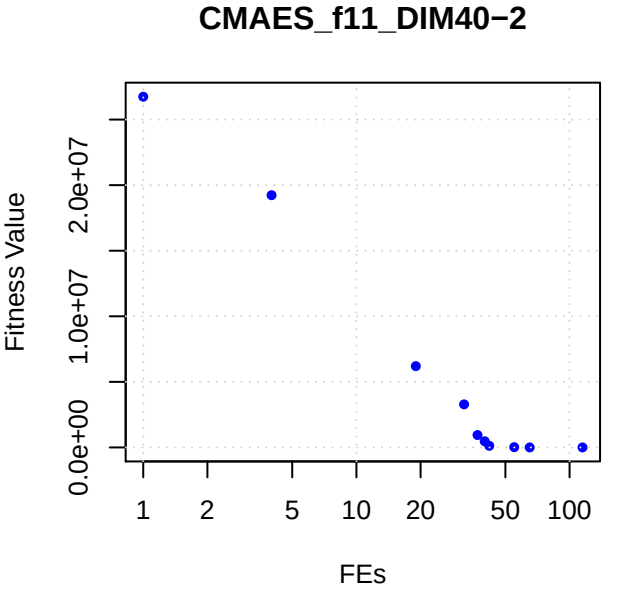
100
FEs


CMAES_f11_DIM40−2
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
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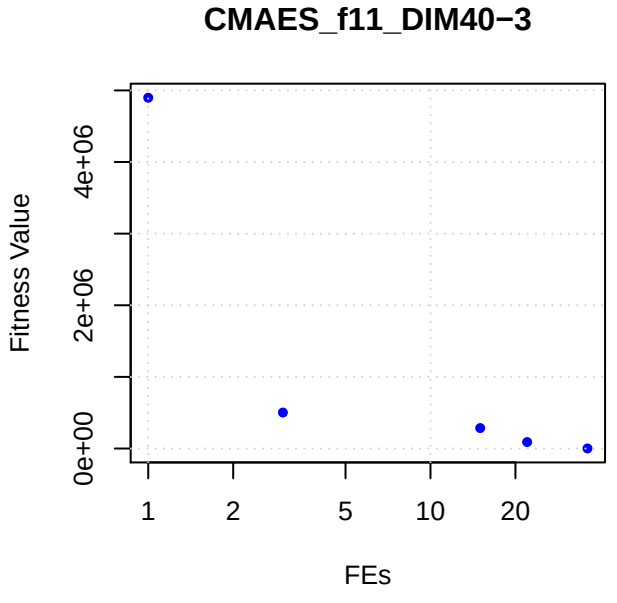
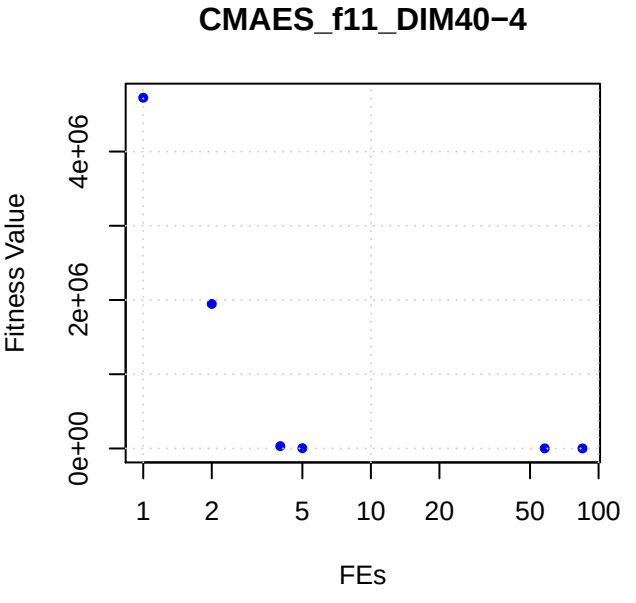
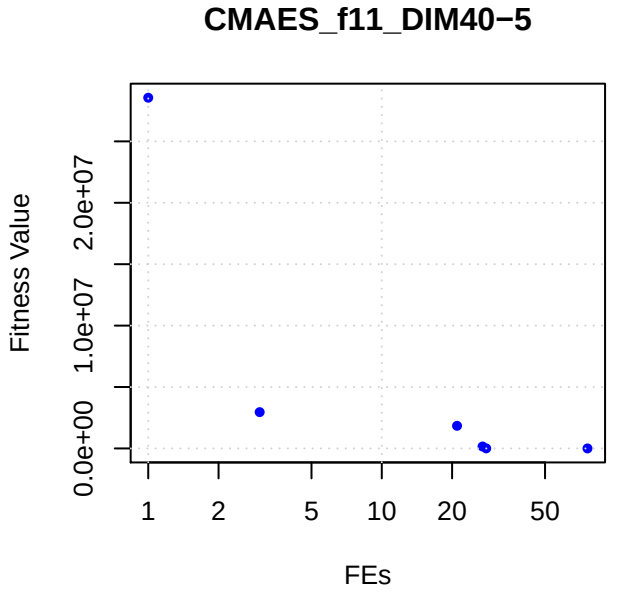
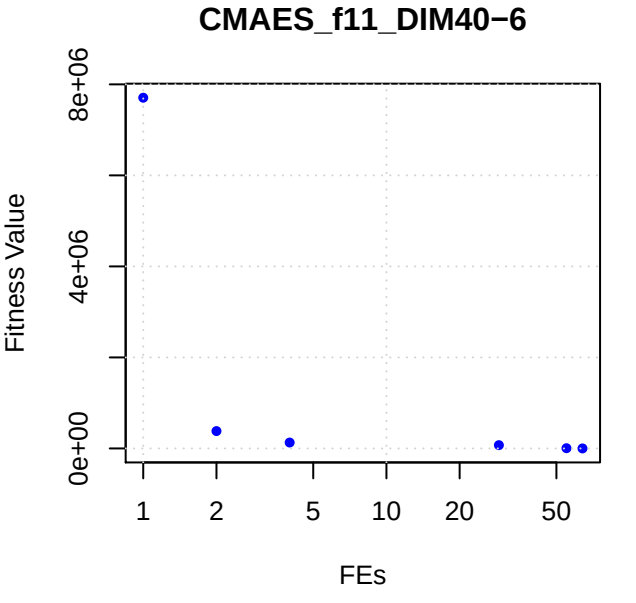
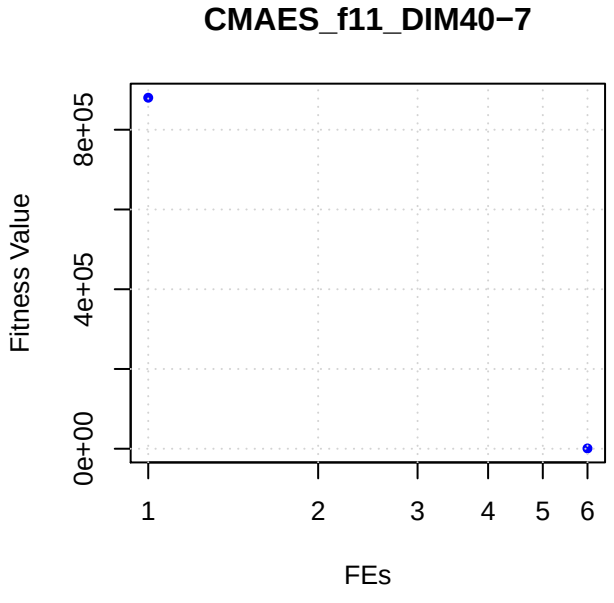
20
50
100
FEs

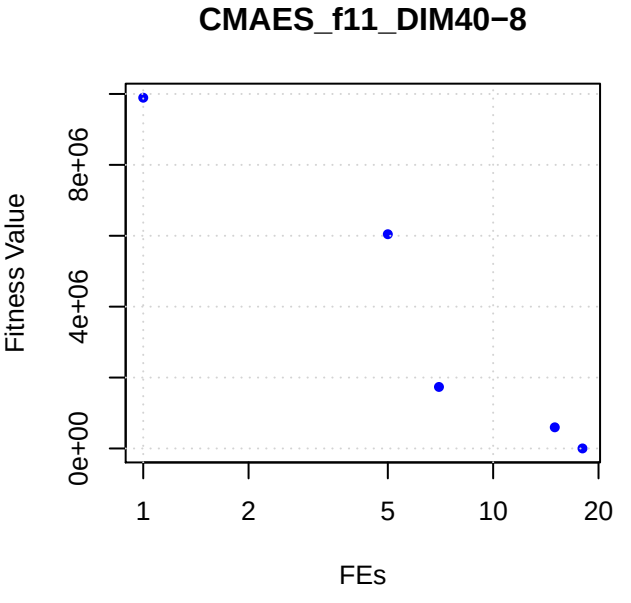

CMAES_f11_DIM40−3
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
FEs

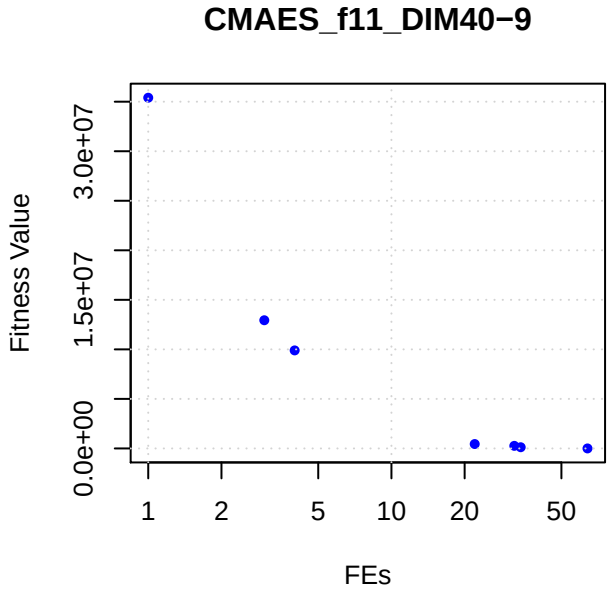

CMAES_f11_DIM40−4
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
100
FEs

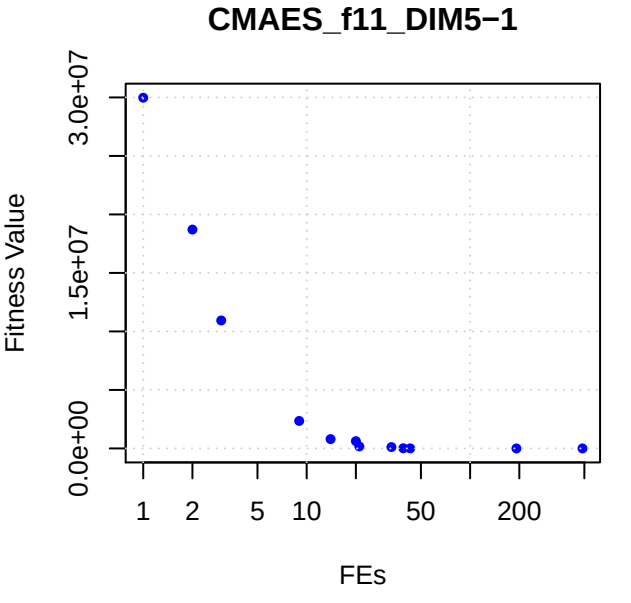

CMAES_f11_DIM40−5
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
FEs

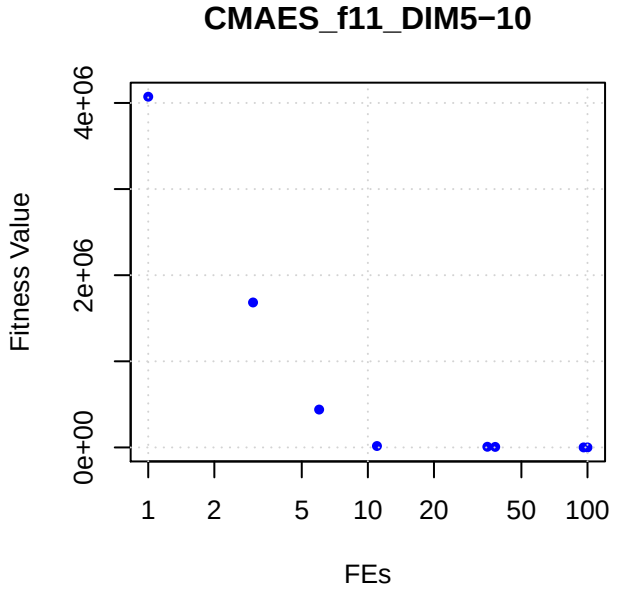

CMAES_f11_DIM40−6
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
FEs

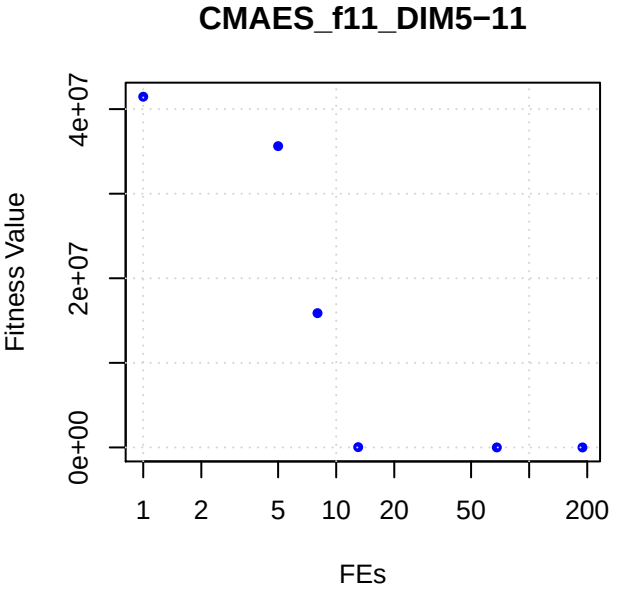

CMAES_f11_DIM40−7
Fitness Value
0e+00
4e+05
8e+05
1
2
3
4
5
6
FEs

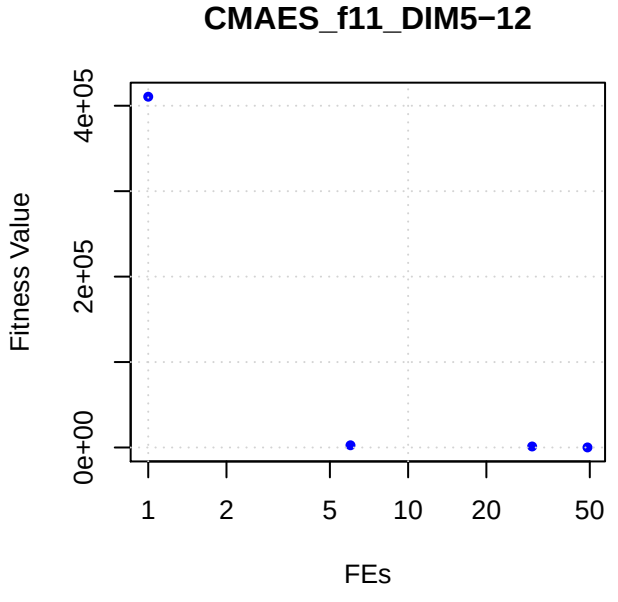

CMAES_f11_DIM40−8
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
FEs


CMAES_f11_DIM40−9
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
20
50
FEs


CMAES_f11_DIM5−1
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
50
200
FEs


CMAES_f11_DIM5−10
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
100
FEs


CMAES_f11_DIM5−11
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM5−12
Fitness Value
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2e+05
4e+05
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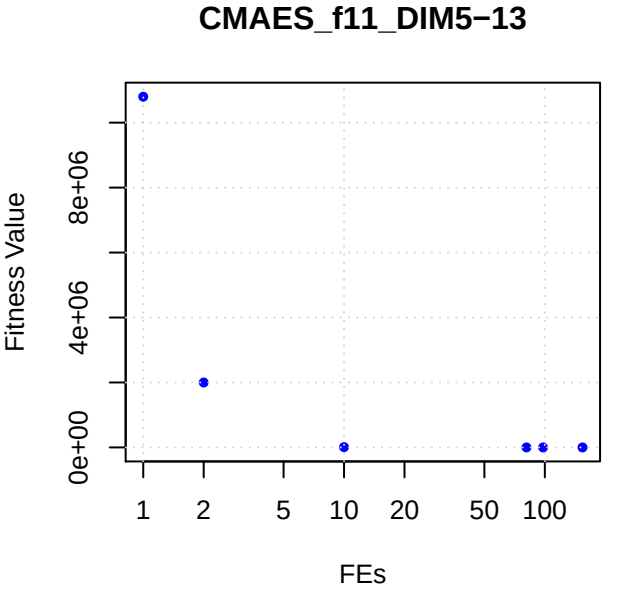
2
5
10
20
50
FEs


CMAES_f11_DIM5−13
Fitness Value
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4e+06
8e+06
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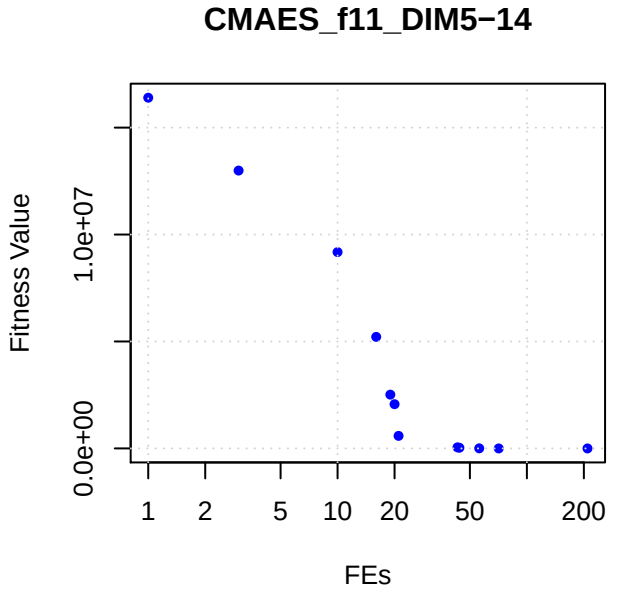
2
5
10
20
50
100
FEs


CMAES_f11_DIM5−14
Fitness Value
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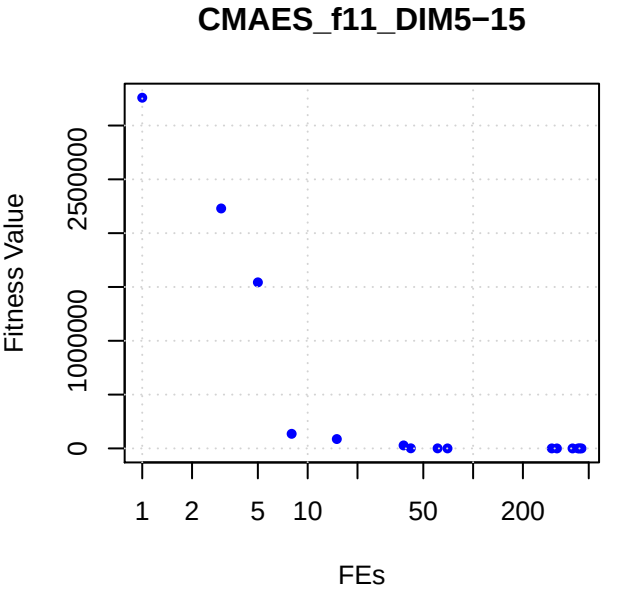
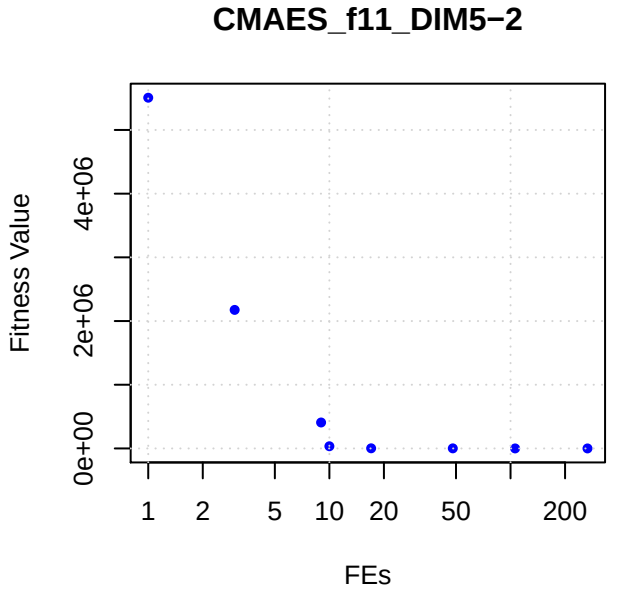
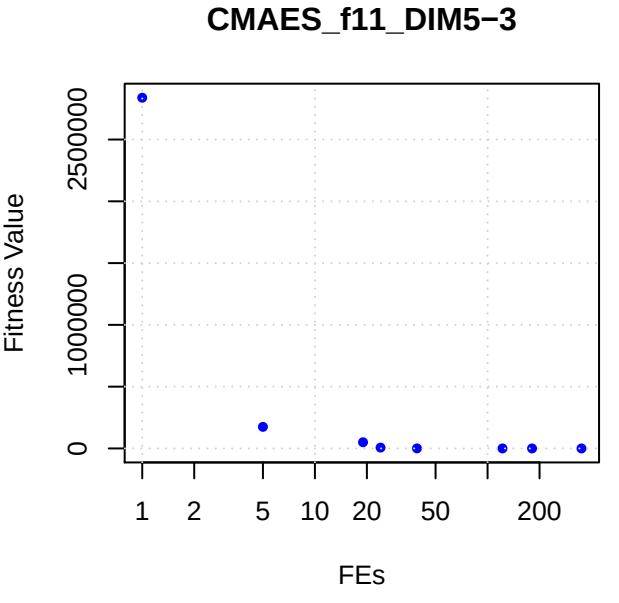
1.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM5−15
Fitness Value
0
1000000
2500000
1
2
5
10
50
200
FEs


CMAES_f11_DIM5−2
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM5−3
Fitness Value
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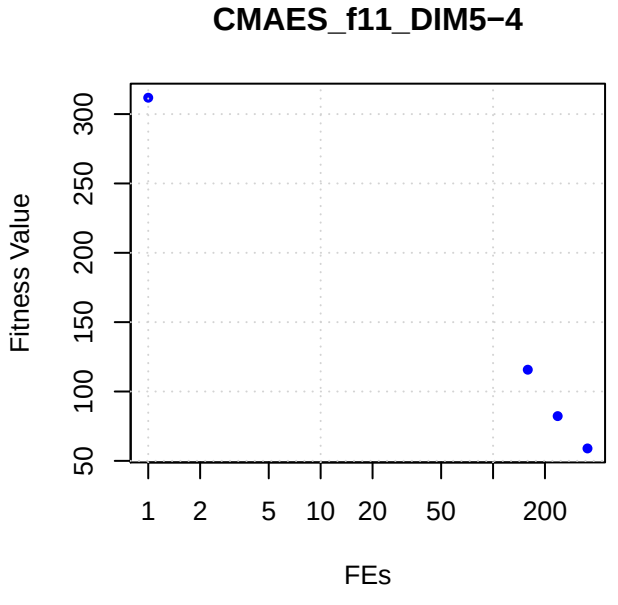
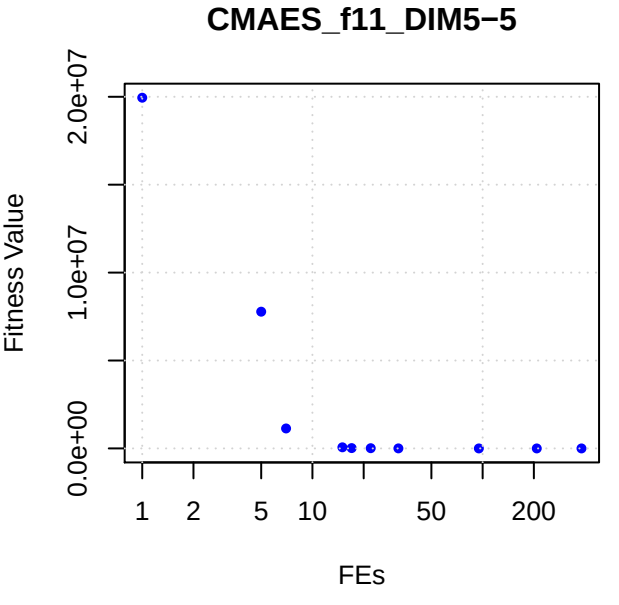
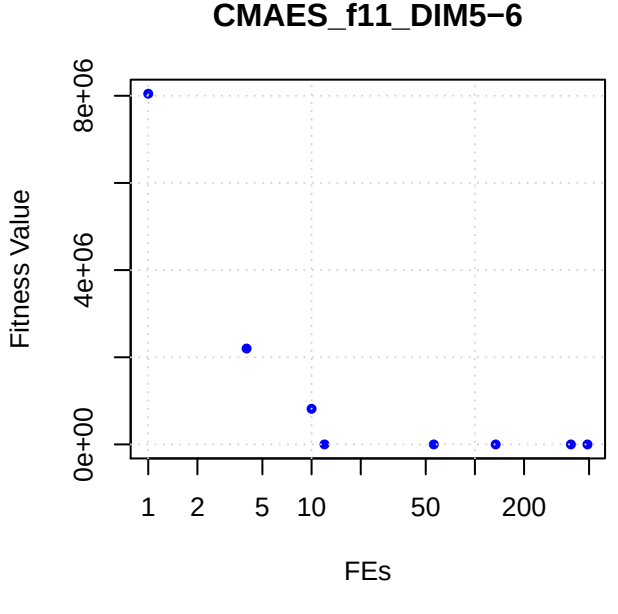
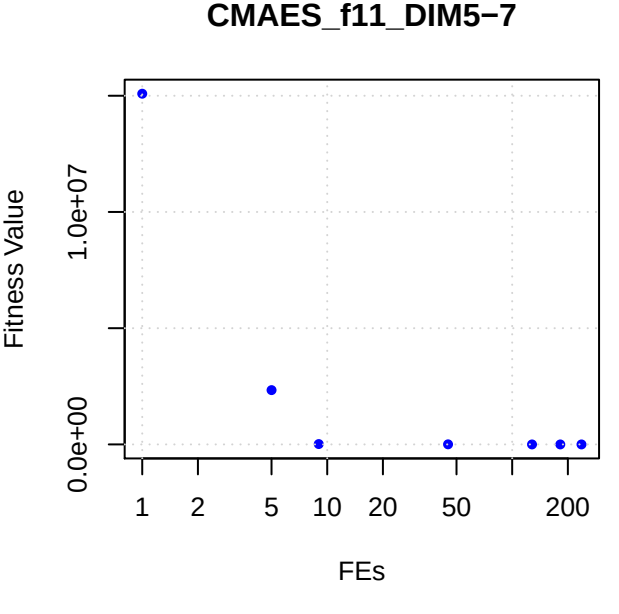
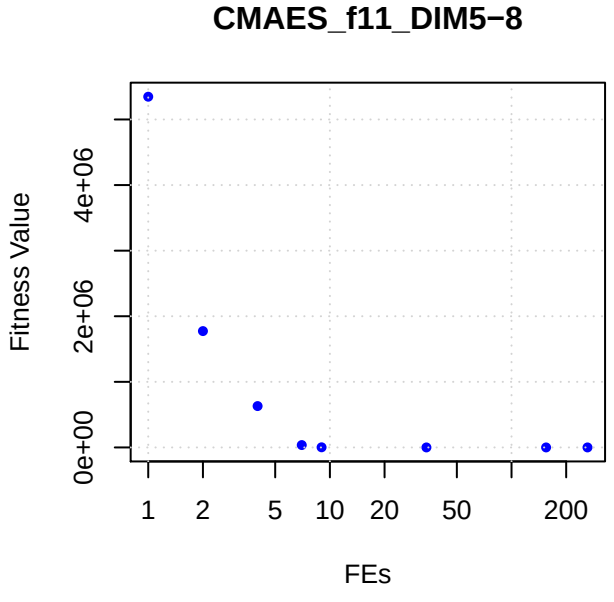
2500000
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM5−4
Fitness Value
50
100
150
200
250
300
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM5−5
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
50
200
FEs


CMAES_f11_DIM5−6
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
50
200
FEs


CMAES_f11_DIM5−7
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM5−8
Fitness Value
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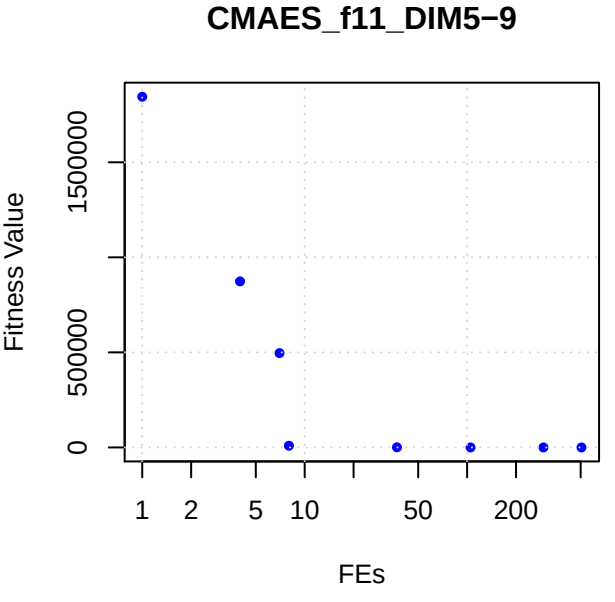
2e+06
4e+06
1
2
5
10
20
50
200
FEs


CMAES_f11_DIM5−9
Fitness Value
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500000
1500000
1
2
5
10
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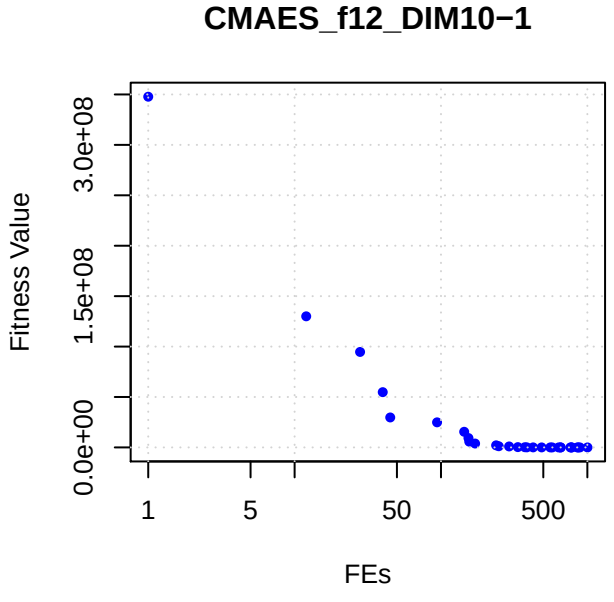
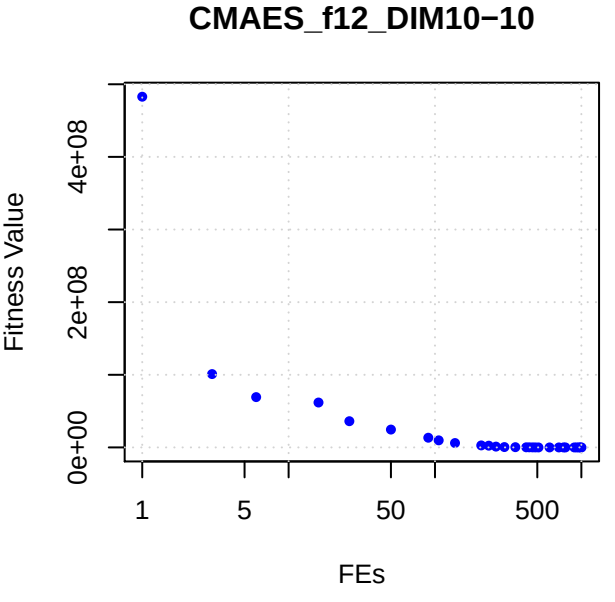
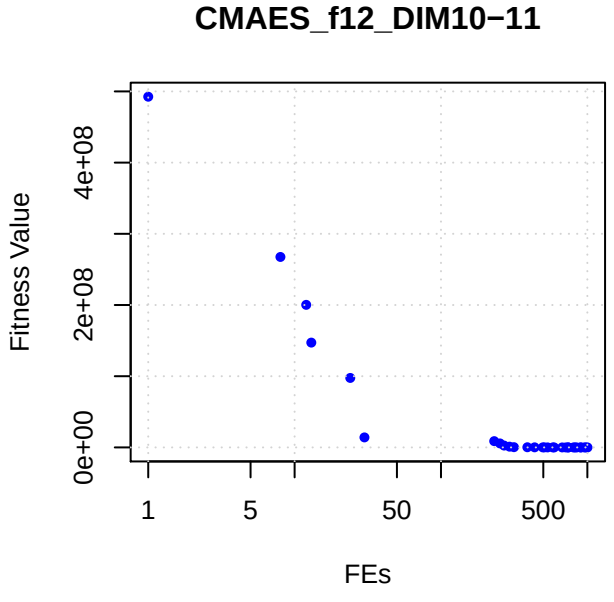
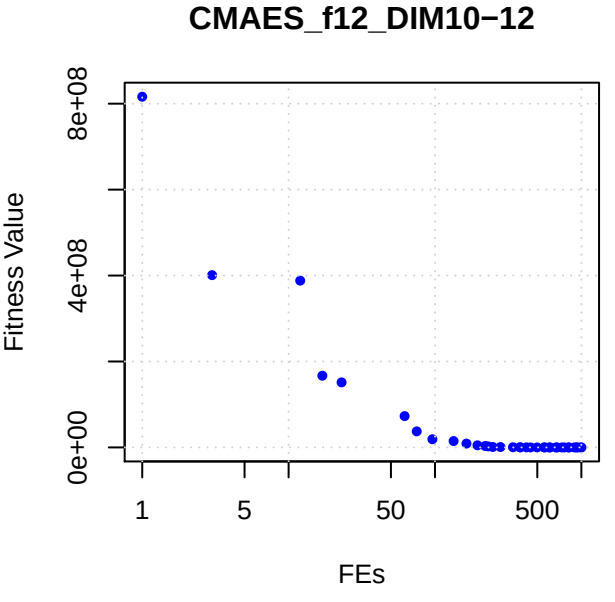
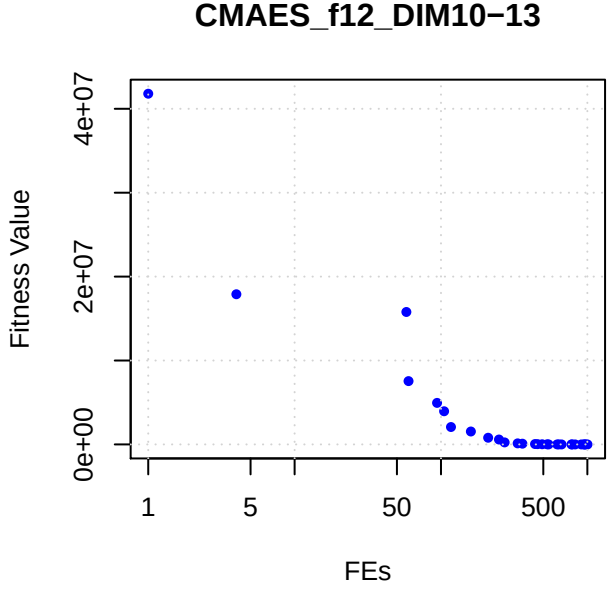
200
FEs

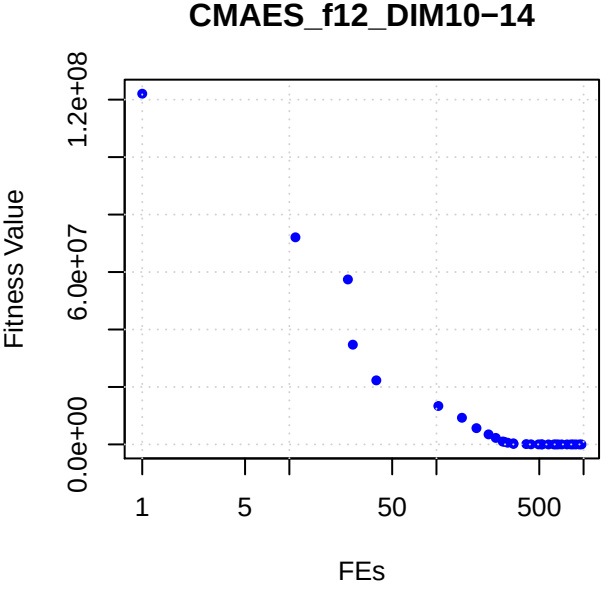

CMAES_f12_DIM10−1
Fitness Value
0.0e+00
1.5e+08
3.0e+08
1
5
50
500
FEs

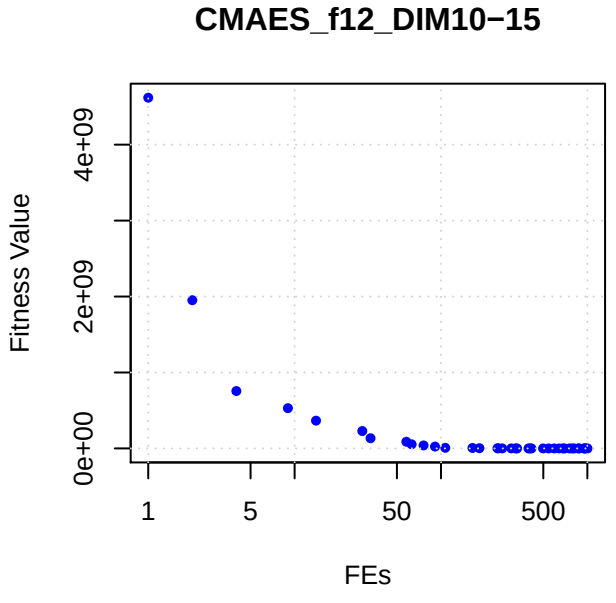

CMAES_f12_DIM10−10
Fitness Value
0e+00
2e+08
4e+08
1
5
50
500
FEs


CMAES_f12_DIM10−11
Fitness Value
0e+00
2e+08
4e+08
1
5
50
500
FEs


CMAES_f12_DIM10−12
Fitness Value
0e+00
4e+08
8e+08
1
5
50
500
FEs


CMAES_f12_DIM10−13
Fitness Value
0e+00
2e+07
4e+07
1
5
50
500
FEs


CMAES_f12_DIM10−14
Fitness Value
0.0e+00
6.0e+07
1.2e+08
1
5
50
500
FEs


CMAES_f12_DIM10−15
Fitness Value
0e+00
2e+09
4e+09
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5
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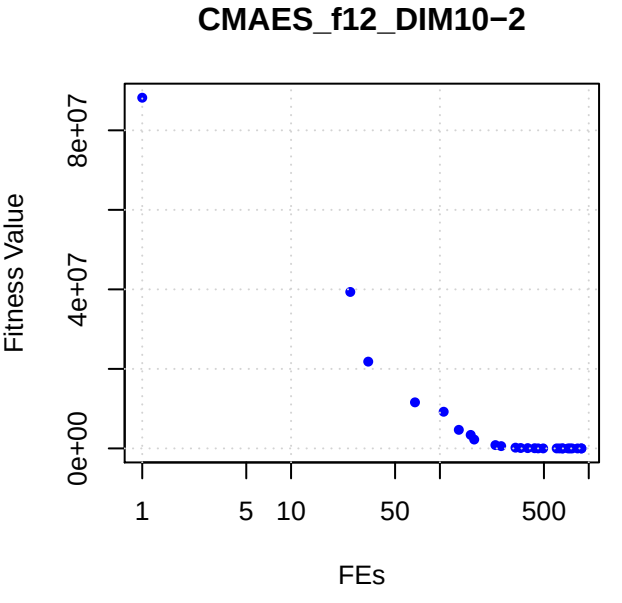
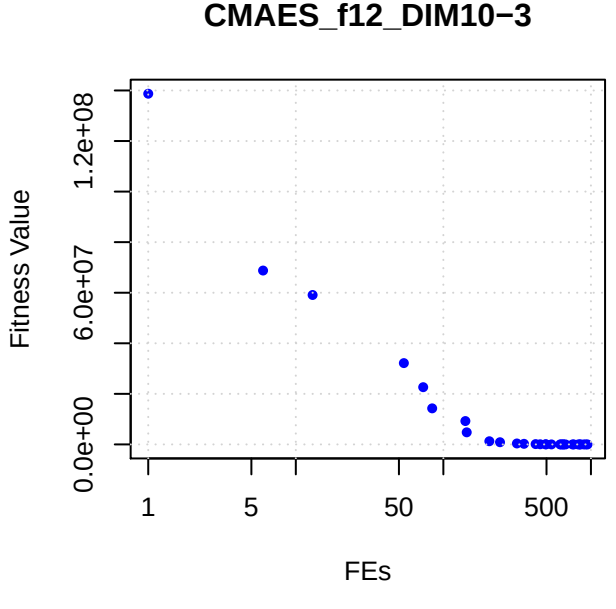
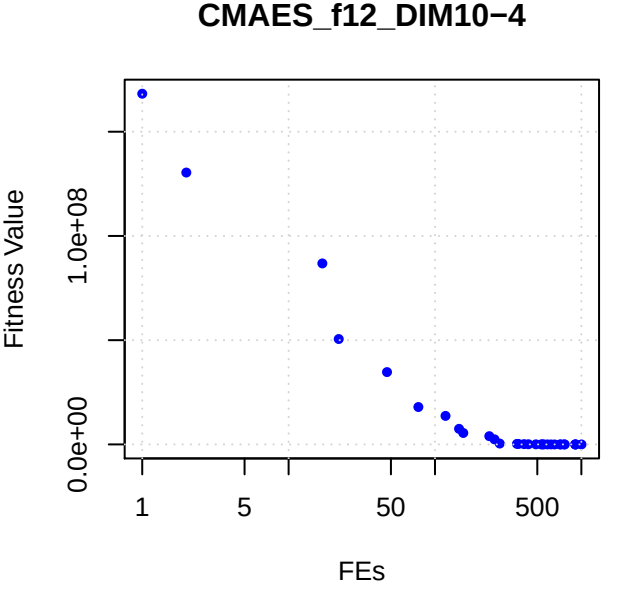
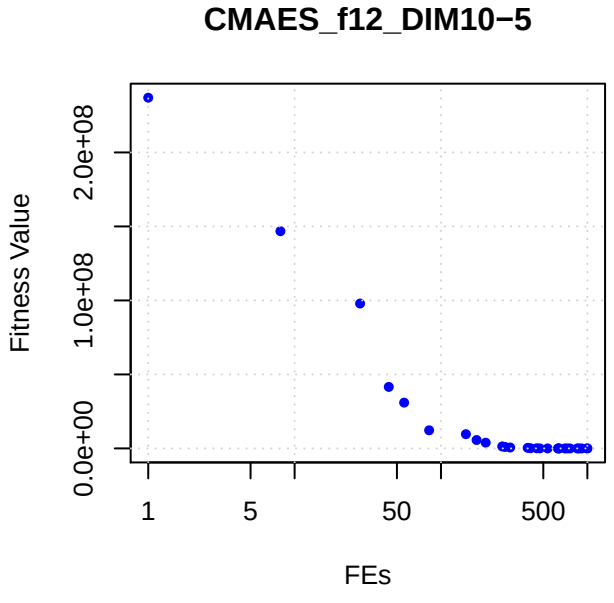
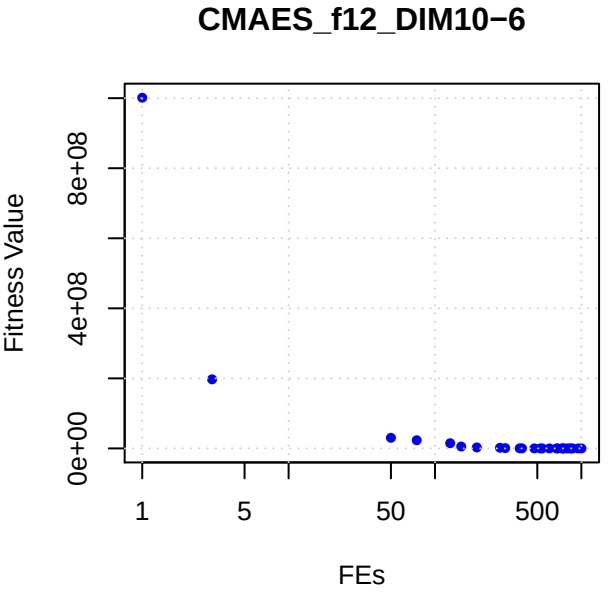
500
FEs

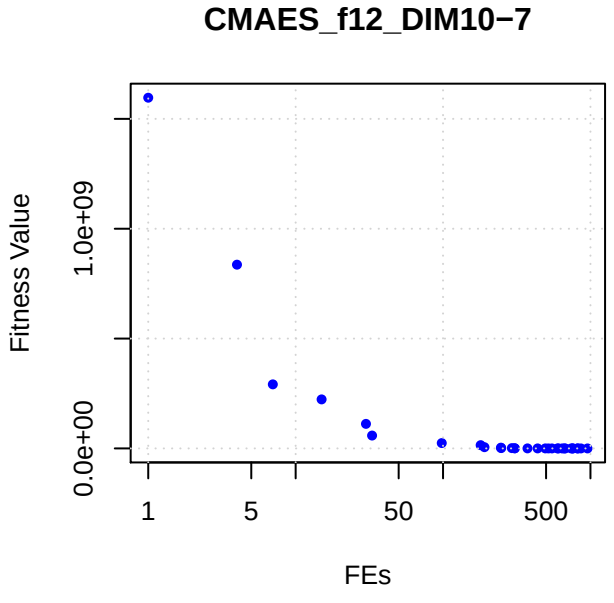

CMAES_f12_DIM10−2
Fitness Value
0e+00
4e+07
8e+07
1
5
10
50
500
FEs

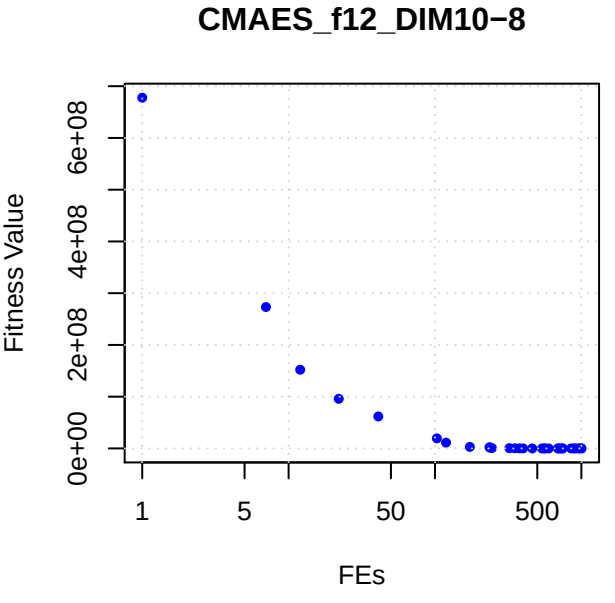

CMAES_f12_DIM10−3
Fitness Value
0.0e+00
6.0e+07
1.2e+08
1
5
50
500
FEs

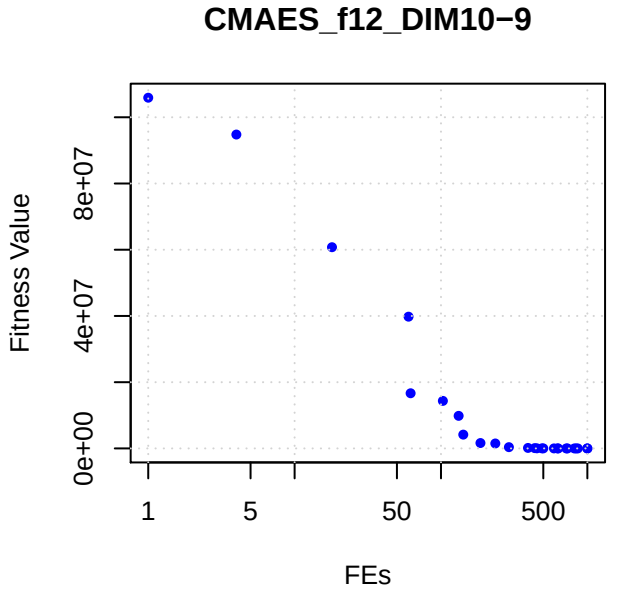

CMAES_f12_DIM10−4
Fitness Value
0.0e+00
1.0e+08
1
5
50
500
FEs

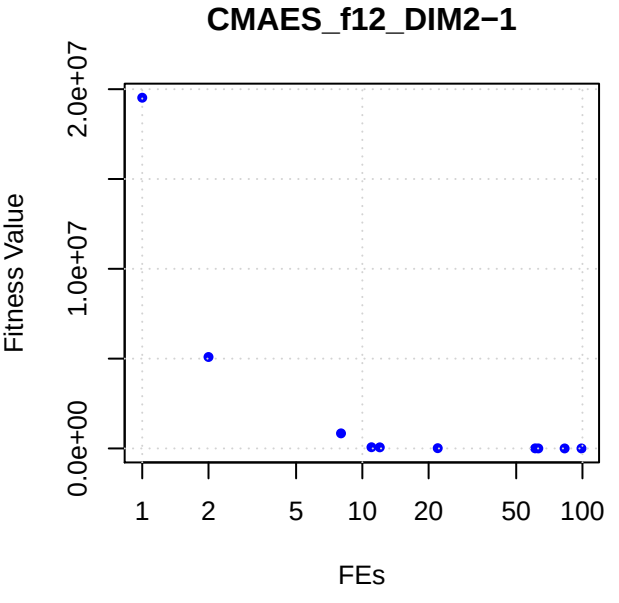

CMAES_f12_DIM10−5
Fitness Value
0.0e+00
1.0e+08
2.0e+08
1
5
50
500
FEs

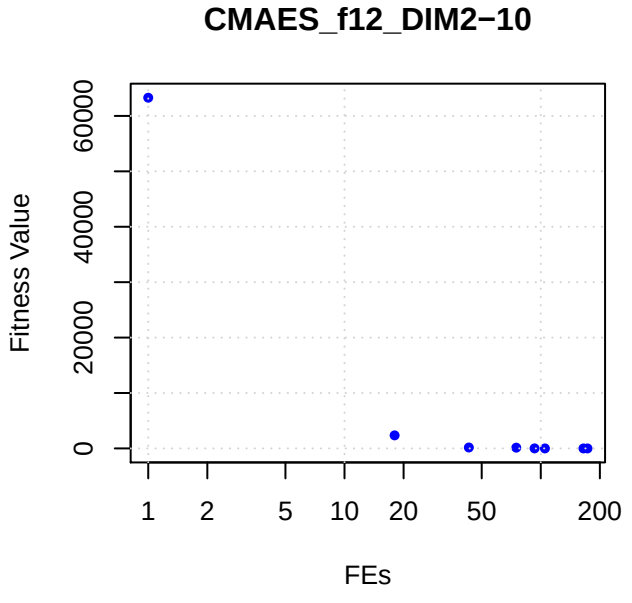

CMAES_f12_DIM10−6
Fitness Value
0e+00
4e+08
8e+08
1
5
50
500
FEs

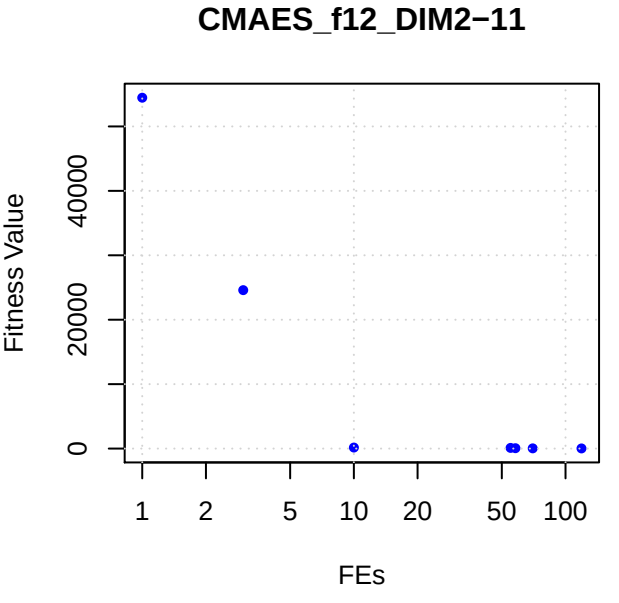

CMAES_f12_DIM10−7
Fitness Value
0.0e+00
1.0e+09
1
5
50
500
FEs

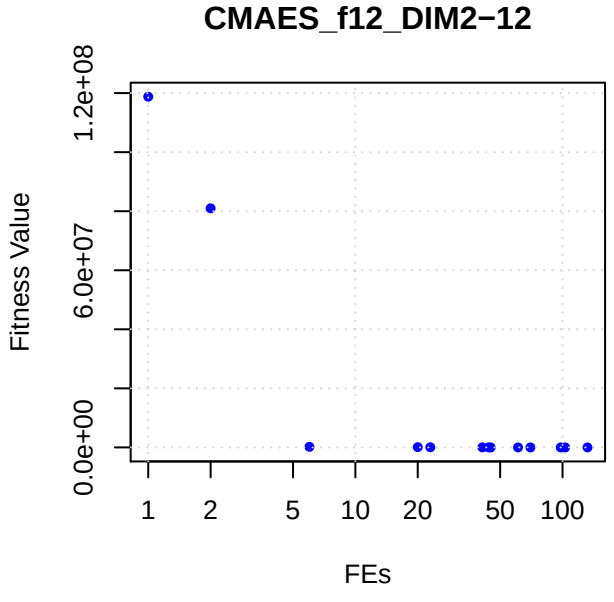

CMAES_f12_DIM10−8
Fitness Value
0e+00
2e+08
4e+08
6e+08
1
5
50
500
FEs

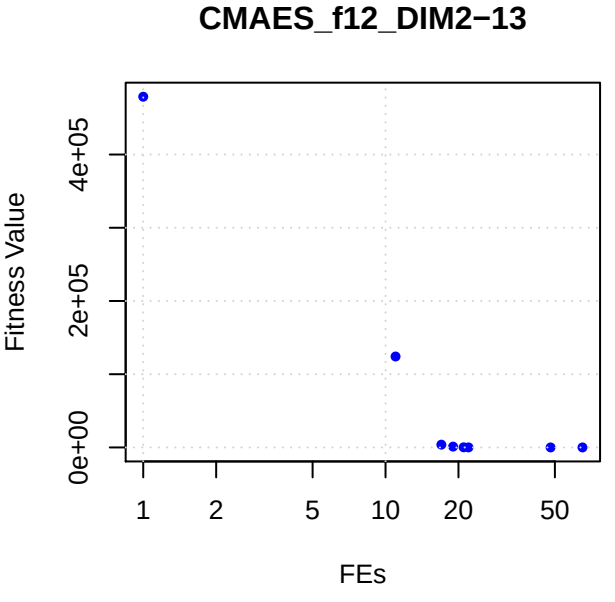

CMAES_f12_DIM10−9
Fitness Value
0e+00
4e+07
8e+07
1
5
50
500
FEs

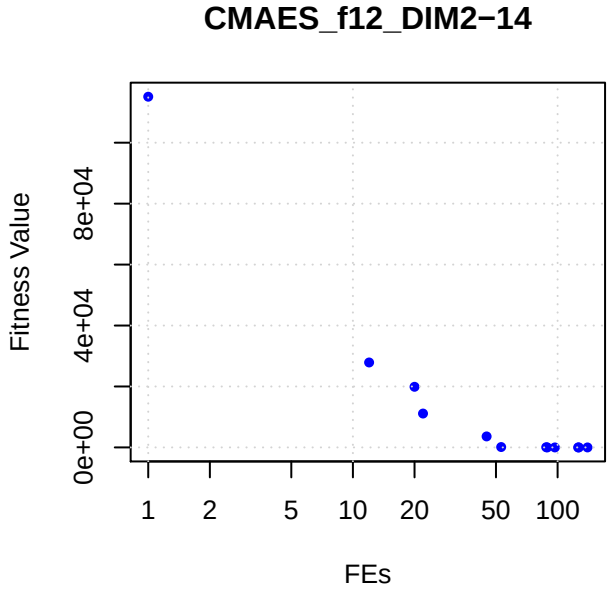

CMAES_f12_DIM2−1
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
100
FEs

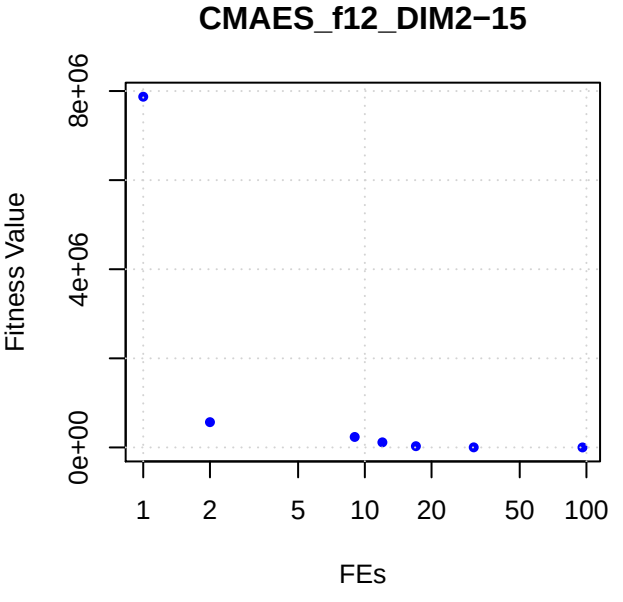

CMAES_f12_DIM2−10
Fitness Value
0
20000
40000
60000
1
2
5
10
20
50
200
FEs

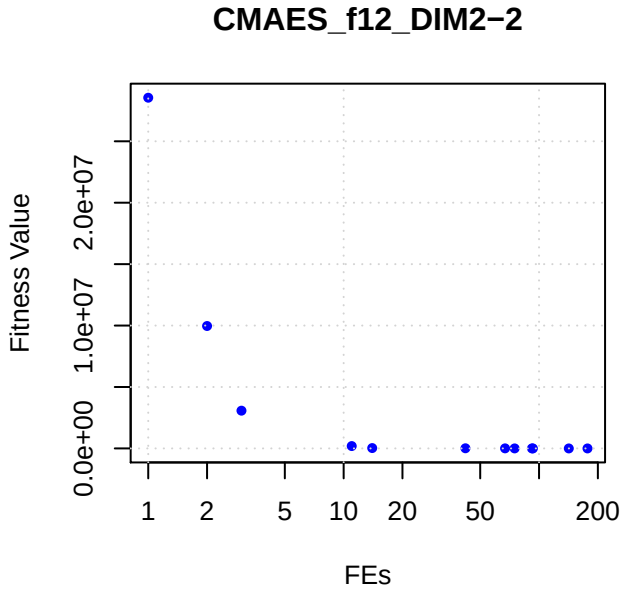

CMAES_f12_DIM2−11
Fitness Value
0
20000
40000
1
2
5
10
20
50
100
FEs

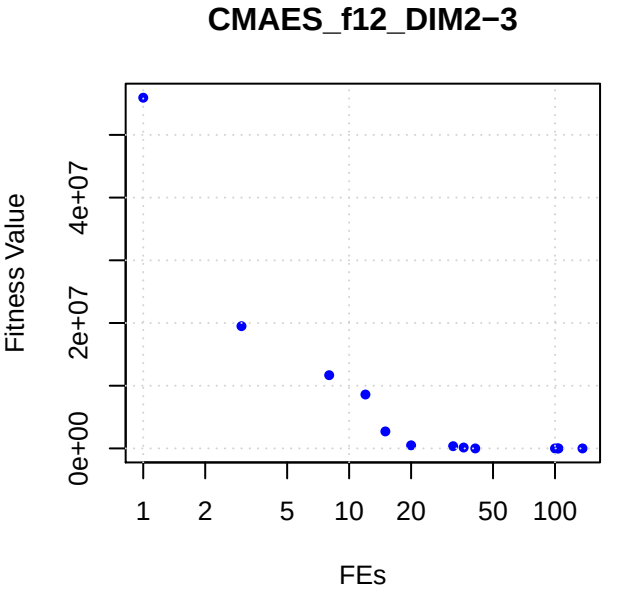

CMAES_f12_DIM2−12
Fitness Value
0.0e+00
6.0e+07
1.2e+08
1
2
5
10
20
50
100
FEs

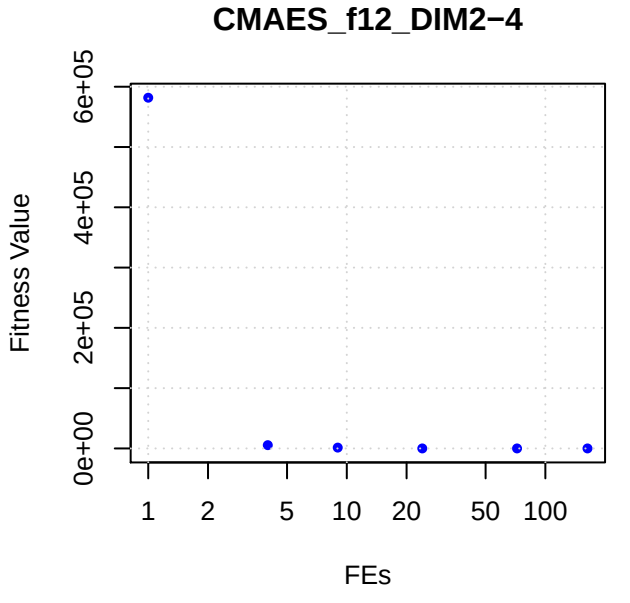

CMAES_f12_DIM2−13
Fitness Value
0e+00
2e+05
4e+05
1
2
5
10
20
50
FEs

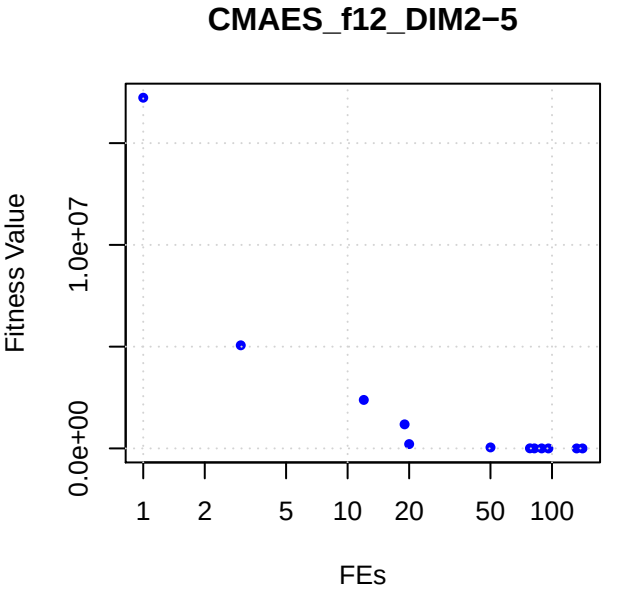

CMAES_f12_DIM2−14
Fitness Value
0e+00
4e+04
8e+04
1
2
5
10
20
50
100
FEs

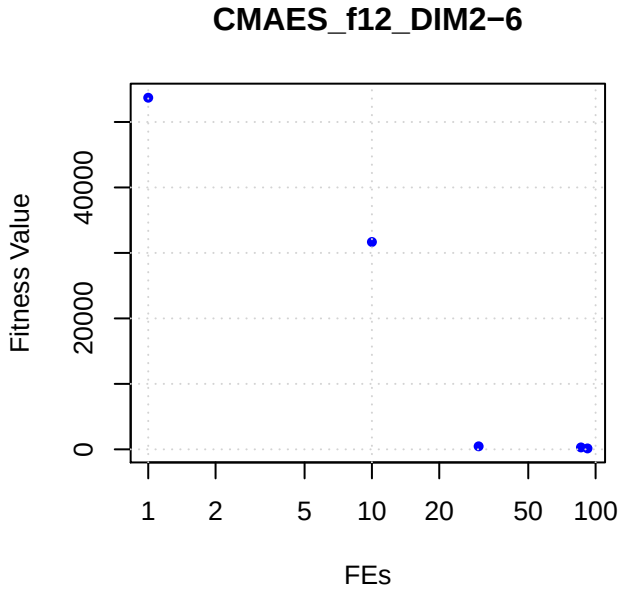

CMAES_f12_DIM2−15
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
100
FEs

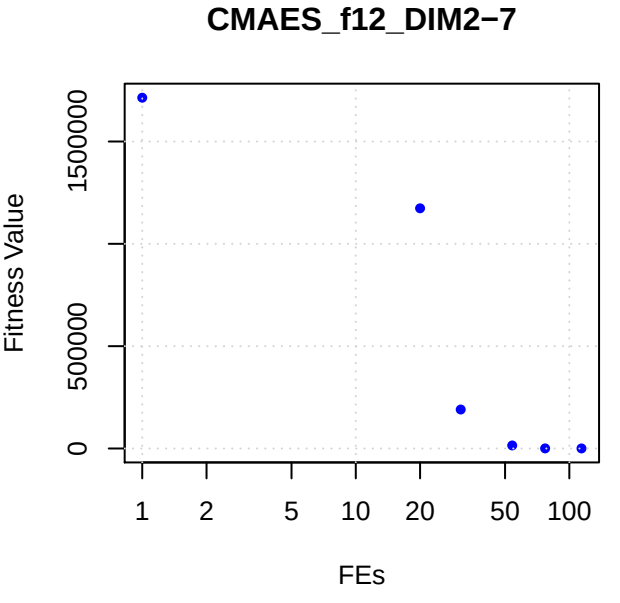

CMAES_f12_DIM2−2
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
200
FEs

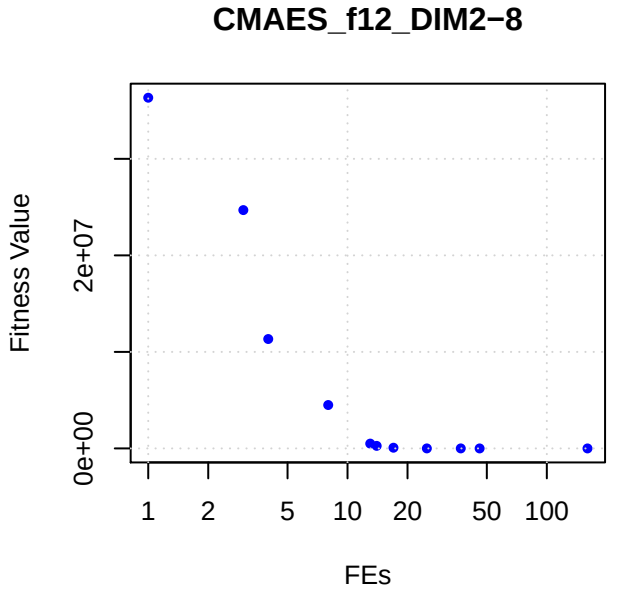

CMAES_f12_DIM2−3
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
20
50
100
FEs

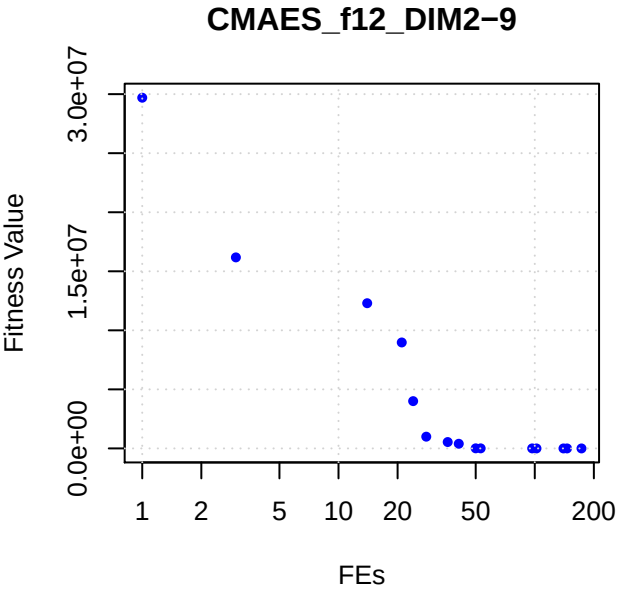

CMAES_f12_DIM2−4
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
50
100
FEs

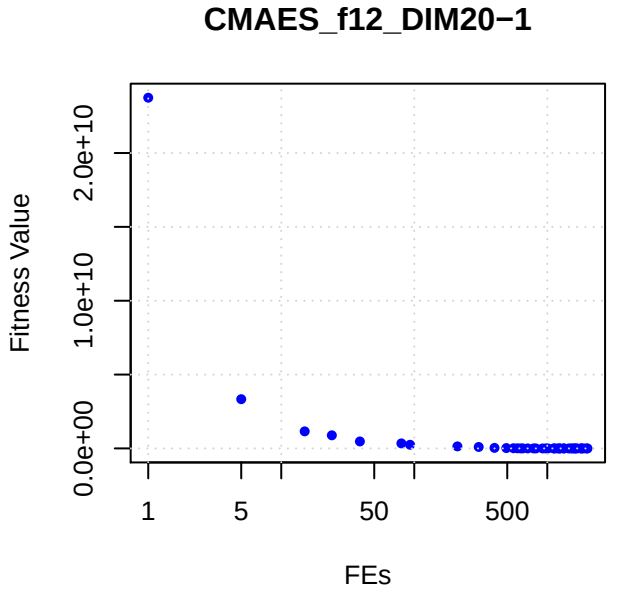

CMAES_f12_DIM2−5
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
100
FEs

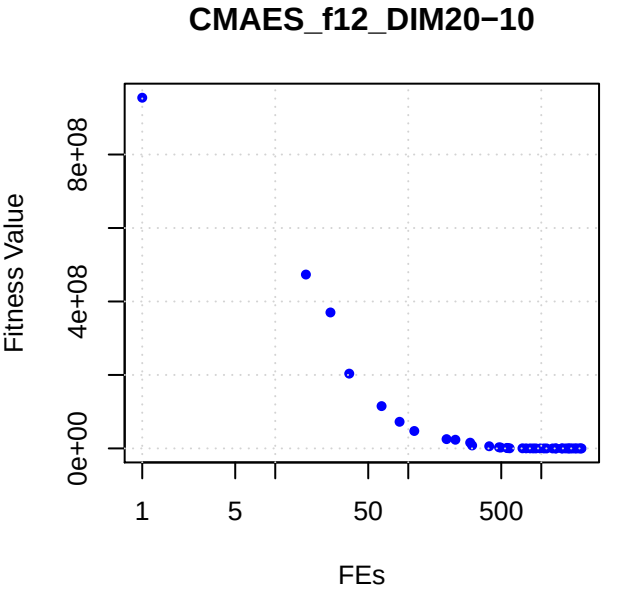

CMAES_f12_DIM2−6
Fitness Value
0
20000
40000
1
2
5
10
20
50
100
FEs

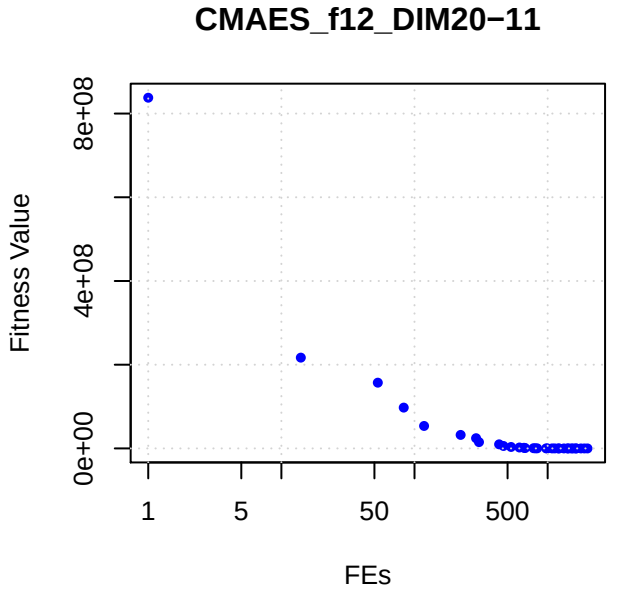

CMAES_f12_DIM2−7
Fitness Value
0
500000
1500000
1
2
5
10
20
50
100
FEs

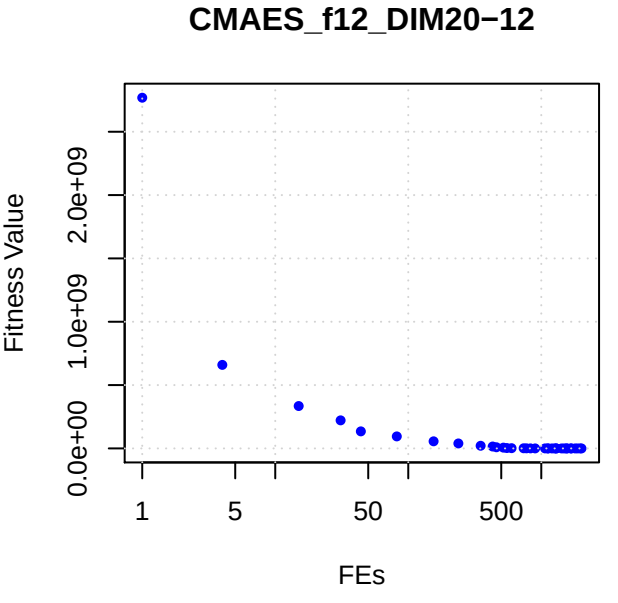

CMAES_f12_DIM2−8
Fitness Value
0e+00
2e+07
1
2
5
10
20
50
100
FEs

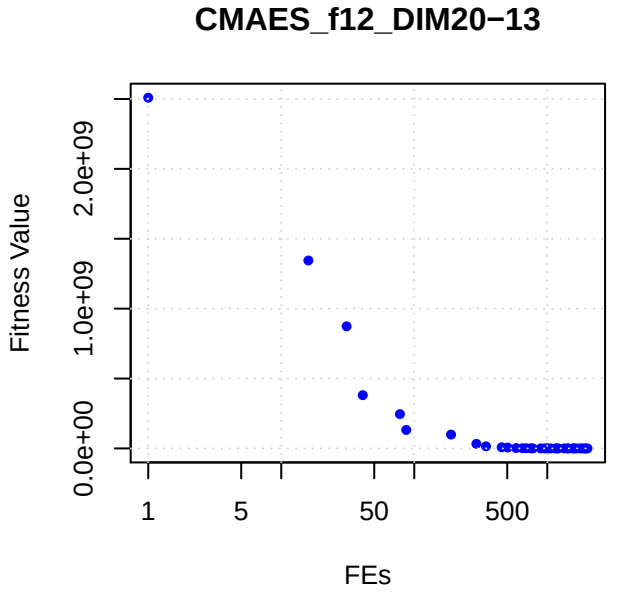

CMAES_f12_DIM2−9
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
20
50
200
FEs

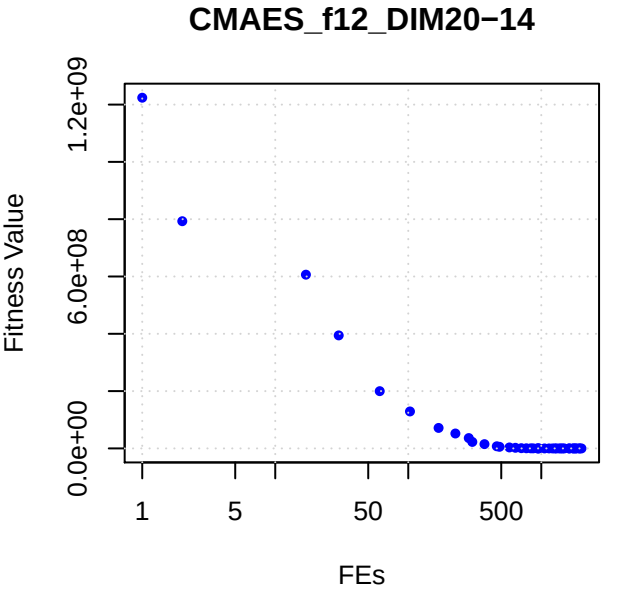

CMAES_f12_DIM20−1
Fitness Value
0.0e+00
1.0e+10
2.0e+10
1
5
50
500
FEs

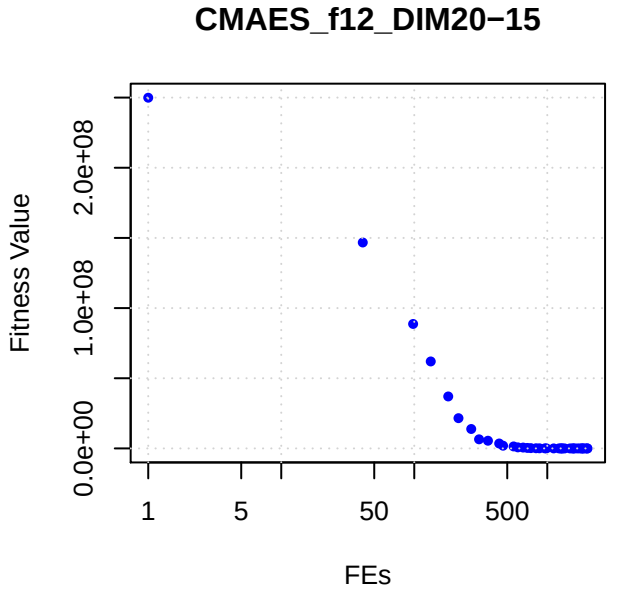

CMAES_f12_DIM20−10
Fitness Value
0e+00
4e+08
8e+08
1
5
50
500
FEs

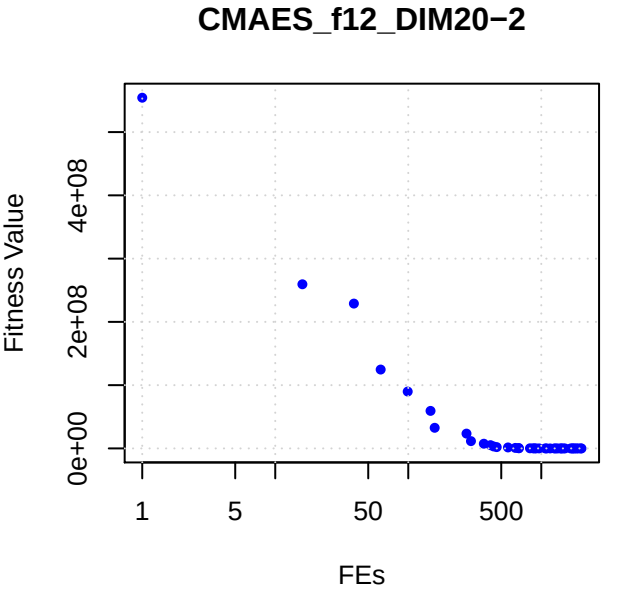

CMAES_f12_DIM20−11
Fitness Value
0e+00
4e+08
8e+08
1
5
50
500
FEs

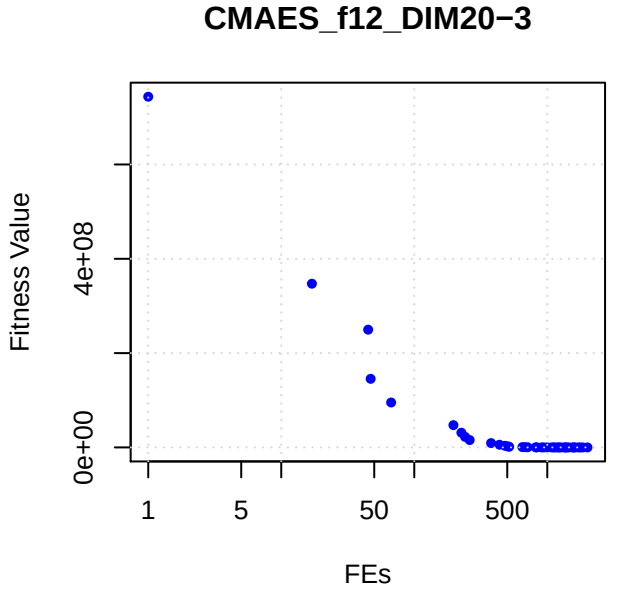

CMAES_f12_DIM20−12
Fitness Value
0.0e+00
1.0e+09
2.0e+09
1
5
50
500
FEs

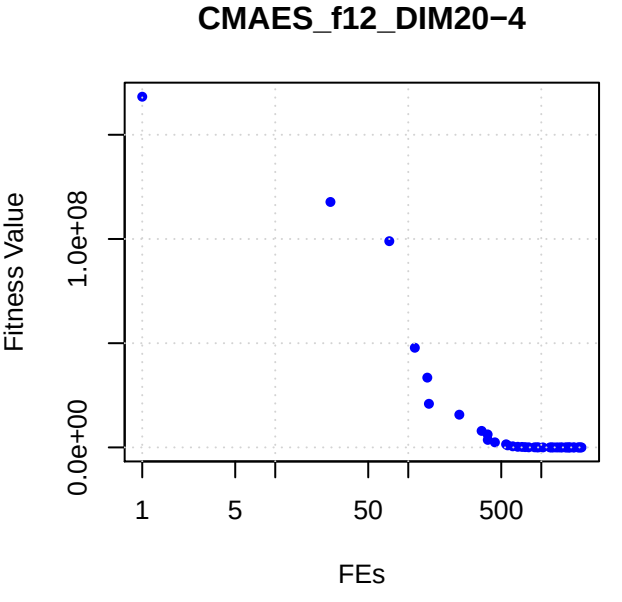

CMAES_f12_DIM20−13
Fitness Value
0.0e+00
1.0e+09
2.0e+09
1
5
50
500
FEs

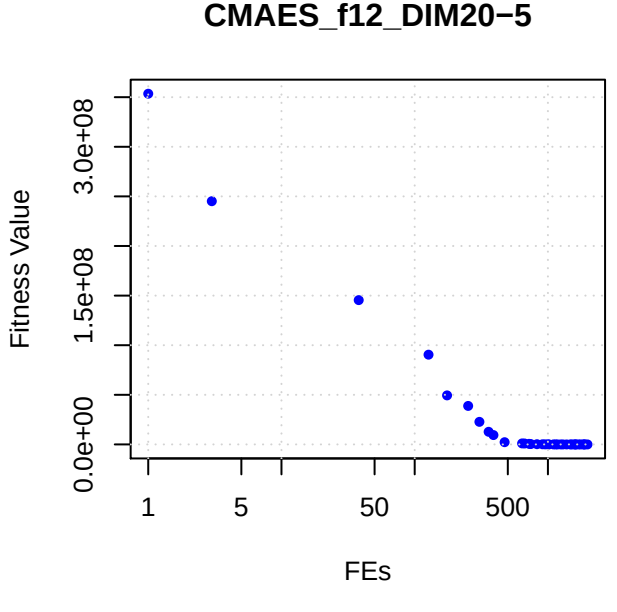

CMAES_f12_DIM20−14
Fitness Value
0.0e+00
6.0e+08
1.2e+09
1
5
50
500
FEs

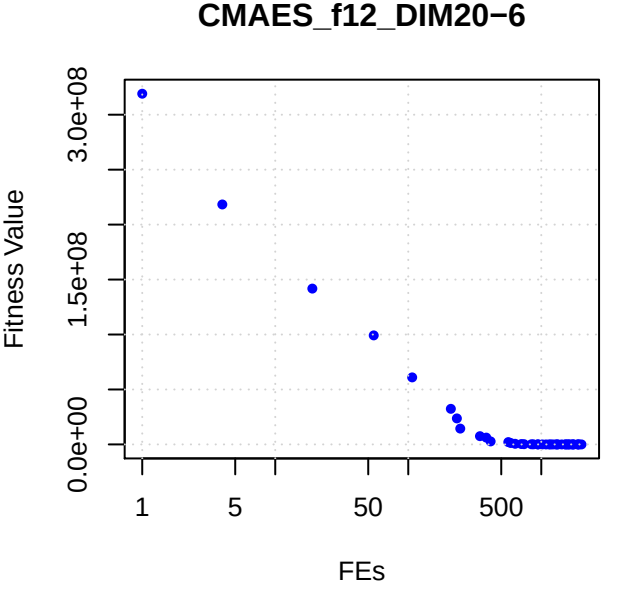

CMAES_f12_DIM20−15
Fitness Value
0.0e+00
1.0e+08
2.0e+08
1
5
50
500
FEs

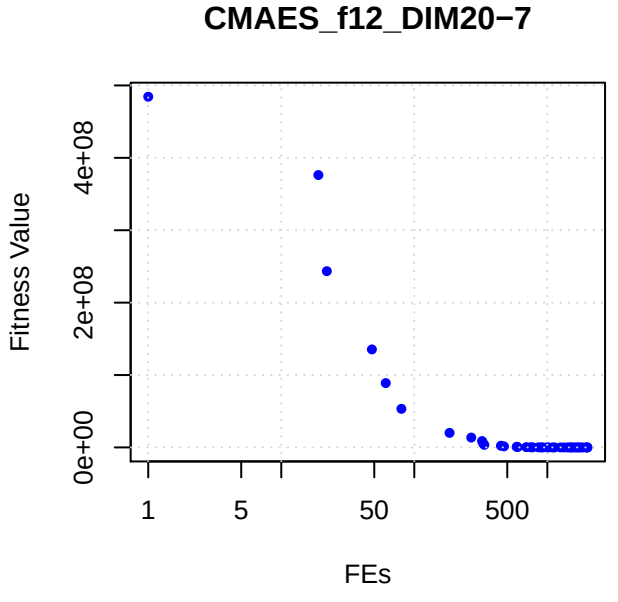

CMAES_f12_DIM20−2
Fitness Value
0e+00
2e+08
4e+08
1
5
50
500
FEs


CMAES_f12_DIM20−3
Fitness Value
0e+00
4e+08
1
5
50
500
FEs


CMAES_f12_DIM20−4
Fitness Value
0.0e+00
1.0e+08
1
5
50
500
FEs


CMAES_f12_DIM20−5
Fitness Value
0.0e+00
1.5e+08
3.0e+08
1
5
50
500
FEs


CMAES_f12_DIM20−6
Fitness Value
0.0e+00
1.5e+08
3.0e+08
1
5
50
500
FEs


CMAES_f12_DIM20−7
Fitness Value
0e+00
2e+08
4e+08
1
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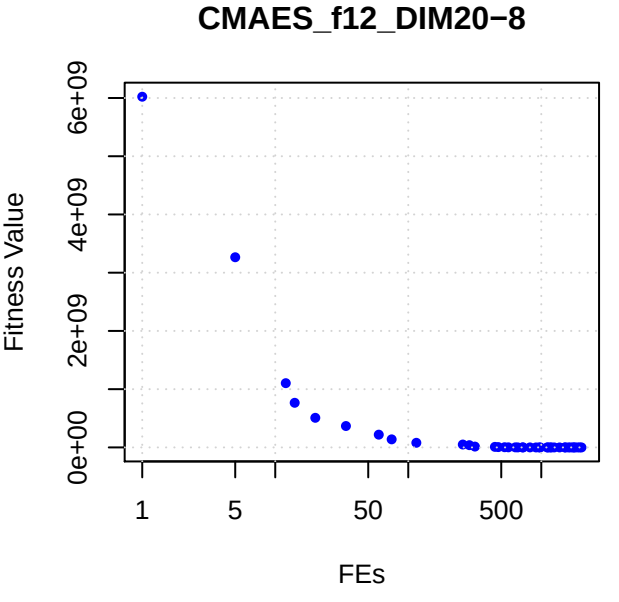
500
FEs


CMAES_f12_DIM20−8
Fitness Value
0e+00
2e+09
4e+09
6e+09
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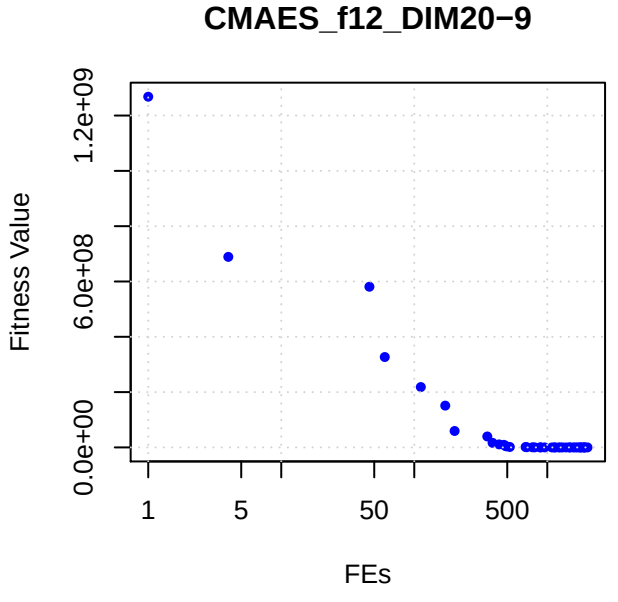
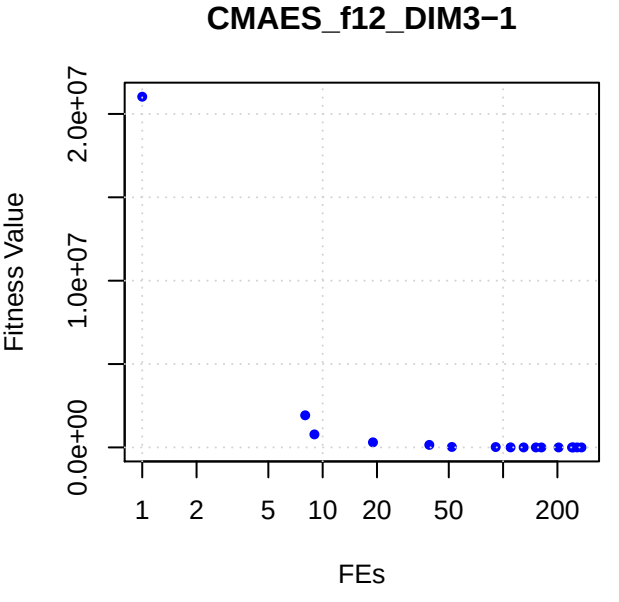
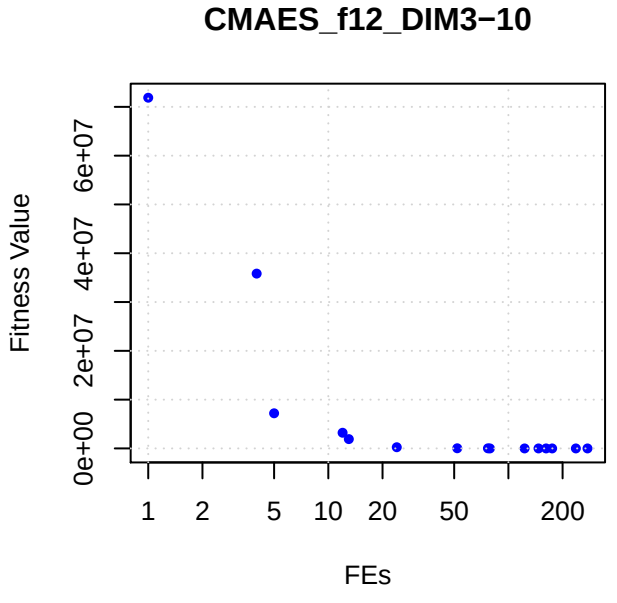
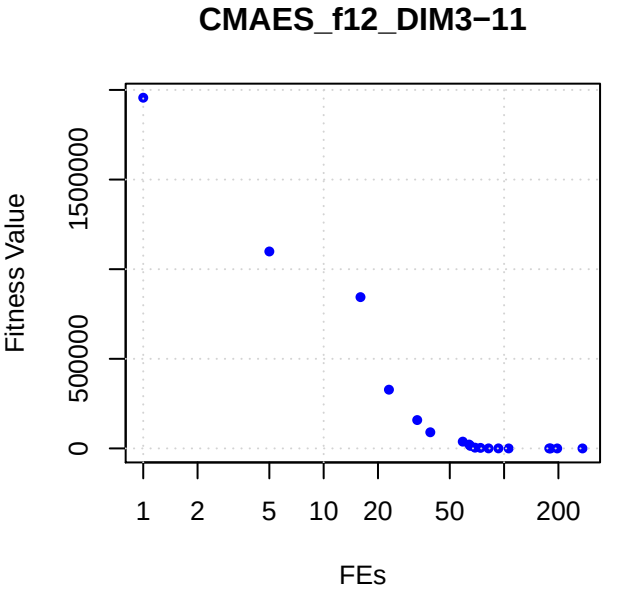
5
50
500
FEs


CMAES_f12_DIM20−9
Fitness Value
0.0e+00
6.0e+08
1.2e+09
1
5
50
500
FEs


CMAES_f12_DIM3−1
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f12_DIM3−10
Fitness Value
0e+00
2e+07
4e+07
6e+07
1
2
5
10
20
50
200
FEs


CMAES_f12_DIM3−11
Fitness Value
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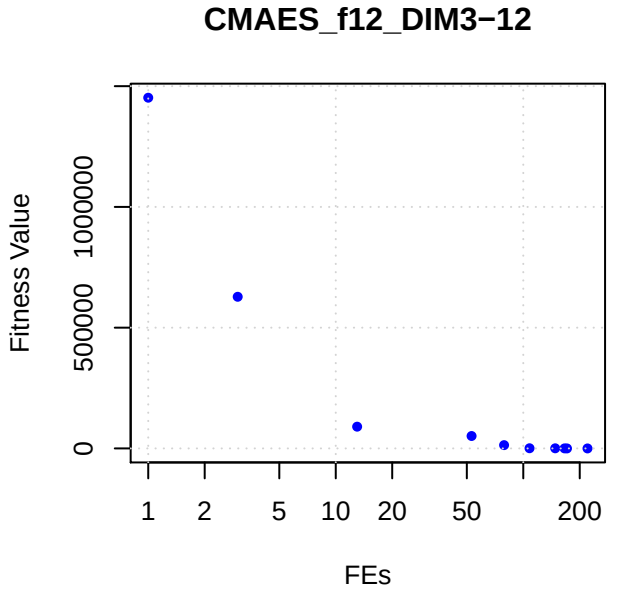
1
2
5
10
20
50
200
FEs


CMAES_f12_DIM3−12
Fitness Value
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2
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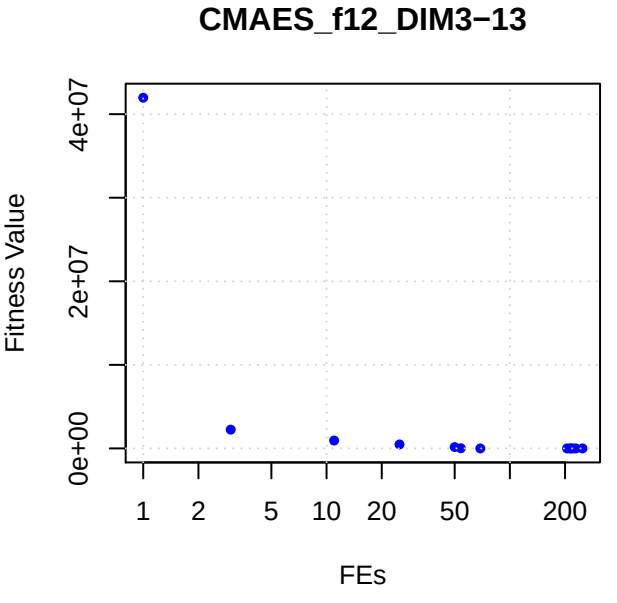
200
FEs


CMAES_f12_DIM3−13
Fitness Value
0e+00
2e+07
4e+07
1
2
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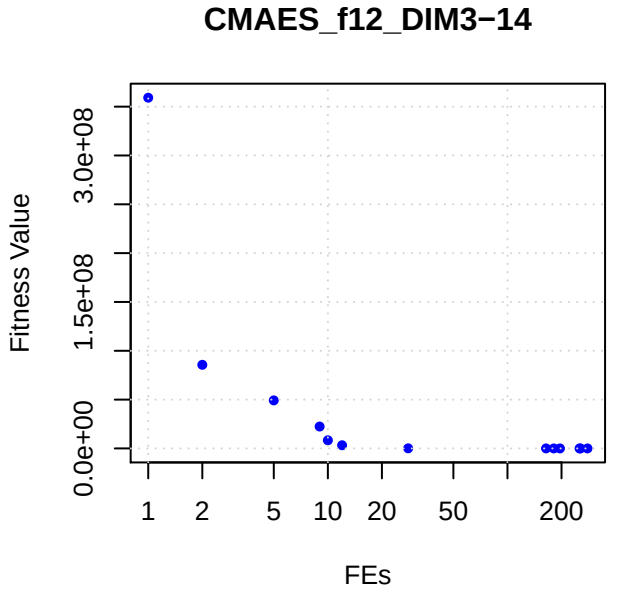
20
50
200
FEs


CMAES_f12_DIM3−14
Fitness Value
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1.5e+08
3.0e+08
1
2
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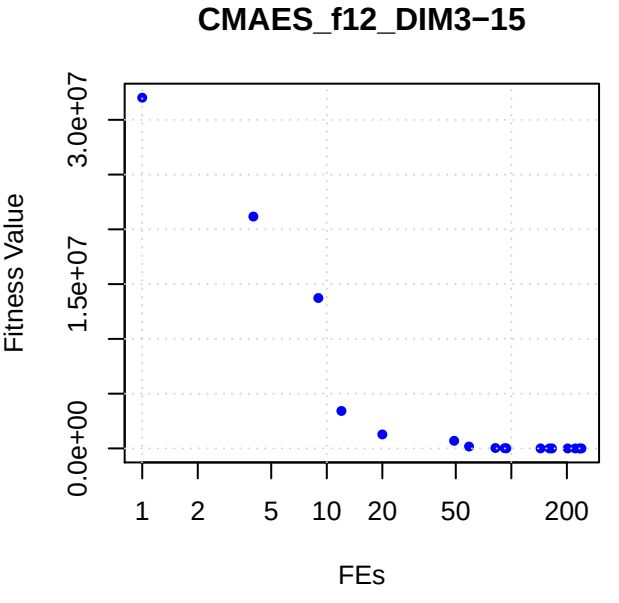
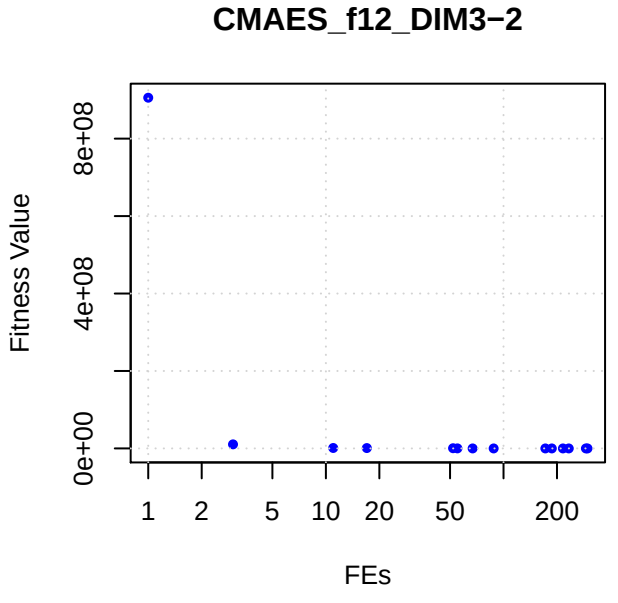
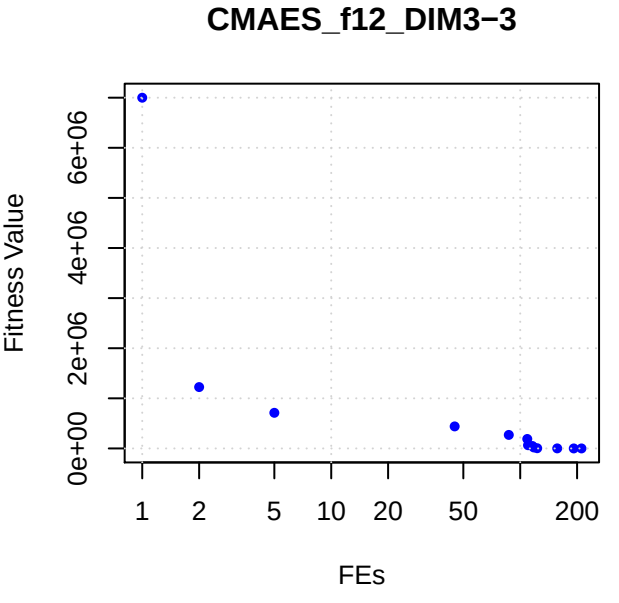
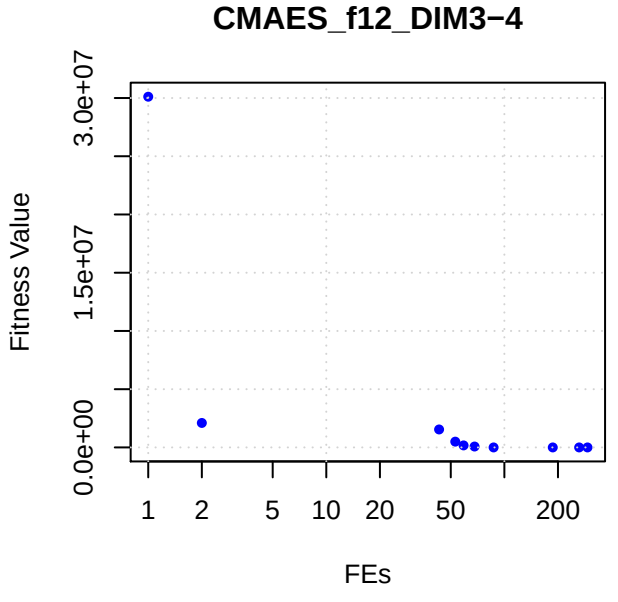
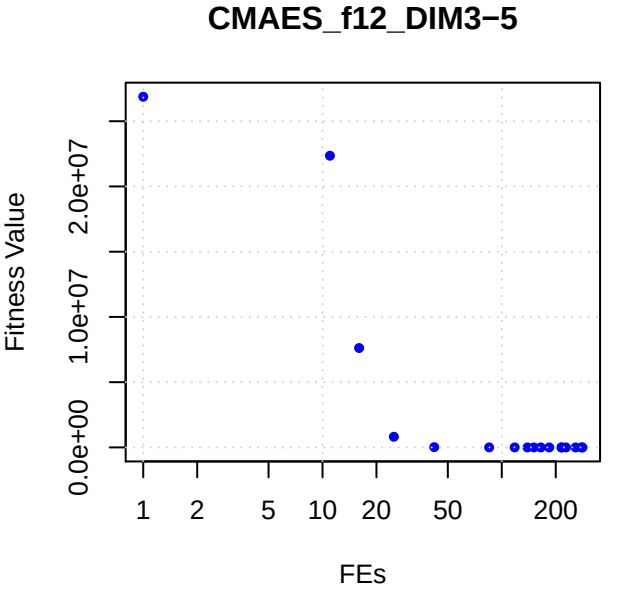
20
50
200
FEs

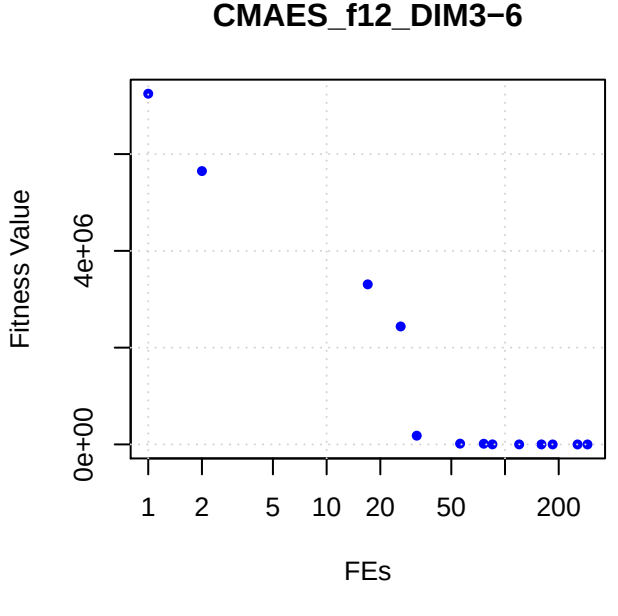

CMAES_f12_DIM3−15
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
20
50
200
FEs

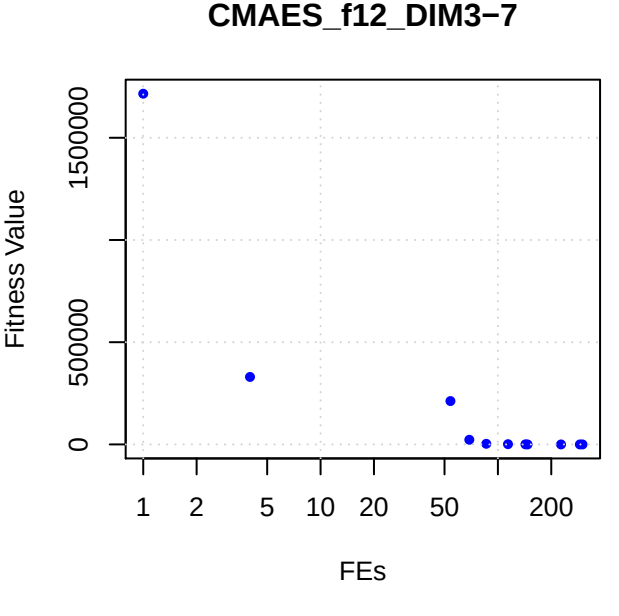

CMAES_f12_DIM3−2
Fitness Value
0e+00
4e+08
8e+08
1
2
5
10
20
50
200
FEs


CMAES_f12_DIM3−3
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
50
200
FEs


CMAES_f12_DIM3−4
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f12_DIM3−5
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
200
FEs


CMAES_f12_DIM3−6
Fitness Value
0e+00
4e+06
1
2
5
10
20
50
200
FEs


CMAES_f12_DIM3−7
Fitness Value
0
500000
1500000
1
2
5
10
20
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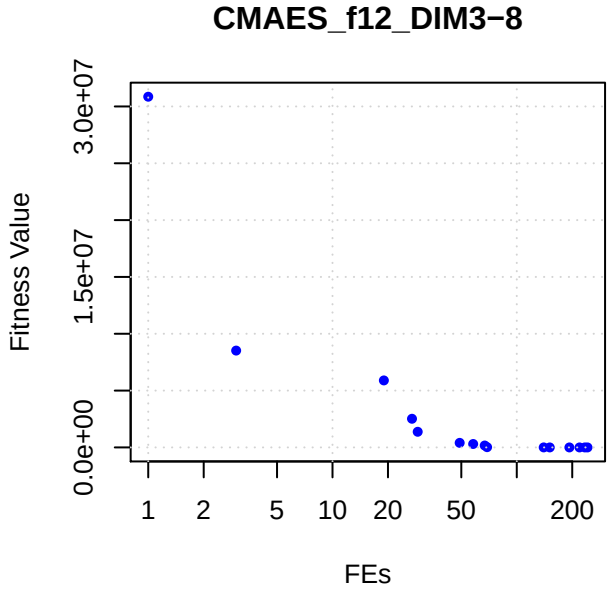
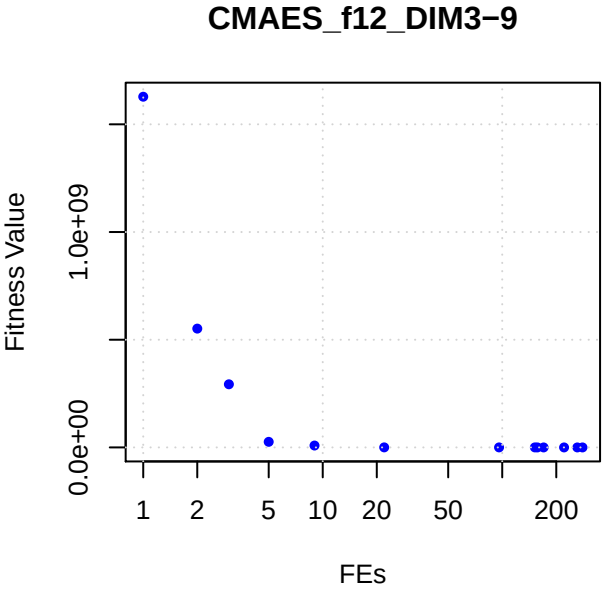
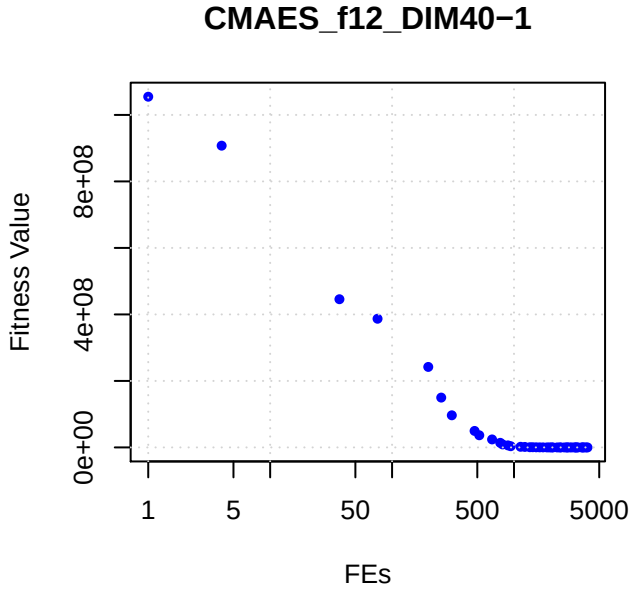
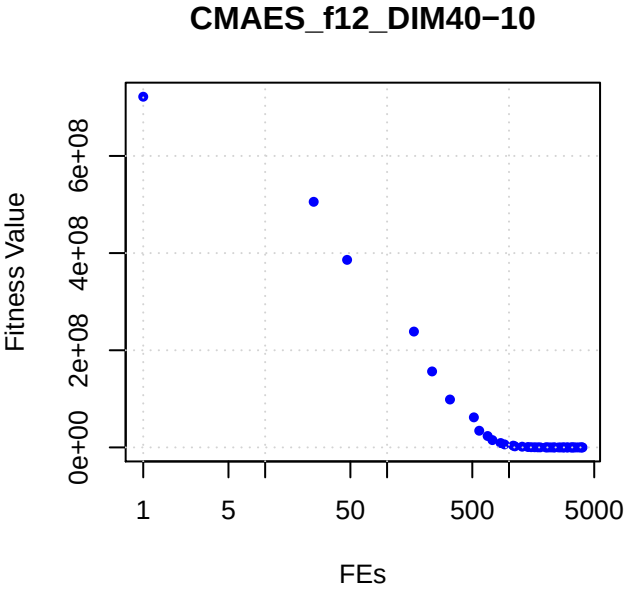
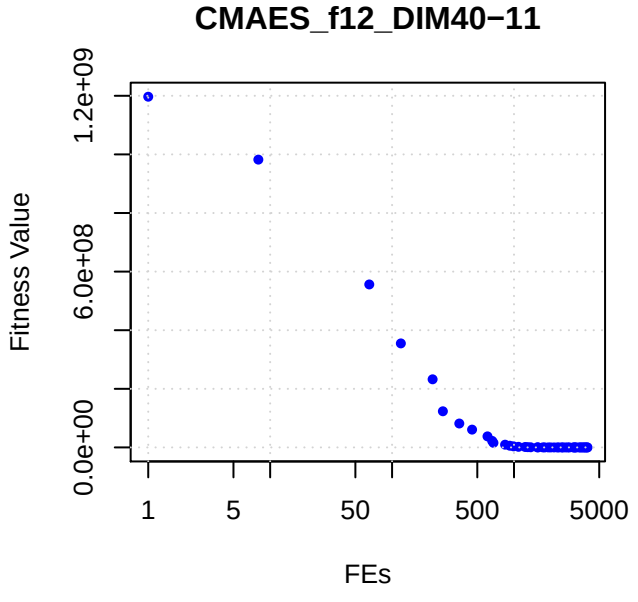
200
FEs

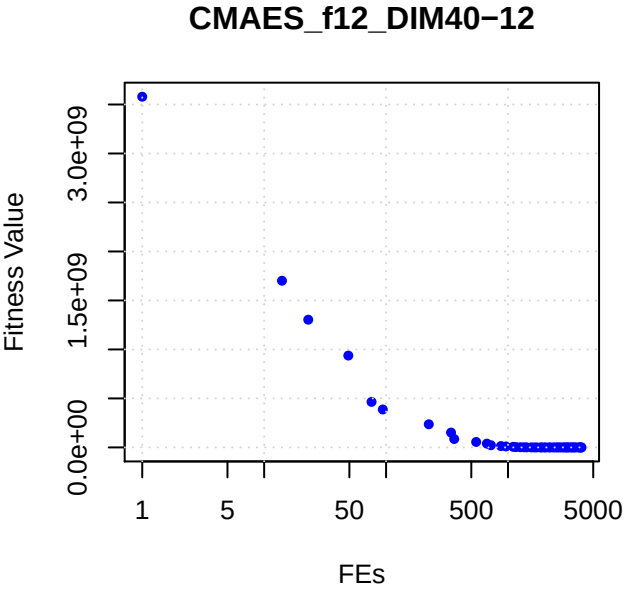

CMAES_f12_DIM3−8
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
20
50
200
FEs

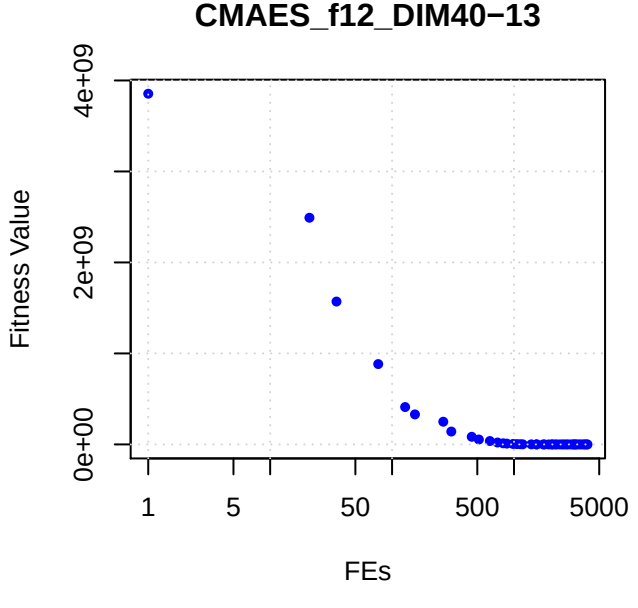

CMAES_f12_DIM3−9
Fitness Value
0.0e+00
1.0e+09
1
2
5
10
20
50
200
FEs

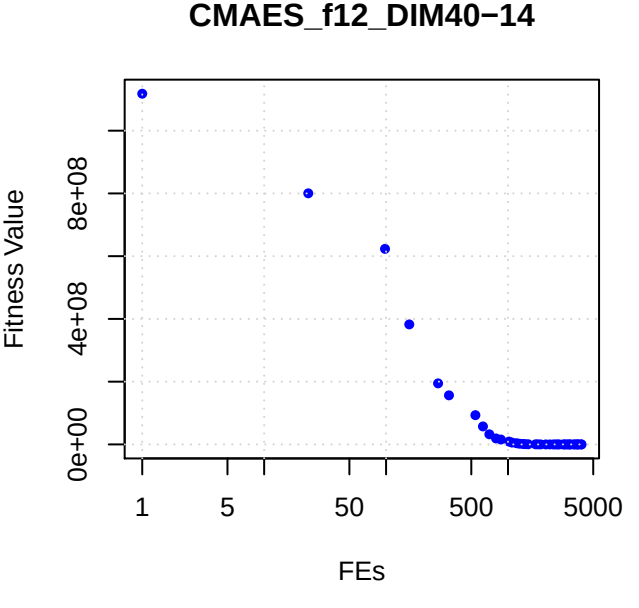

CMAES_f12_DIM40−1
Fitness Value
0e+00
4e+08
8e+08
1
5
50
500
5000
FEs

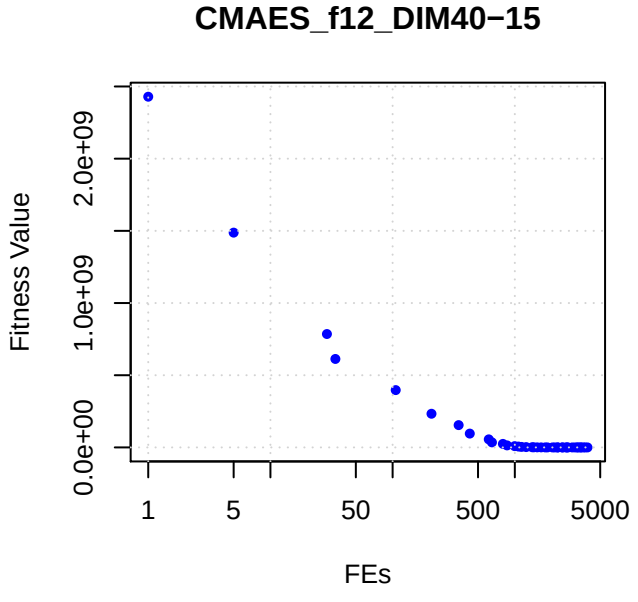

CMAES_f12_DIM40−10
Fitness Value
0e+00
2e+08
4e+08
6e+08
1
5
50
500
5000
FEs

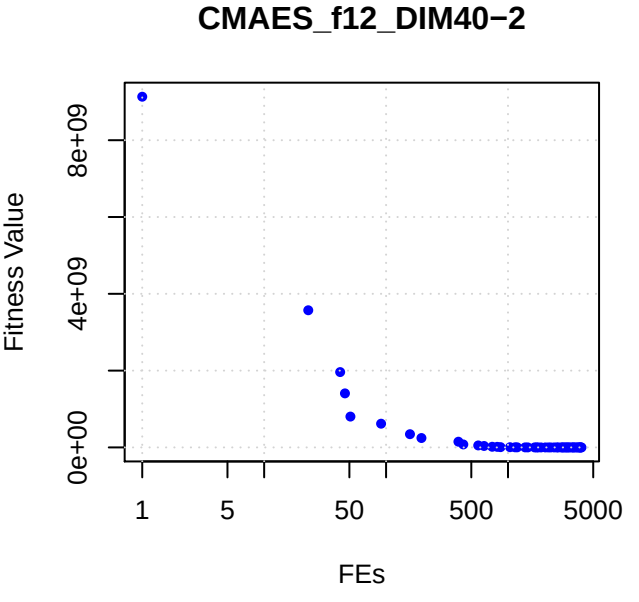

CMAES_f12_DIM40−11
Fitness Value
0.0e+00
6.0e+08
1.2e+09
1
5
50
500
5000
FEs

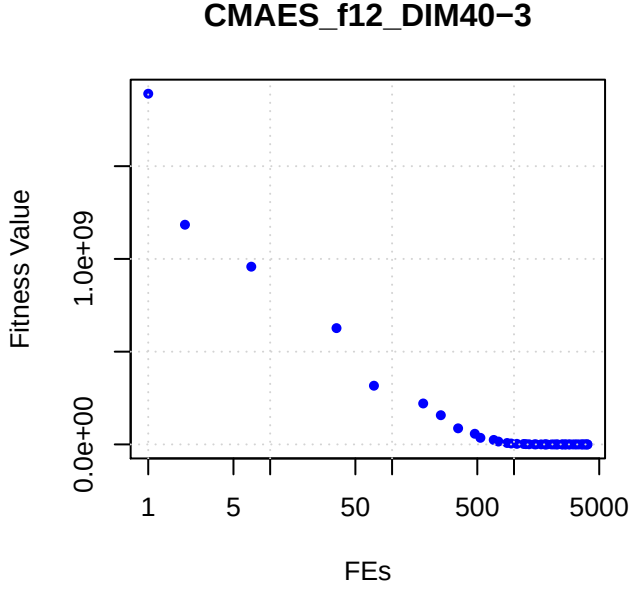

CMAES_f12_DIM40−12
Fitness Value
0.0e+00
1.5e+09
3.0e+09
1
5
50
500
5000
FEs

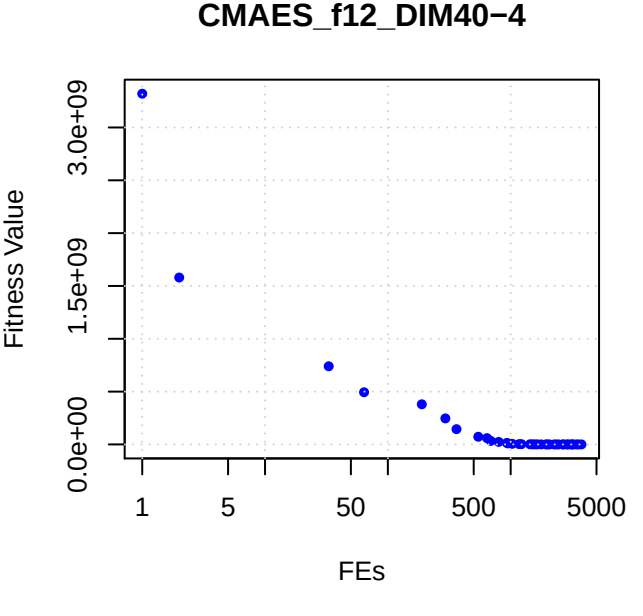

CMAES_f12_DIM40−13
Fitness Value
0e+00
2e+09
4e+09
1
5
50
500
5000
FEs

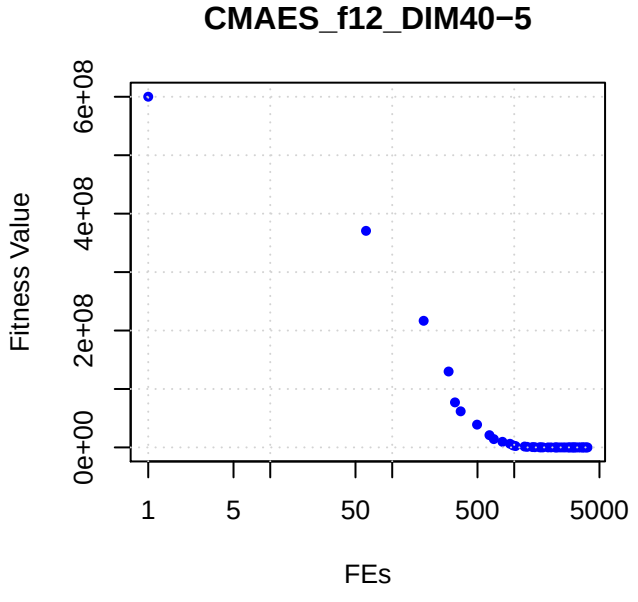

CMAES_f12_DIM40−14
Fitness Value
0e+00
4e+08
8e+08
1
5
50
500
5000
FEs

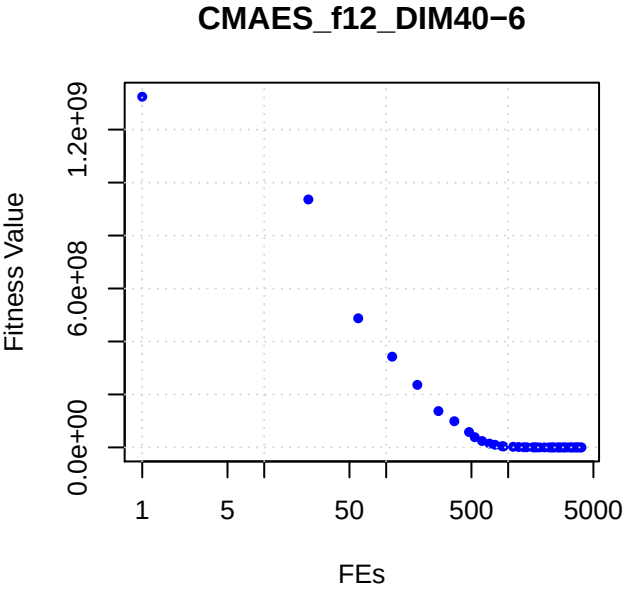

CMAES_f12_DIM40−15
Fitness Value
0.0e+00
1.0e+09
2.0e+09
1
5
50
500
5000
FEs

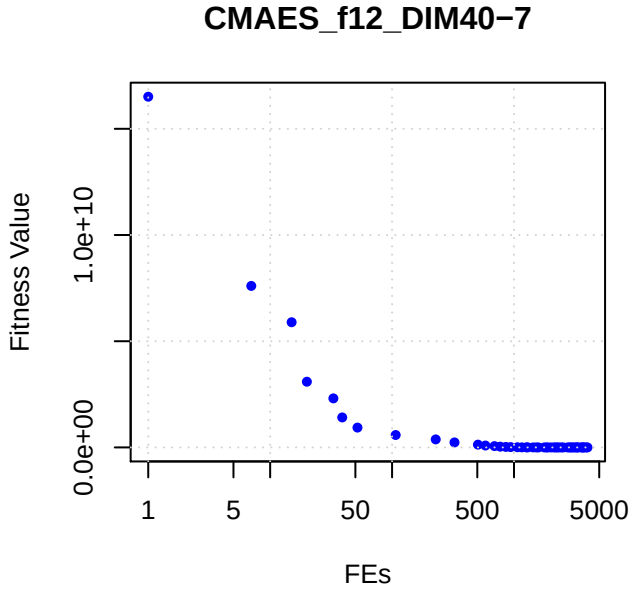

CMAES_f12_DIM40−2
Fitness Value
0e+00
4e+09
8e+09
1
5
50
500
5000
FEs

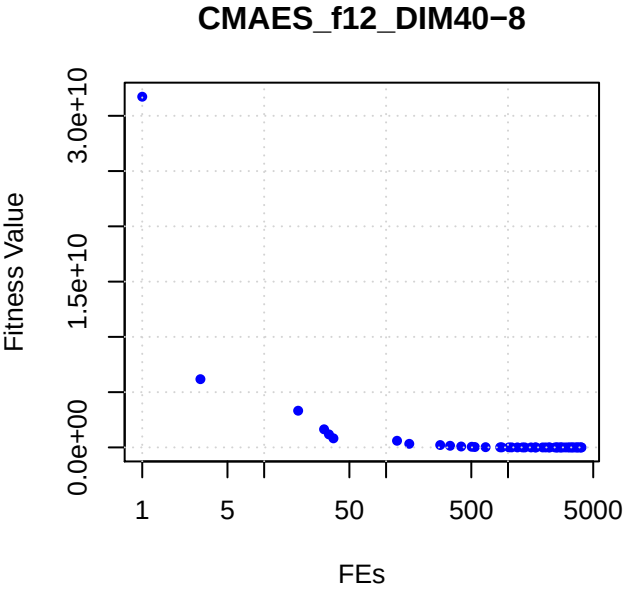

CMAES_f12_DIM40−3
Fitness Value
0.0e+00
1.0e+09
1
5
50
500
5000
FEs

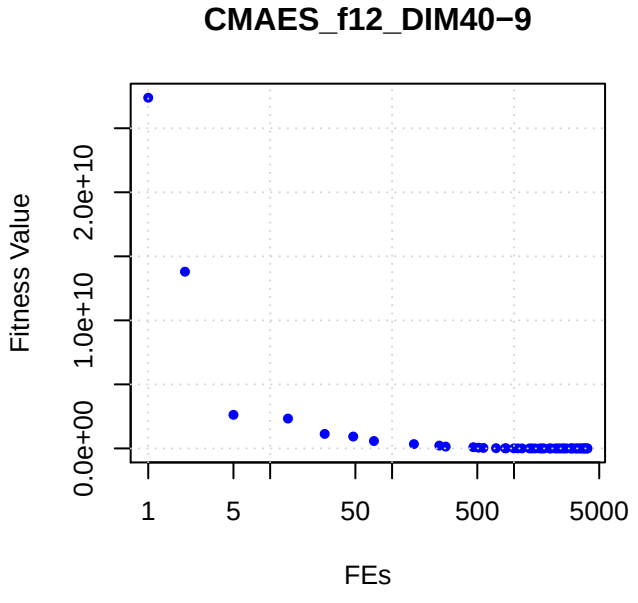

CMAES_f12_DIM40−4
Fitness Value
0.0e+00
1.5e+09
3.0e+09
1
5
50
500
5000
FEs

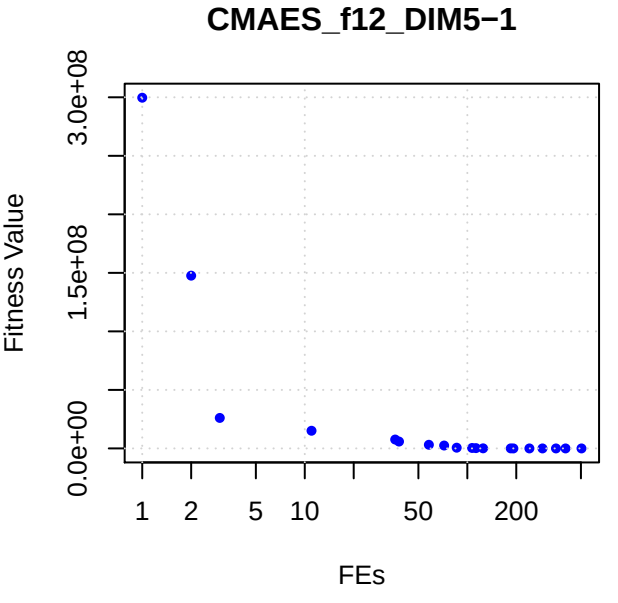

CMAES_f12_DIM40−5
Fitness Value
0e+00
2e+08
4e+08
6e+08
1
5
50
500
5000
FEs

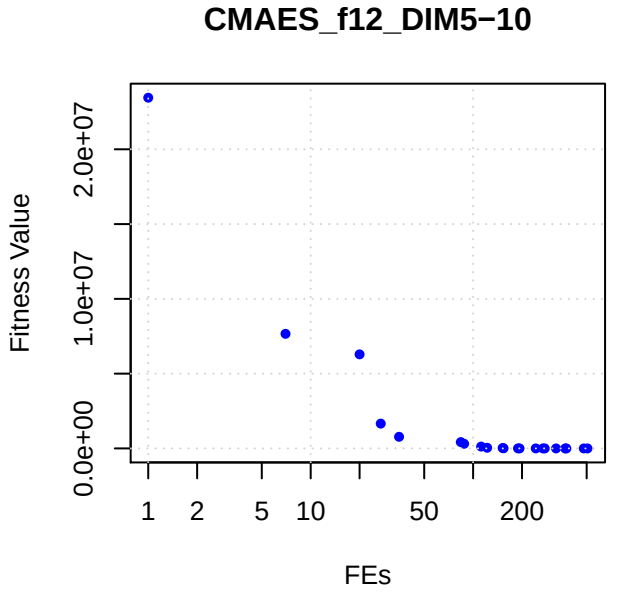

CMAES_f12_DIM40−6
Fitness Value
0.0e+00
6.0e+08
1.2e+09
1
5
50
500
5000
FEs

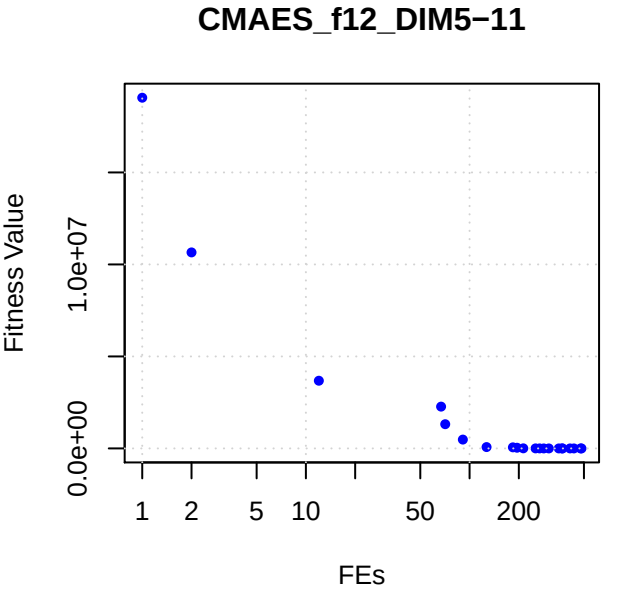

CMAES_f12_DIM40−7
Fitness Value
0.0e+00
1.0e+10
1
5
50
500
5000
FEs

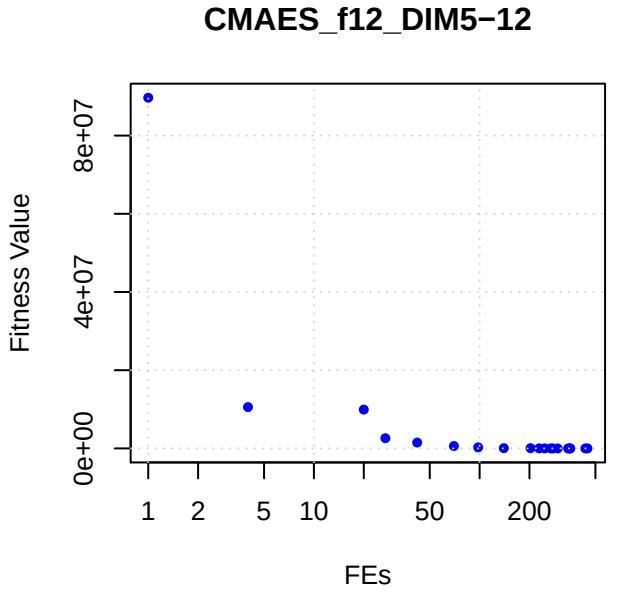

CMAES_f12_DIM40−8
Fitness Value
0.0e+00
1.5e+10
3.0e+10
1
5
50
500
5000
FEs

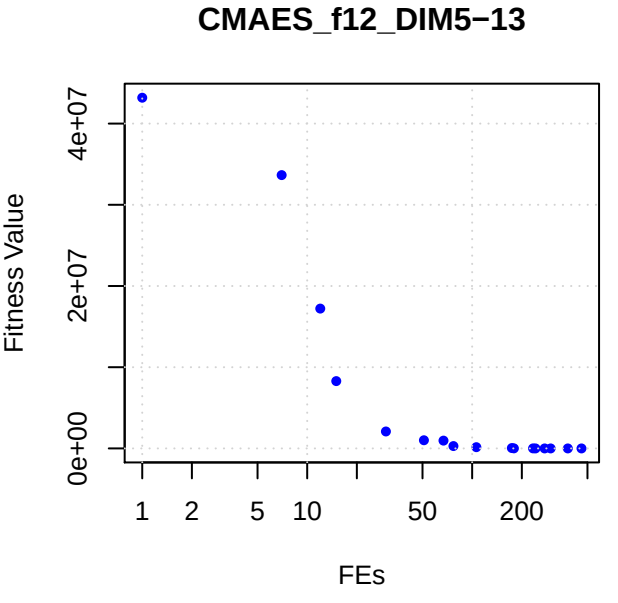

CMAES_f12_DIM40−9
Fitness Value
0.0e+00
1.0e+10
2.0e+10
1
5
50
500
5000
FEs

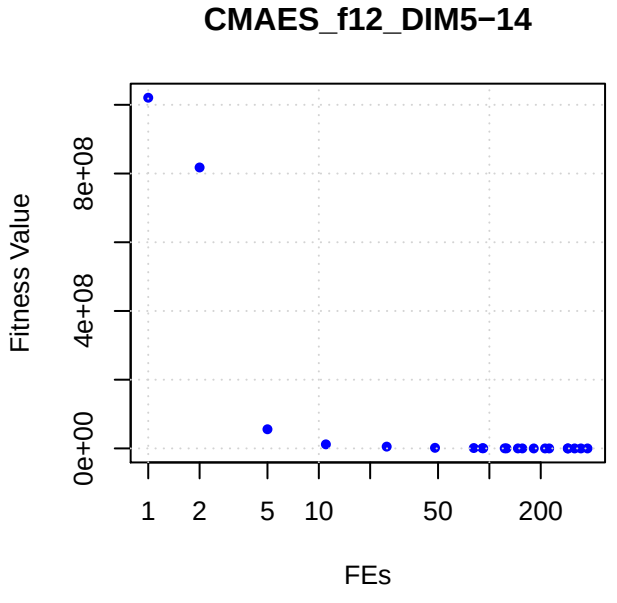

CMAES_f12_DIM5−1
Fitness Value
0.0e+00
1.5e+08
3.0e+08
1
2
5
10
50
200
FEs

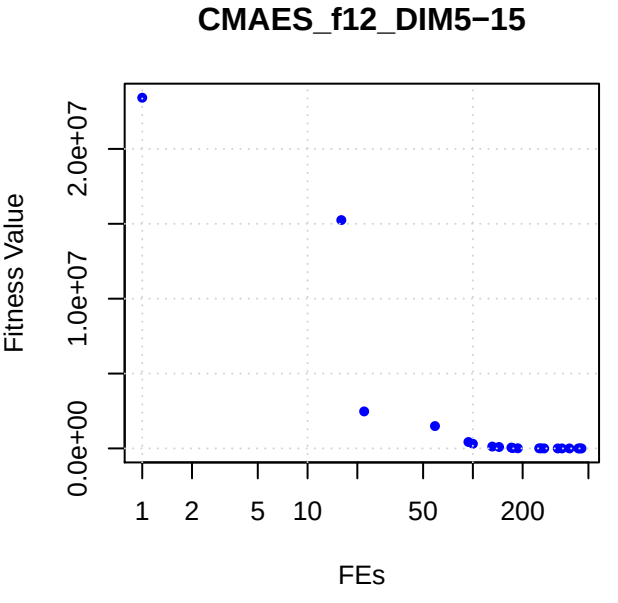

CMAES_f12_DIM5−10
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
50
200
FEs

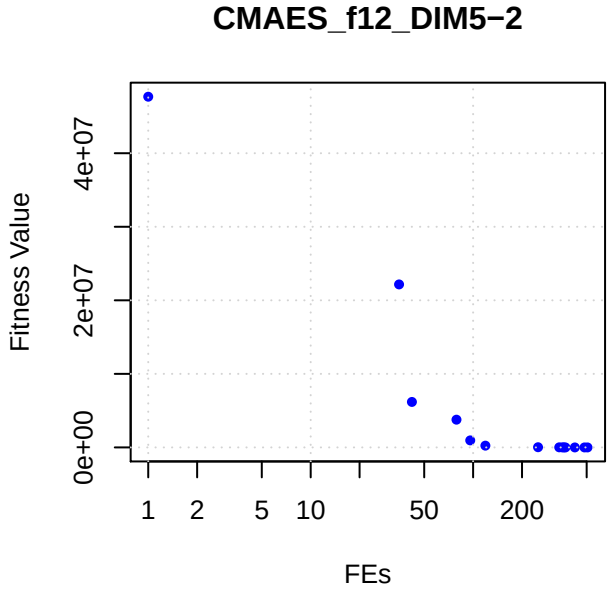

CMAES_f12_DIM5−11
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
50
200
FEs

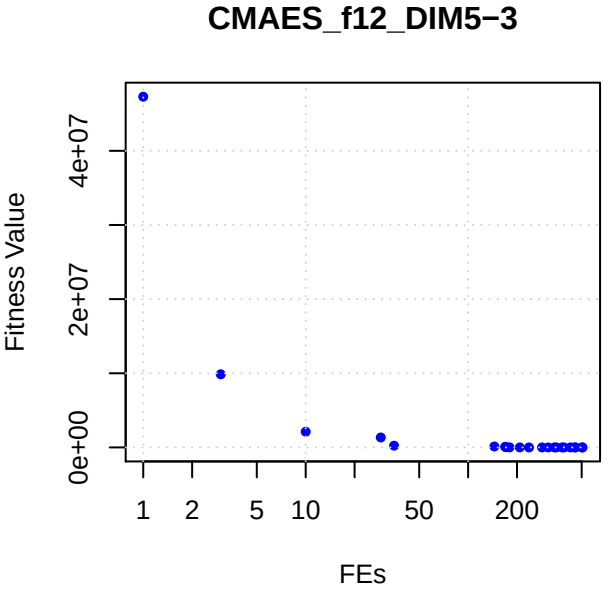

CMAES_f12_DIM5−12
Fitness Value
0e+00
4e+07
8e+07
1
2
5
10
50
200
FEs

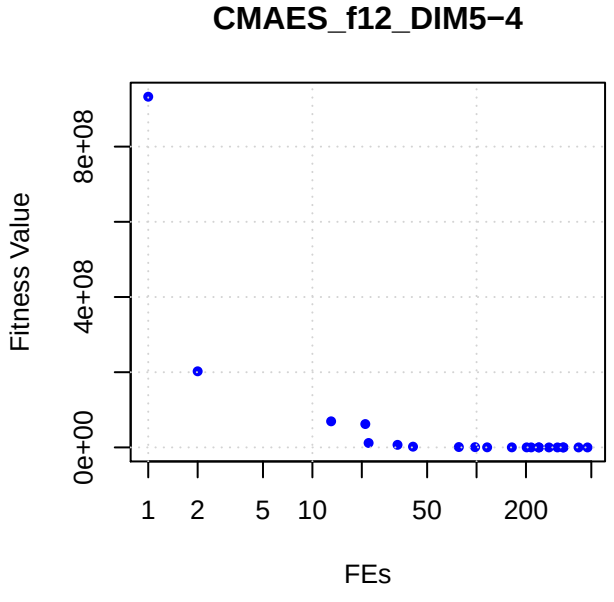

CMAES_f12_DIM5−13
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
50
200
FEs

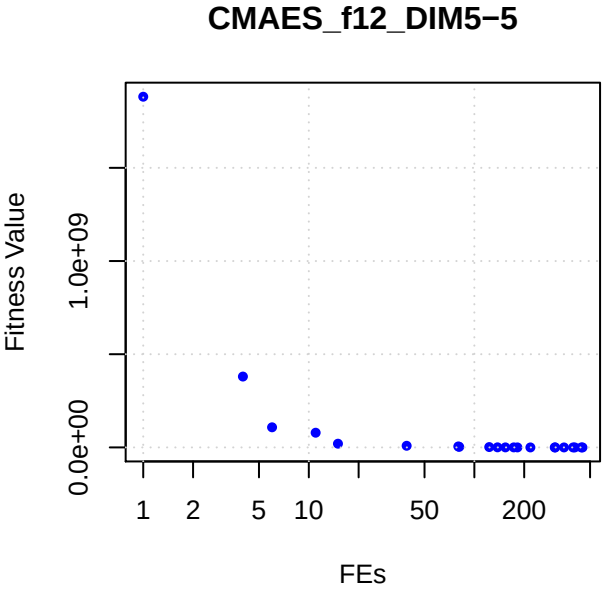

CMAES_f12_DIM5−14
Fitness Value
0e+00
4e+08
8e+08
1
2
5
10
50
200
FEs

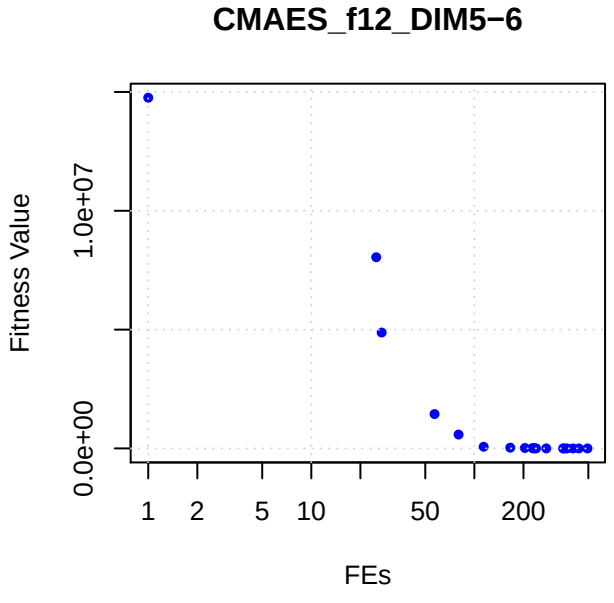

CMAES_f12_DIM5−15
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
50
200
FEs

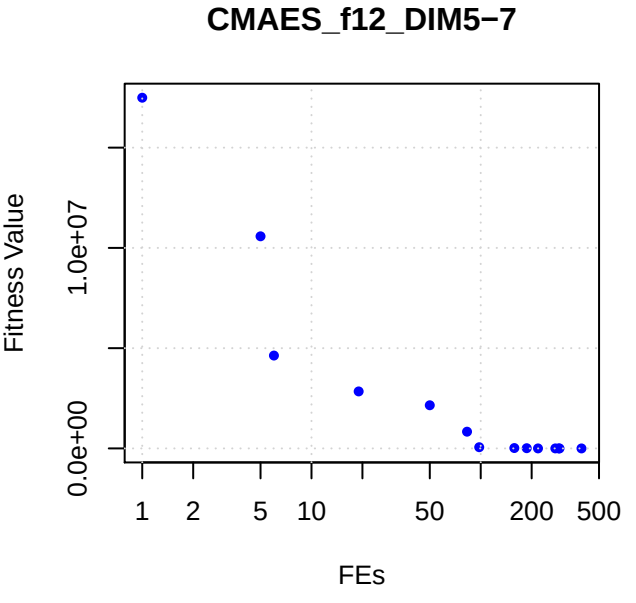

CMAES_f12_DIM5−2
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
50
200
FEs

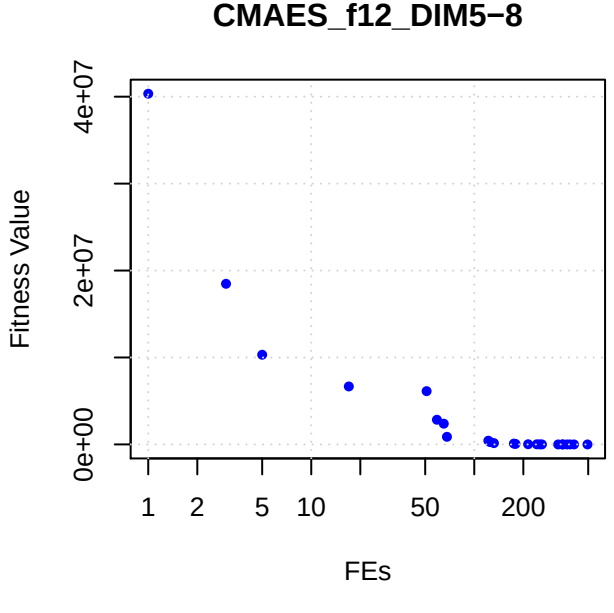

CMAES_f12_DIM5−3
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
50
200
FEs

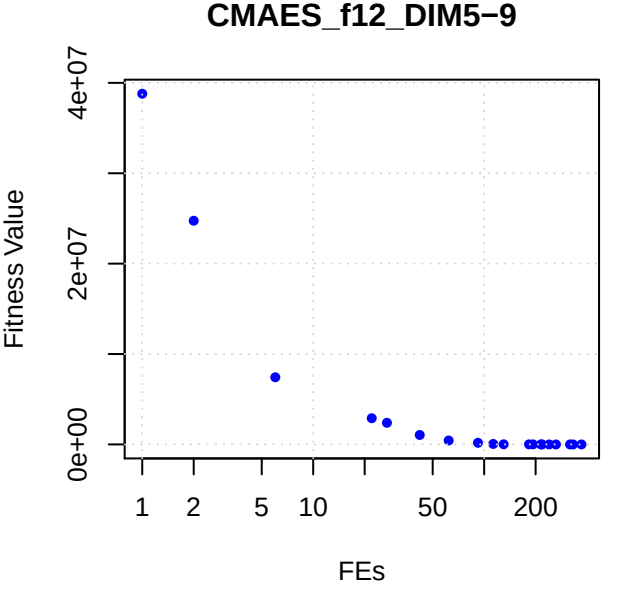

CMAES_f12_DIM5−4
Fitness Value
0e+00
4e+08
8e+08
1
2
5
10
50
200
FEs

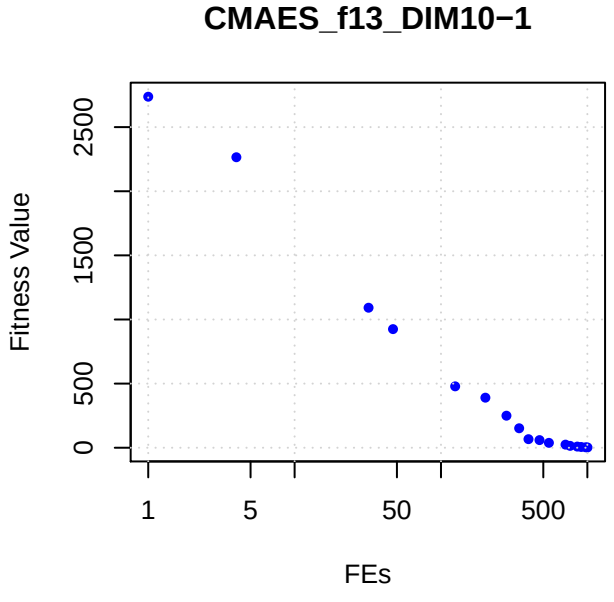

CMAES_f12_DIM5−5
Fitness Value
0.0e+00
1.0e+09
1
2
5
10
50
200
FEs

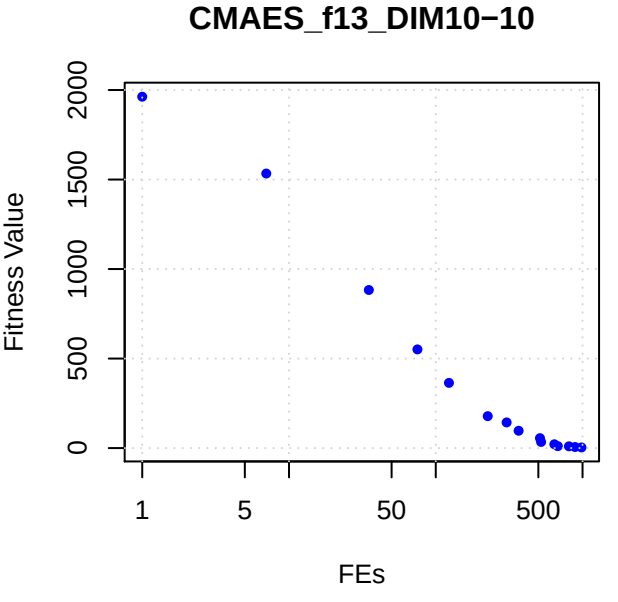

CMAES_f12_DIM5−6
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
50
200
FEs

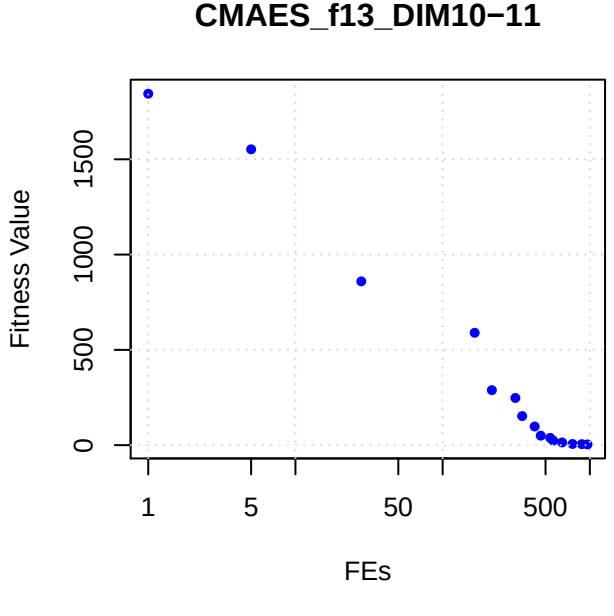

CMAES_f12_DIM5−7
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
50
200
500
FEs

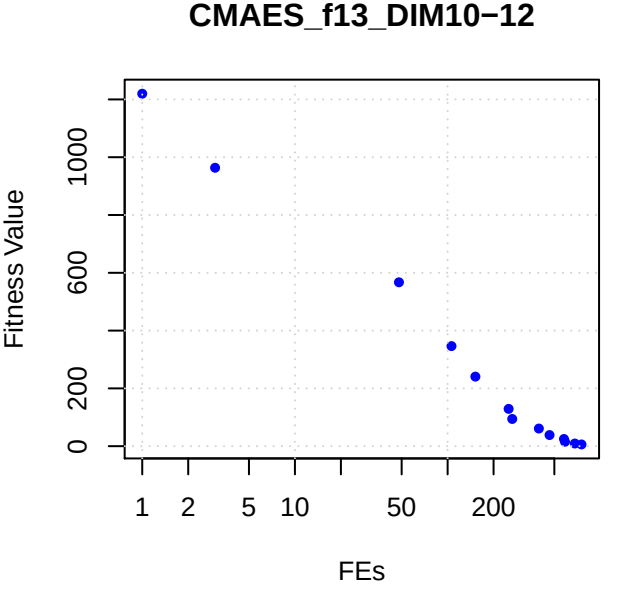

CMAES_f12_DIM5−8
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
50
200
FEs

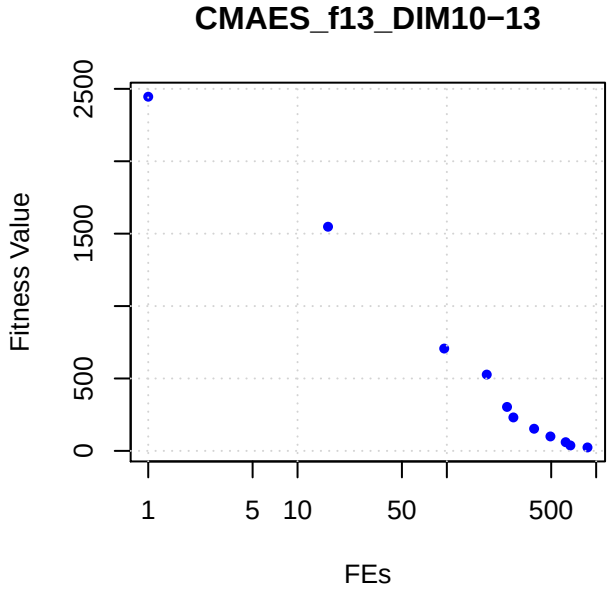

CMAES_f12_DIM5−9
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
50
200
FEs

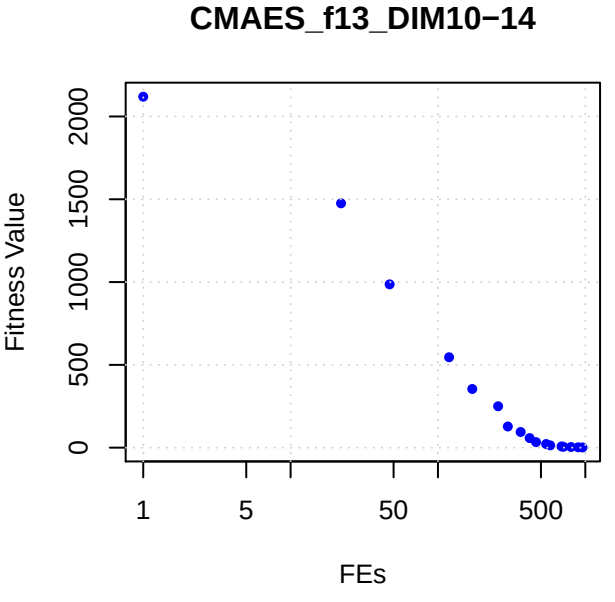

CMAES_f13_DIM10−1
Fitness Value
0
500
1500
2500
1
5
50
500
FEs

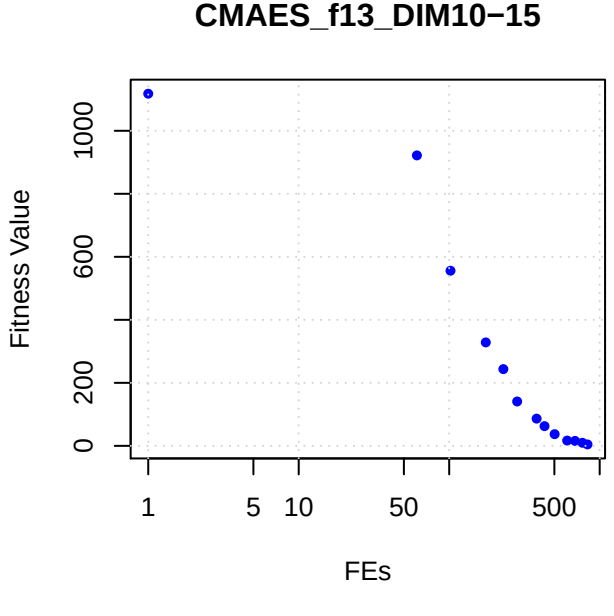

CMAES_f13_DIM10−10
Fitness Value
0
500
1000
1500
2000
1
5
50
500
FEs

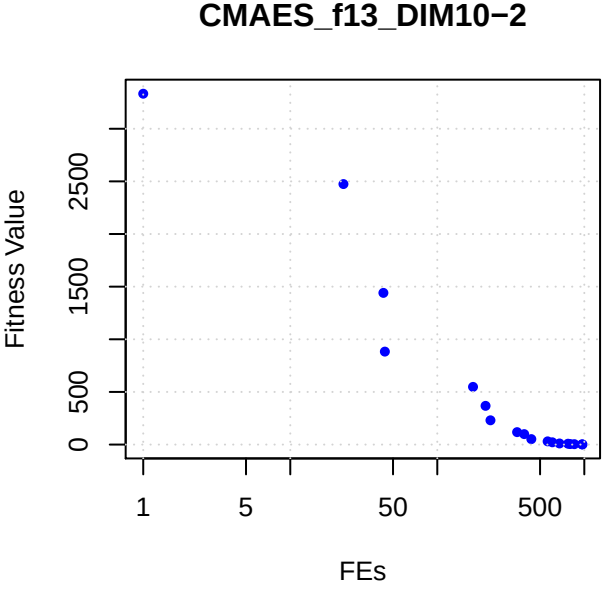

CMAES_f13_DIM10−11
Fitness Value
0
500
1000
1500
1
5
50
500
FEs


CMAES_f13_DIM10−12
Fitness Value
0
200
600
1000
1
2
5
10
50
200
FEs


CMAES_f13_DIM10−13
Fitness Value
0
500
1500
2500
1
5
10
50
500
FEs


CMAES_f13_DIM10−14
Fitness Value
0
500
1000
1500
2000
1
5
50
500
FEs


CMAES_f13_DIM10−15
Fitness Value
0
200
600
1000
1
5
10
50
500
FEs


CMAES_f13_DIM10−2
Fitness Value
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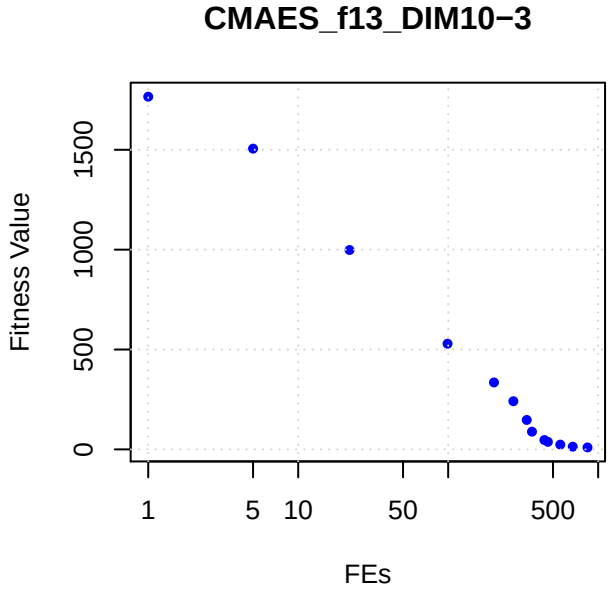
FEs


CMAES_f13_DIM10−3
Fitness Value
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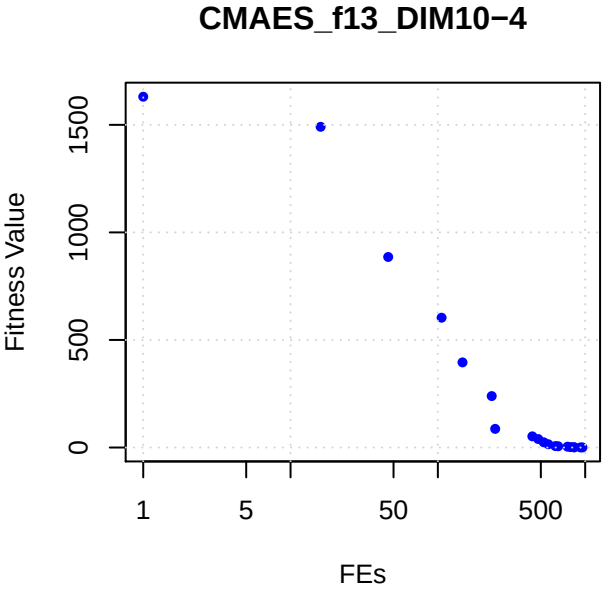
FEs


CMAES_f13_DIM10−4
Fitness Value
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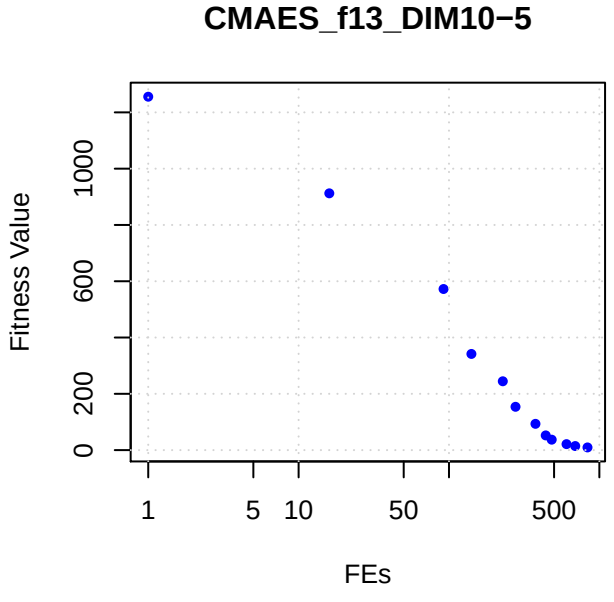
FEs


CMAES_f13_DIM10−5
Fitness Value
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1000
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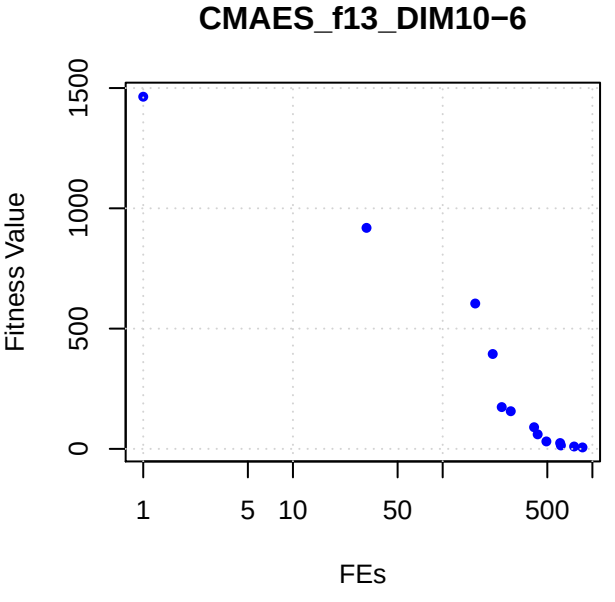
500
FEs


CMAES_f13_DIM10−6
Fitness Value
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1000
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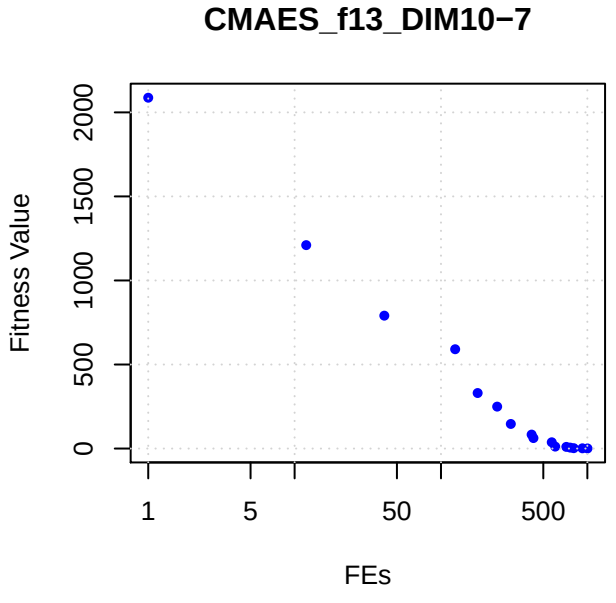
FEs


CMAES_f13_DIM10−7
Fitness Value
0
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1000
1500
2000
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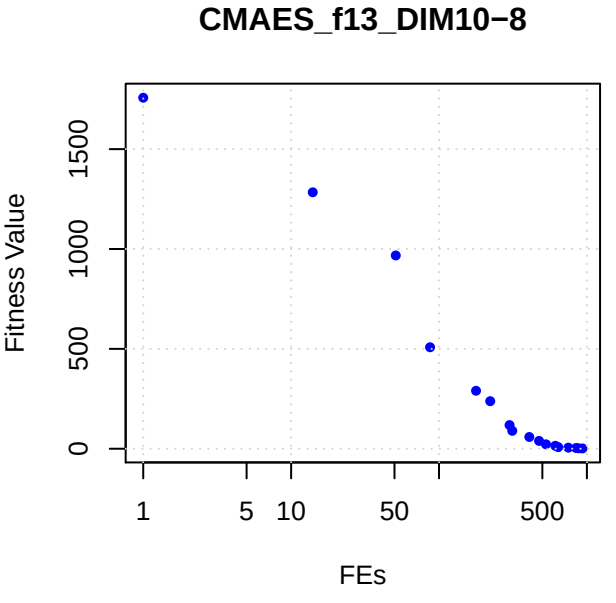
FEs


CMAES_f13_DIM10−8
Fitness Value
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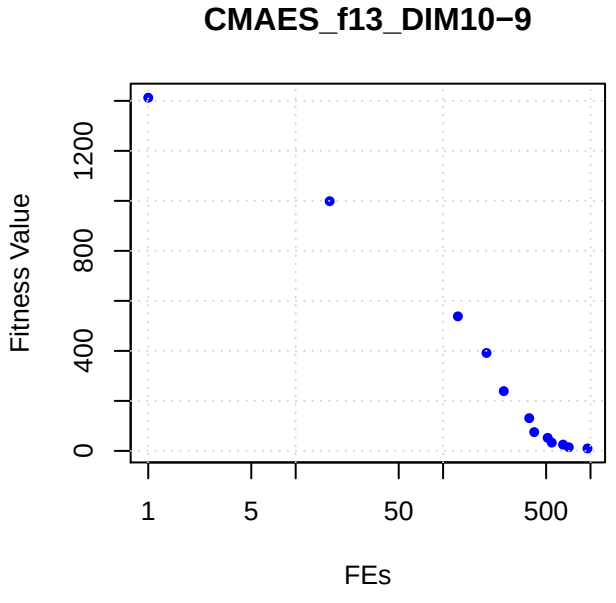
FEs


CMAES_f13_DIM10−9
Fitness Value
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800
1200
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5
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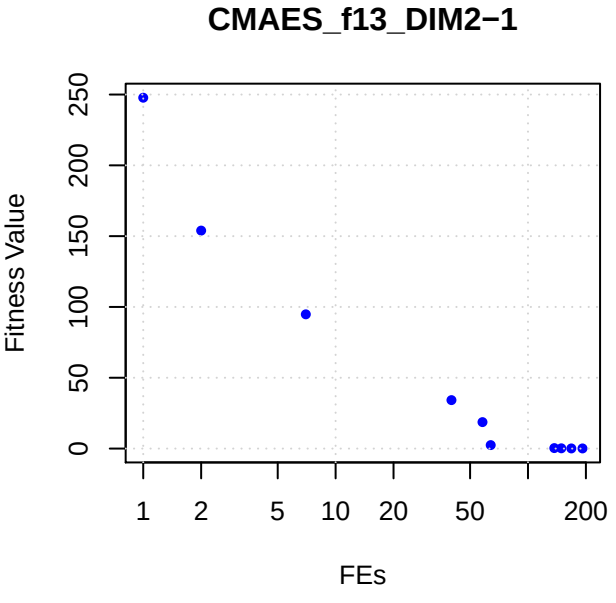
500
FEs


CMAES_f13_DIM2−1
Fitness Value
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250
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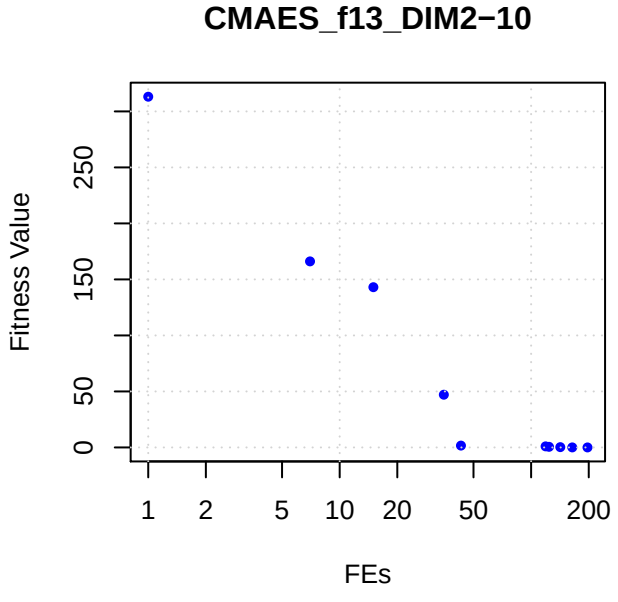
2
5
10
20
50
200
FEs


CMAES_f13_DIM2−10
Fitness Value
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150
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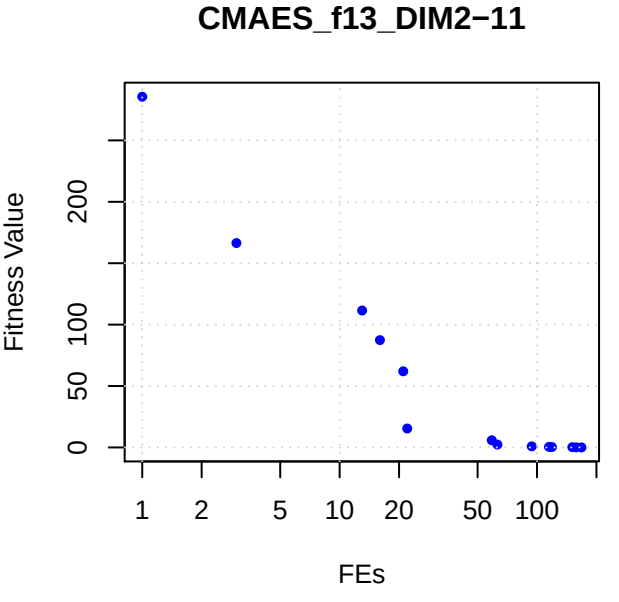
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM2−11
Fitness Value
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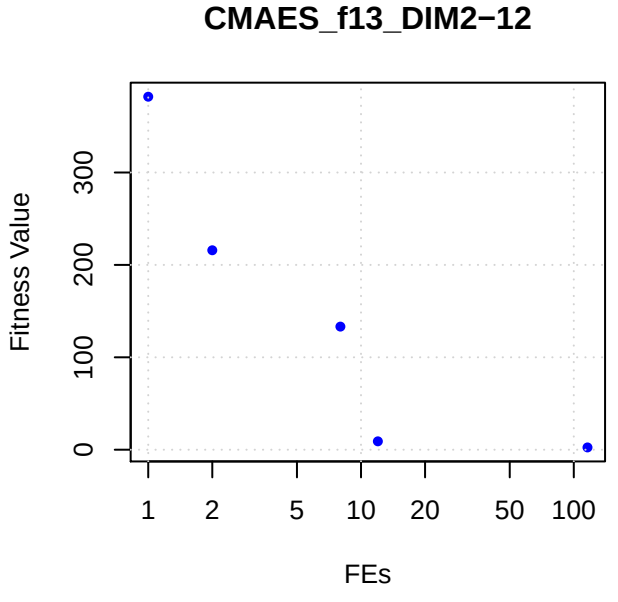
100
FEs


CMAES_f13_DIM2−12
Fitness Value
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2
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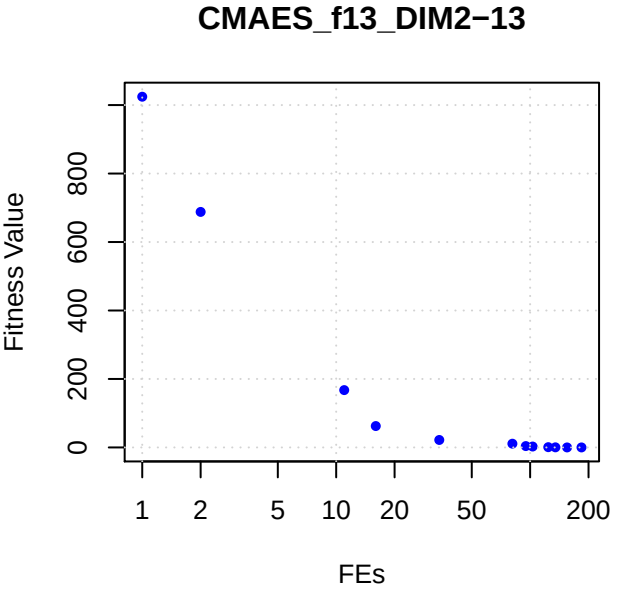
10
20
50
100
FEs


CMAES_f13_DIM2−13
Fitness Value
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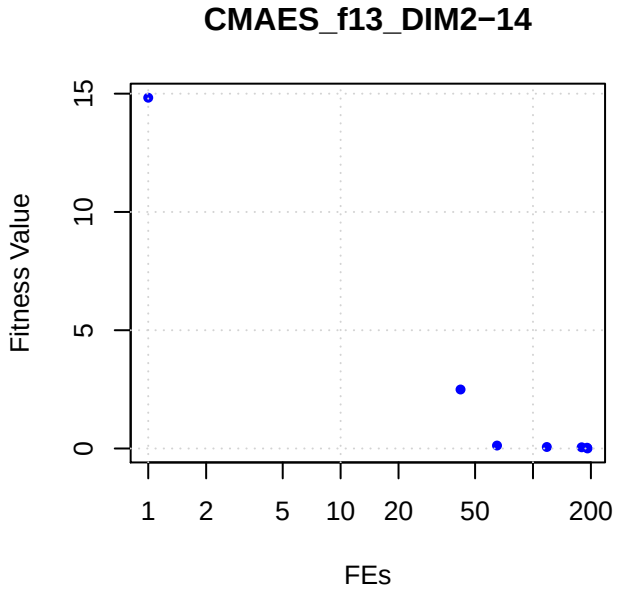
FEs


CMAES_f13_DIM2−14
Fitness Value
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1
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10
20
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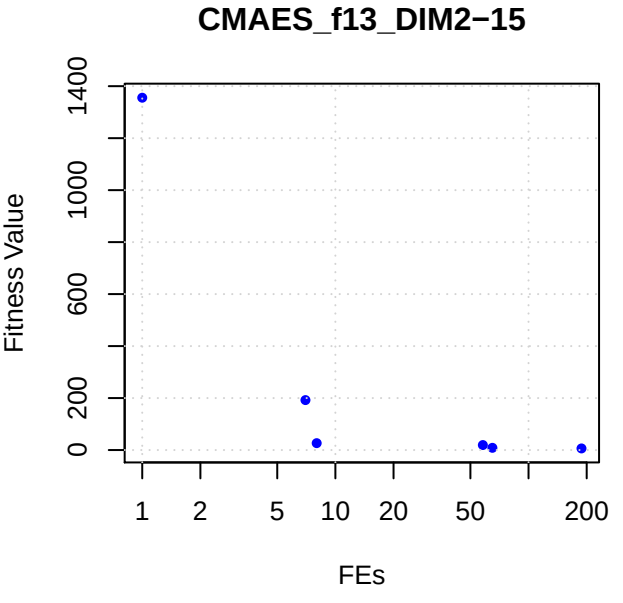
200
FEs


CMAES_f13_DIM2−15
Fitness Value
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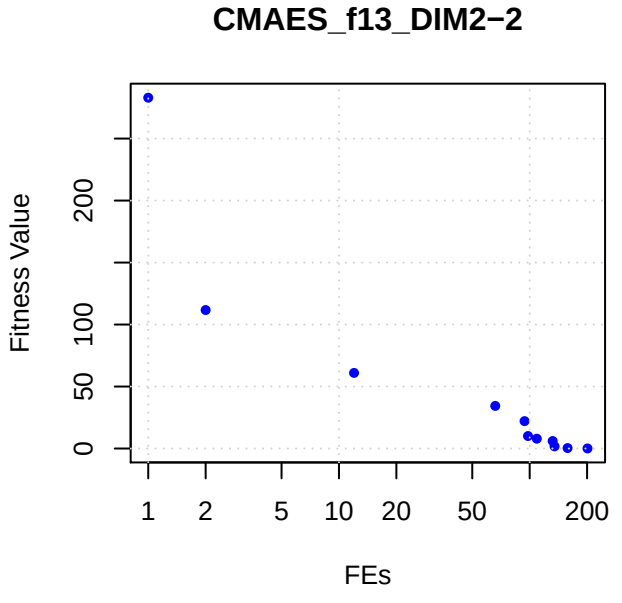
2
5
10
20
50
200
FEs


CMAES_f13_DIM2−2
Fitness Value
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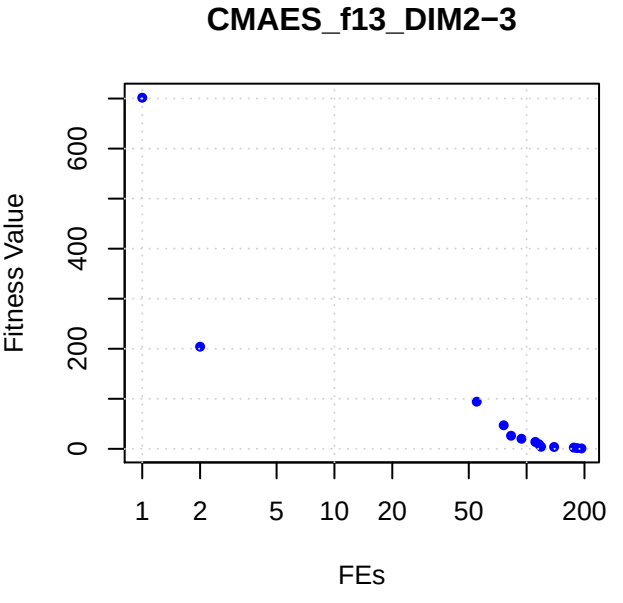
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM2−3
Fitness Value
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1
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10
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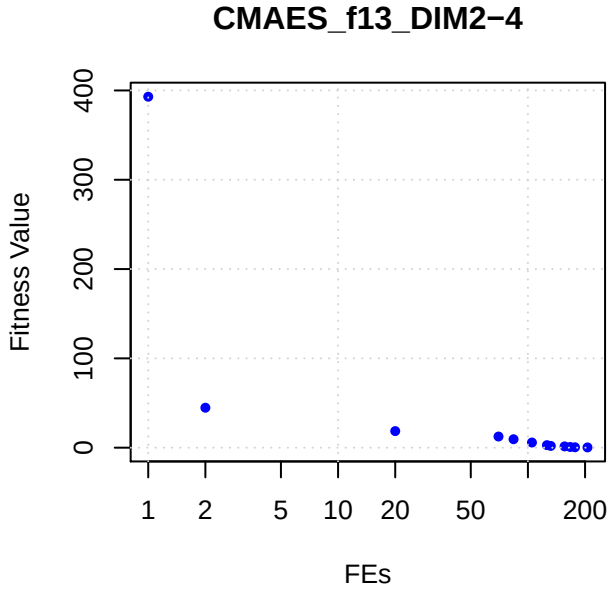
200
FEs


CMAES_f13_DIM2−4
Fitness Value
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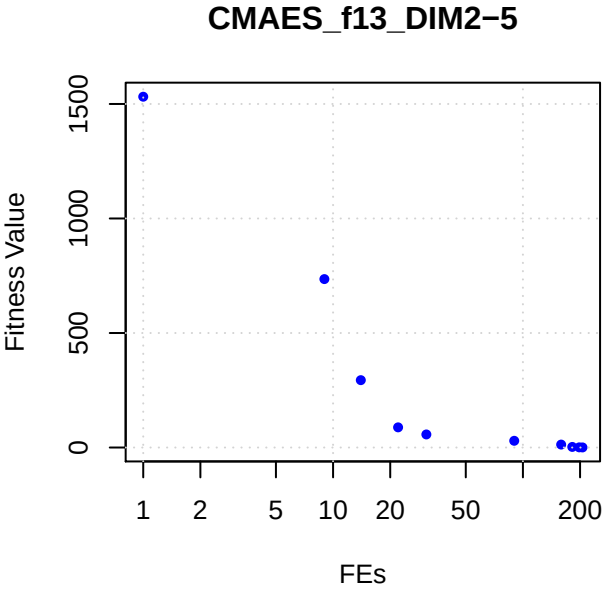
FEs


CMAES_f13_DIM2−5
Fitness Value
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10
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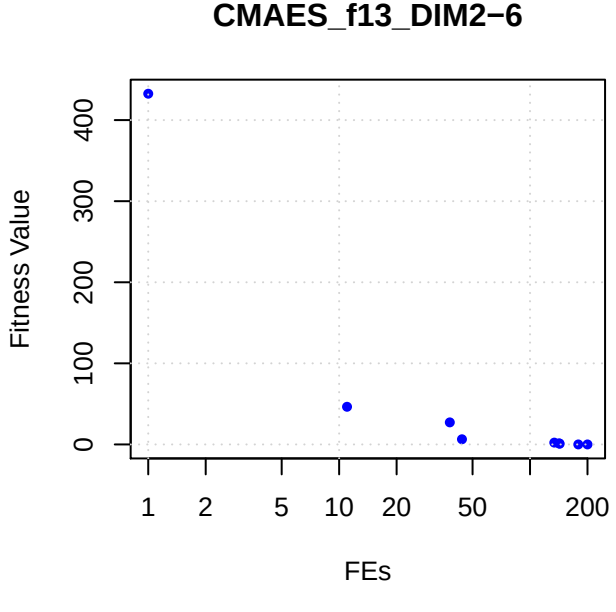
200
FEs


CMAES_f13_DIM2−6
Fitness Value
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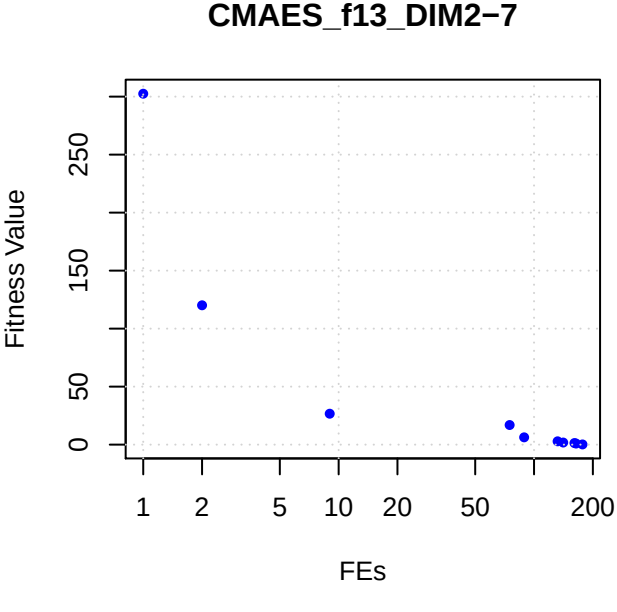
FEs


CMAES_f13_DIM2−7
Fitness Value
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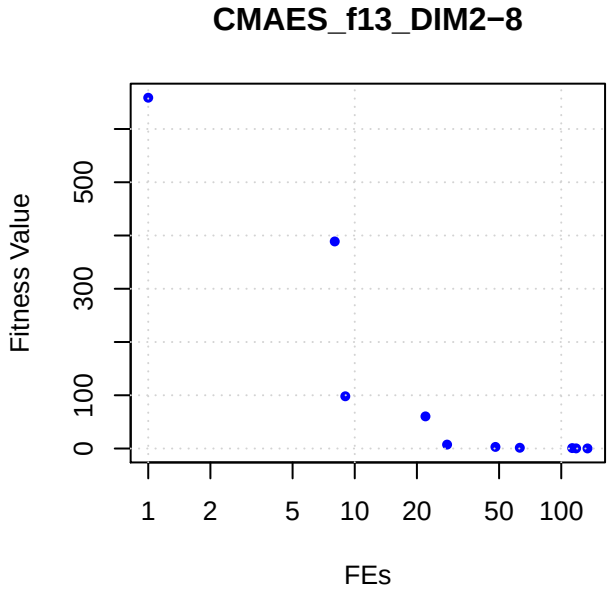
CMAES_f13_DIM2−8
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2
5
10
20
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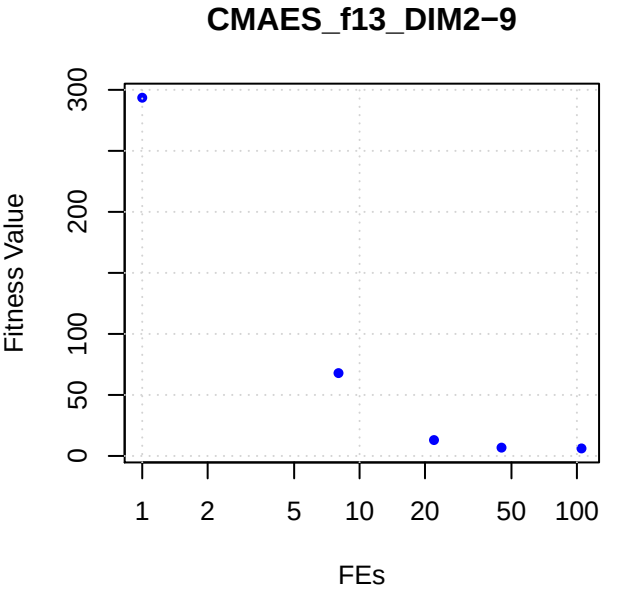
FEs


CMAES_f13_DIM2−9
Fitness Value
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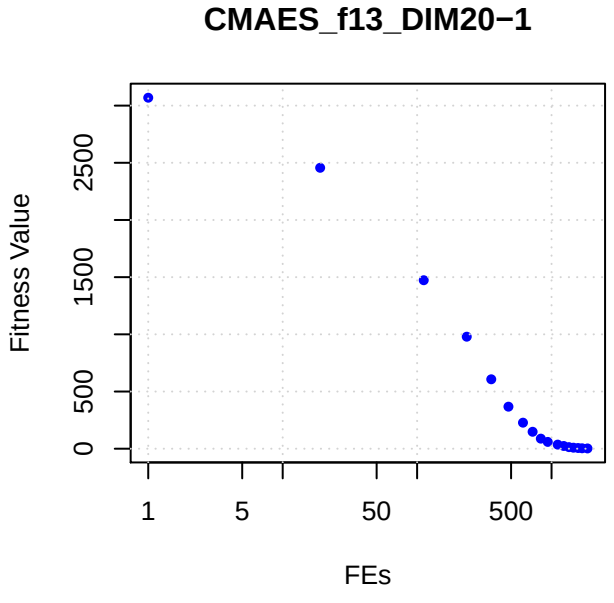
2
5
10
20
50
100
FEs


CMAES_f13_DIM20−1
Fitness Value
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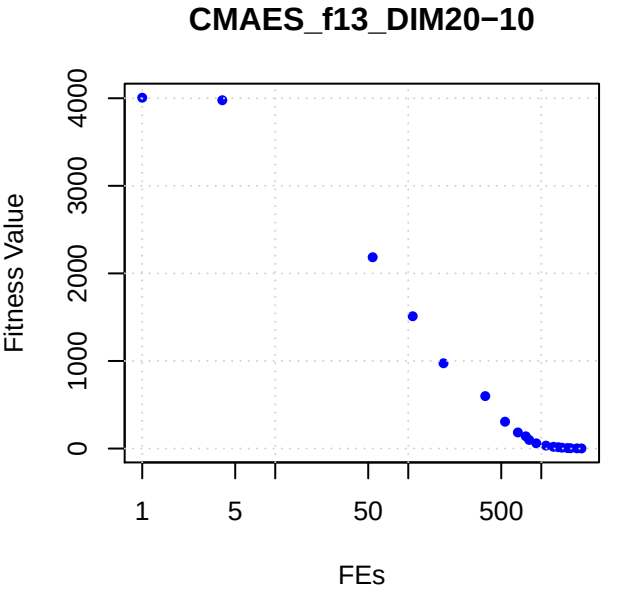
500
FEs


CMAES_f13_DIM20−10
Fitness Value
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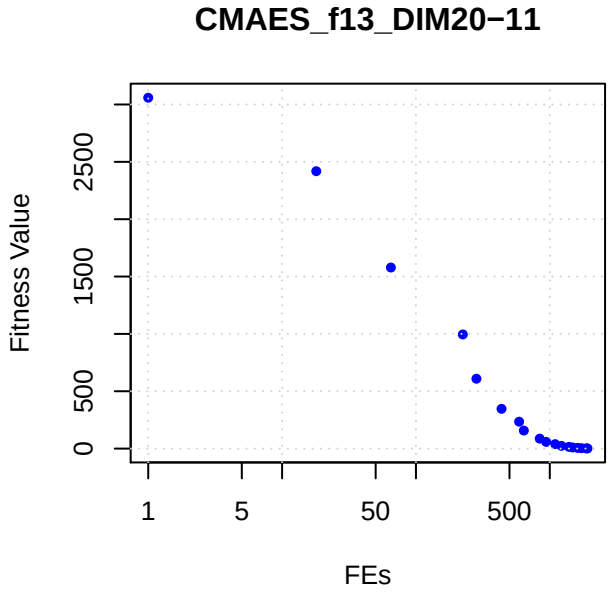
50
500
FEs


CMAES_f13_DIM20−11
Fitness Value
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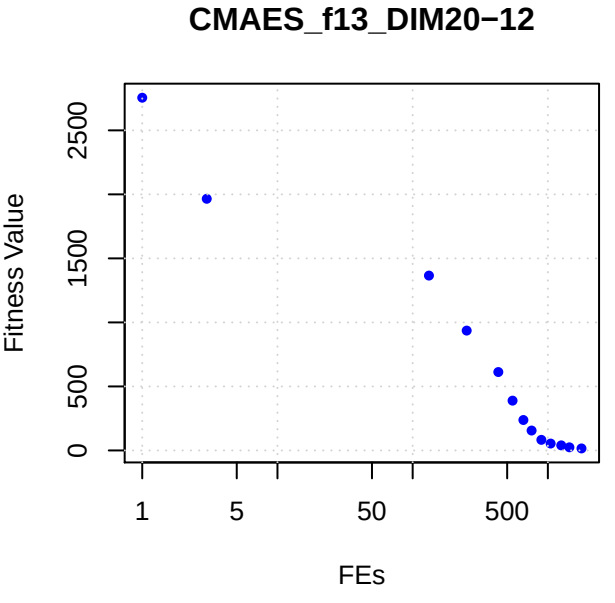
CMAES_f13_DIM20−12
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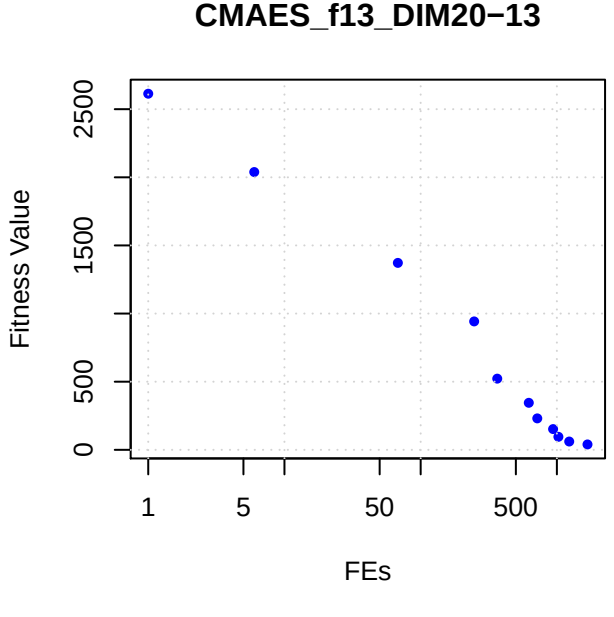
FEs


CMAES_f13_DIM20−13
Fitness Value
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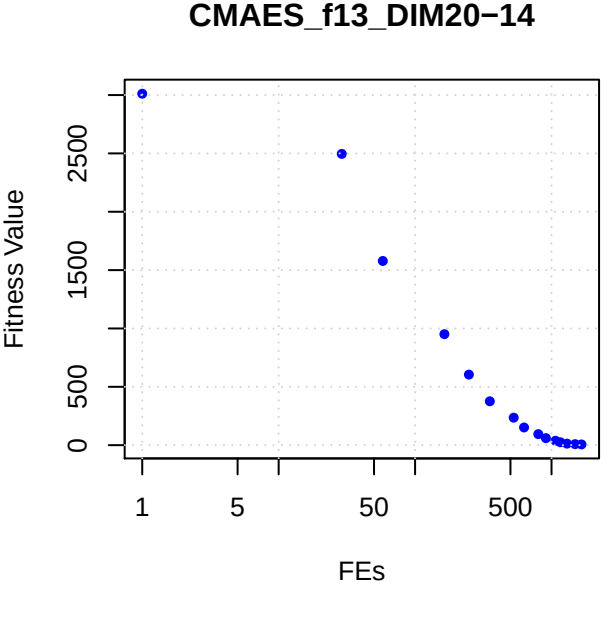
FEs


CMAES_f13_DIM20−14
Fitness Value
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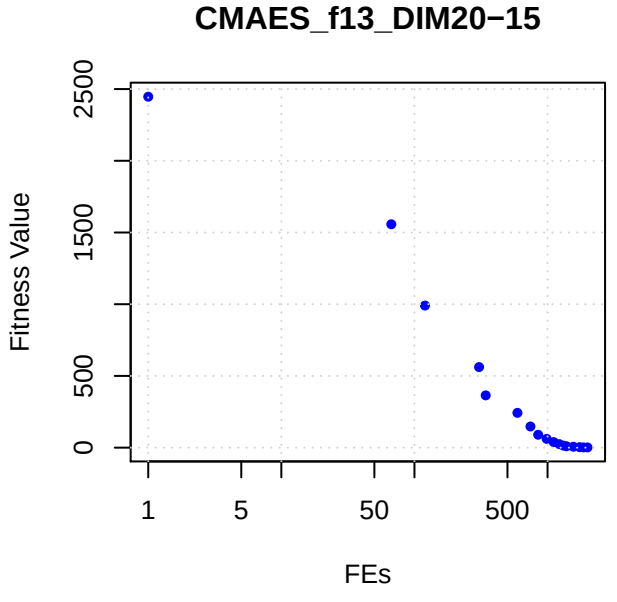
FEs


CMAES_f13_DIM20−15
Fitness Value
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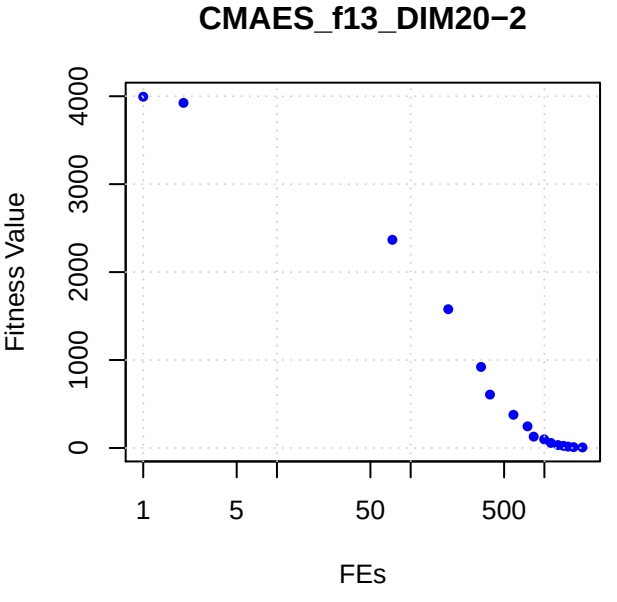
FEs


CMAES_f13_DIM20−2
Fitness Value
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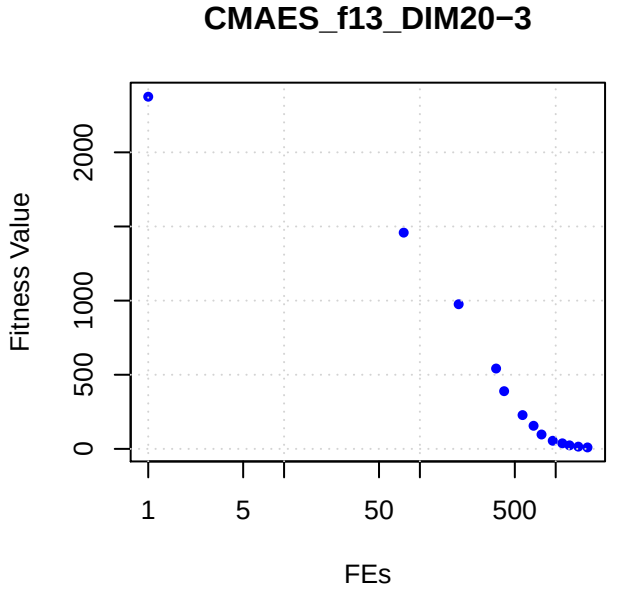
4000
1
5
50
500
FEs


CMAES_f13_DIM20−3
Fitness Value
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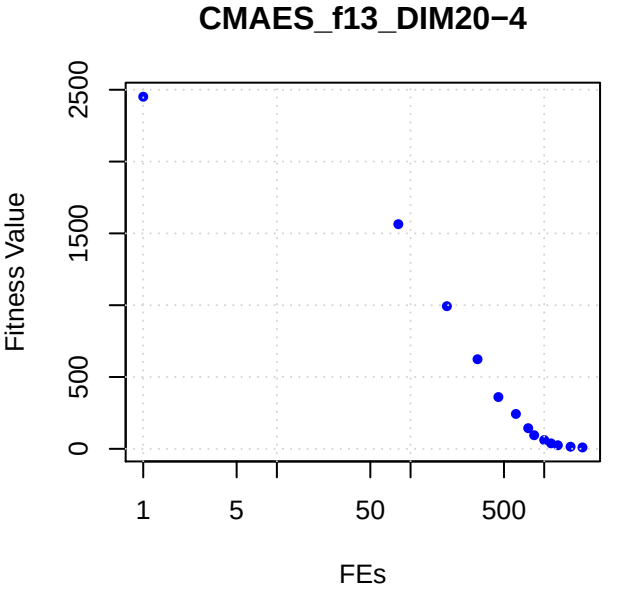
FEs


CMAES_f13_DIM20−4
Fitness Value
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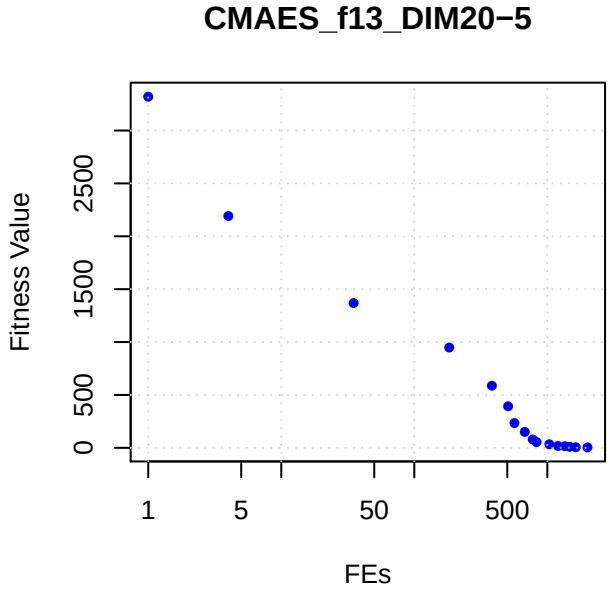
500
FEs


CMAES_f13_DIM20−5
Fitness Value
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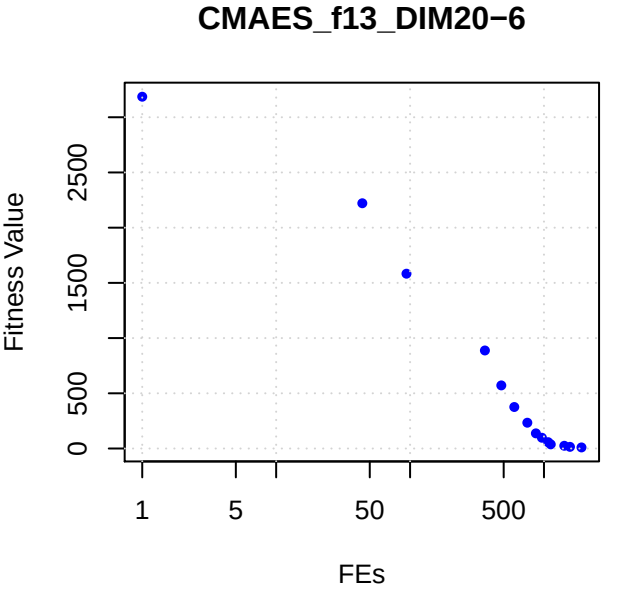
500
FEs


CMAES_f13_DIM20−6
Fitness Value
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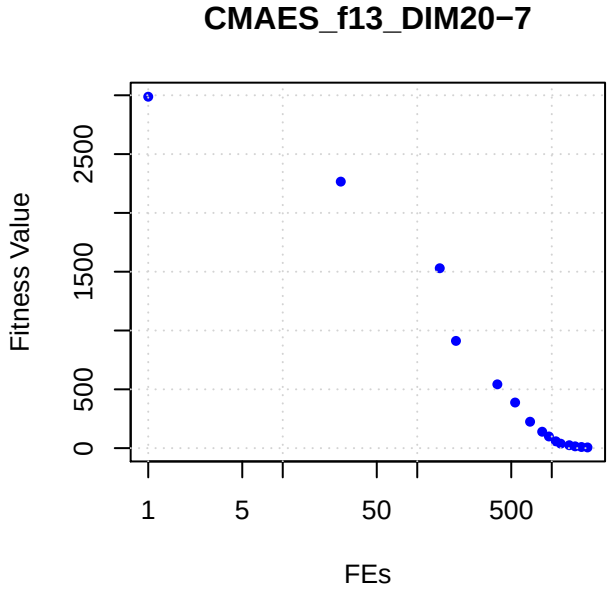
FEs


CMAES_f13_DIM20−7
Fitness Value
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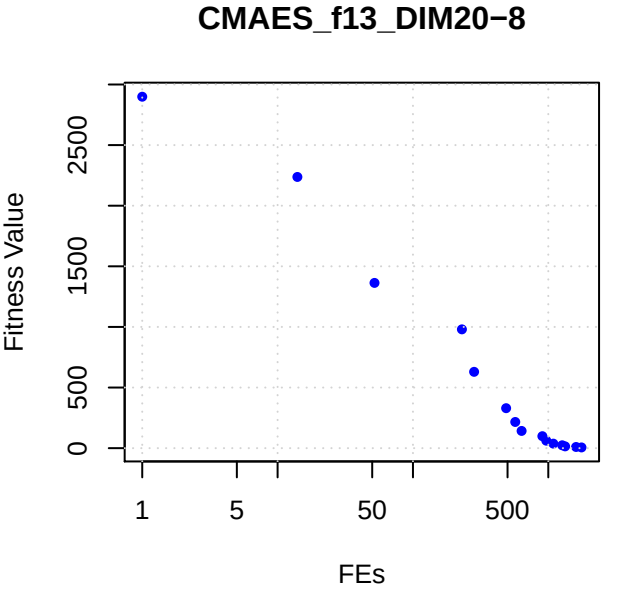
FEs


CMAES_f13_DIM20−8
Fitness Value
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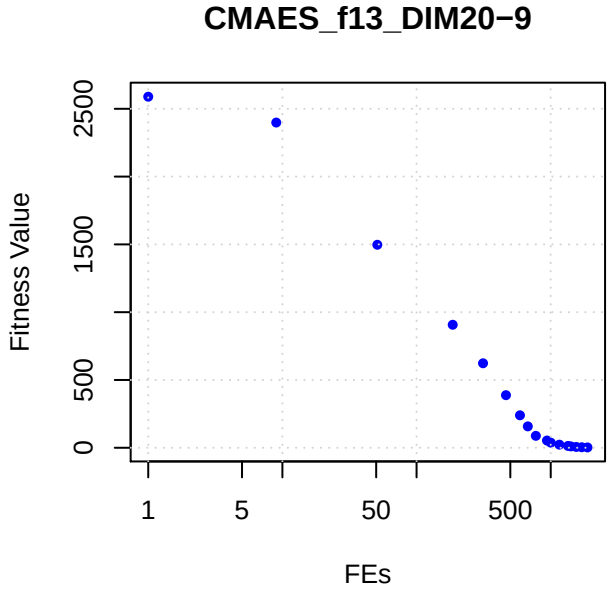
FEs


CMAES_f13_DIM20−9
Fitness Value
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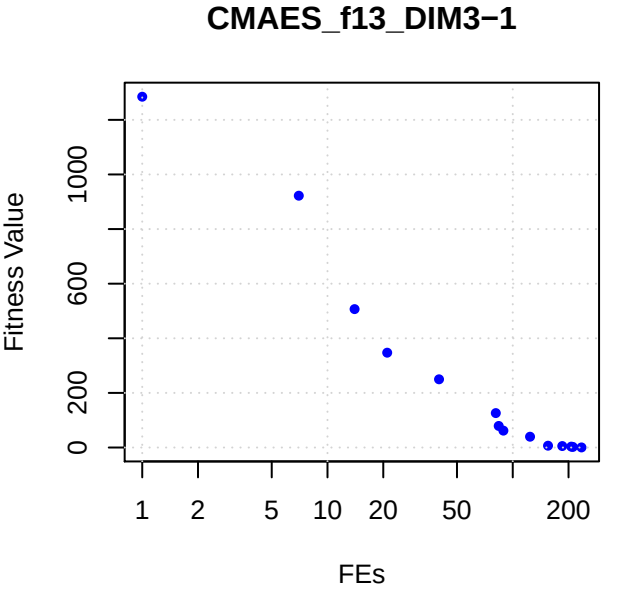
FEs


CMAES_f13_DIM3−1
Fitness Value
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1
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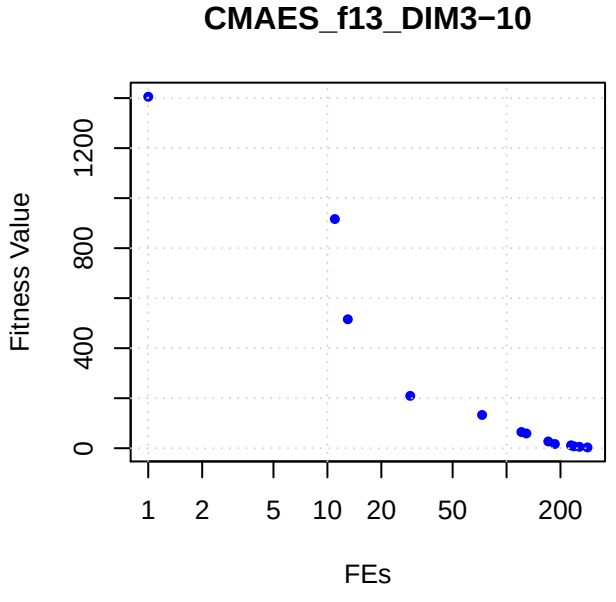
10
20
50
200
FEs


CMAES_f13_DIM3−10
Fitness Value
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1
2
5
10
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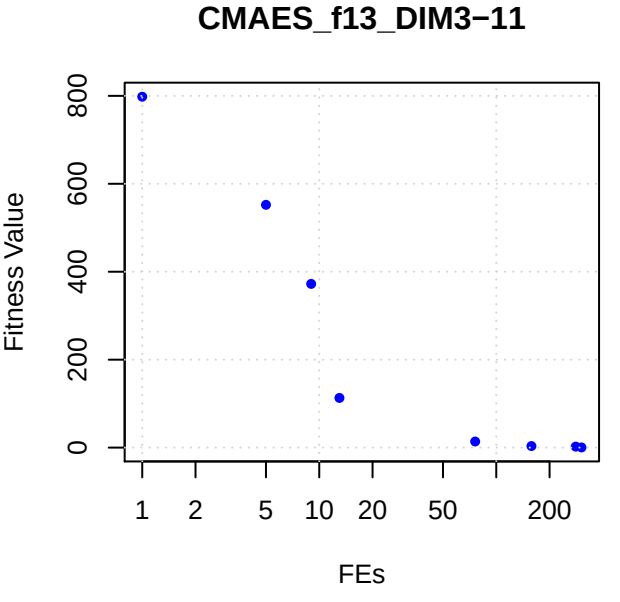
200
FEs


CMAES_f13_DIM3−11
Fitness Value
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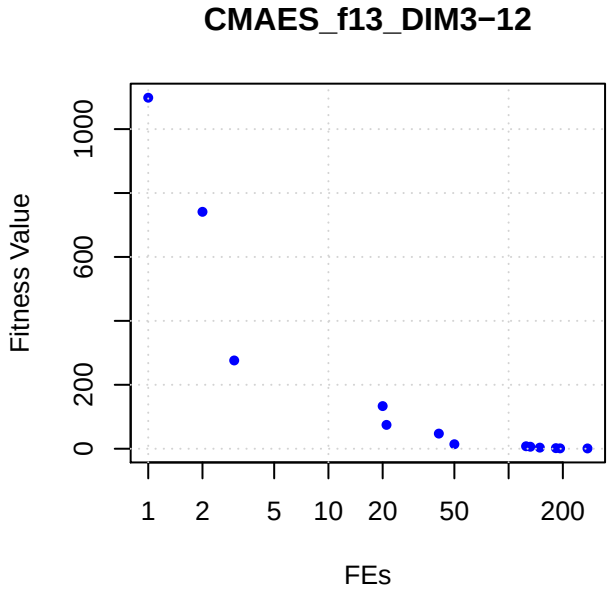
200
FEs


CMAES_f13_DIM3−12
Fitness Value
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1
2
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10
20
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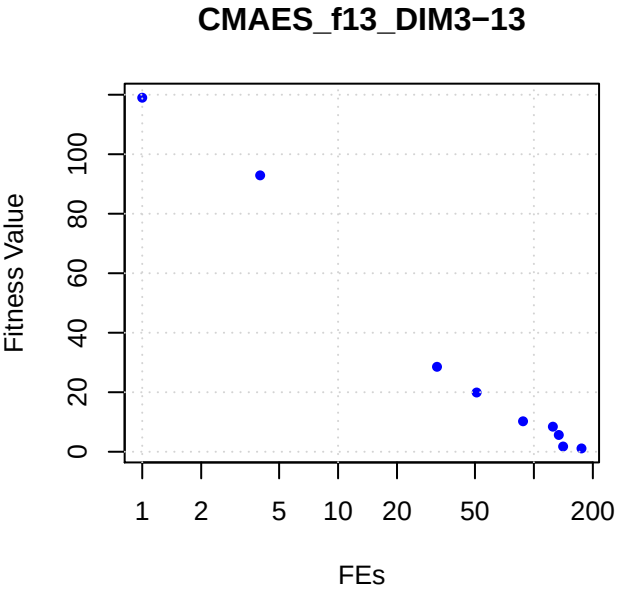
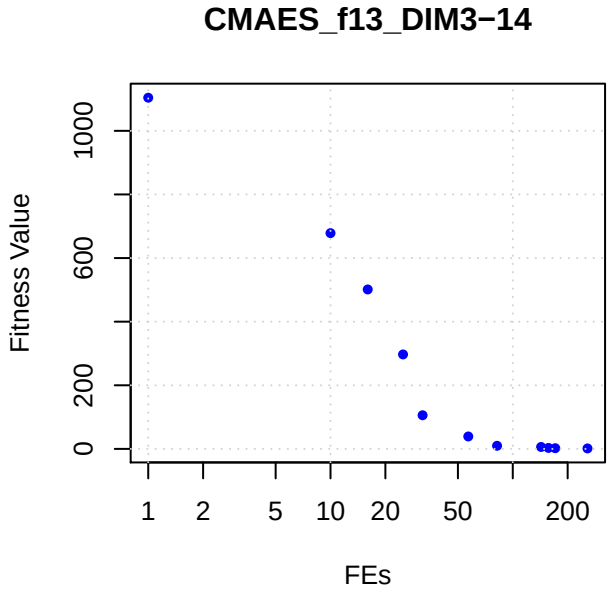
200
FEs


CMAES_f13_DIM3−13
Fitness Value
0
20
40
60
80
100
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM3−14
Fitness Value
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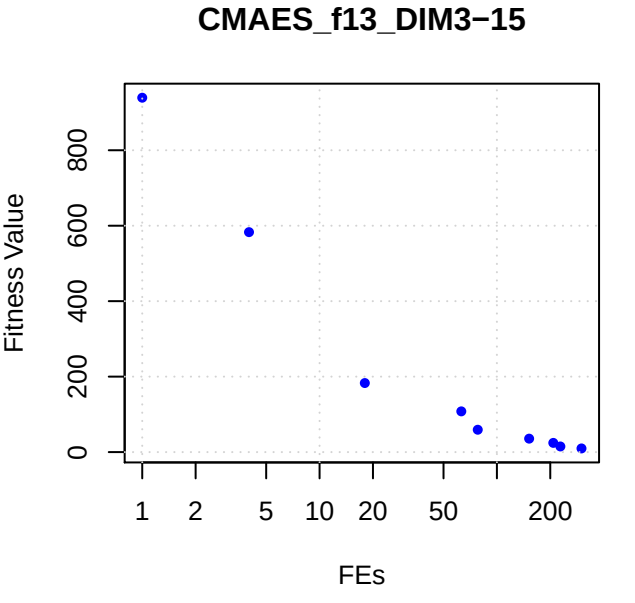
600
1000
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM3−15
Fitness Value
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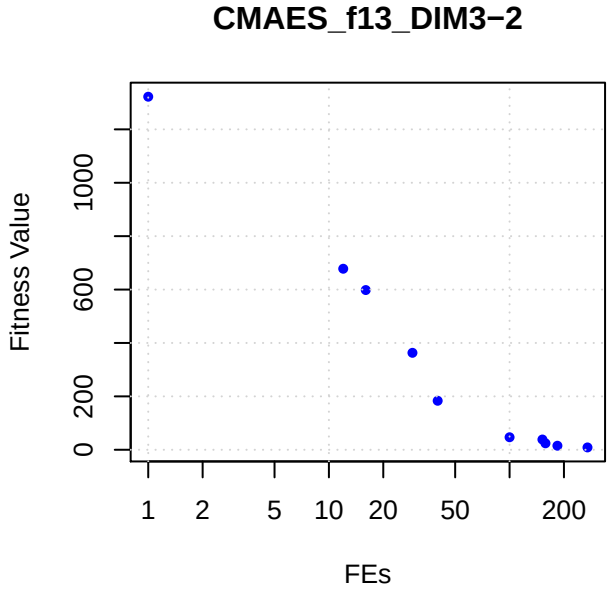
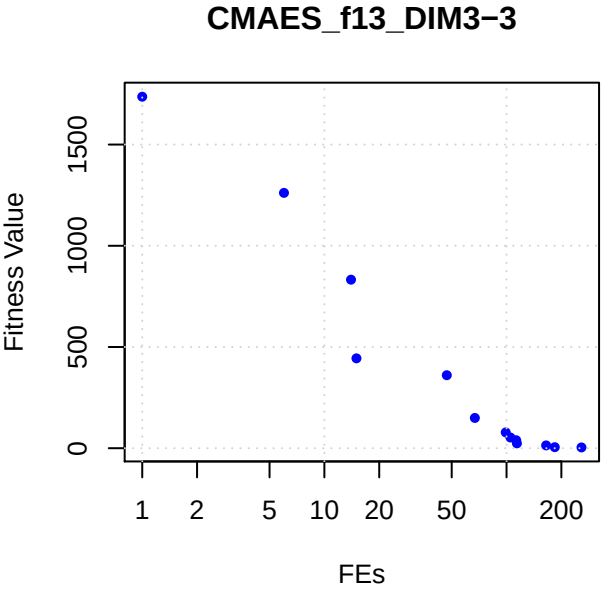
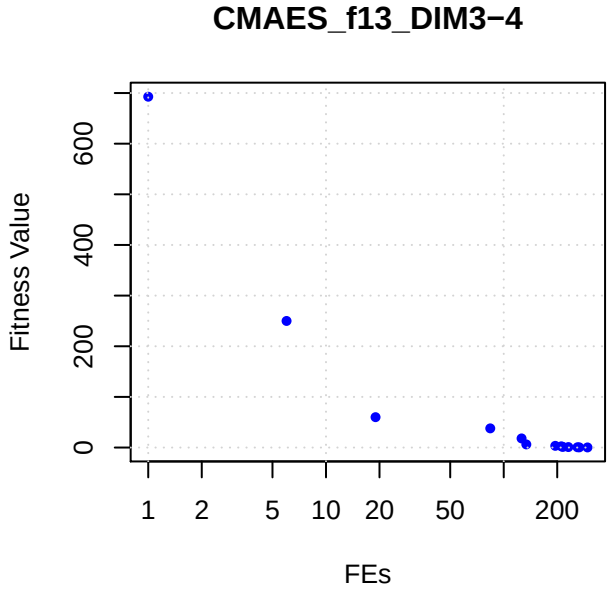
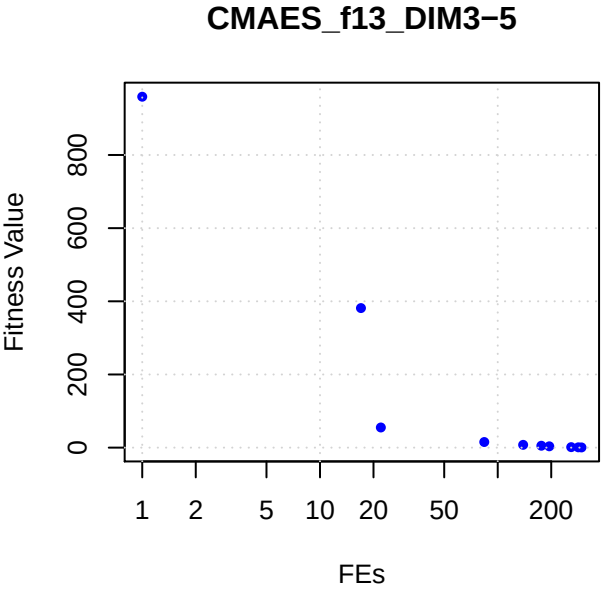
400
600
800
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM3−2
Fitness Value
0
200
600
1000
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM3−3
Fitness Value
0
500
1000
1500
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM3−4
Fitness Value
0
200
400
600
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM3−5
Fitness Value
0
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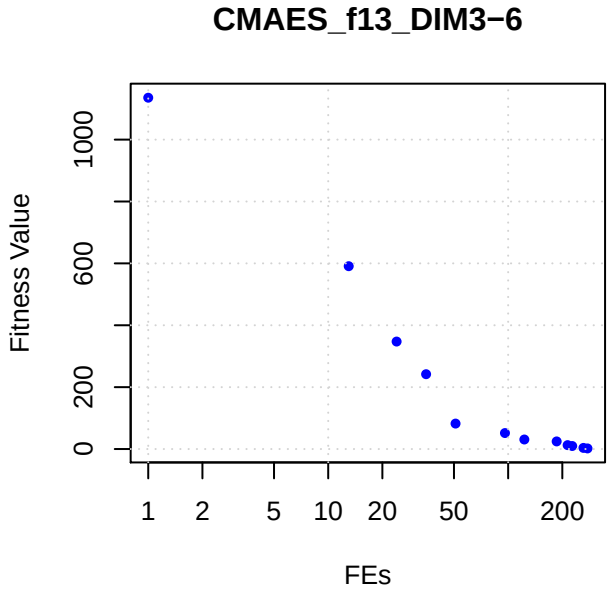
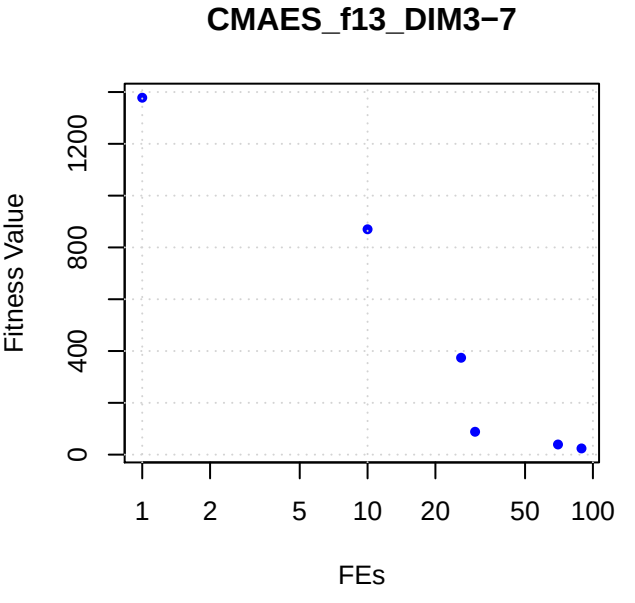
400
600
800
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM3−6
Fitness Value
0
200
600
1000
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM3−7
Fitness Value
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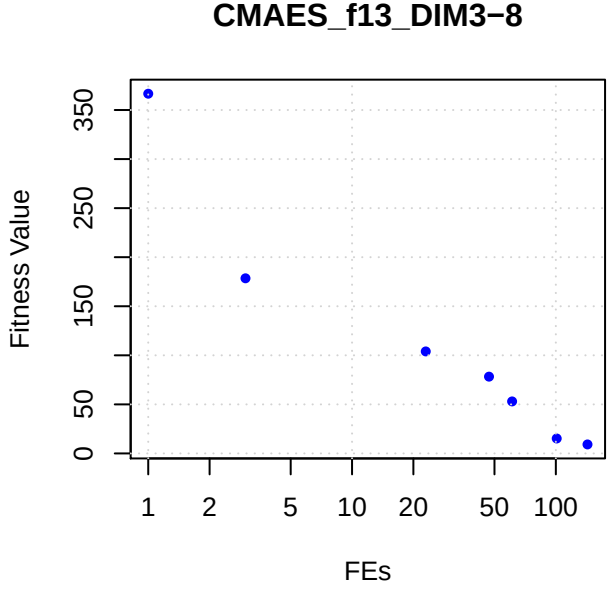
400
800
1200
1
2
5
10
20
50
100
FEs


CMAES_f13_DIM3−8
Fitness Value
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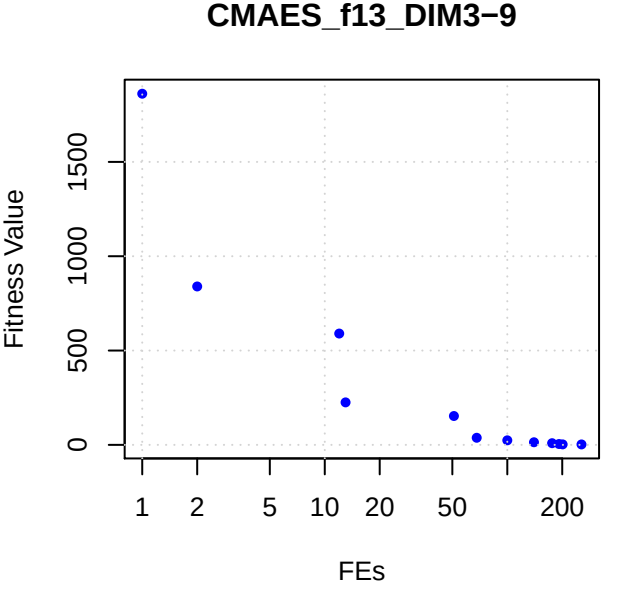
50
150
250
350
1
2
5
10
20
50
100
FEs


CMAES_f13_DIM3−9
Fitness Value
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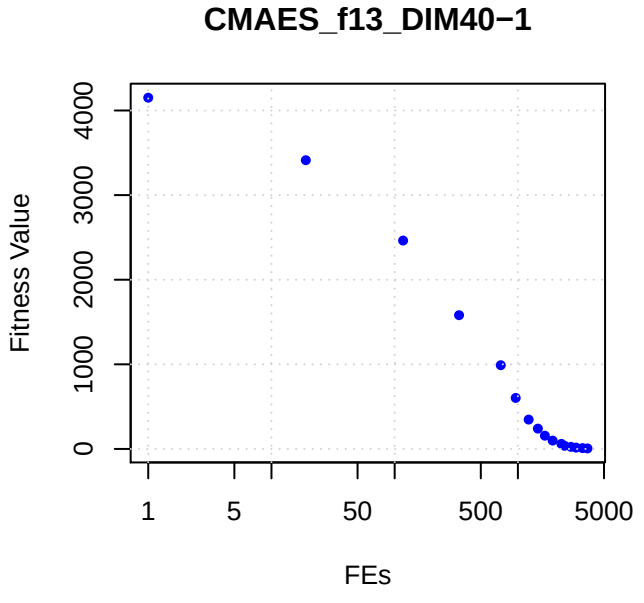
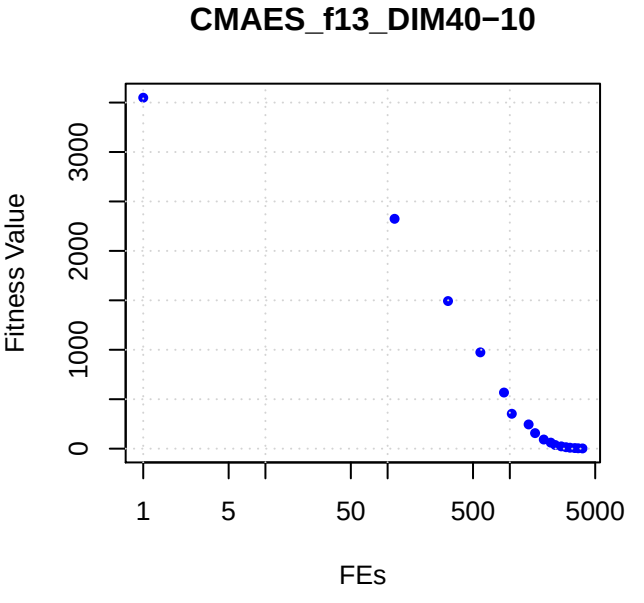
500
1000
1500
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM40−1
Fitness Value
0
1000
2000
3000
4000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−10
Fitness Value
0
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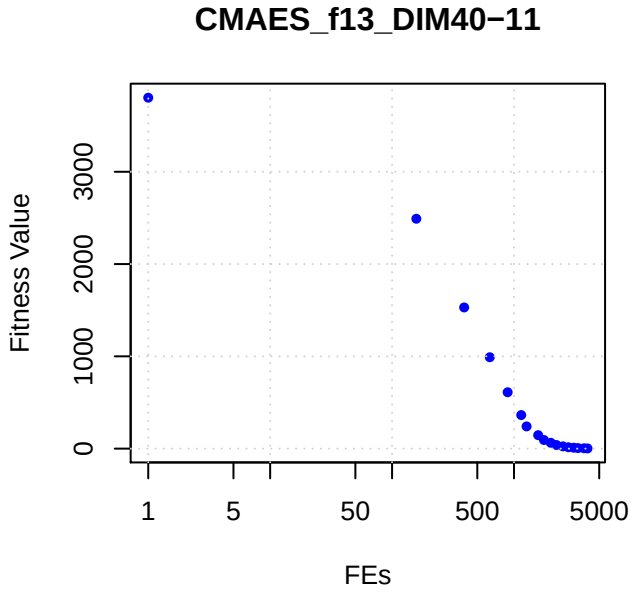
2000
3000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−11
Fitness Value
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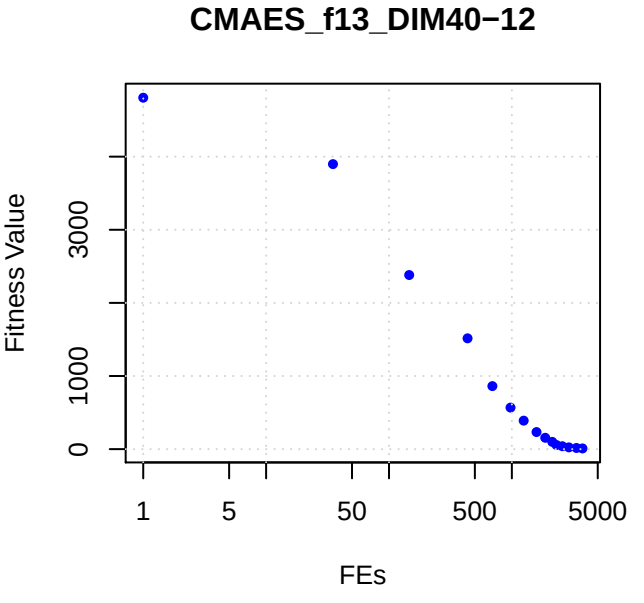
2000
3000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−12
Fitness Value
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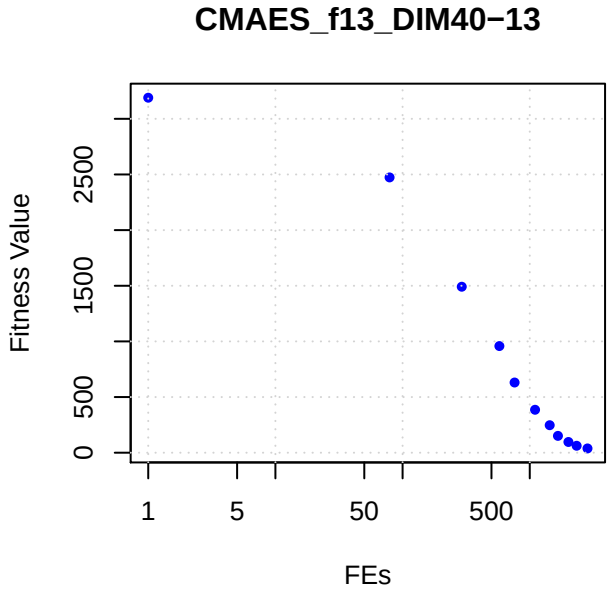
3000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−13
Fitness Value
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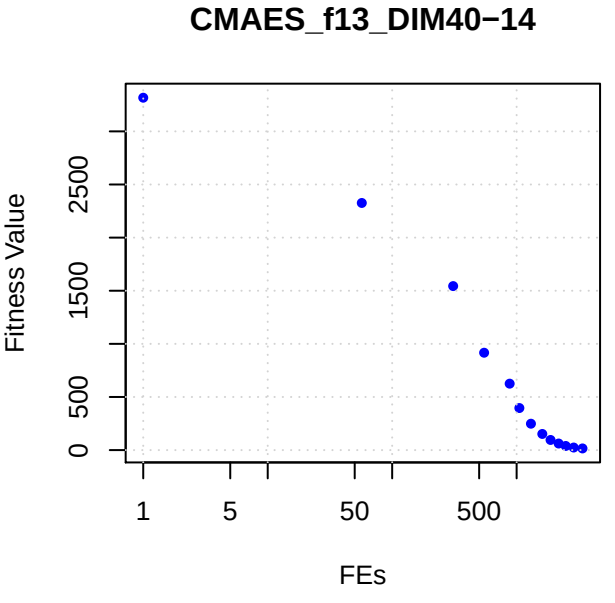
1500
2500
1
5
50
500
FEs


CMAES_f13_DIM40−14
Fitness Value
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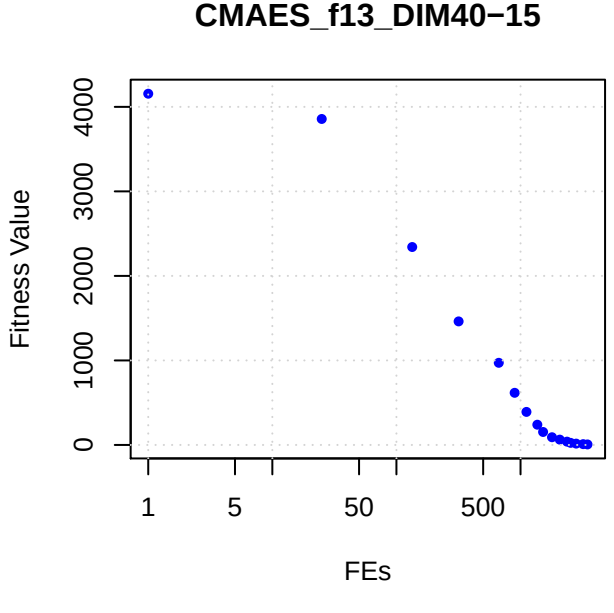
500
1500
2500
1
5
50
500
FEs


CMAES_f13_DIM40−15
Fitness Value
0
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2000
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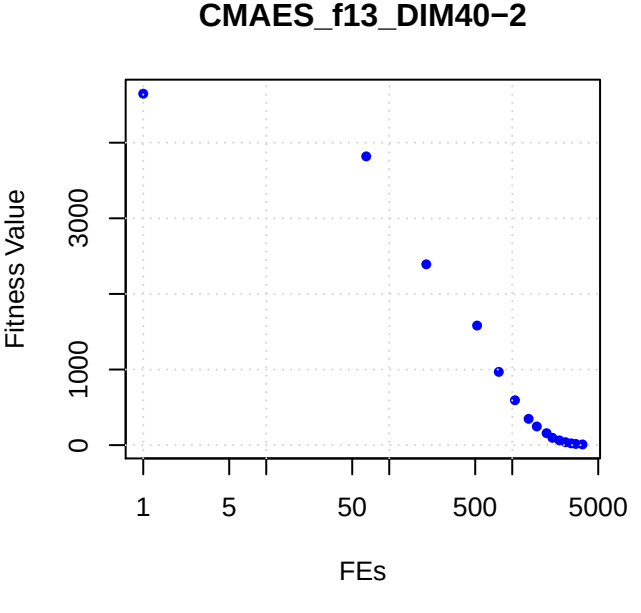
4000
1
5
50
500
FEs


CMAES_f13_DIM40−2
Fitness Value
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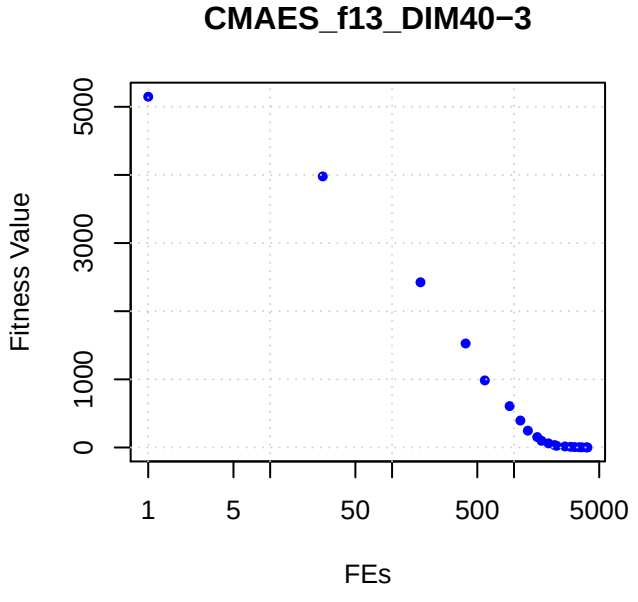
3000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−3
Fitness Value
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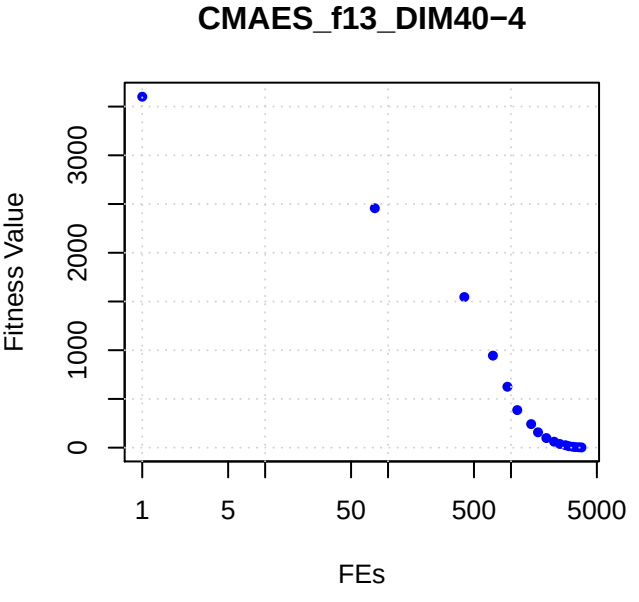
3000
5000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−4
Fitness Value
0
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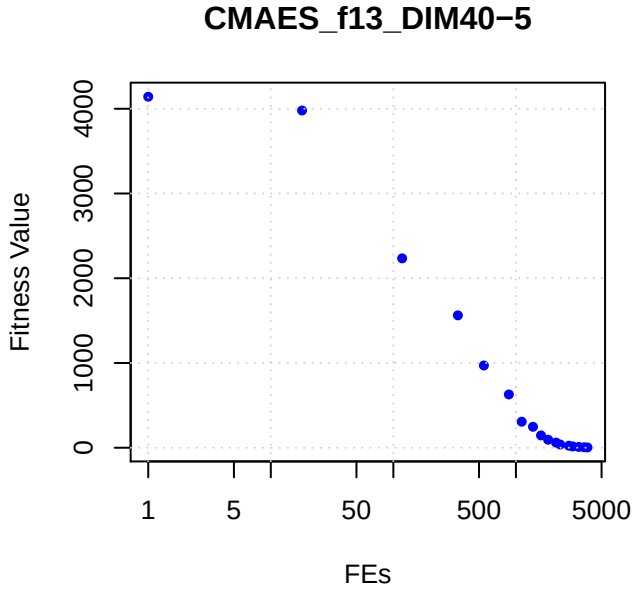
2000
3000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−5
Fitness Value
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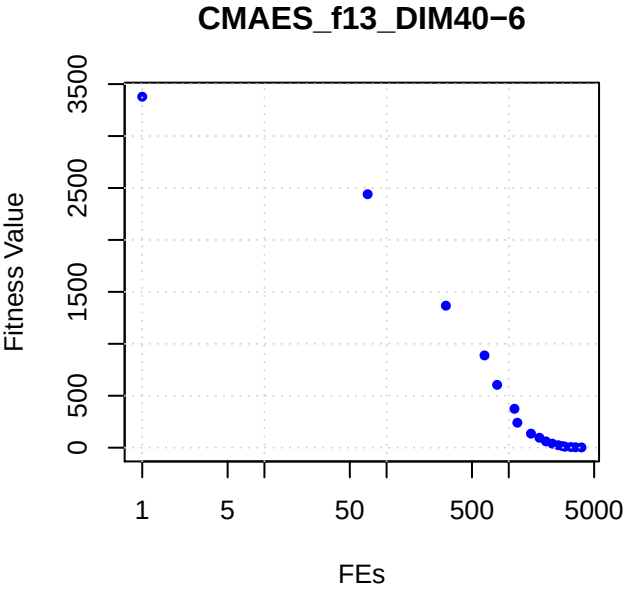
4000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−6
Fitness Value
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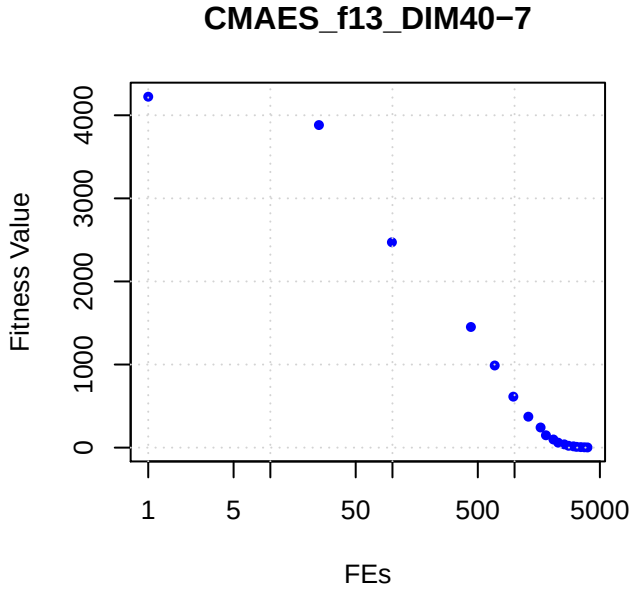
2500
3500
1
5
50
500
5000
FEs


CMAES_f13_DIM40−7
Fitness Value
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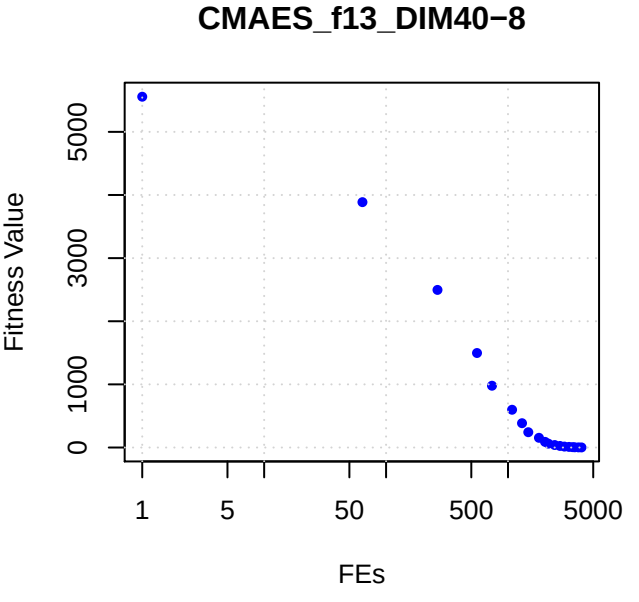
3000
4000
1
5
50
500
5000
FEs


CMAES_f13_DIM40−8
Fitness Value
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5
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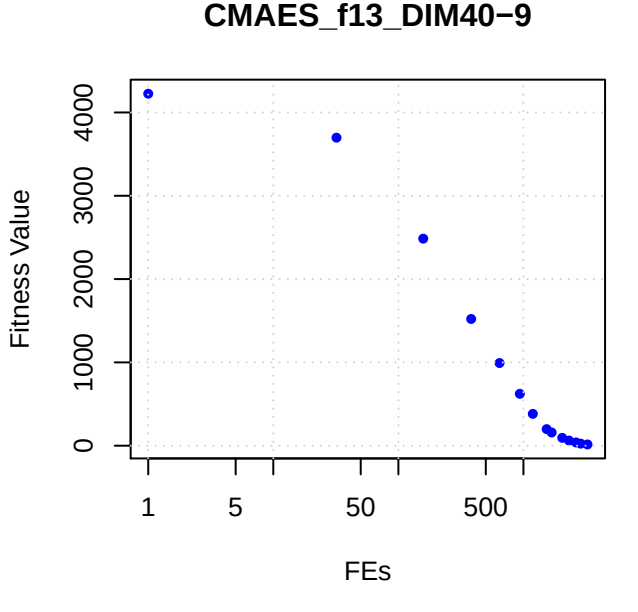
500
5000
FEs


CMAES_f13_DIM40−9
Fitness Value
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5
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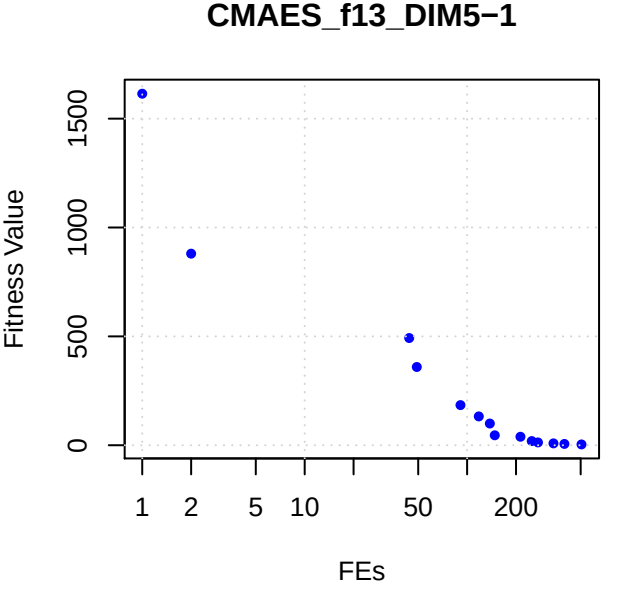
500
FEs


CMAES_f13_DIM5−1
Fitness Value
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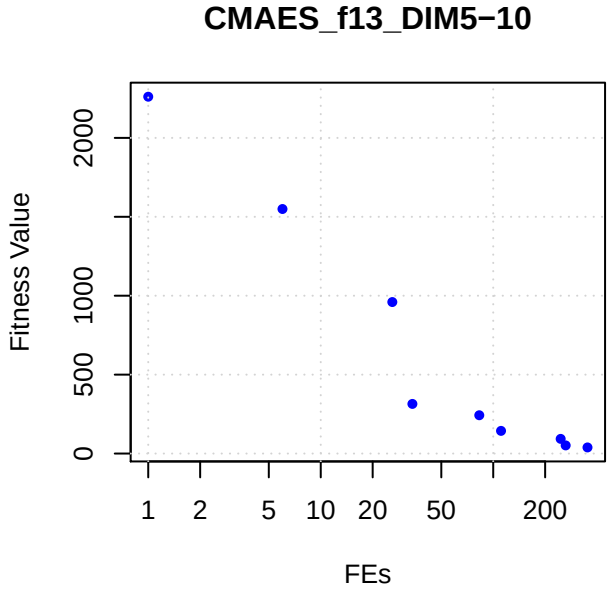
1500
1
2
5
10
50
200
FEs


CMAES_f13_DIM5−10
Fitness Value
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1000
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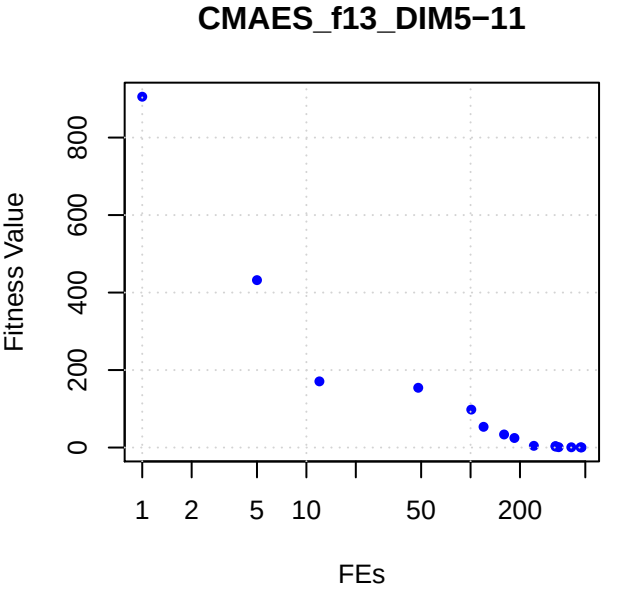
1
2
5
10
20
50
200
FEs


CMAES_f13_DIM5−11
Fitness Value
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800
1
2
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10
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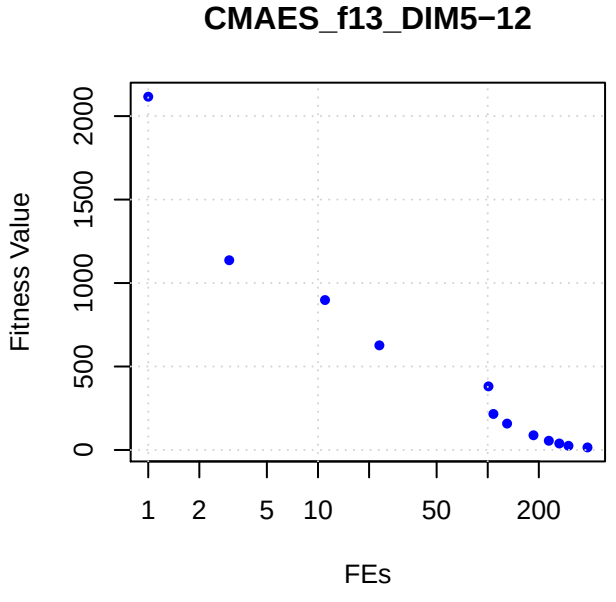
200
FEs


CMAES_f13_DIM5−12
Fitness Value
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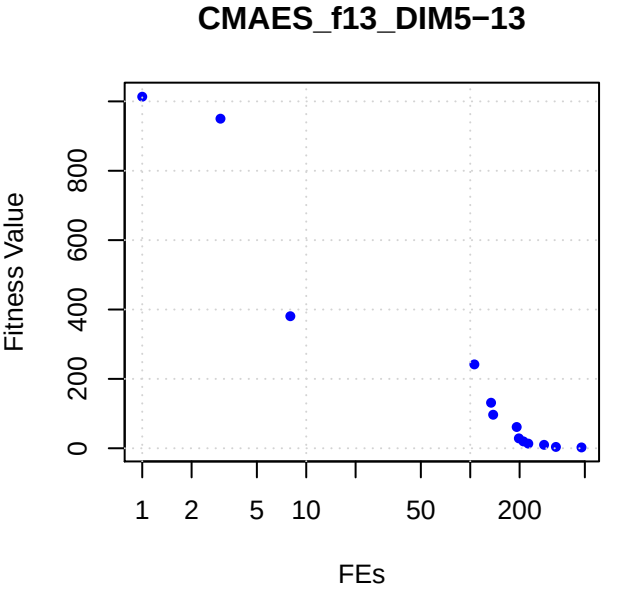
2
5
10
50
200
FEs


CMAES_f13_DIM5−13
Fitness Value
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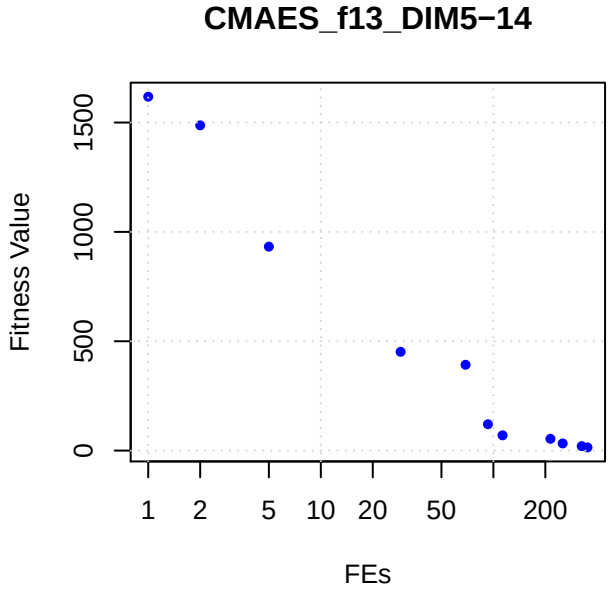
800
1
2
5
10
50
200
FEs


CMAES_f13_DIM5−14
Fitness Value
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1
2
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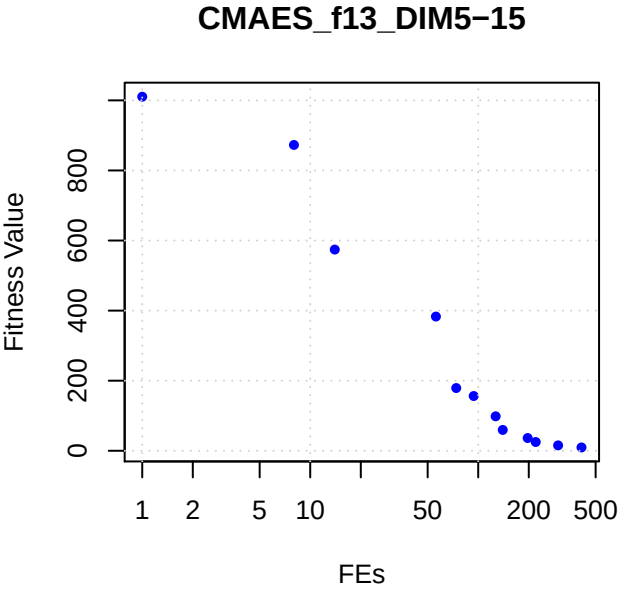
10
20
50
200
FEs


CMAES_f13_DIM5−15
Fitness Value
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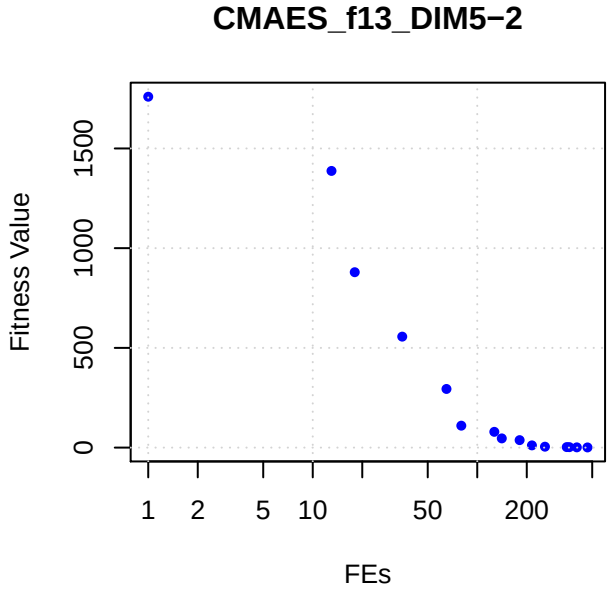
600
800
1
2
5
10
50
200
500
FEs


CMAES_f13_DIM5−2
Fitness Value
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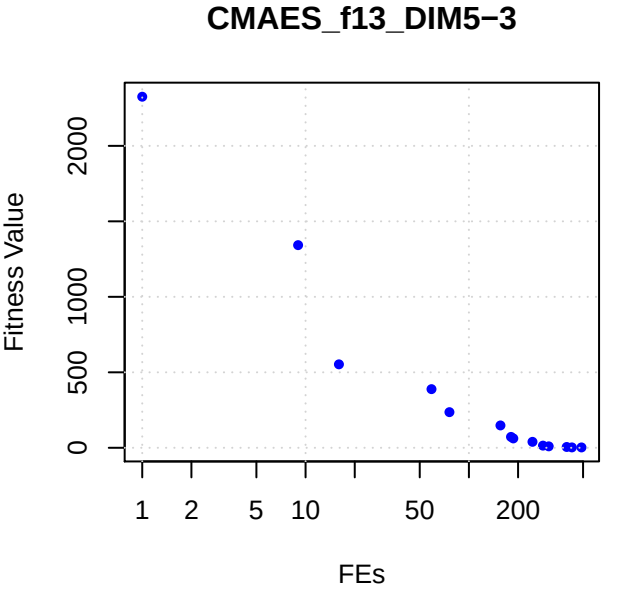
500
1000
1500
1
2
5
10
50
200
FEs


CMAES_f13_DIM5−3
Fitness Value
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2000
1
2
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10
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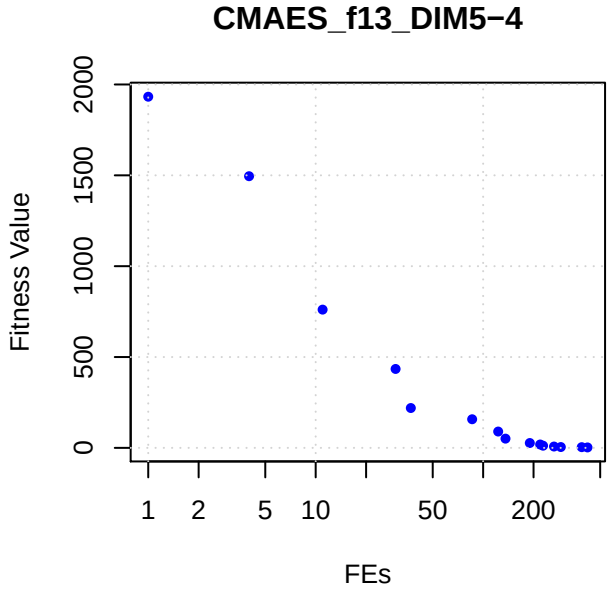
200
FEs


CMAES_f13_DIM5−4
Fitness Value
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500
1000
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2000
1
2
5
10
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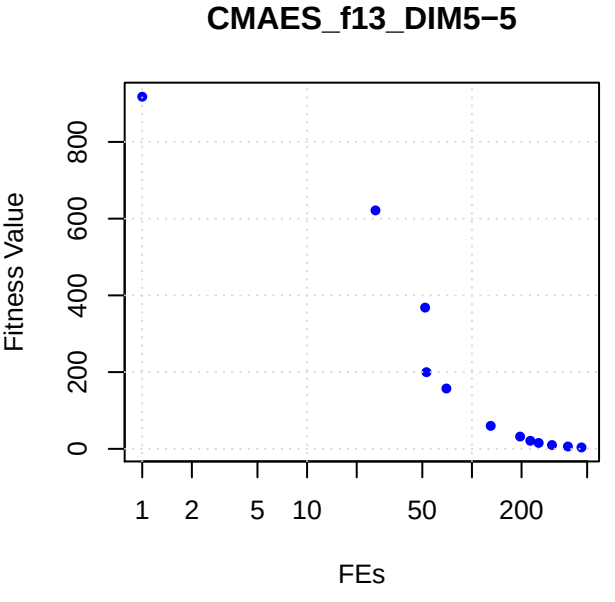
200
FEs


CMAES_f13_DIM5−5
Fitness Value
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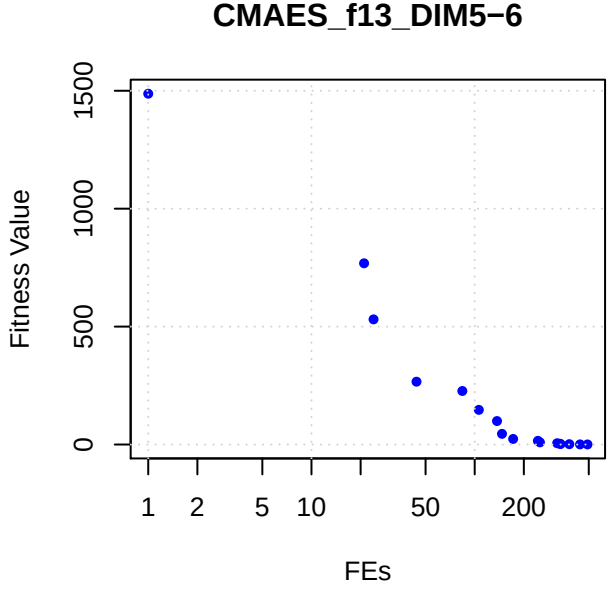
800
1
2
5
10
50
200
FEs


CMAES_f13_DIM5−6
Fitness Value
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1500
1
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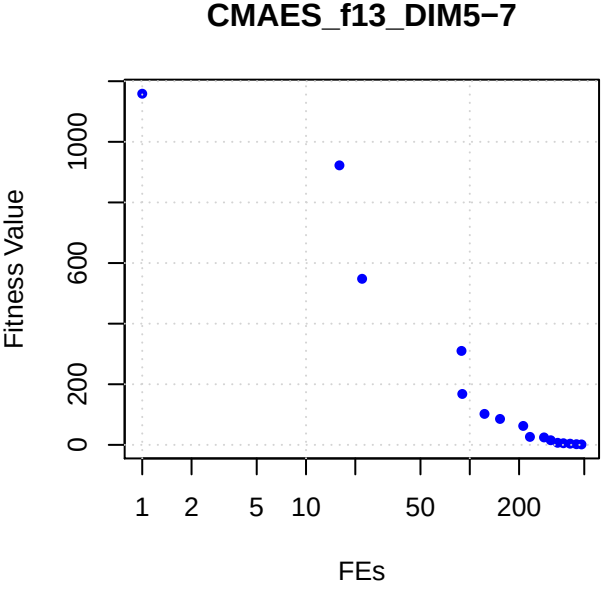
200
FEs


CMAES_f13_DIM5−7
Fitness Value
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1000
1
2
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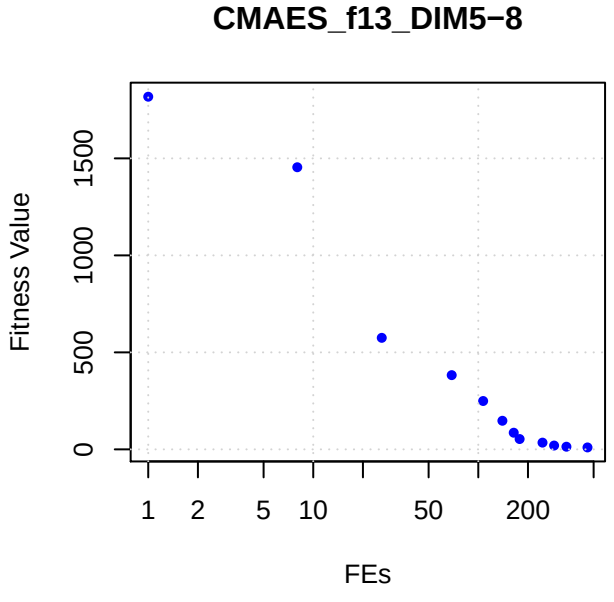
200
FEs


CMAES_f13_DIM5−8
Fitness Value
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1500
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2
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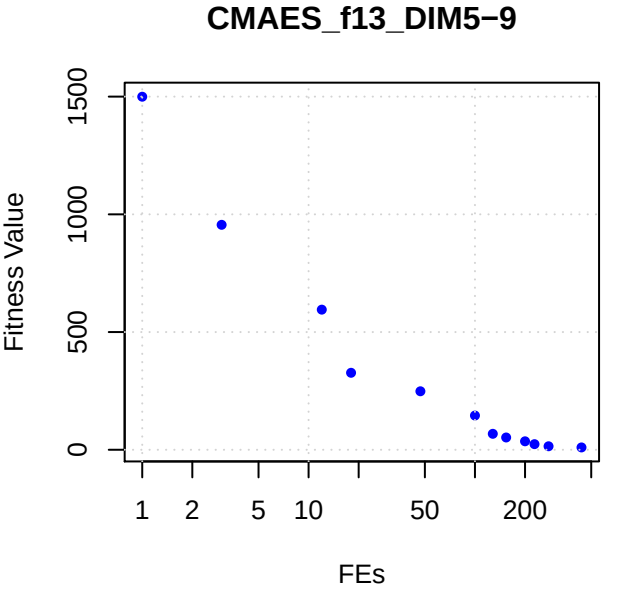
FEs


CMAES_f13_DIM5−9
Fitness Value
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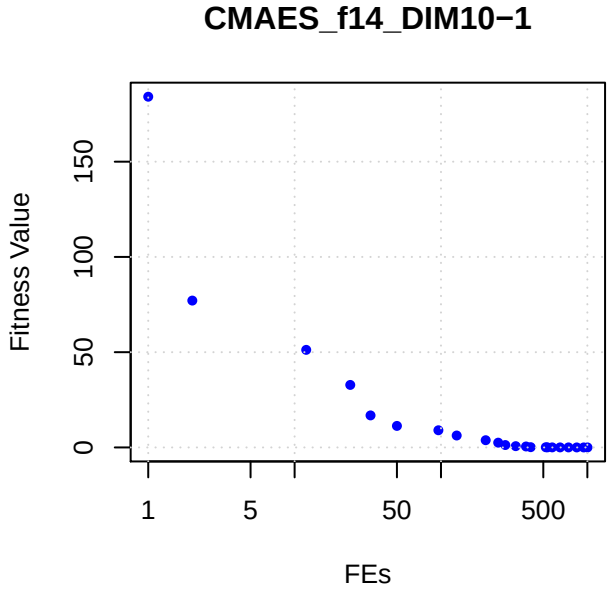
200
FEs


CMAES_f14_DIM10−1
Fitness Value
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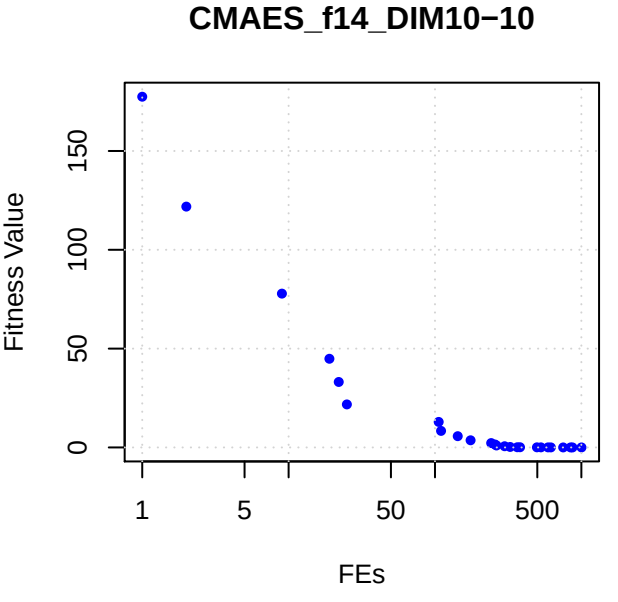
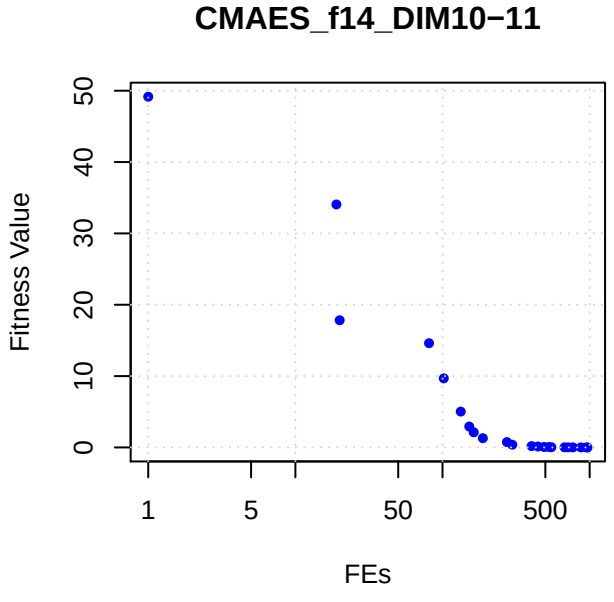
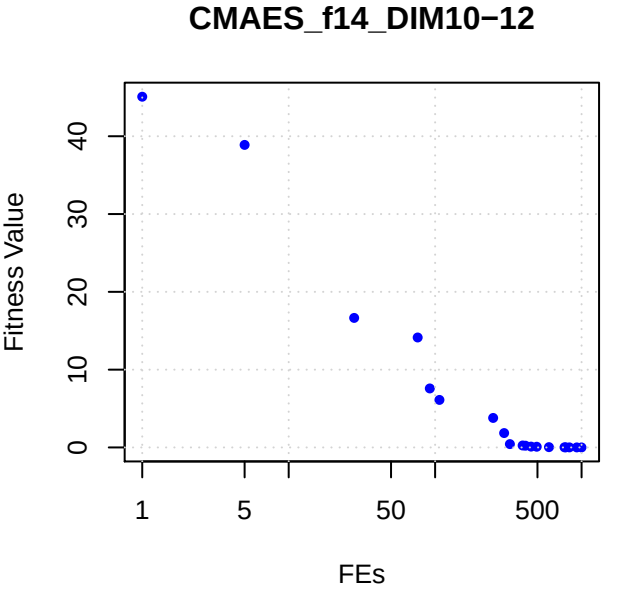
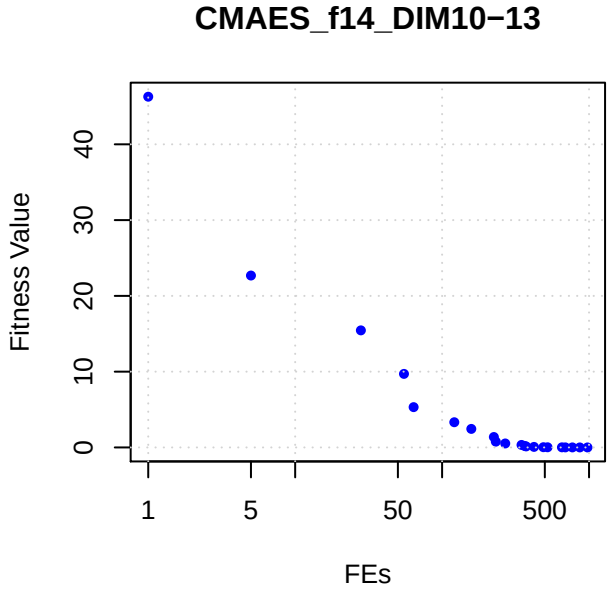
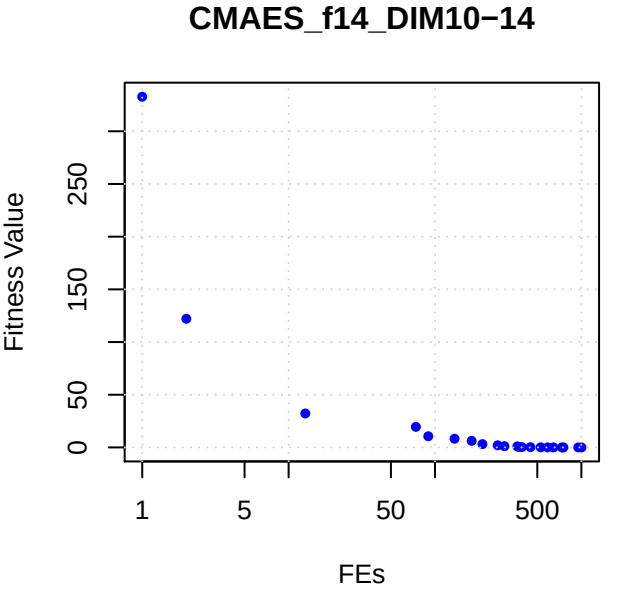
50
100
150
1
5
50
500
FEs

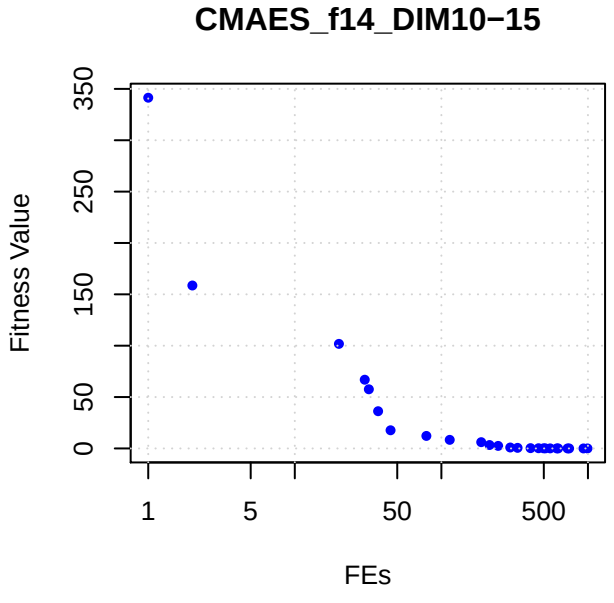

CMAES_f14_DIM10−10
Fitness Value
0
50
100
150
1
5
50
500
FEs

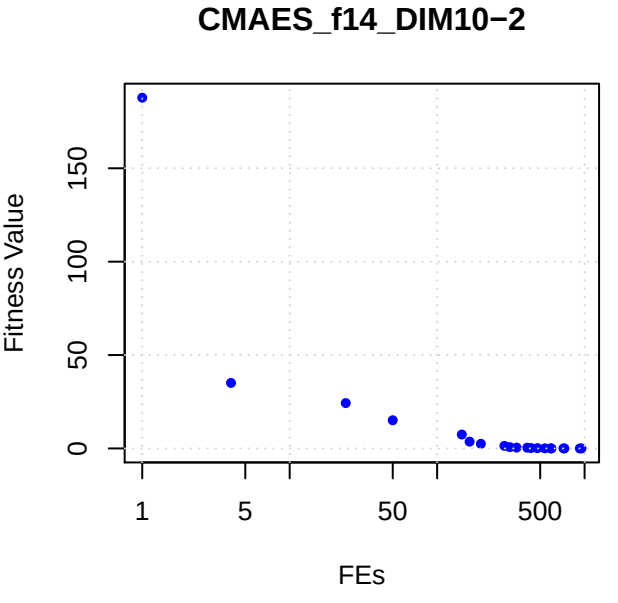

CMAES_f14_DIM10−11
Fitness Value
0
10
20
30
40
50
1
5
50
500
FEs

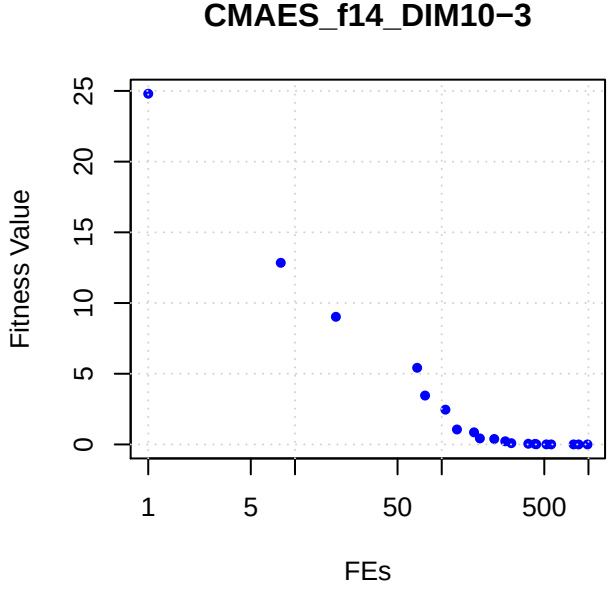

CMAES_f14_DIM10−12
Fitness Value
0
10
20
30
40
1
5
50
500
FEs

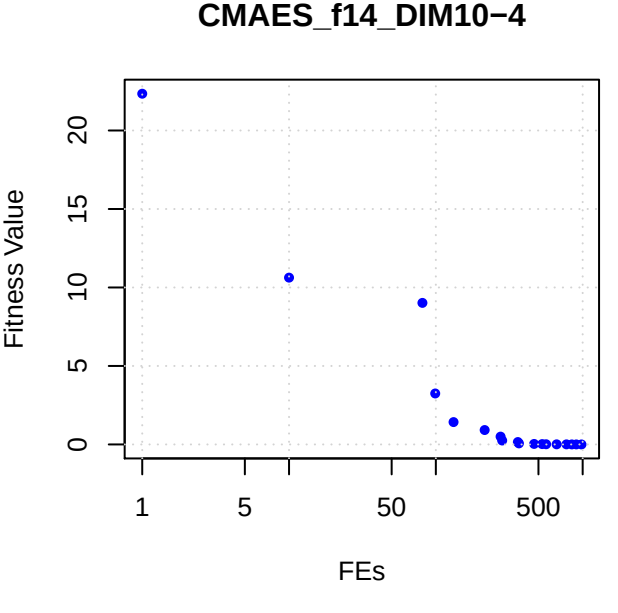

CMAES_f14_DIM10−13
Fitness Value
0
10
20
30
40
1
5
50
500
FEs

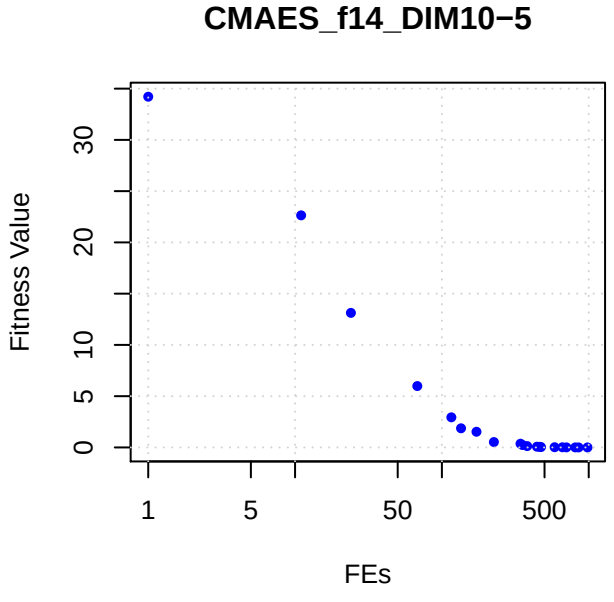

CMAES_f14_DIM10−14
Fitness Value
0
50
150
250
1
5
50
500
FEs

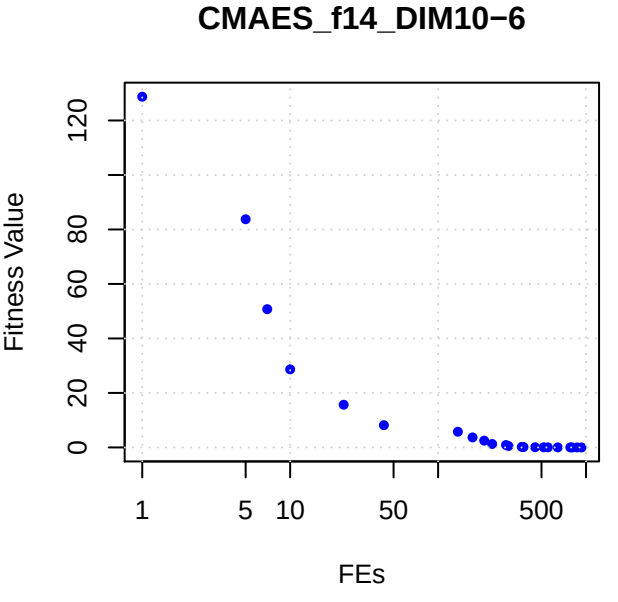

CMAES_f14_DIM10−15
Fitness Value
0
50
150
250
350
1
5
50
500
FEs

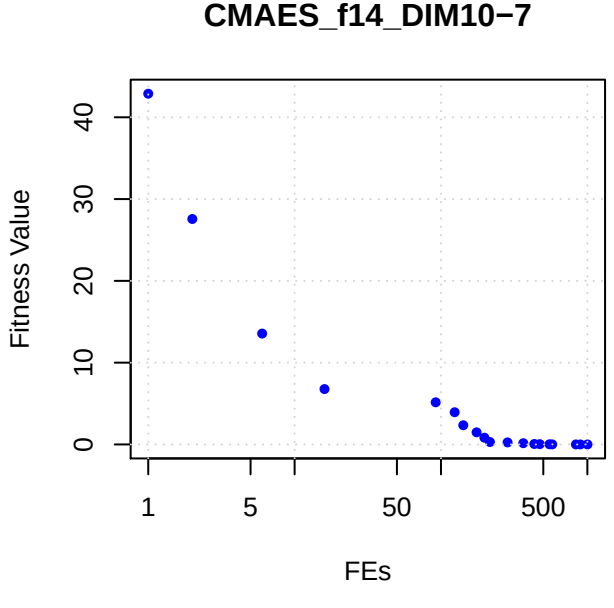

CMAES_f14_DIM10−2
Fitness Value
0
50
100
150
1
5
50
500
FEs

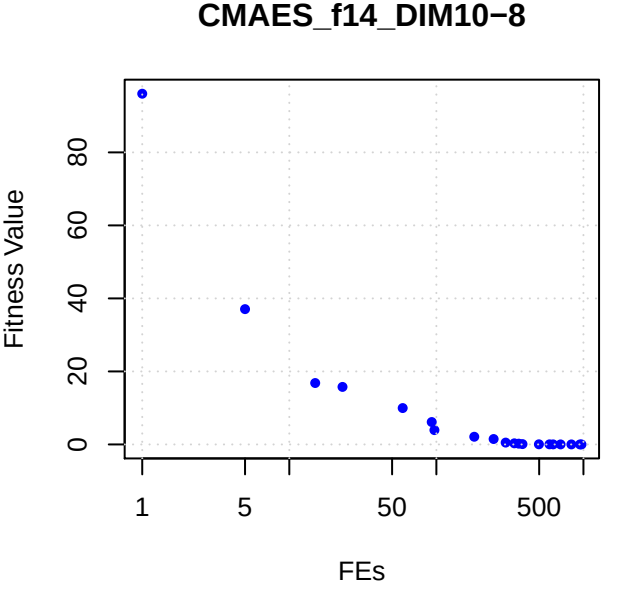

CMAES_f14_DIM10−3
Fitness Value
0
5
10
15
20
25
1
5
50
500
FEs

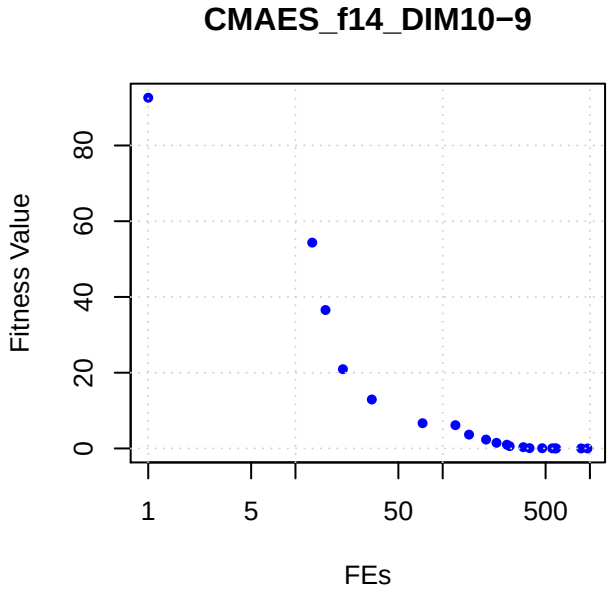

CMAES_f14_DIM10−4
Fitness Value
0
5
10
15
20
1
5
50
500
FEs


CMAES_f14_DIM10−5
Fitness Value
0
5
10
20
30
1
5
50
500
FEs


CMAES_f14_DIM10−6
Fitness Value
0
20
40
60
80
120
1
5
10
50
500
FEs


CMAES_f14_DIM10−7
Fitness Value
0
10
20
30
40
1
5
50
500
FEs


CMAES_f14_DIM10−8
Fitness Value
0
20
40
60
80
1
5
50
500
FEs


CMAES_f14_DIM10−9
Fitness Value
0
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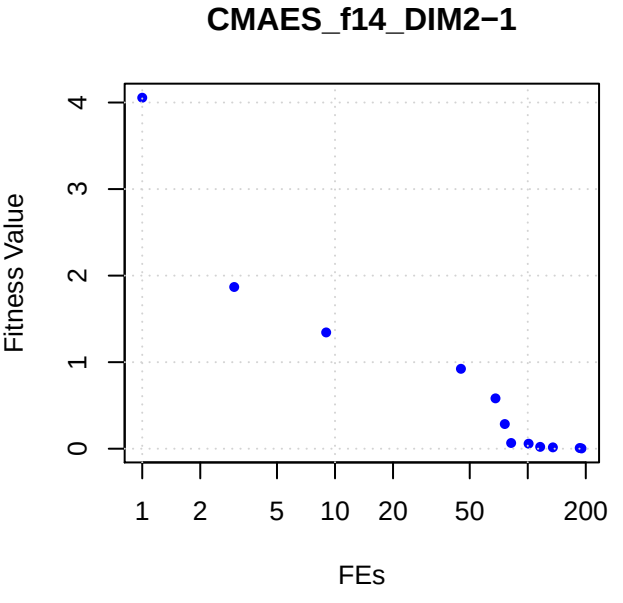
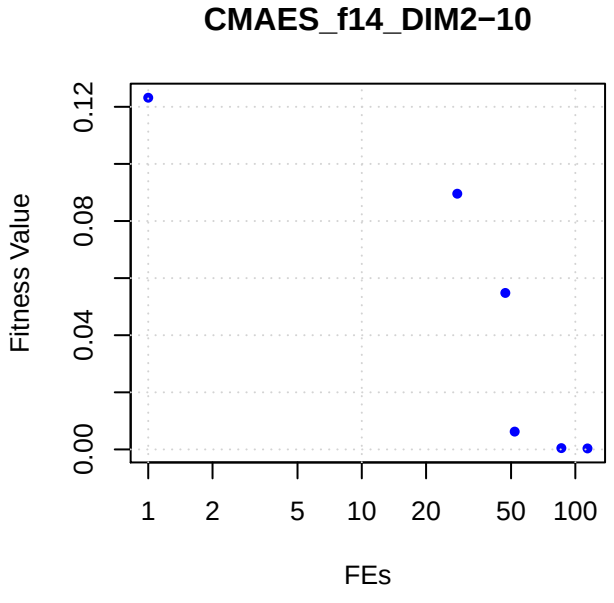
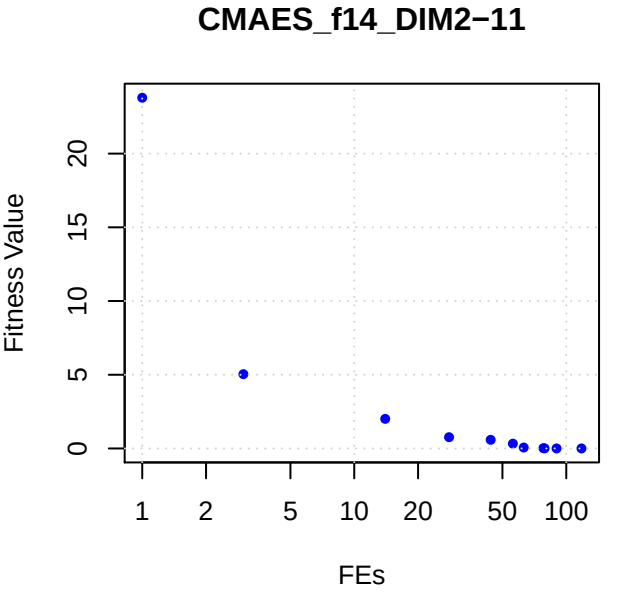
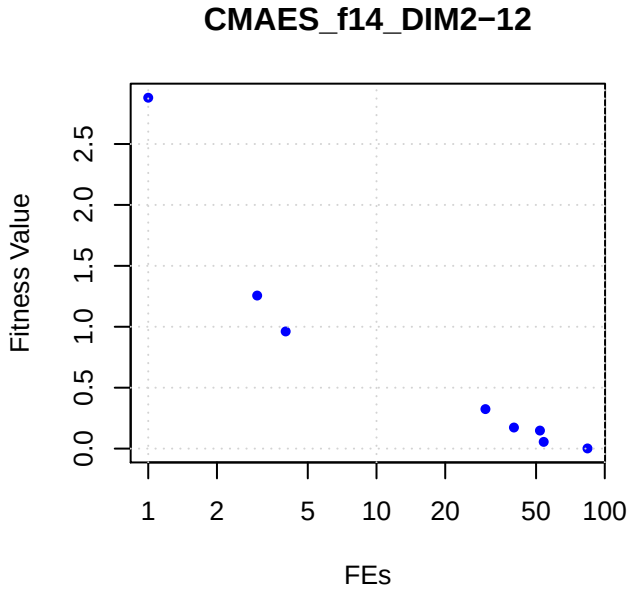
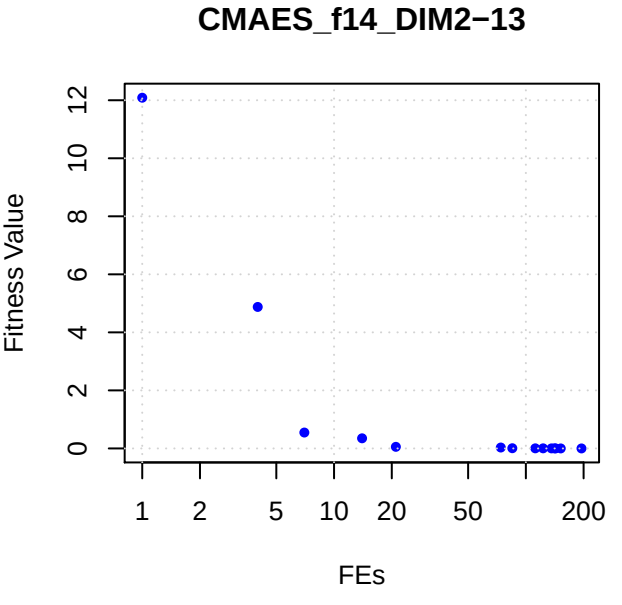
40
60
80
1
5
50
500
FEs

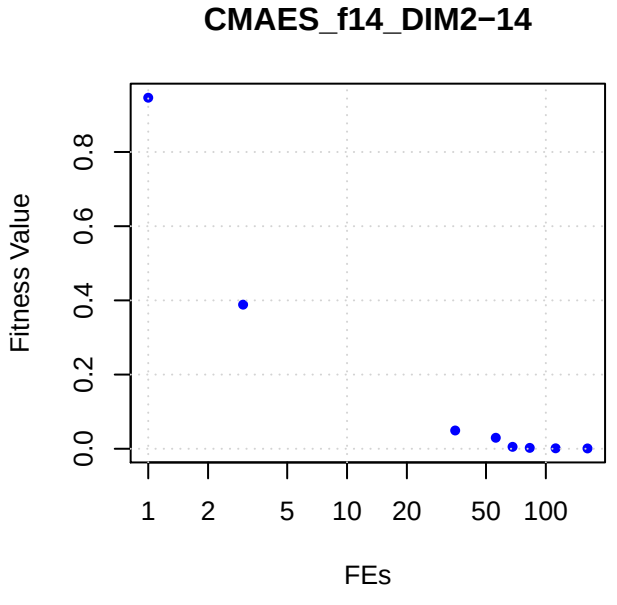

CMAES_f14_DIM2−1
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
200
FEs

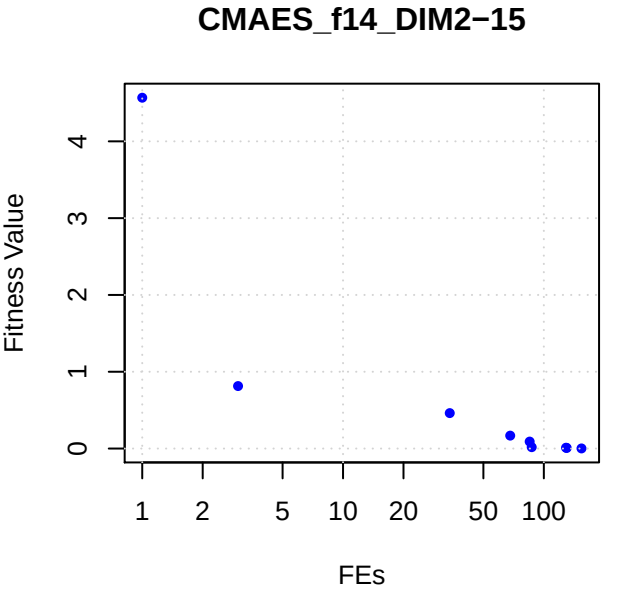

CMAES_f14_DIM2−10
Fitness Value
0.00
0.04
0.08
0.12
1
2
5
10
20
50
100
FEs

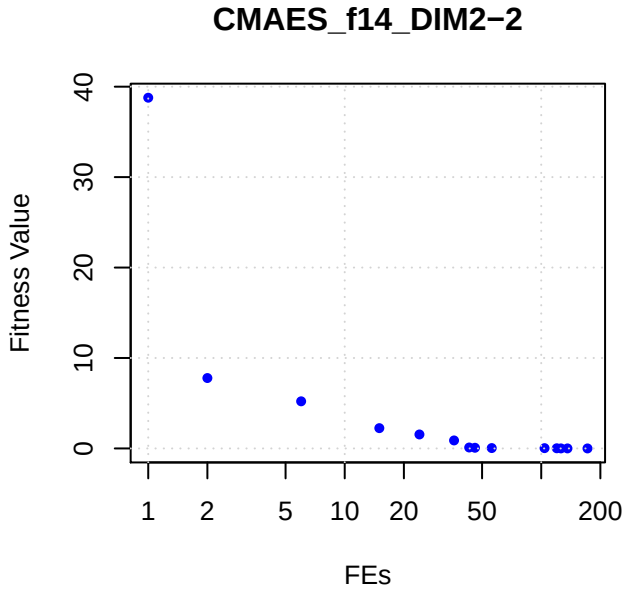

CMAES_f14_DIM2−11
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
100
FEs

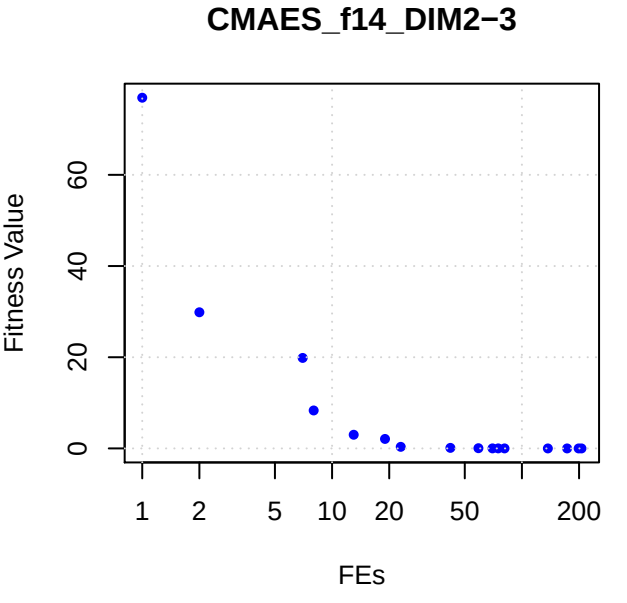

CMAES_f14_DIM2−12
Fitness Value
0.0
0.5
1.0
1.5
2.0
2.5
1
2
5
10
20
50
100
FEs

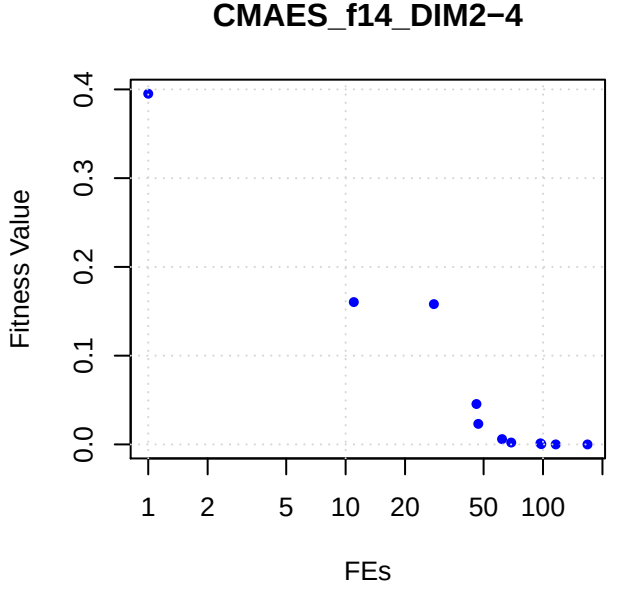

CMAES_f14_DIM2−13
Fitness Value
0
2
4
6
8
10
12
1
2
5
10
20
50
200
FEs

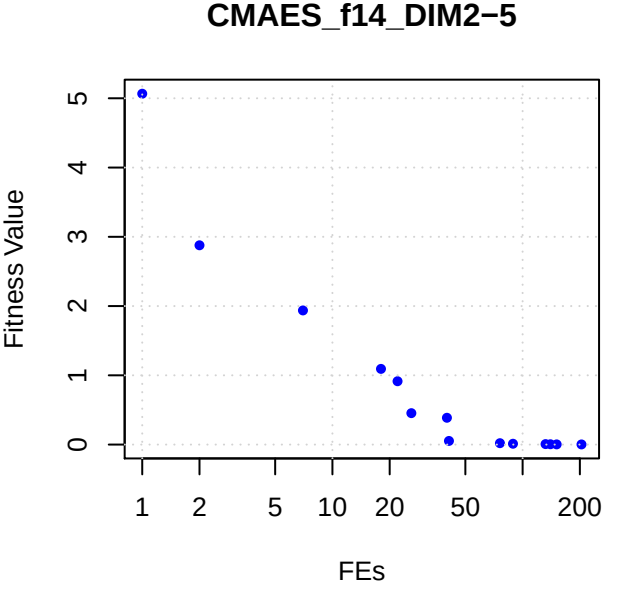

CMAES_f14_DIM2−14
Fitness Value
0.0
0.2
0.4
0.6
0.8
1
2
5
10
20
50
100
FEs

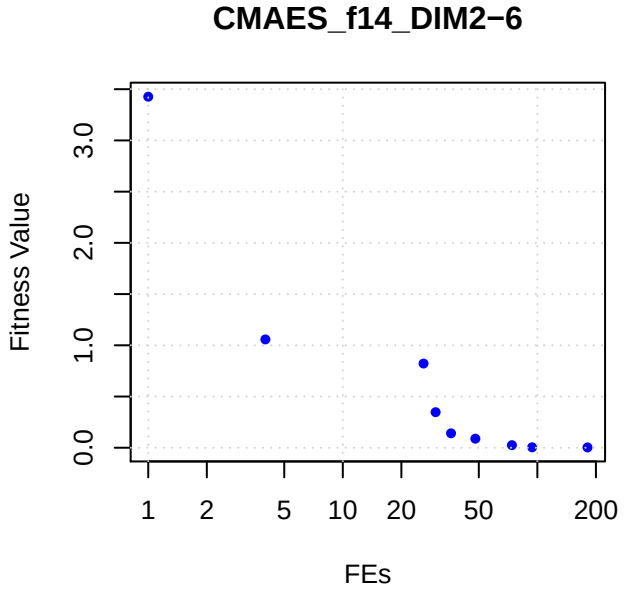

CMAES_f14_DIM2−15
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
100
FEs

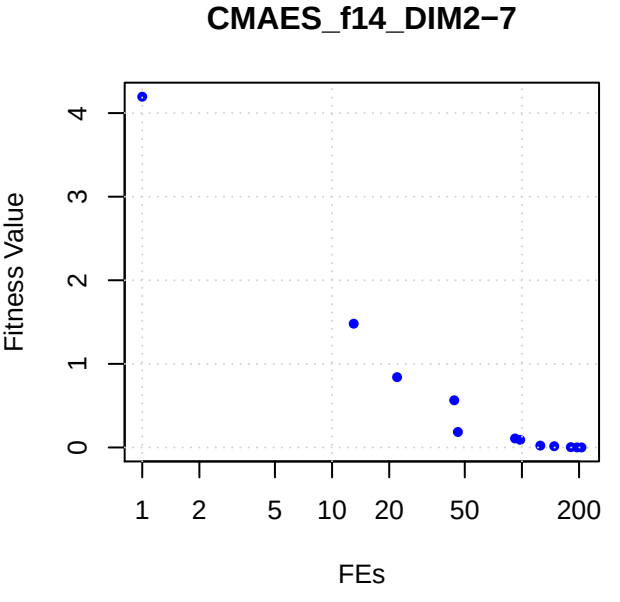

CMAES_f14_DIM2−2
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs

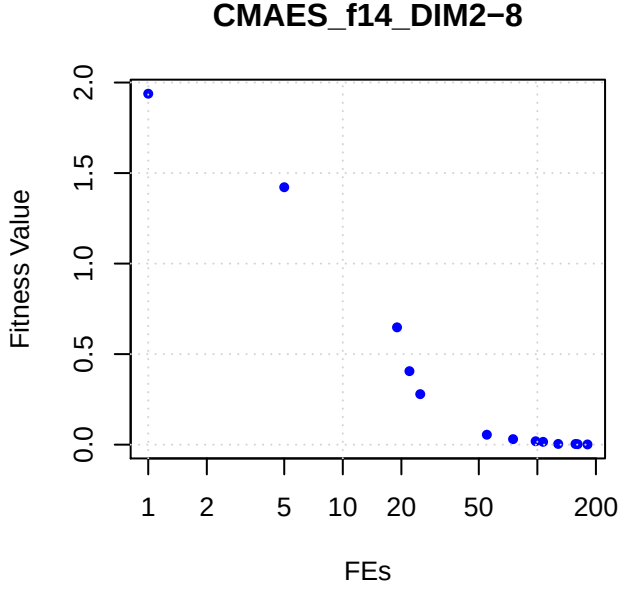

CMAES_f14_DIM2−3
Fitness Value
0
20
40
60
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM2−4
Fitness Value
0.0
0.1
0.2
0.3
0.4
1
2
5
10
20
50
100
FEs


CMAES_f14_DIM2−5
Fitness Value
0
1
2
3
4
5
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM2−6
Fitness Value
0.0
1.0
2.0
3.0
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM2−7
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM2−8
Fitness Value
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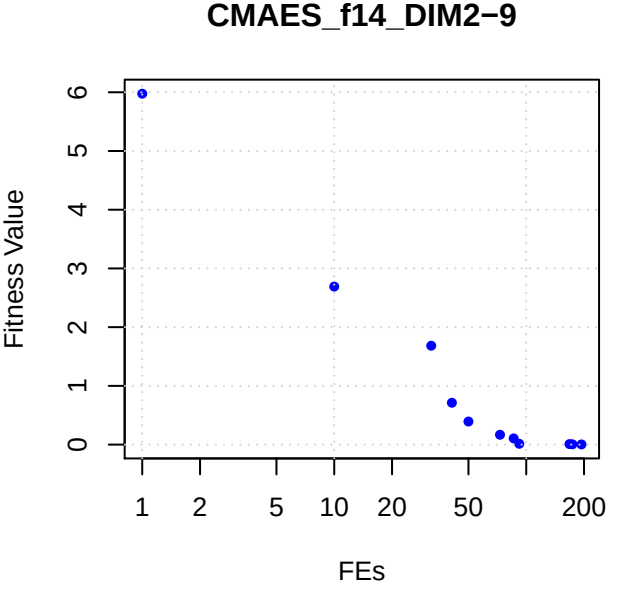
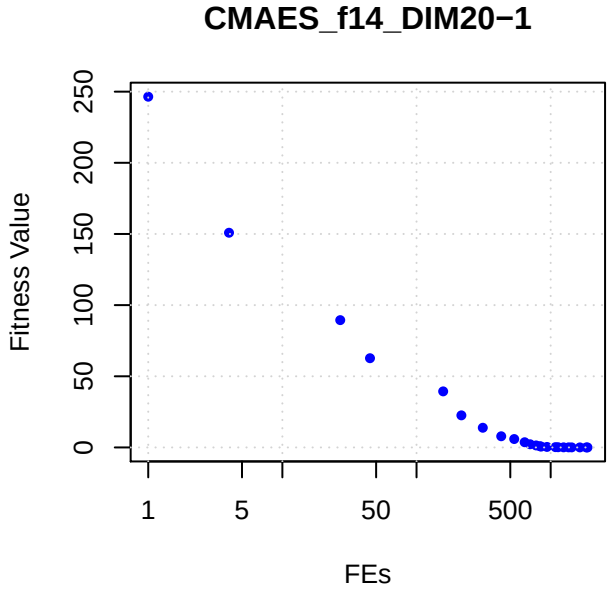
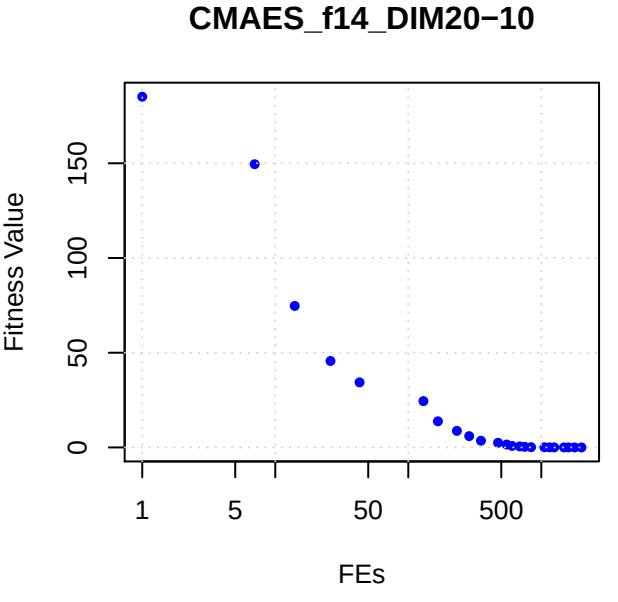
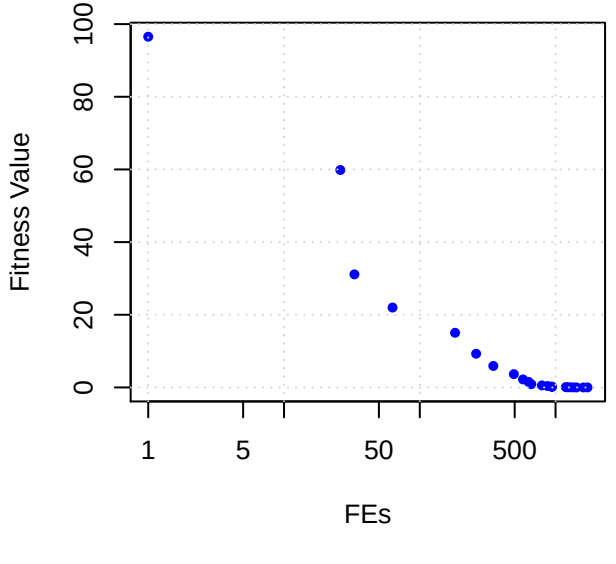
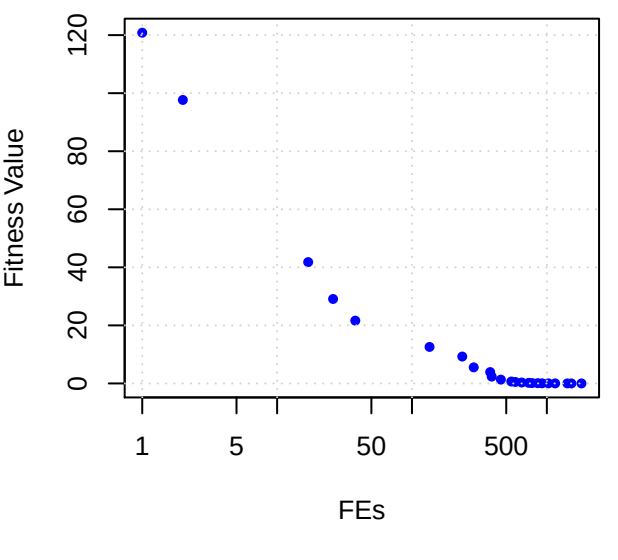
0.5
1.0
1.5
2.0
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM2−9
Fitness Value
0
1
2
3
4
5
6
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM20−1
Fitness Value
0
50
100
150
200
250
1
5
50
500
FEs


CMAES_f14_DIM20−10
Fitness Value
0
50
100
150
1
5
50
500
FEs


CMAES_f14_DIM20−11
Fitness Value
0
20
40
60
80
100
1
5
50
500
FEs


CMAES_f14_DIM20−12
Fitness Value
0
20
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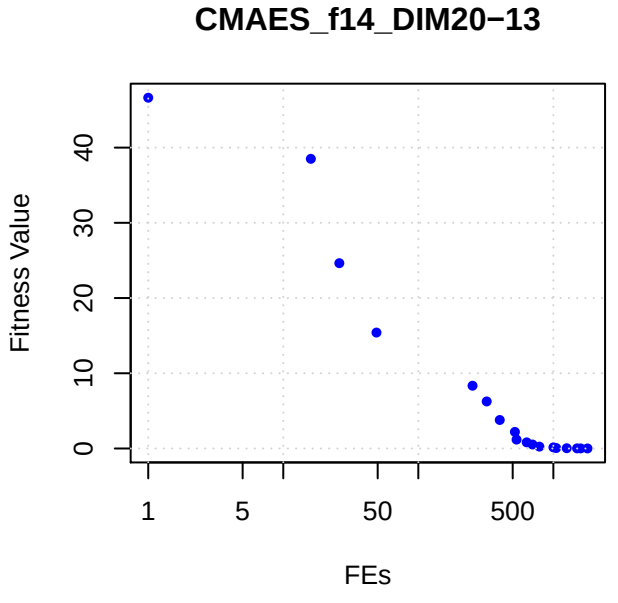
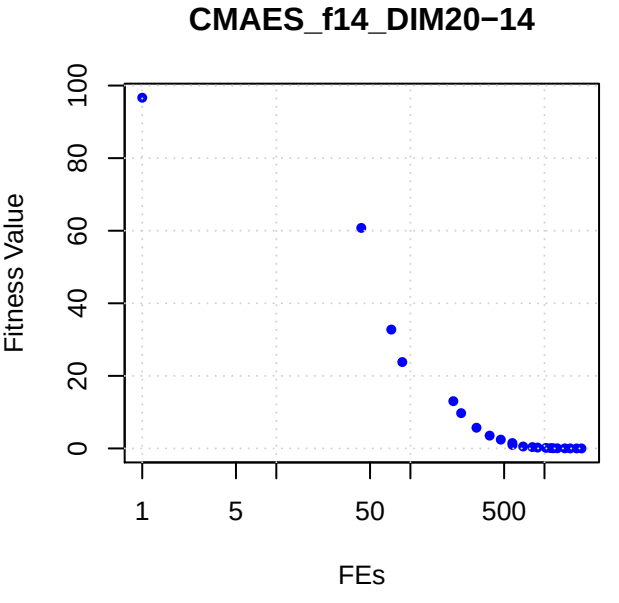
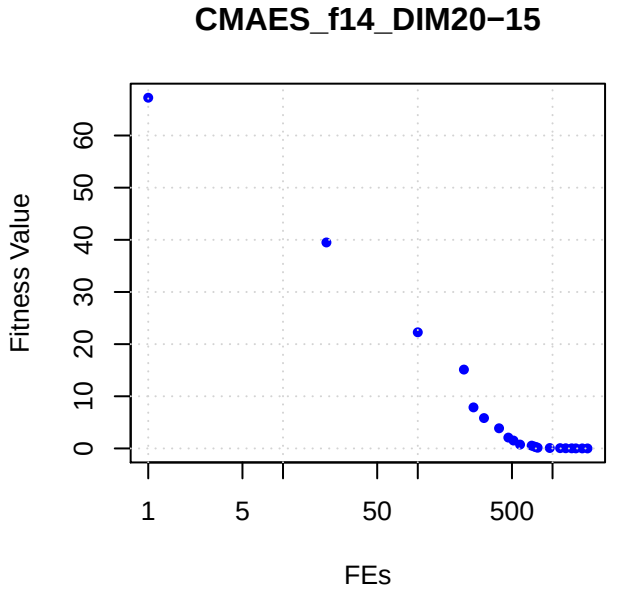
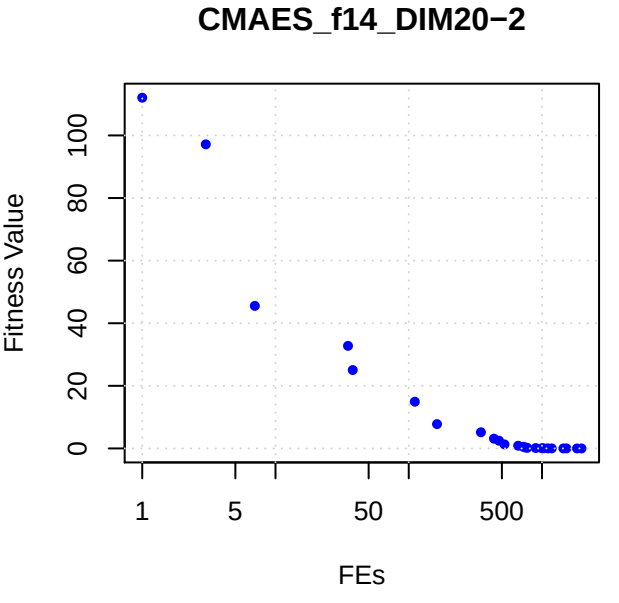
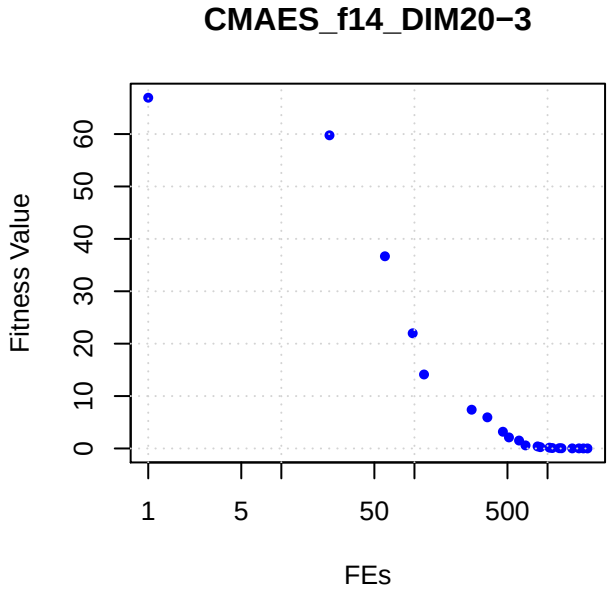
60
80
120
1
5
50
500
FEs

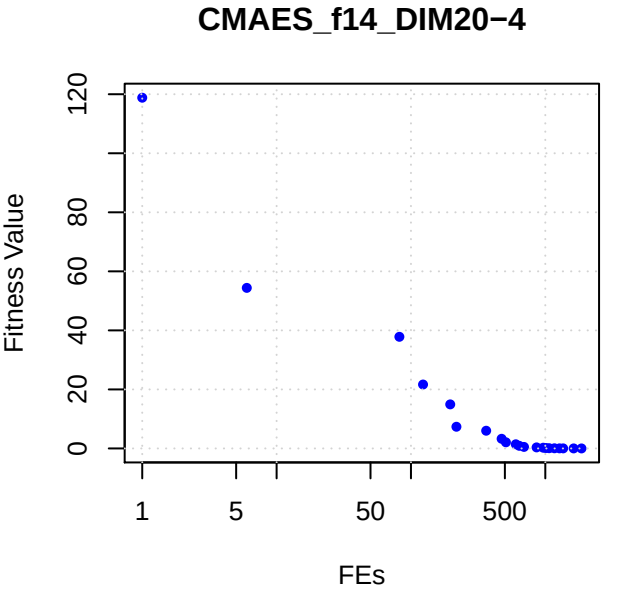

CMAES_f14_DIM20−13
Fitness Value
0
10
20
30
40
1
5
50
500
FEs

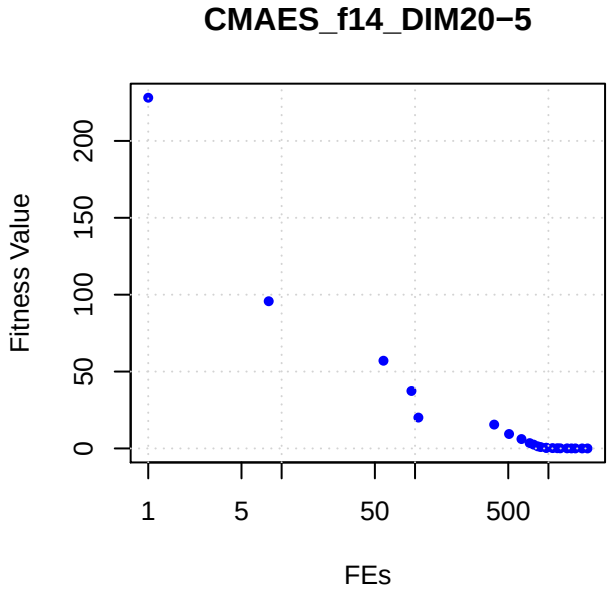

CMAES_f14_DIM20−14
Fitness Value
0
20
40
60
80
100
1
5
50
500
FEs

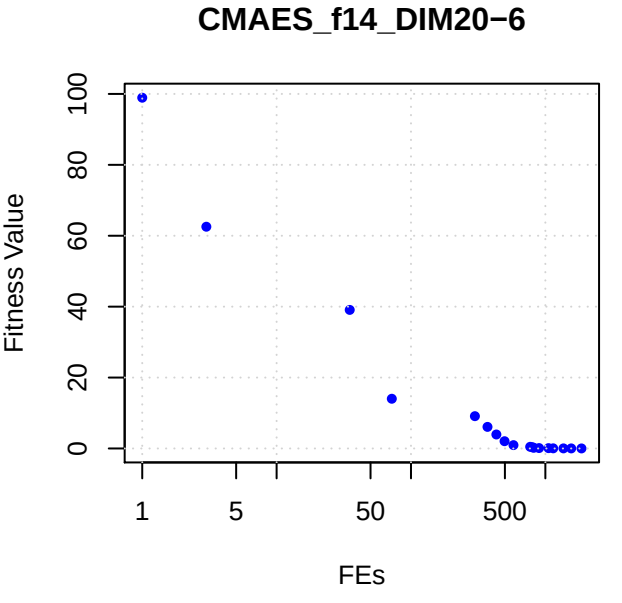

CMAES_f14_DIM20−15
Fitness Value
0
10
20
30
40
50
60
1
5
50
500
FEs

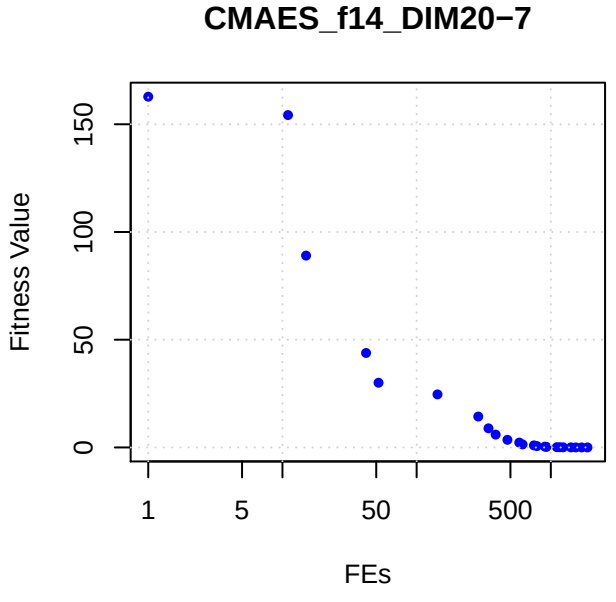

CMAES_f14_DIM20−2
Fitness Value
0
20
40
60
80
100
1
5
50
500
FEs

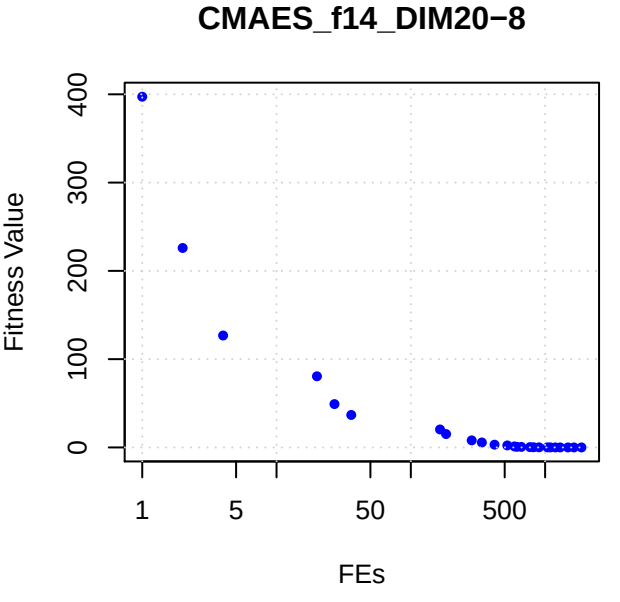

CMAES_f14_DIM20−3
Fitness Value
0
10
20
30
40
50
60
1
5
50
500
FEs


CMAES_f14_DIM20−4
Fitness Value
0
20
40
60
80
120
1
5
50
500
FEs


CMAES_f14_DIM20−5
Fitness Value
0
50
100
150
200
1
5
50
500
FEs


CMAES_f14_DIM20−6
Fitness Value
0
20
40
60
80
100
1
5
50
500
FEs


CMAES_f14_DIM20−7
Fitness Value
0
50
100
150
1
5
50
500
FEs


CMAES_f14_DIM20−8
Fitness Value
0
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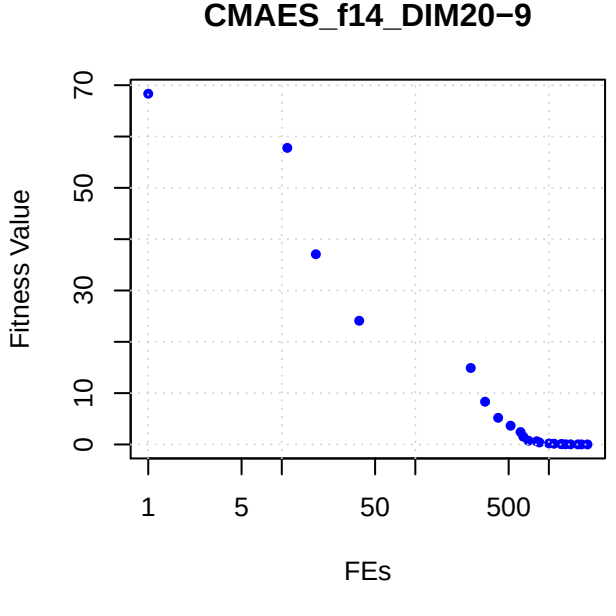
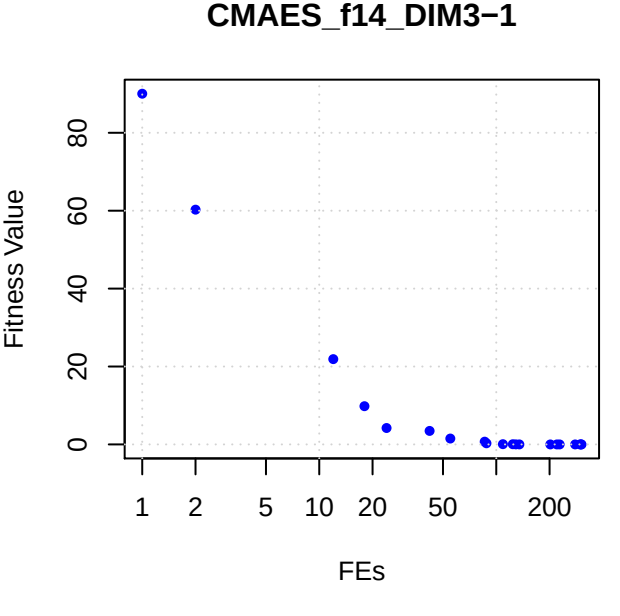
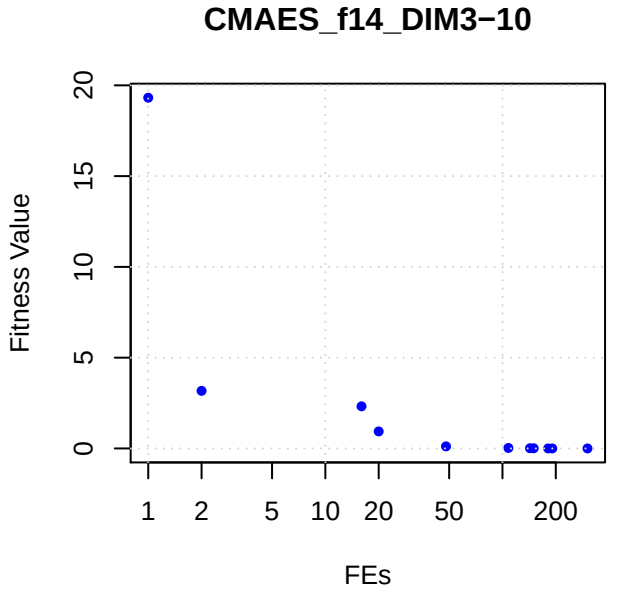
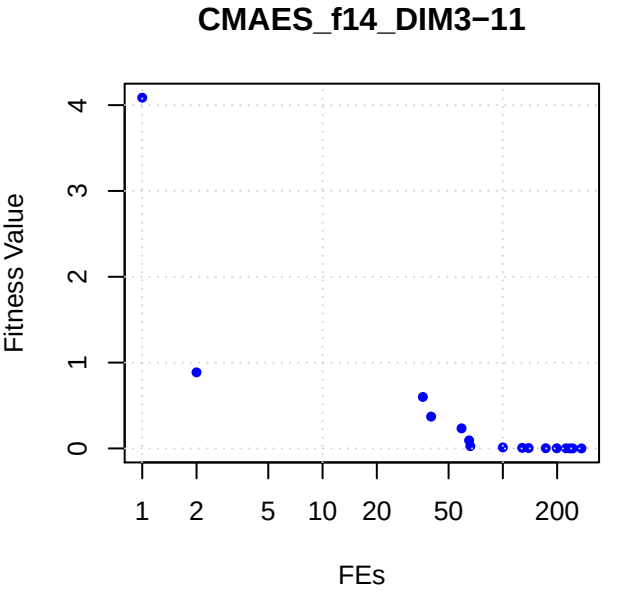
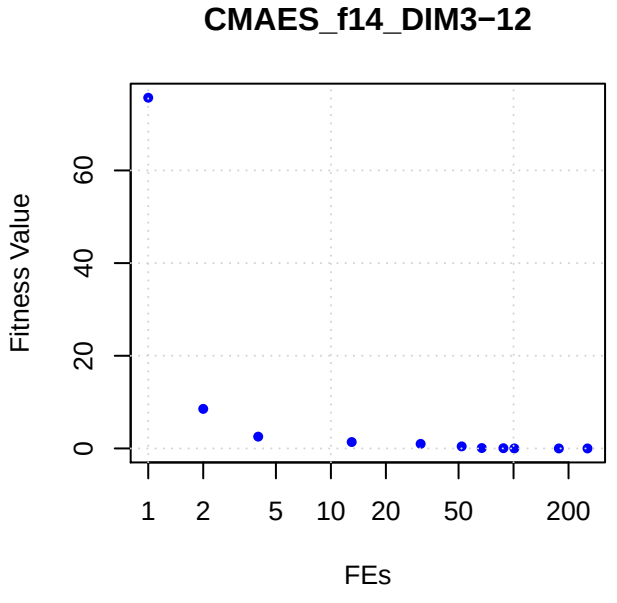
200
300
400
1
5
50
500
FEs

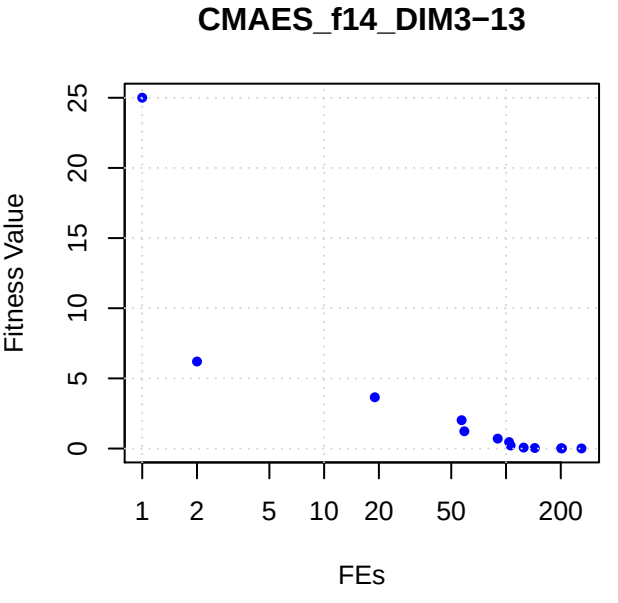

CMAES_f14_DIM20−9
Fitness Value
0
10
30
50
70
1
5
50
500
FEs

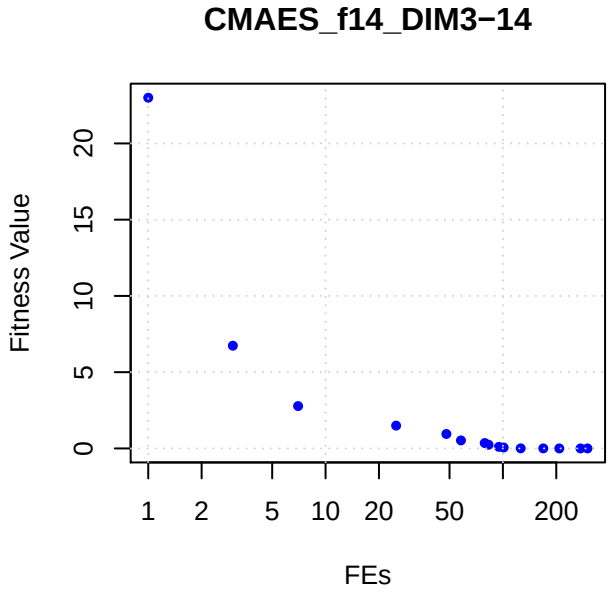

CMAES_f14_DIM3−1
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−10
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−11
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−12
Fitness Value
0
20
40
60
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−13
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−14
Fitness Value
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10
15
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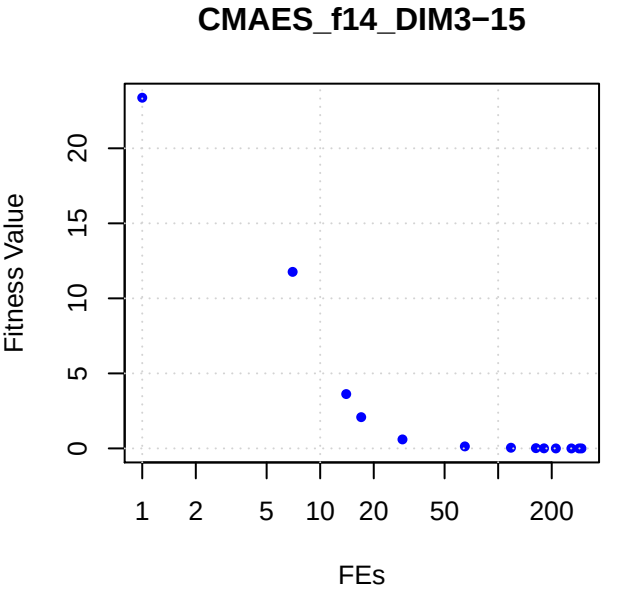
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−15
Fitness Value
0
5
10
15
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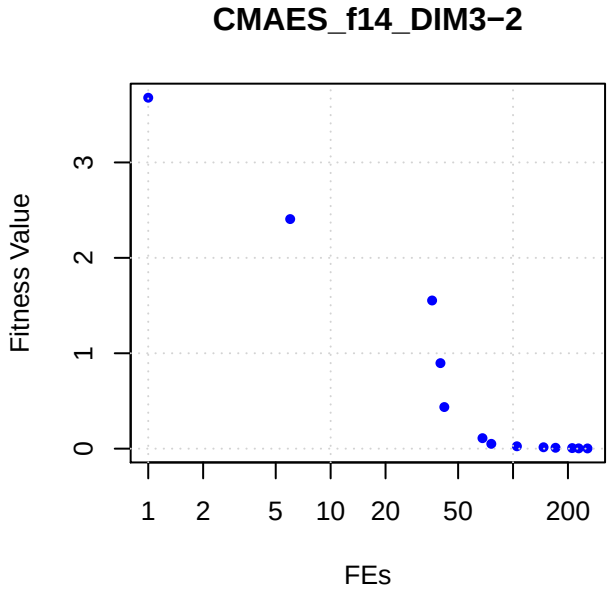
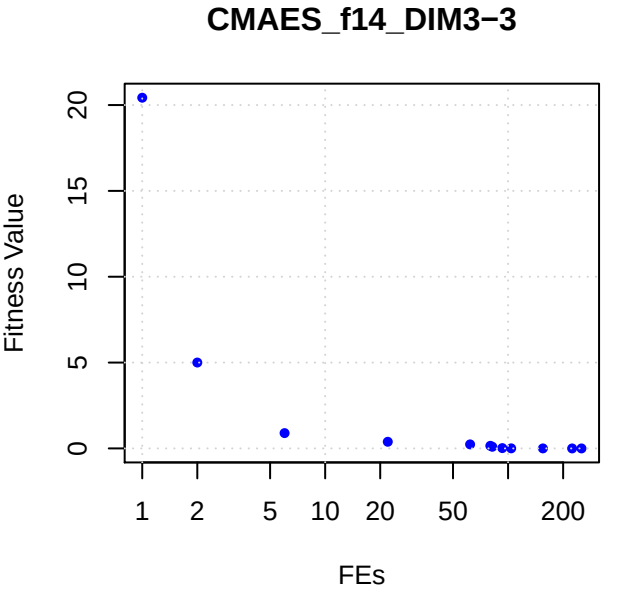
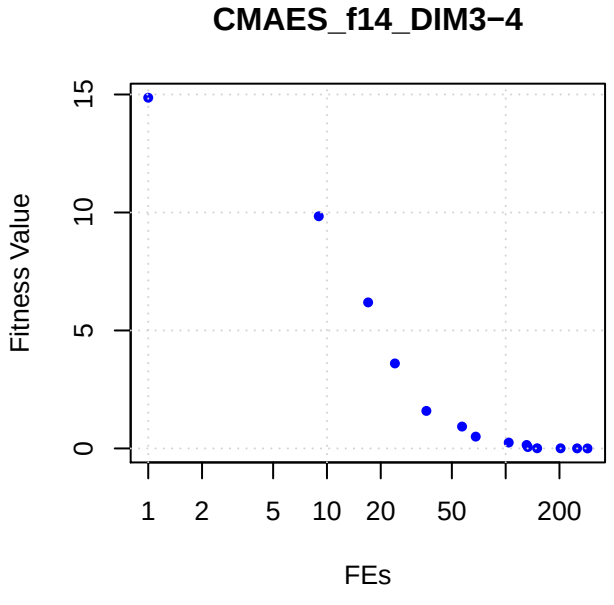
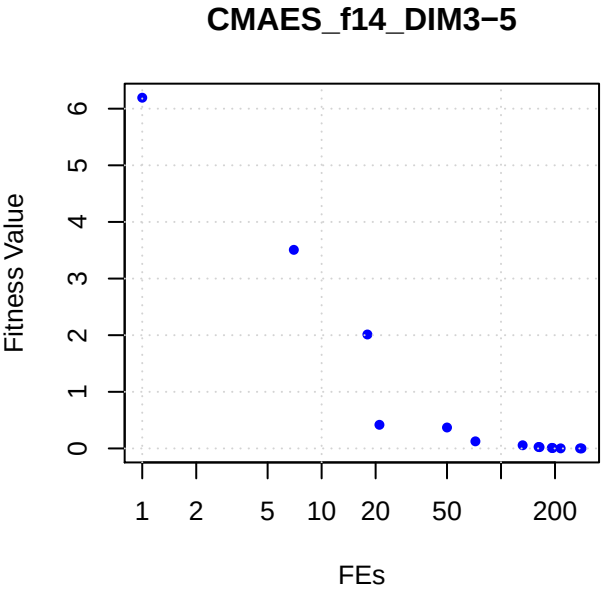
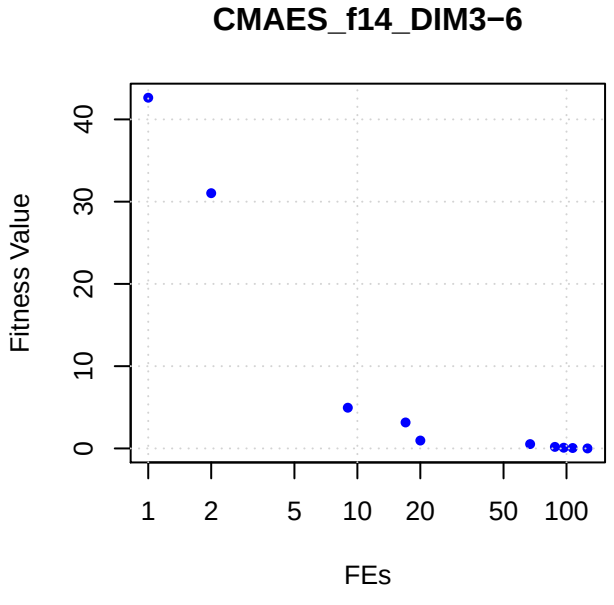
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−2
Fitness Value
0
1
2
3
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−3
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−4
Fitness Value
0
5
10
15
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−5
Fitness Value
0
1
2
3
4
5
6
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−6
Fitness Value
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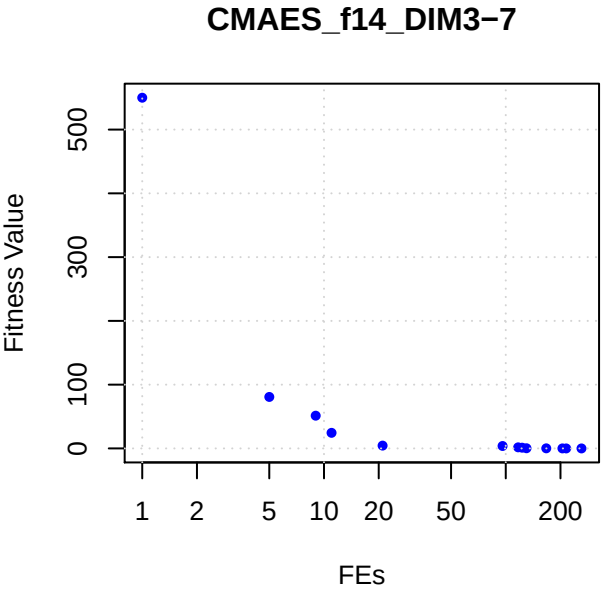
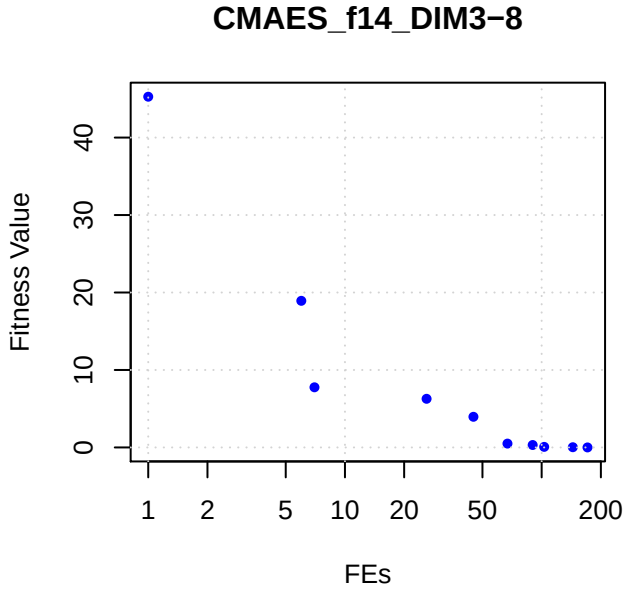
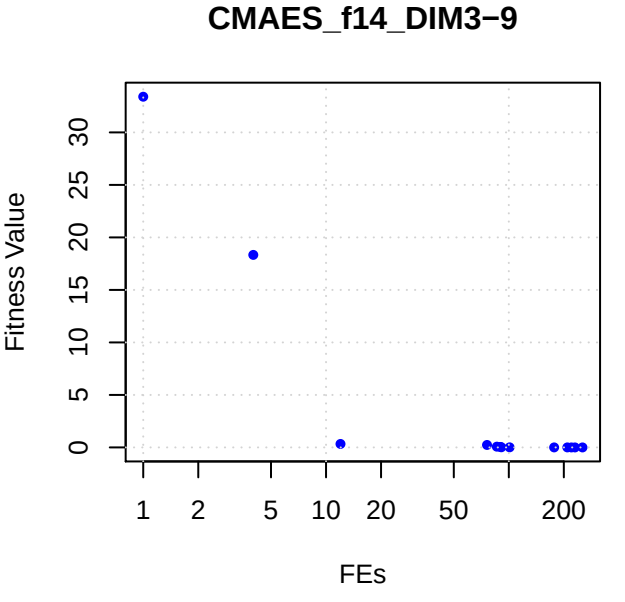
30
40
1
2
5
10
20
50
100
FEs


CMAES_f14_DIM3−7
Fitness Value
0
100
300
500
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−8
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM3−9
Fitness Value
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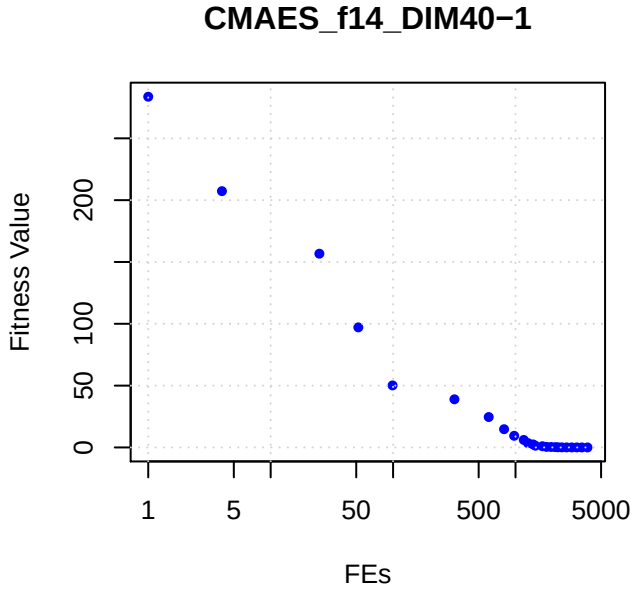
5
10
15
20
25
30
1
2
5
10
20
50
200
FEs


CMAES_f14_DIM40−1
Fitness Value
0
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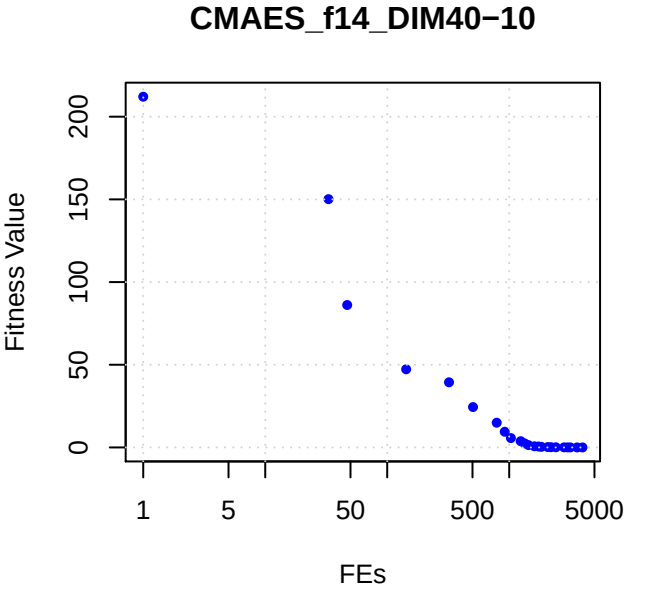
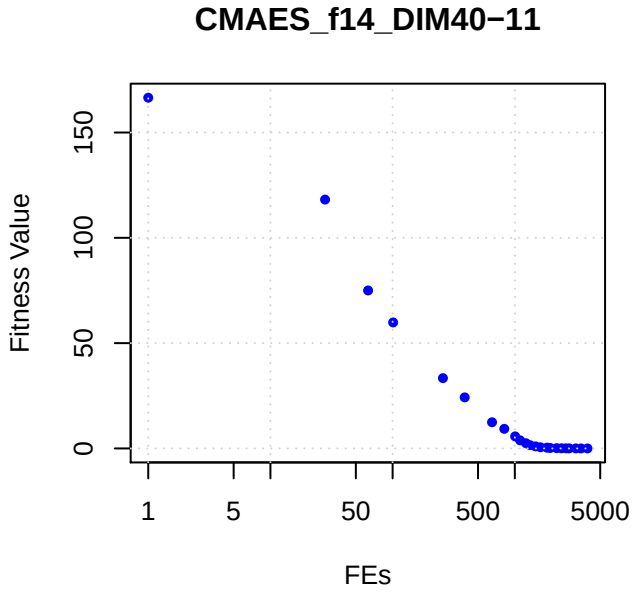
100
200
1
5
50
500
5000
FEs


CMAES_f14_DIM40−10
Fitness Value
0
50
100
150
200
1
5
50
500
5000
FEs


CMAES_f14_DIM40−11
Fitness Value
0
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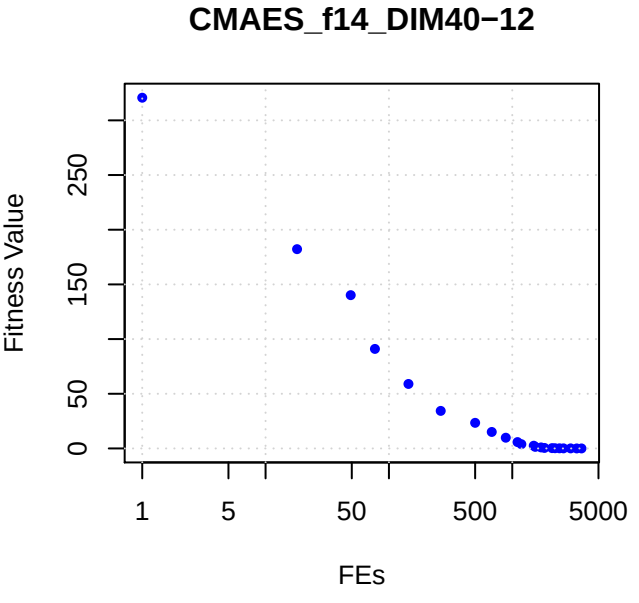
100
150
1
5
50
500
5000
FEs


CMAES_f14_DIM40−12
Fitness Value
0
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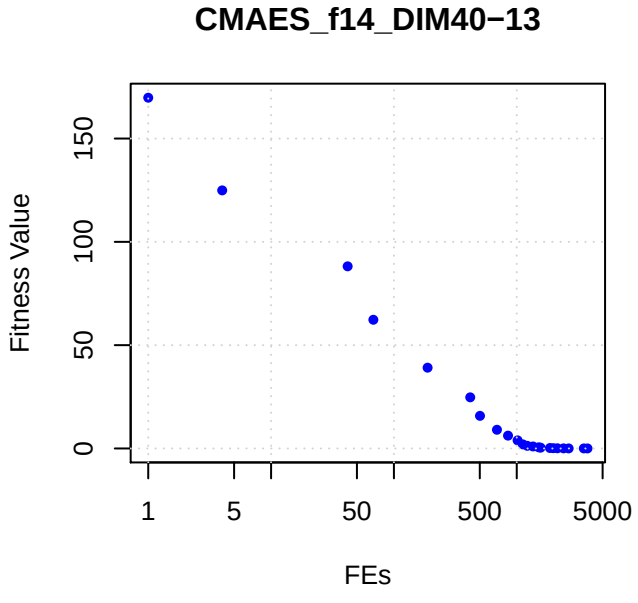
150
250
1
5
50
500
5000
FEs


CMAES_f14_DIM40−13
Fitness Value
0
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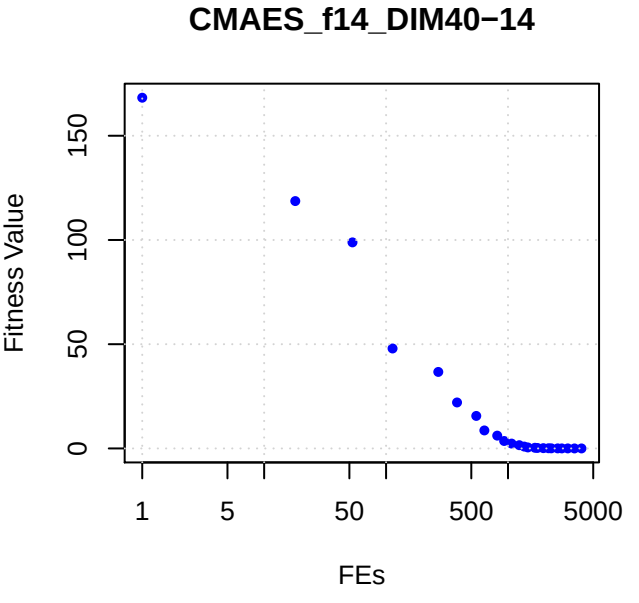
100
150
1
5
50
500
5000
FEs


CMAES_f14_DIM40−14
Fitness Value
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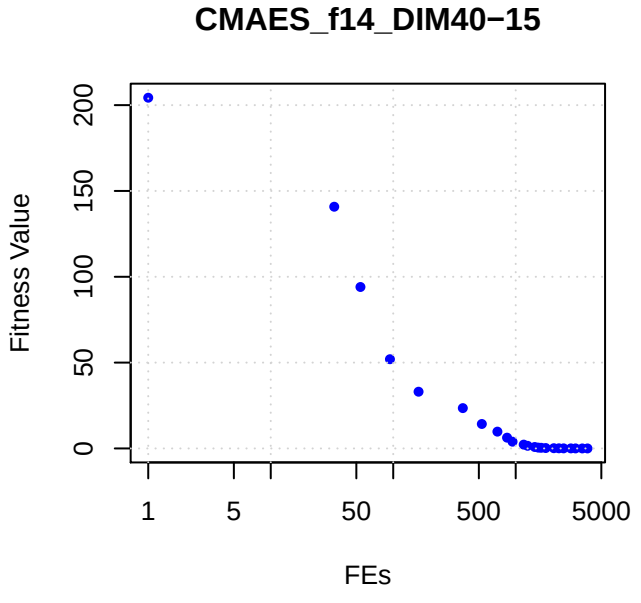
1
5
50
500
5000
FEs


CMAES_f14_DIM40−15
Fitness Value
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150
200
1
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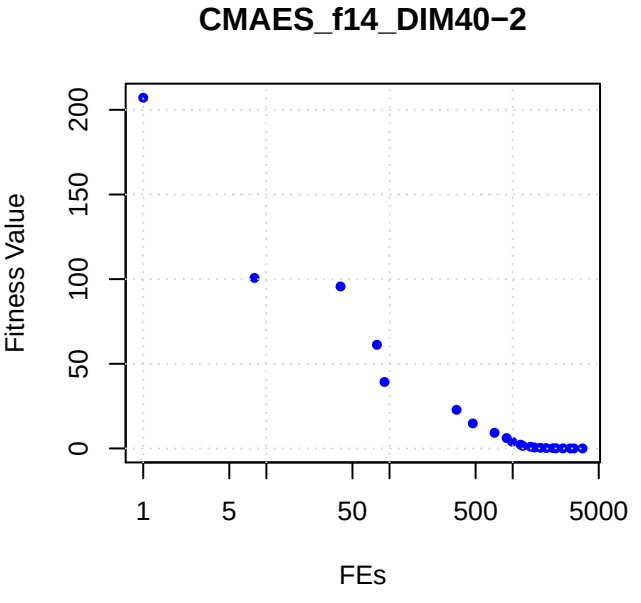
50
500
5000
FEs


CMAES_f14_DIM40−2
Fitness Value
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1
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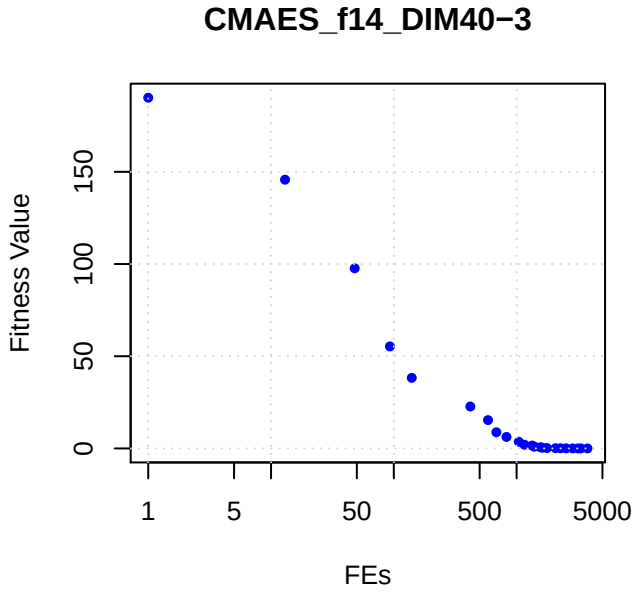
50
500
5000
FEs


CMAES_f14_DIM40−3
Fitness Value
0
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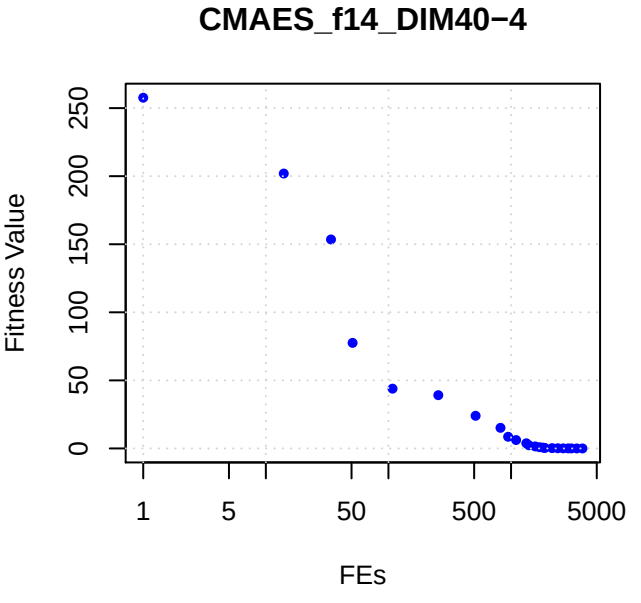
100
150
1
5
50
500
5000
FEs


CMAES_f14_DIM40−4
Fitness Value
0
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100
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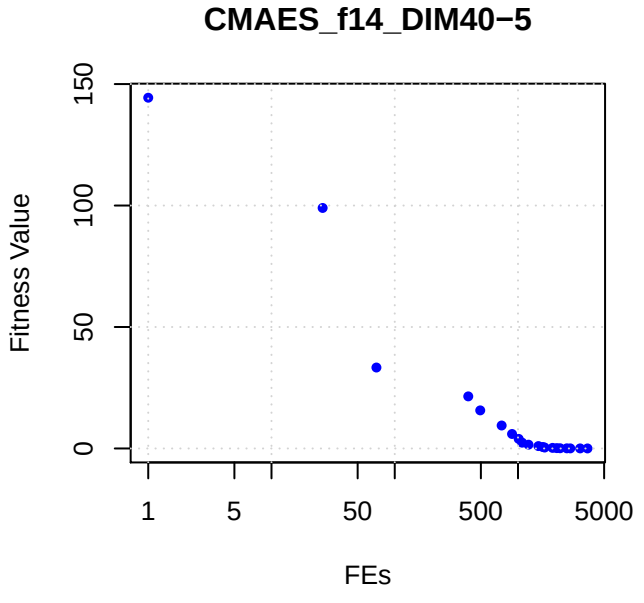
200
250
1
5
50
500
5000
FEs


CMAES_f14_DIM40−5
Fitness Value
0
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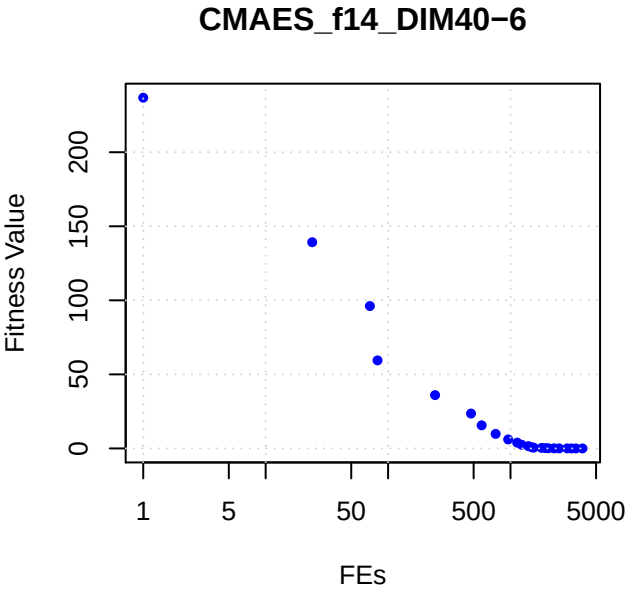
100
150
1
5
50
500
5000
FEs


CMAES_f14_DIM40−6
Fitness Value
0
50
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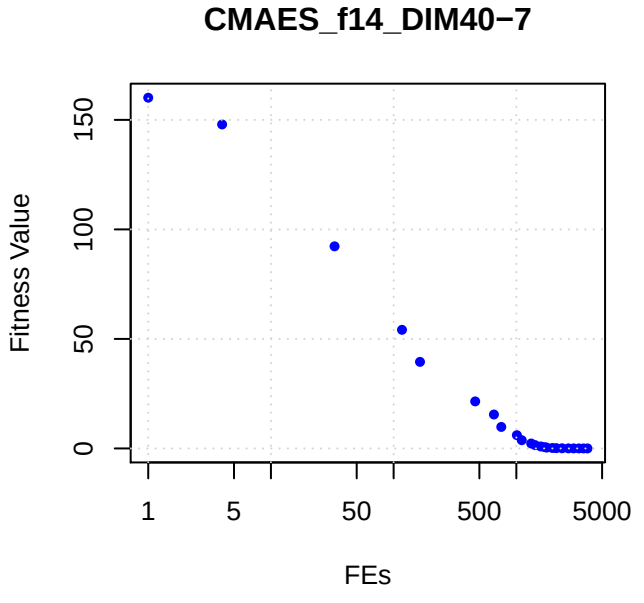
5000
FEs


CMAES_f14_DIM40−7
Fitness Value
0
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100
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1
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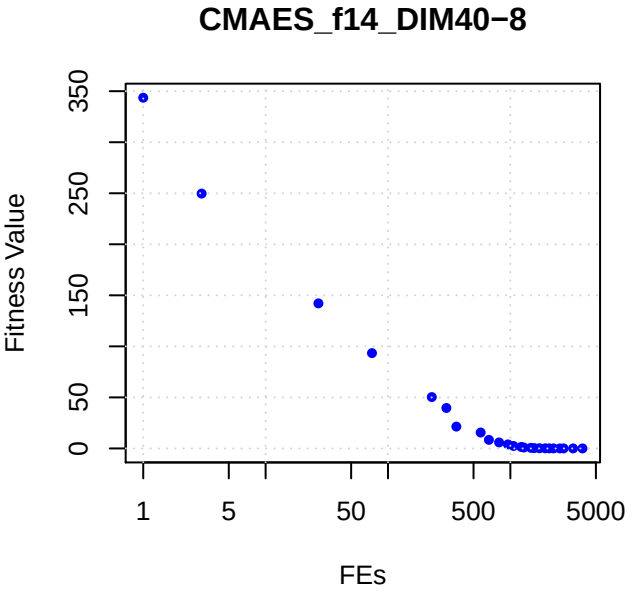
FEs


CMAES_f14_DIM40−8
Fitness Value
0
50
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250
350
1
5
50
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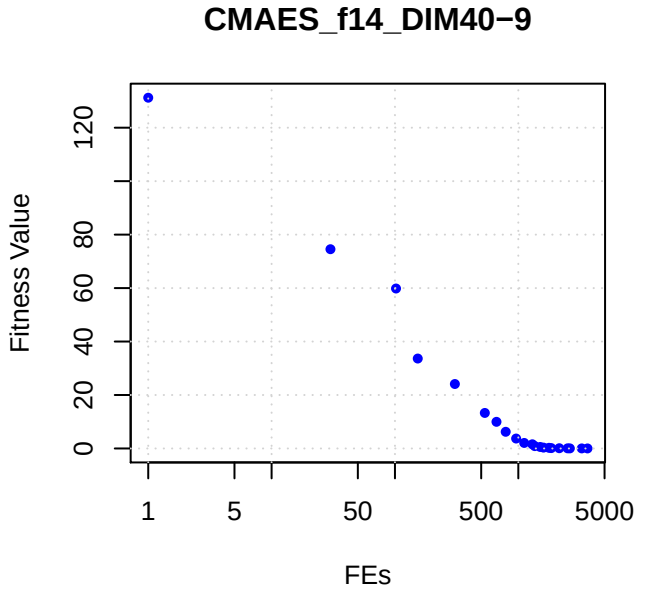
5000
FEs


CMAES_f14_DIM40−9
Fitness Value
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20
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80
120
1
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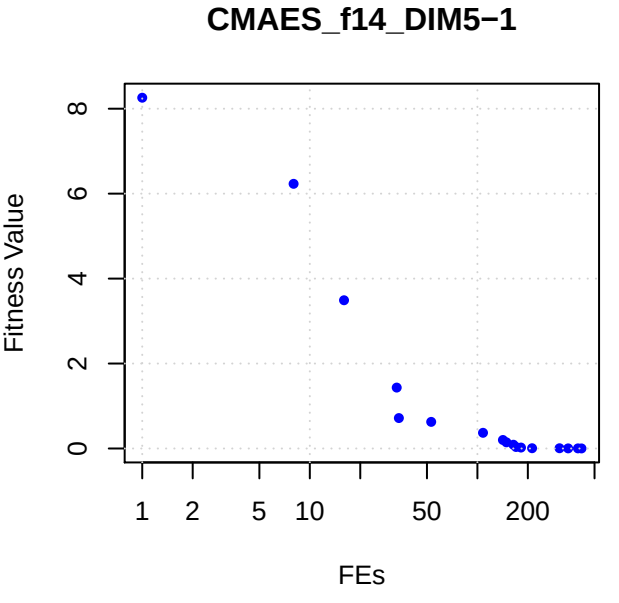
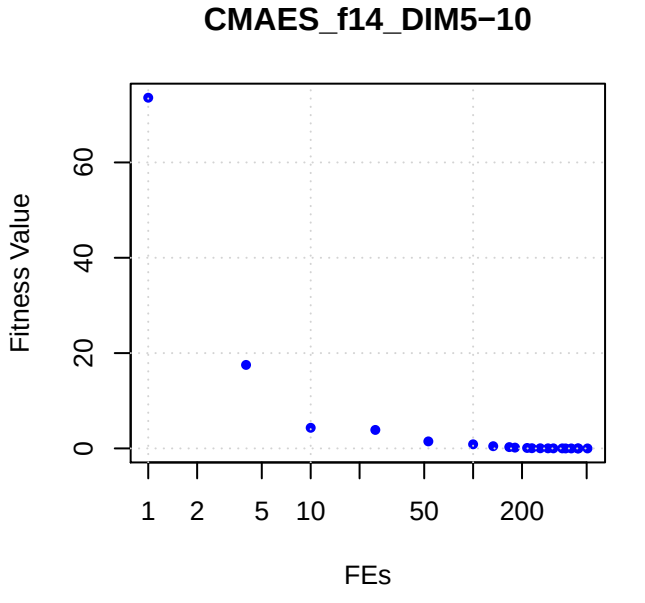
5000
FEs


CMAES_f14_DIM5−1
Fitness Value
0
2
4
6
8
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−10
Fitness Value
0
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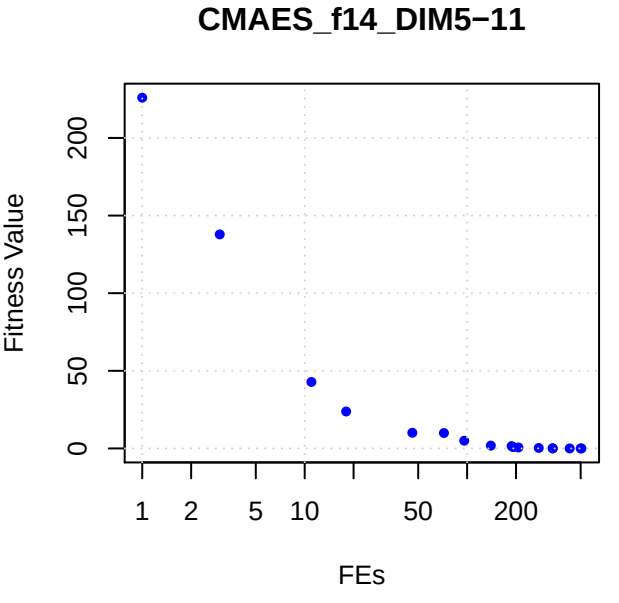
60
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−11
Fitness Value
0
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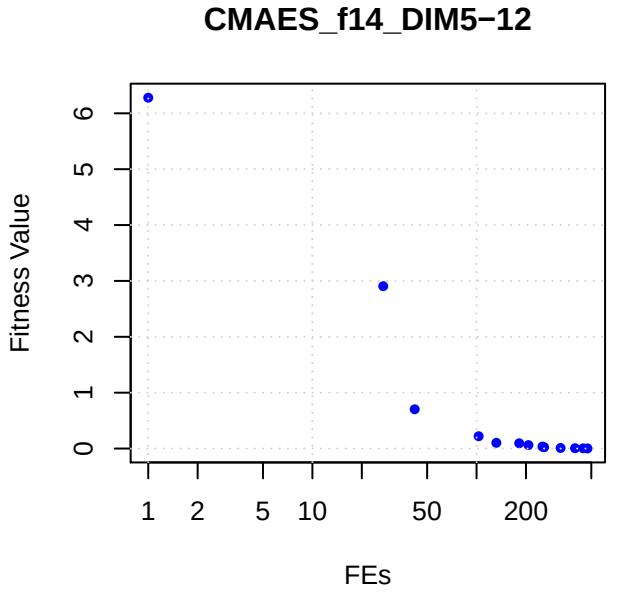
100
150
200
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−12
Fitness Value
0
1
2
3
4
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6
1
2
5
10
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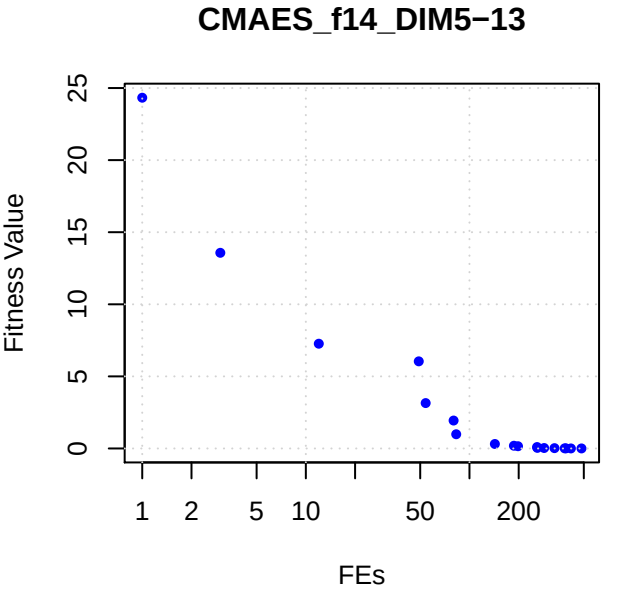
200
FEs


CMAES_f14_DIM5−13
Fitness Value
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5
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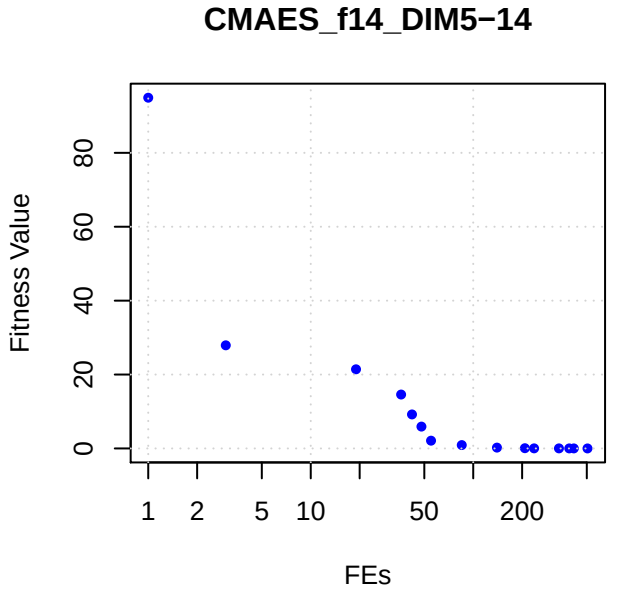
15
20
25
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−14
Fitness Value
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40
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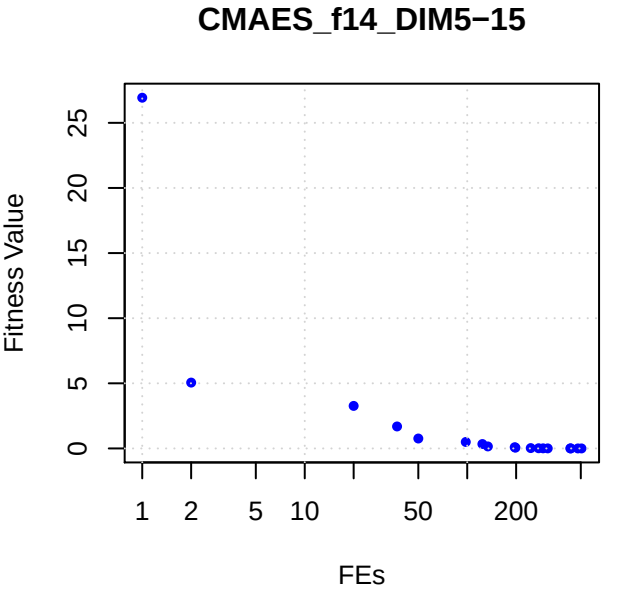
80
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−15
Fitness Value
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15
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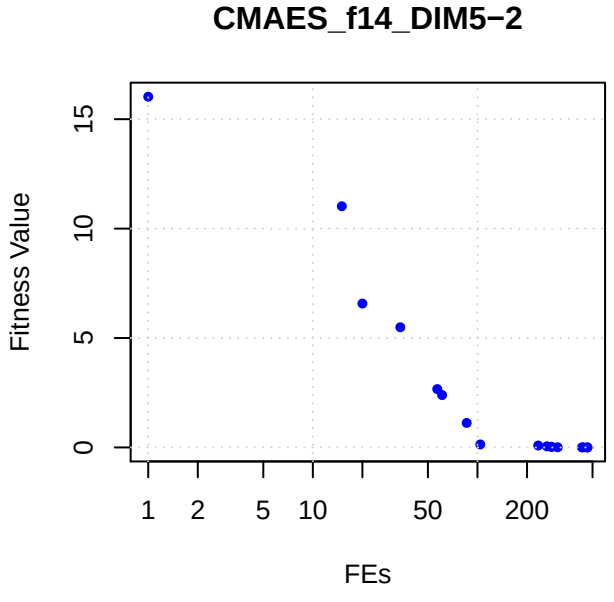
25
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−2
Fitness Value
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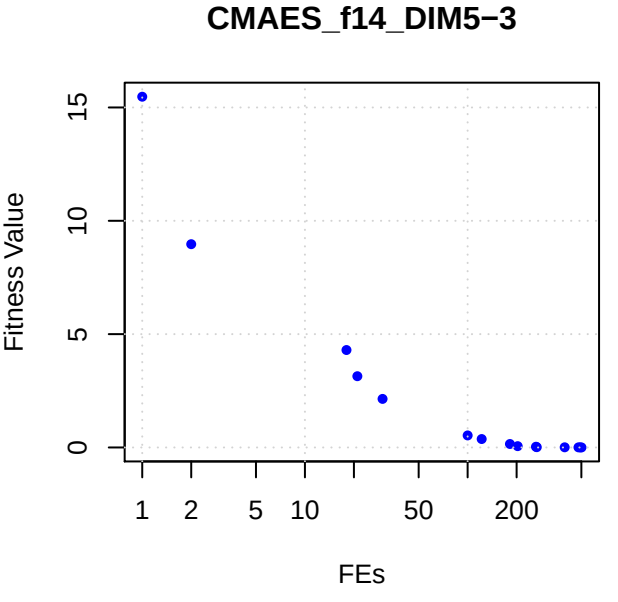
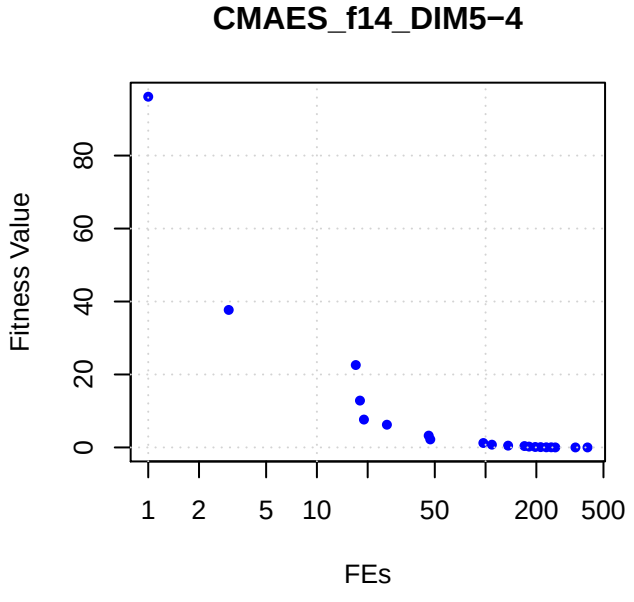
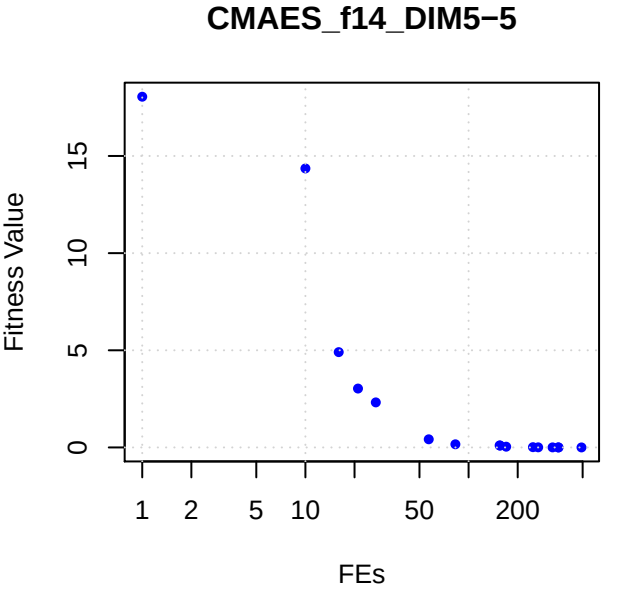
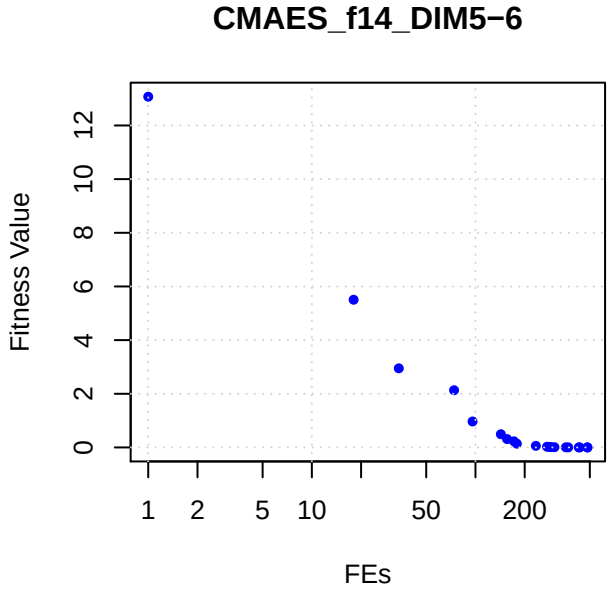
15
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−3
Fitness Value
0
5
10
15
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−4
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
500
FEs


CMAES_f14_DIM5−5
Fitness Value
0
5
10
15
1
2
5
10
50
200
FEs


CMAES_f14_DIM5−6
Fitness Value
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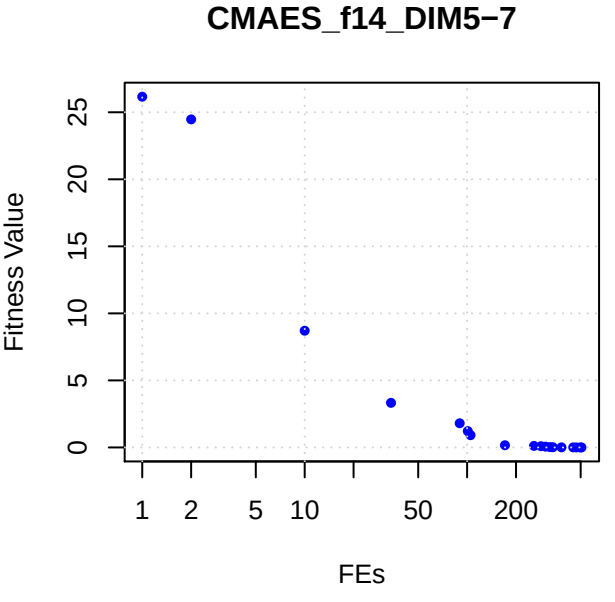
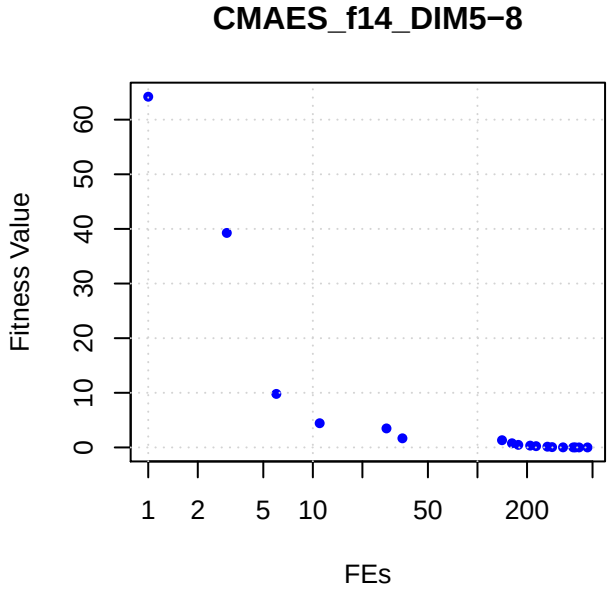
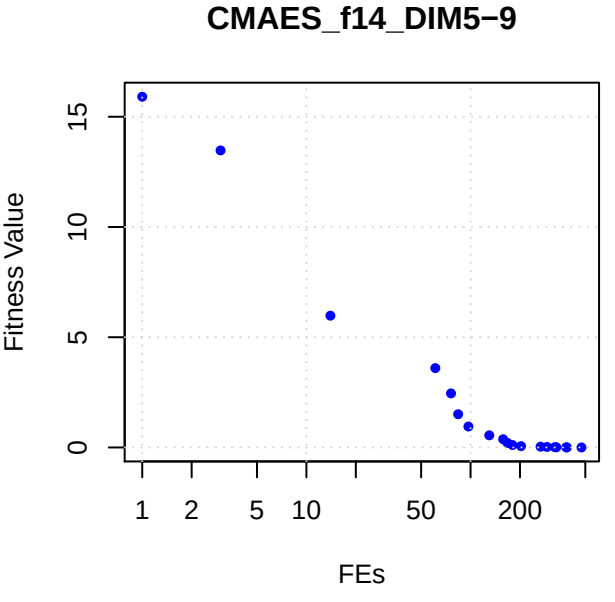
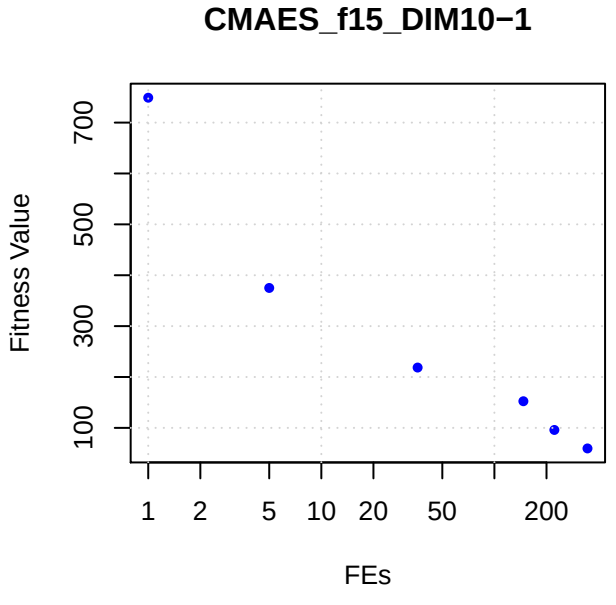
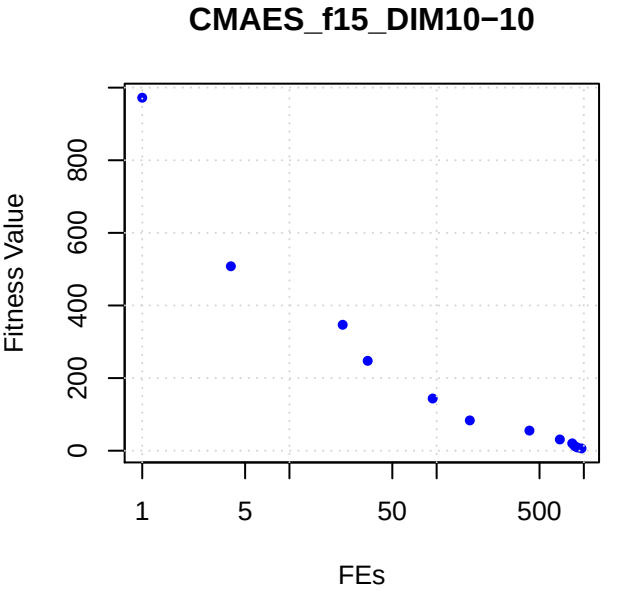
2
4
6
8
10
12
1
2
5
10
50
200
FEs

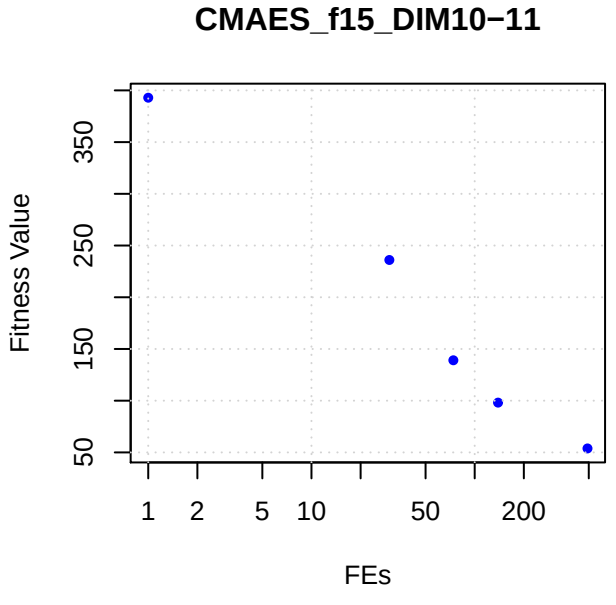

CMAES_f14_DIM5−7
Fitness Value
0
5
10
15
20
25
1
2
5
10
50
200
FEs

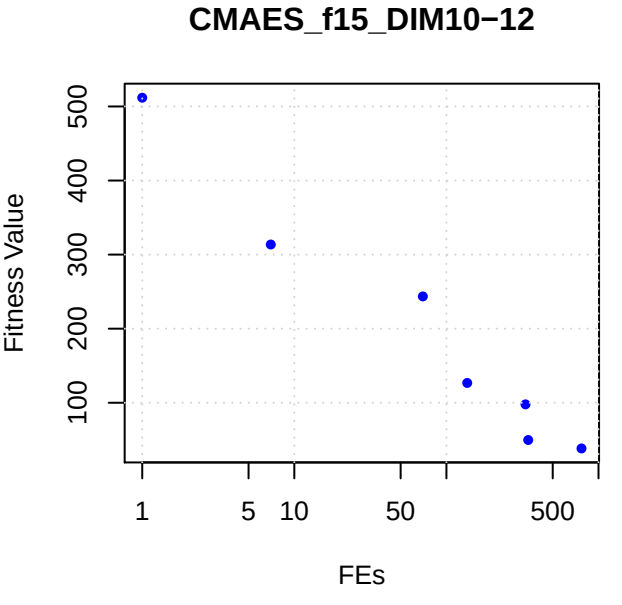

CMAES_f14_DIM5−8
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
50
200
FEs

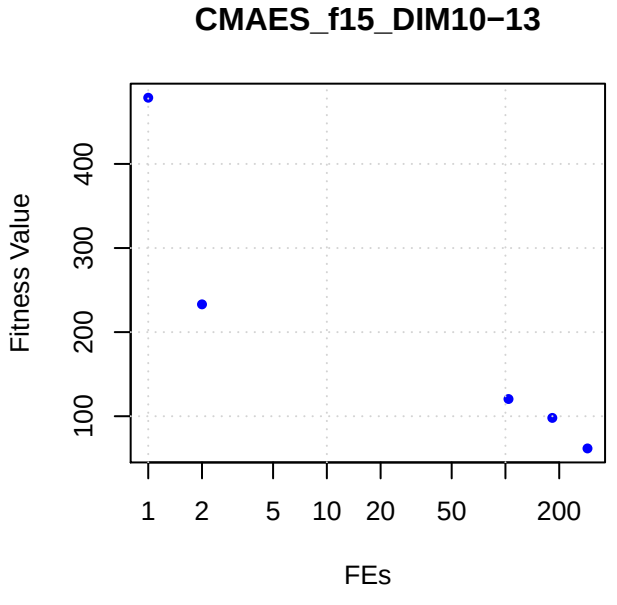

CMAES_f14_DIM5−9
Fitness Value
0
5
10
15
1
2
5
10
50
200
FEs

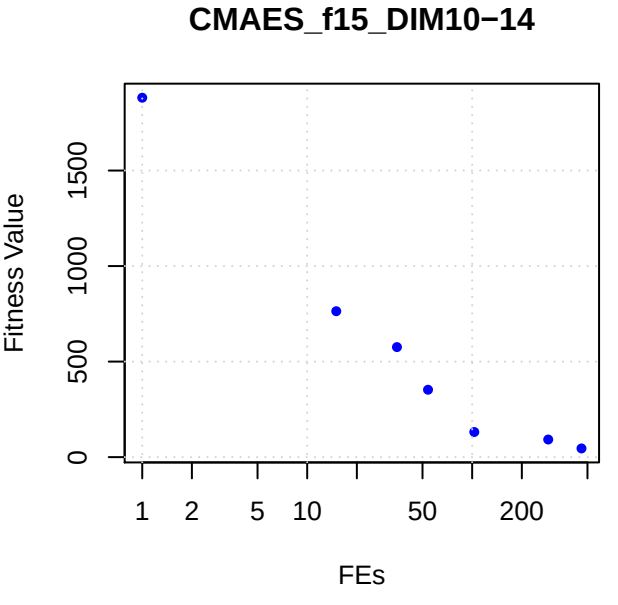

CMAES_f15_DIM10−1
Fitness Value
100
300
500
700
1
2
5
10
20
50
200
FEs

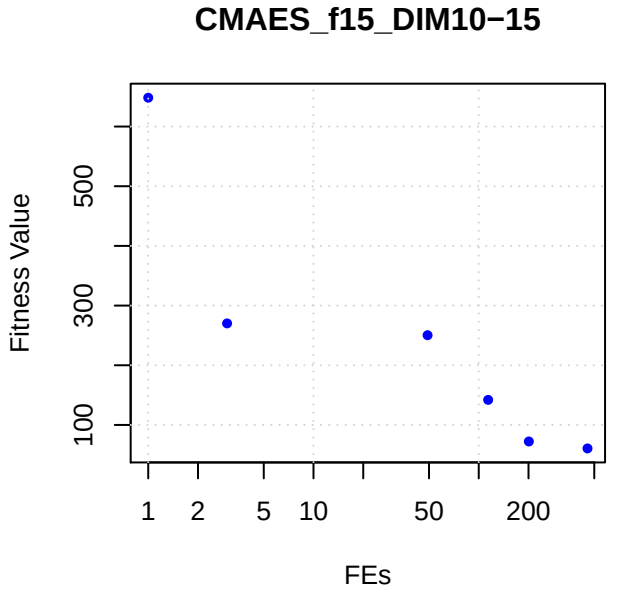

CMAES_f15_DIM10−10
Fitness Value
0
200
400
600
800
1
5
50
500
FEs


CMAES_f15_DIM10−11
Fitness Value
50
150
250
350
1
2
5
10
50
200
FEs


CMAES_f15_DIM10−12
Fitness Value
100
200
300
400
500
1
5
10
50
500
FEs


CMAES_f15_DIM10−13
Fitness Value
100
200
300
400
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM10−14
Fitness Value
0
500
1000
1500
1
2
5
10
50
200
FEs


CMAES_f15_DIM10−15
Fitness Value
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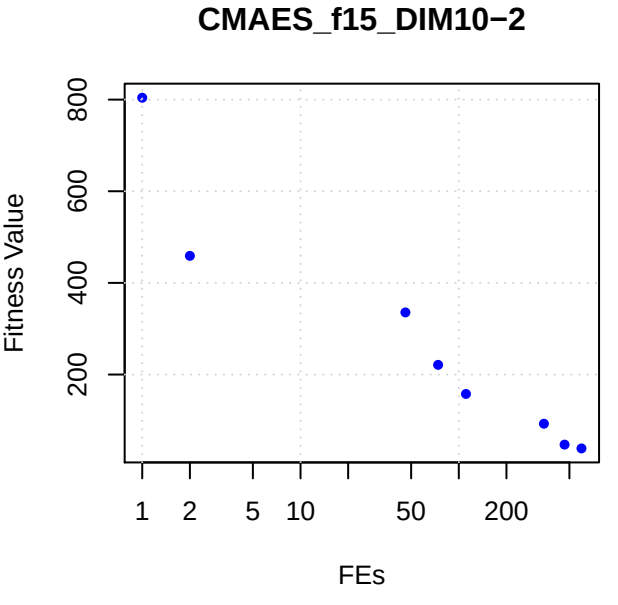
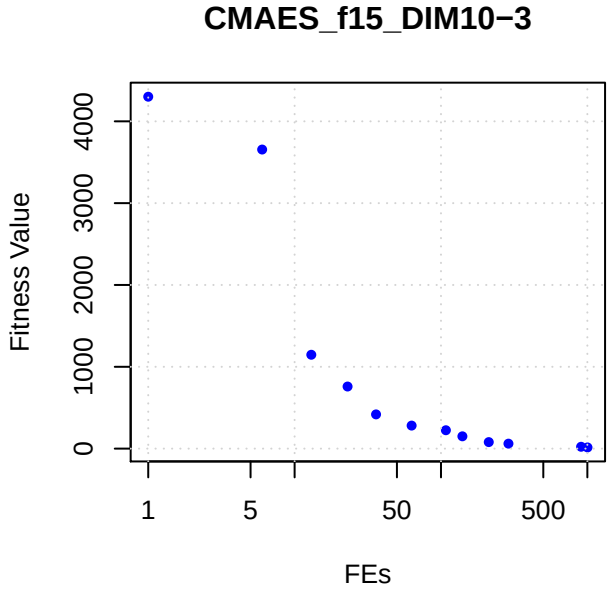
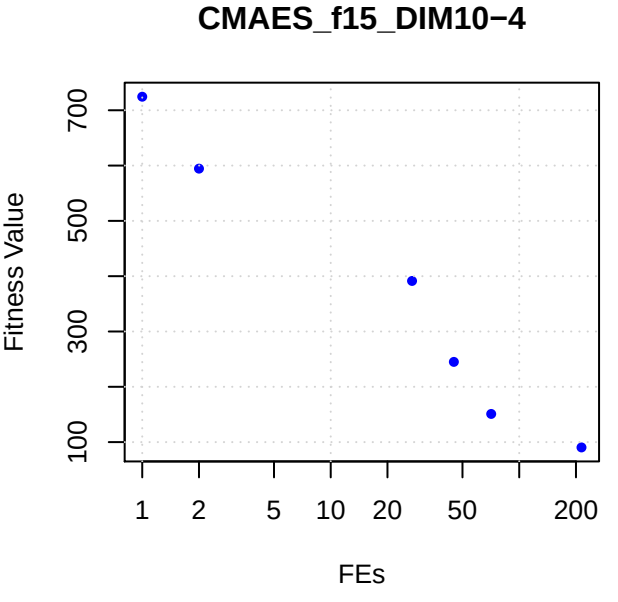
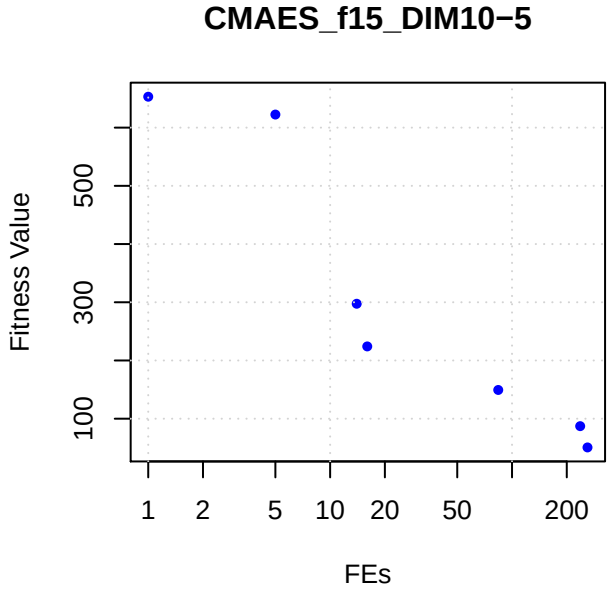
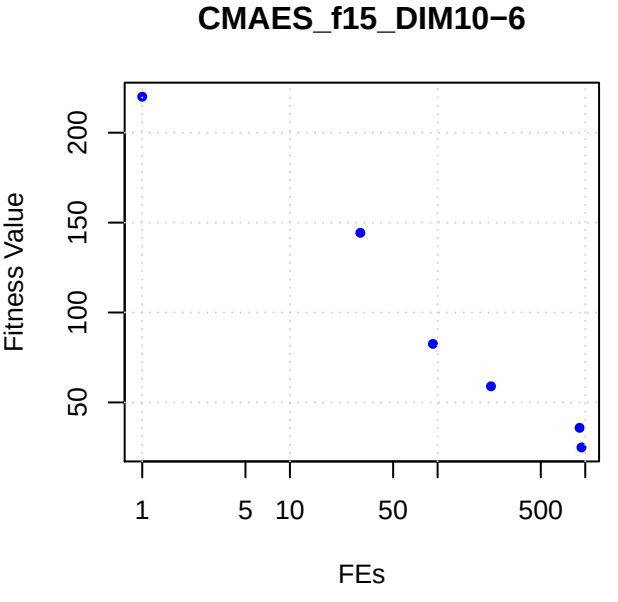
500
1
2
5
10
50
200
FEs


CMAES_f15_DIM10−2
Fitness Value
200
400
600
800
1
2
5
10
50
200
FEs


CMAES_f15_DIM10−3
Fitness Value
0
1000
2000
3000
4000
1
5
50
500
FEs


CMAES_f15_DIM10−4
Fitness Value
100
300
500
700
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM10−5
Fitness Value
100
300
500
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM10−6
Fitness Value
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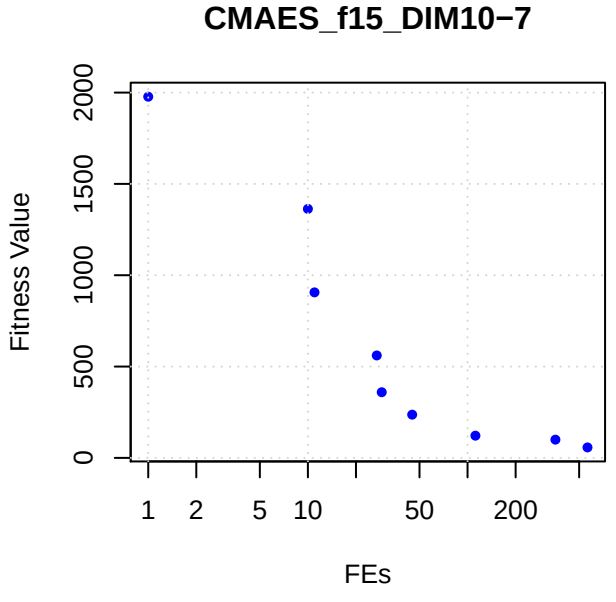
150
200
1
5
10
50
500
FEs


CMAES_f15_DIM10−7
Fitness Value
0
500
1000
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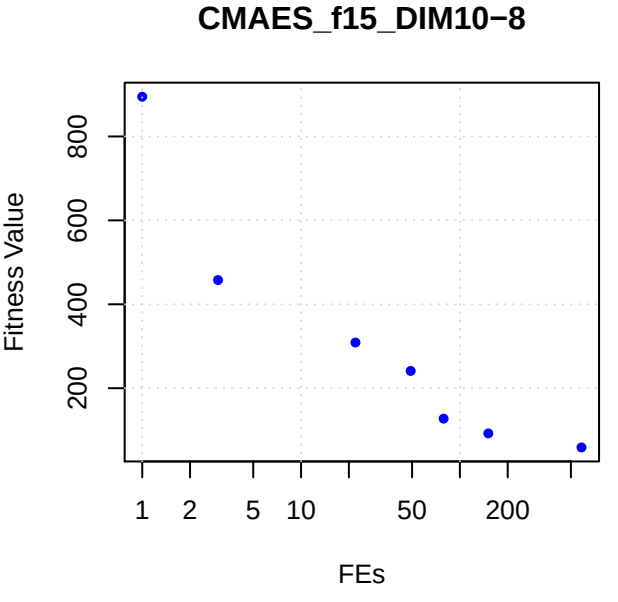
2000
1
2
5
10
50
200
FEs


CMAES_f15_DIM10−8
Fitness Value
200
400
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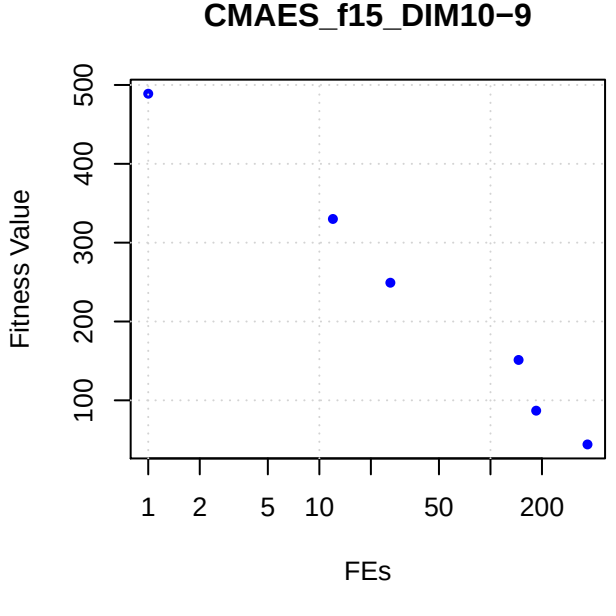
800
1
2
5
10
50
200
FEs


CMAES_f15_DIM10−9
Fitness Value
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300
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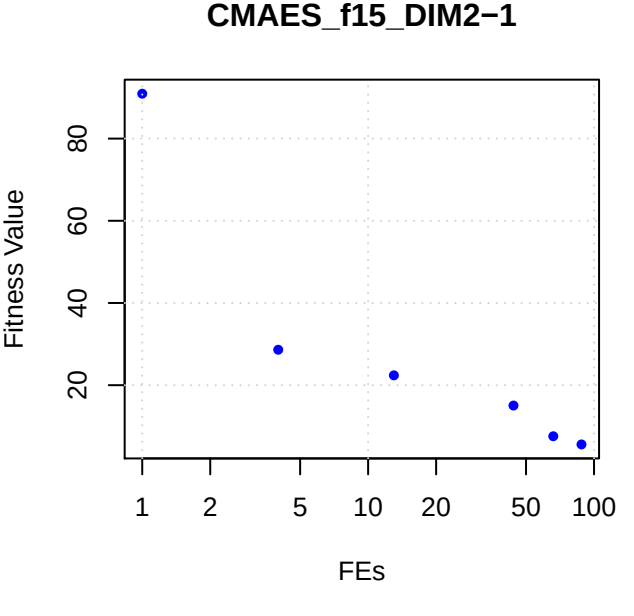
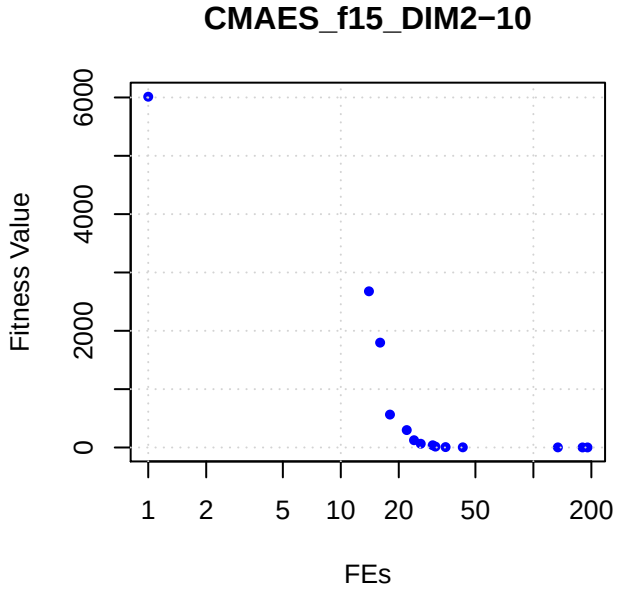
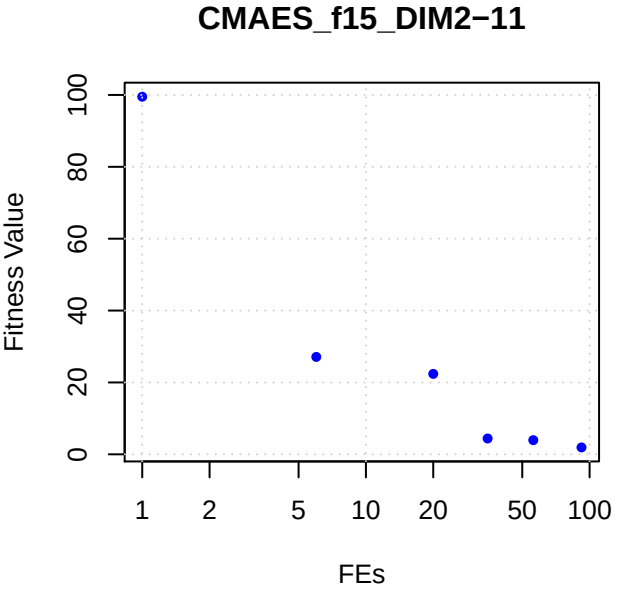
500
1
2
5
10
50
200
FEs


CMAES_f15_DIM2−1
Fitness Value
20
40
60
80
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM2−10
Fitness Value
0
2000
4000
6000
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM2−11
Fitness Value
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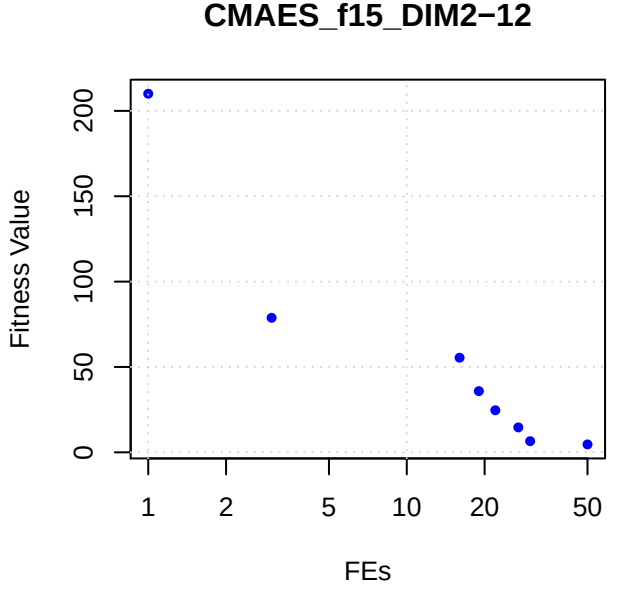
60
80
100
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM2−12
Fitness Value
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100
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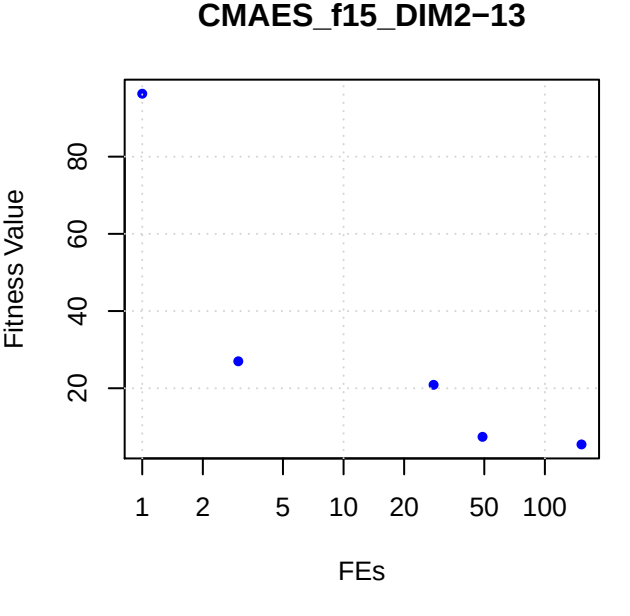
200
1
2
5
10
20
50
FEs


CMAES_f15_DIM2−13
Fitness Value
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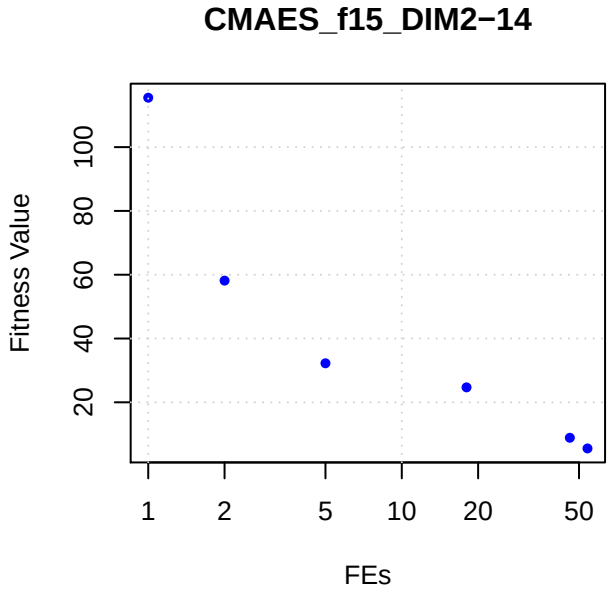
40
60
80
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM2−14
Fitness Value
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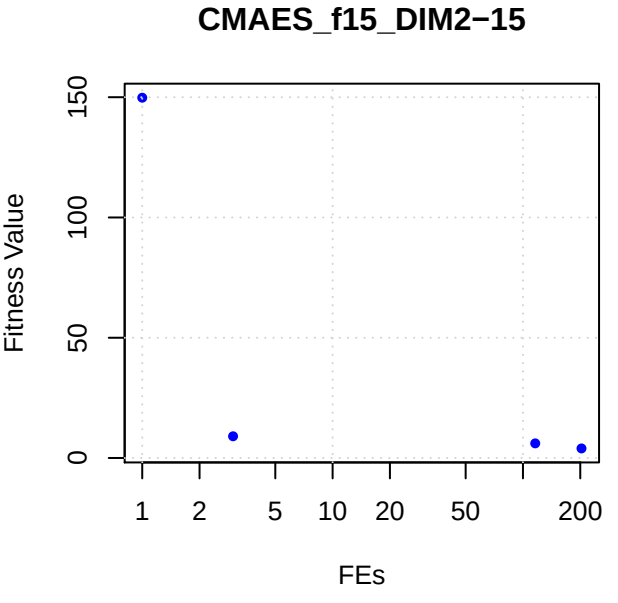
100
1
2
5
10
20
50
FEs


CMAES_f15_DIM2−15
Fitness Value
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100
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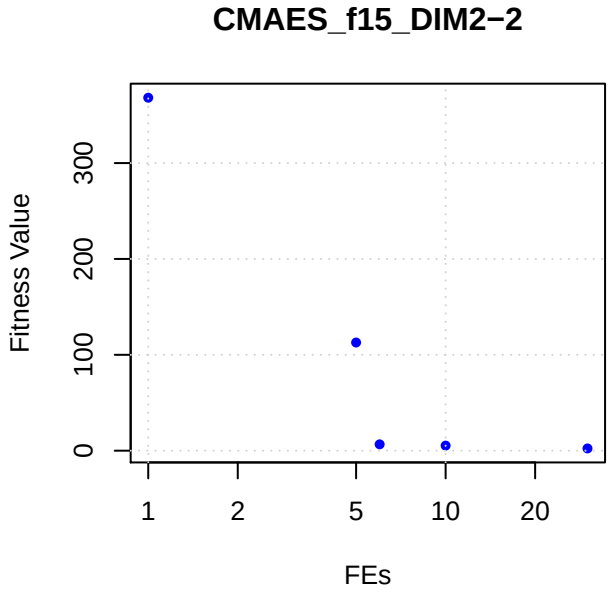
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM2−2
Fitness Value
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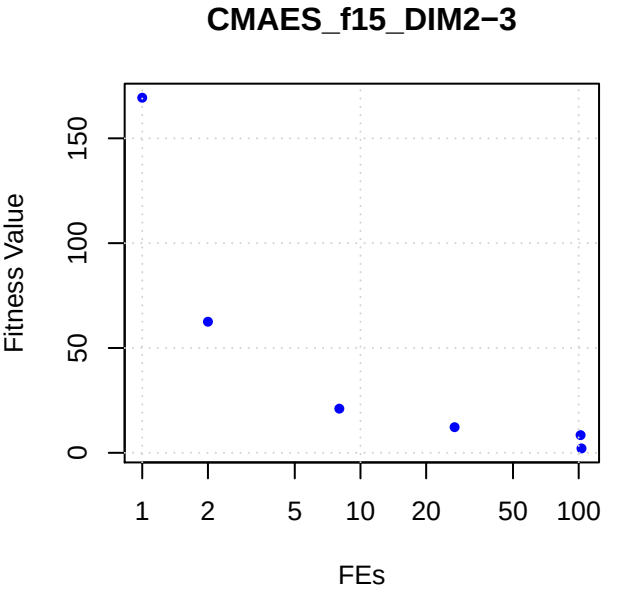
200
300
1
2
5
10
20
FEs


CMAES_f15_DIM2−3
Fitness Value
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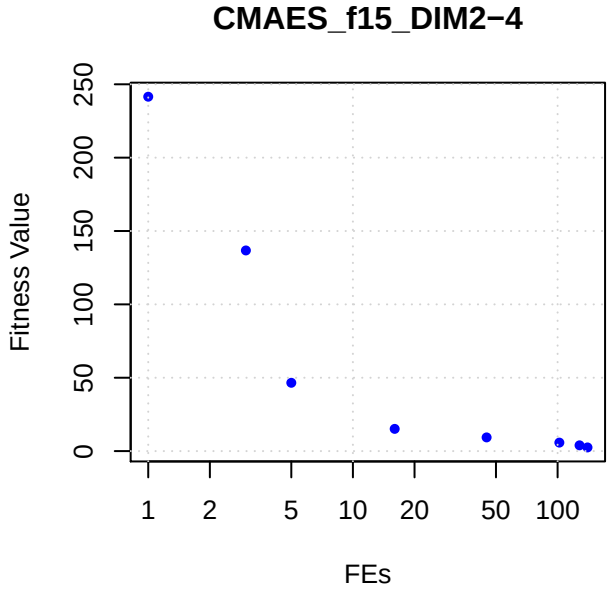
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM2−4
Fitness Value
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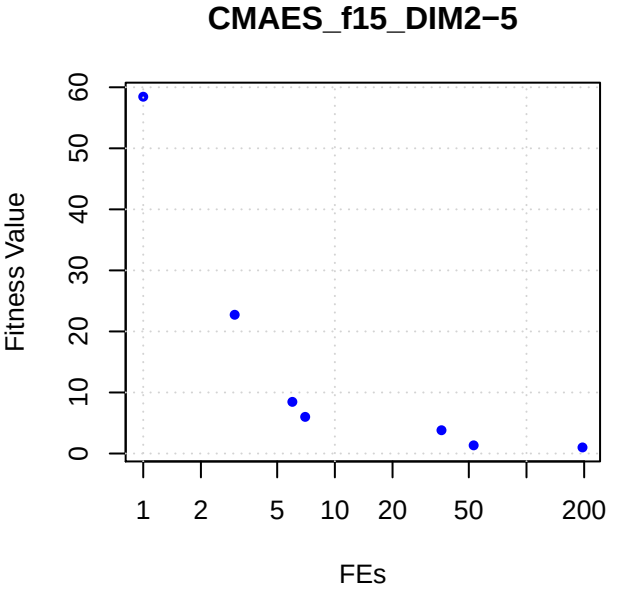
100
150
200
250
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM2−5
Fitness Value
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10
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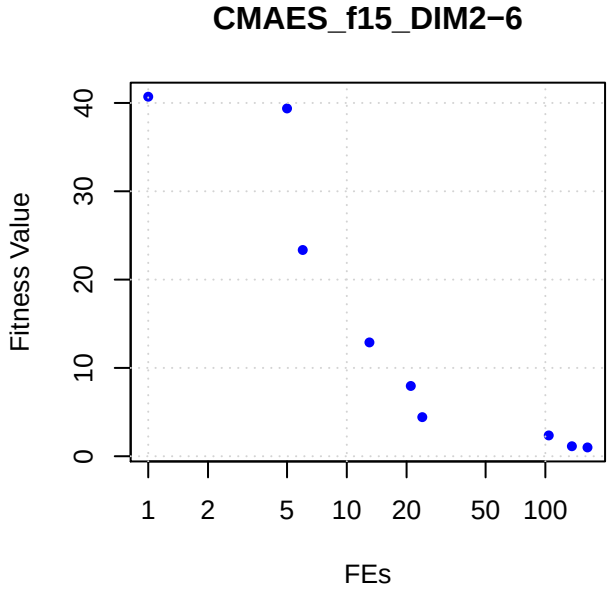
40
50
60
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM2−6
Fitness Value
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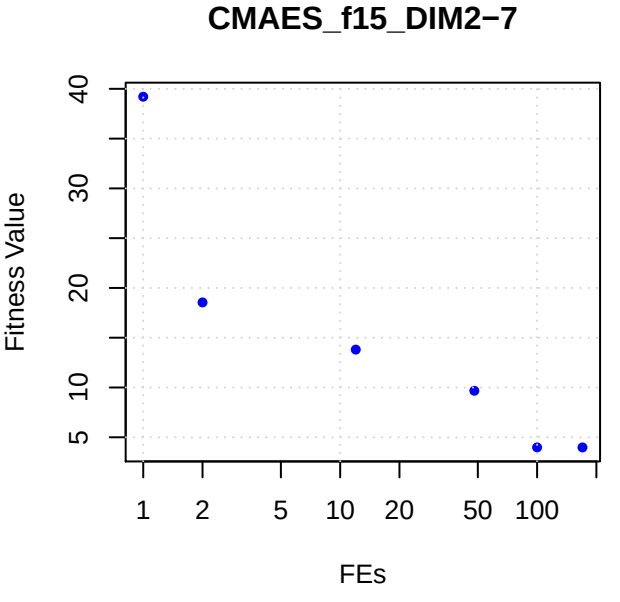
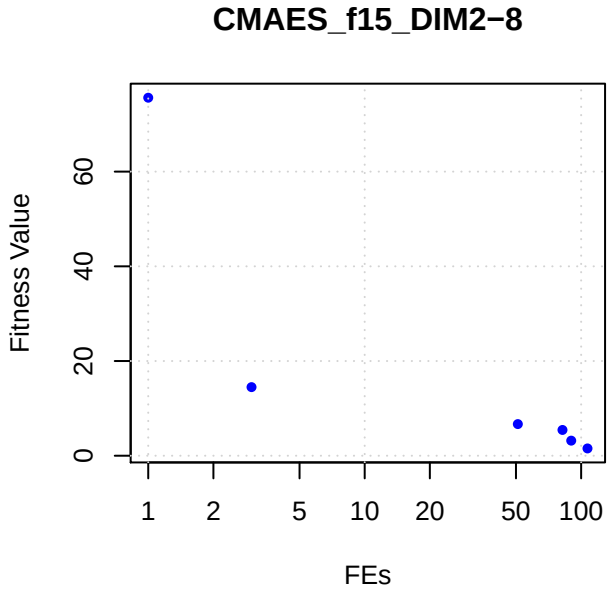
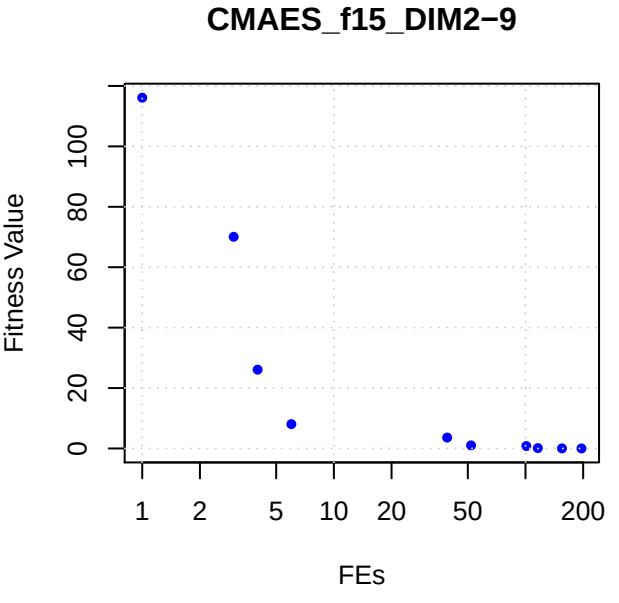
20
30
40
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM2−7
Fitness Value
5
10
20
30
40
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM2−8
Fitness Value
0
20
40
60
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM2−9
Fitness Value
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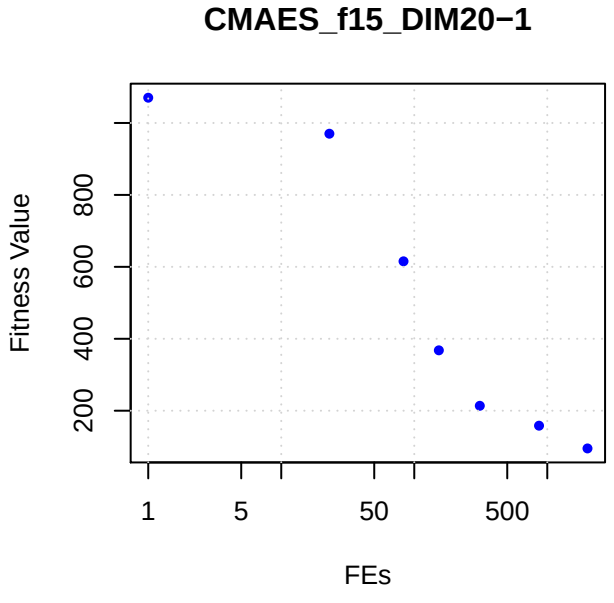
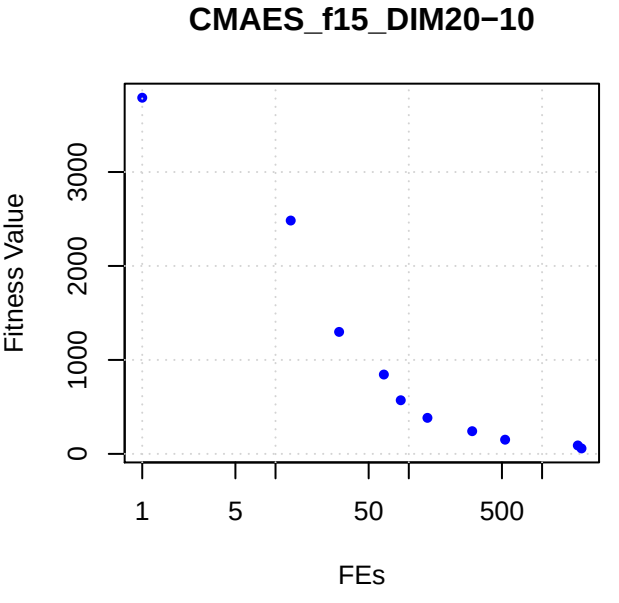
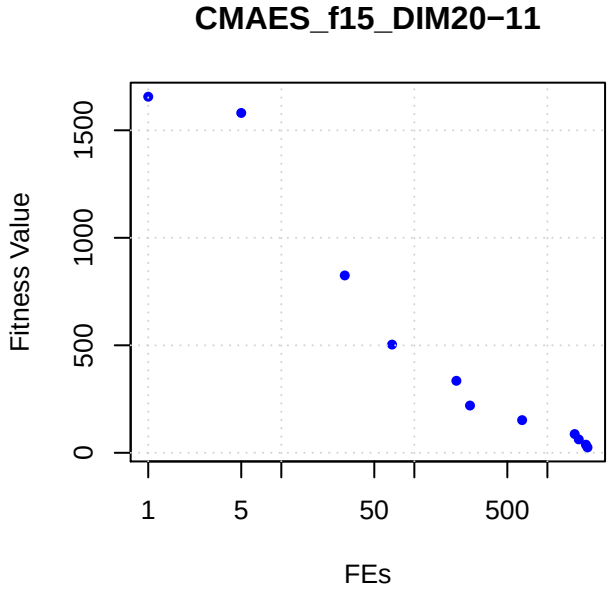
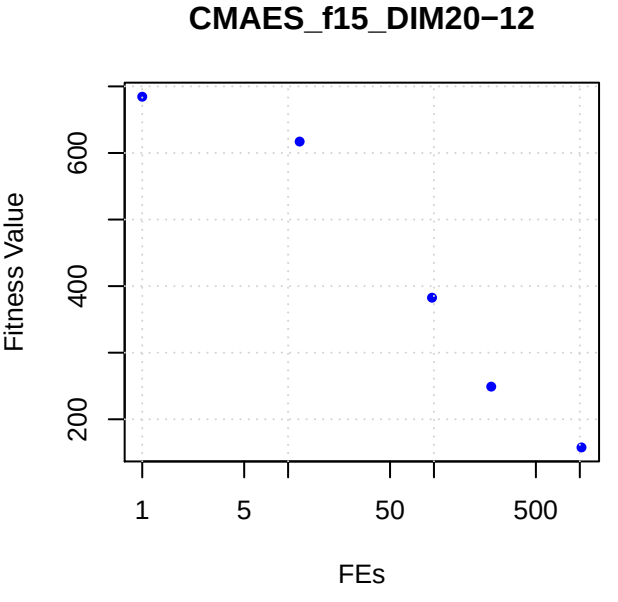
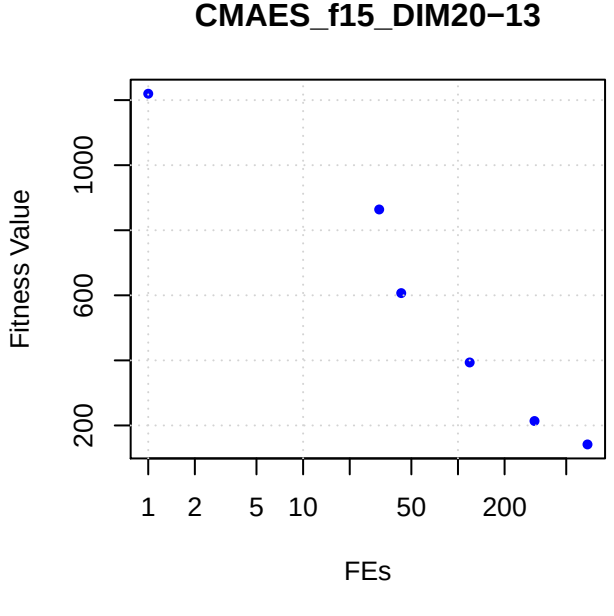
80
100
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM20−1
Fitness Value
200
400
600
800
1
5
50
500
FEs


CMAES_f15_DIM20−10
Fitness Value
0
1000
2000
3000
1
5
50
500
FEs


CMAES_f15_DIM20−11
Fitness Value
0
500
1000
1500
1
5
50
500
FEs


CMAES_f15_DIM20−12
Fitness Value
200
400
600
1
5
50
500
FEs


CMAES_f15_DIM20−13
Fitness Value
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1000
1
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10
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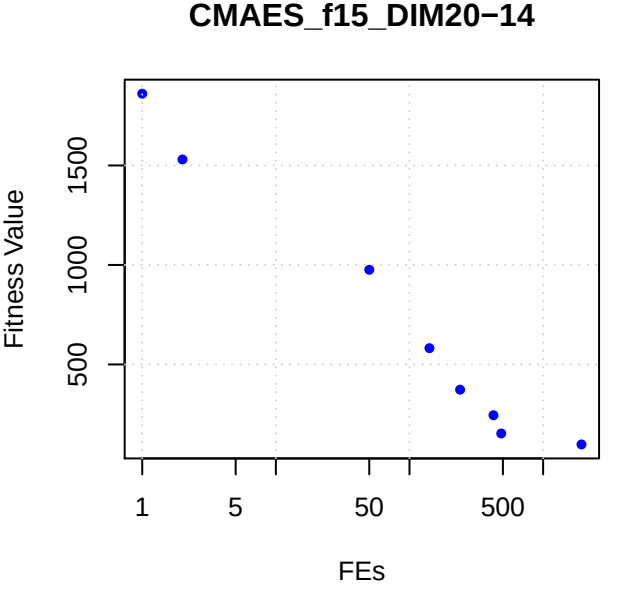
200
FEs


CMAES_f15_DIM20−14
Fitness Value
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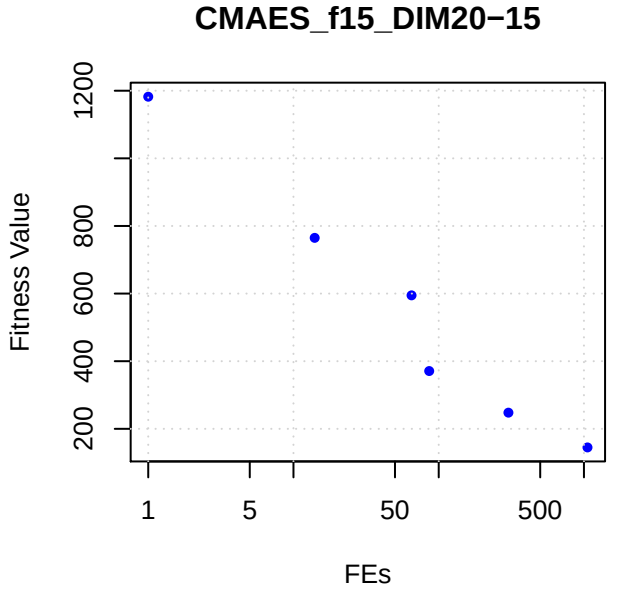
500
FEs


CMAES_f15_DIM20−15
Fitness Value
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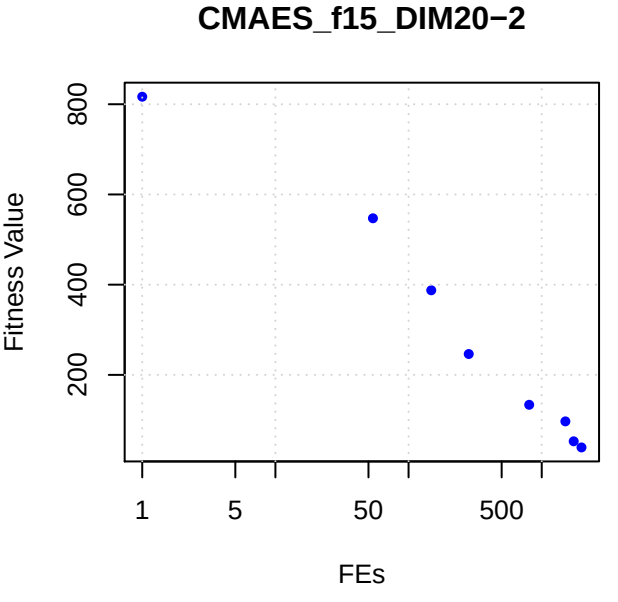
FEs


CMAES_f15_DIM20−2
Fitness Value
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1
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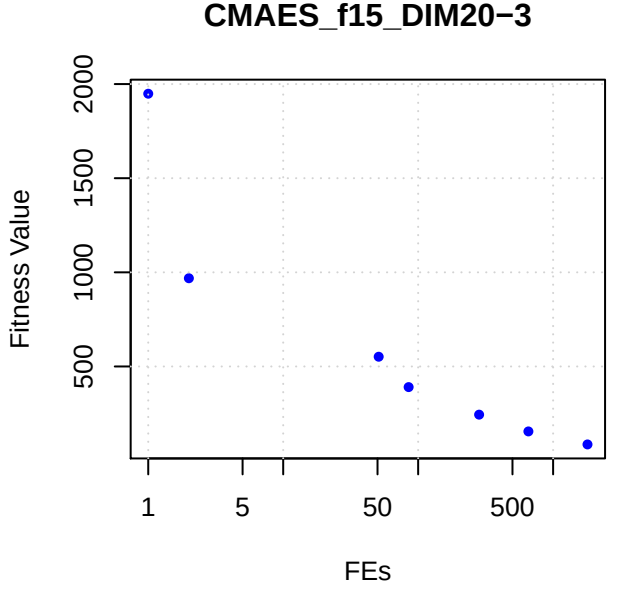
FEs


CMAES_f15_DIM20−3
Fitness Value
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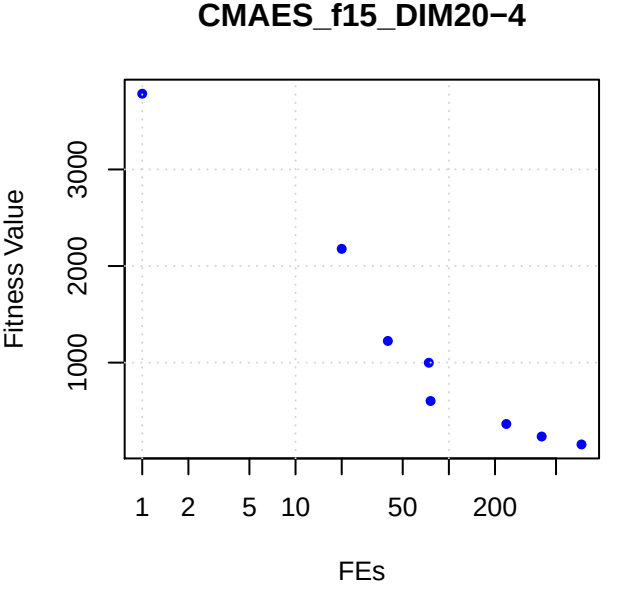
FEs


CMAES_f15_DIM20−4
Fitness Value
1000
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3000
1
2
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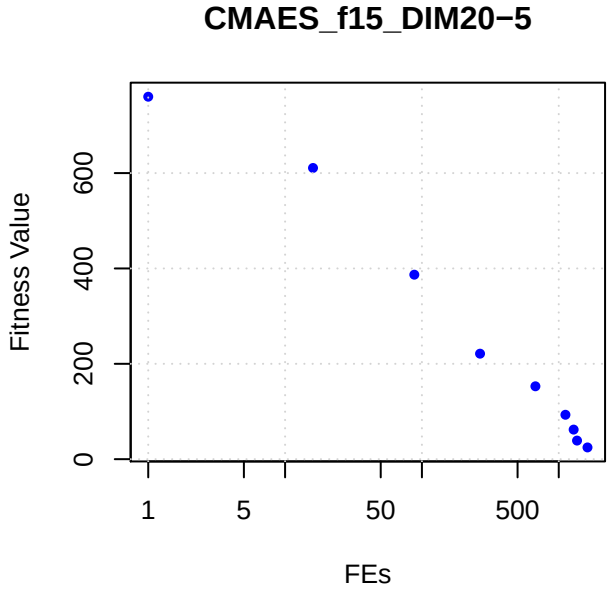
FEs


CMAES_f15_DIM20−5
Fitness Value
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200
400
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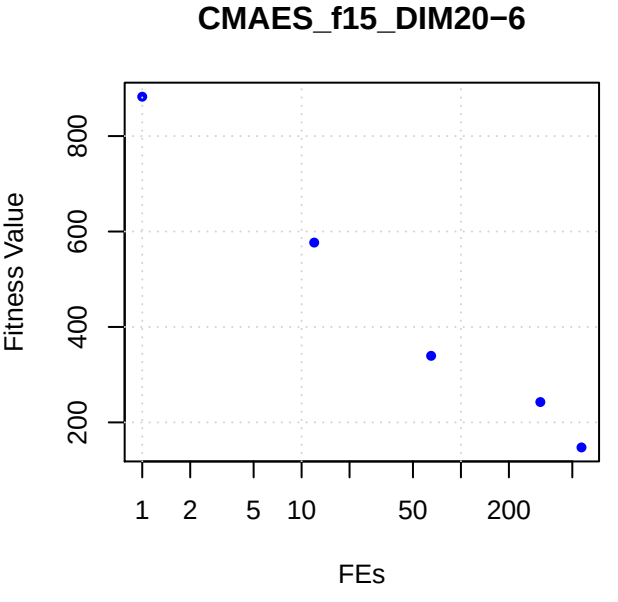
1
5
50
500
FEs


CMAES_f15_DIM20−6
Fitness Value
200
400
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800
1
2
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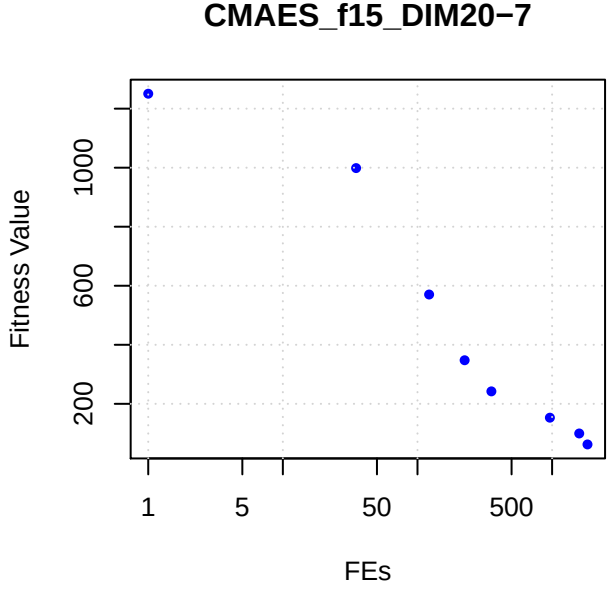
FEs


CMAES_f15_DIM20−7
Fitness Value
200
600
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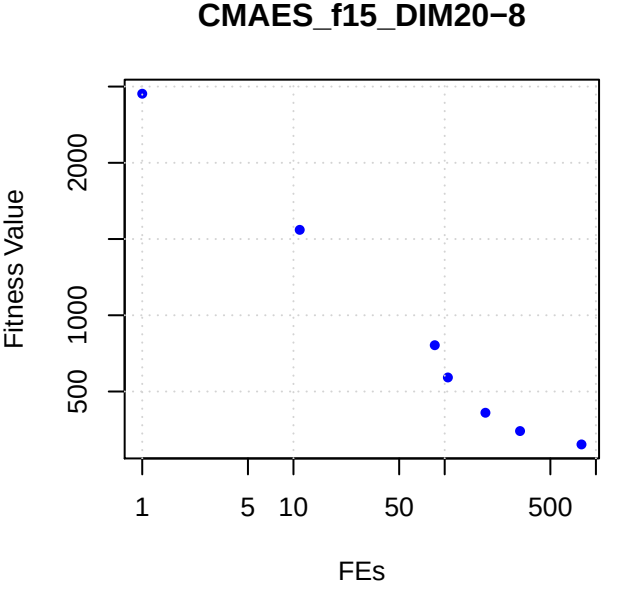
500
FEs


CMAES_f15_DIM20−8
Fitness Value
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1000
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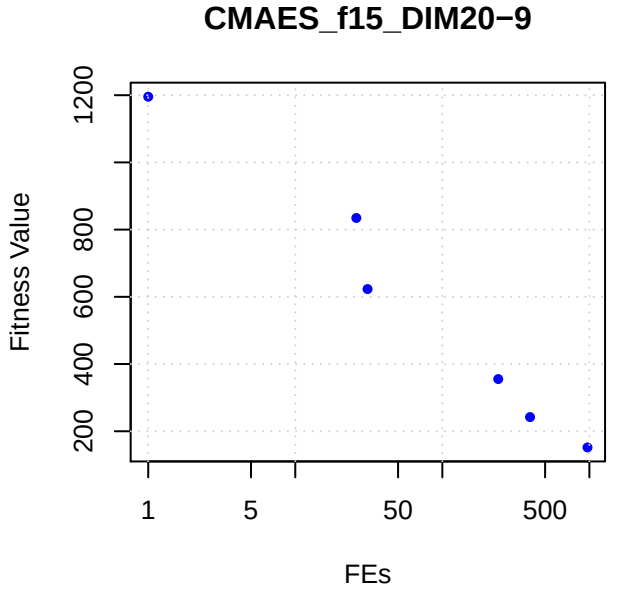
FEs


CMAES_f15_DIM20−9
Fitness Value
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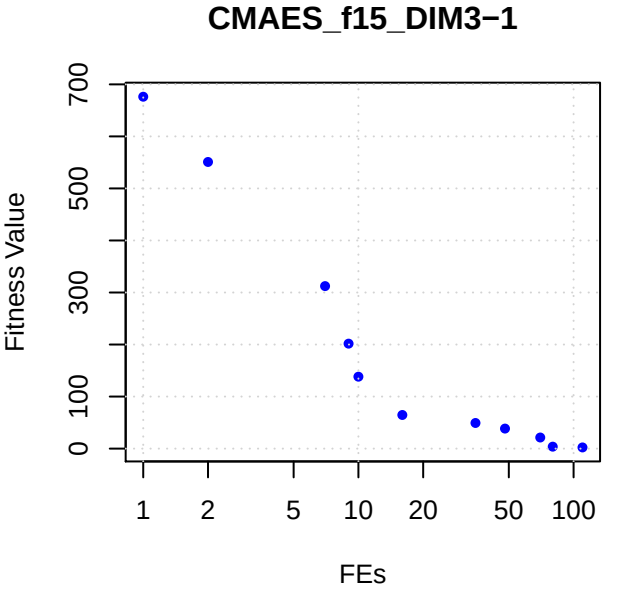
600
800
1200
1
5
50
500
FEs


CMAES_f15_DIM3−1
Fitness Value
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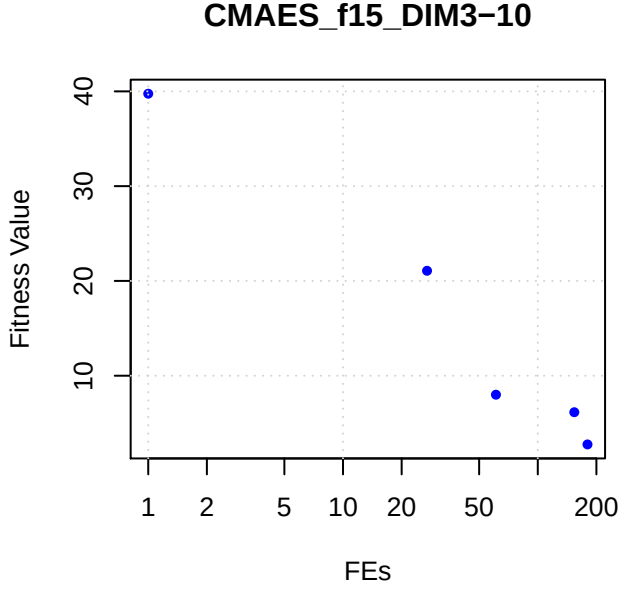
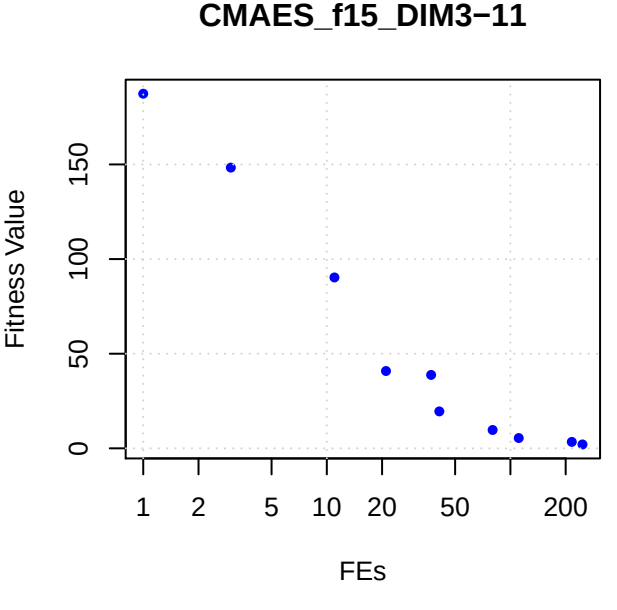
300
500
700
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM3−10
Fitness Value
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM3−11
Fitness Value
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2
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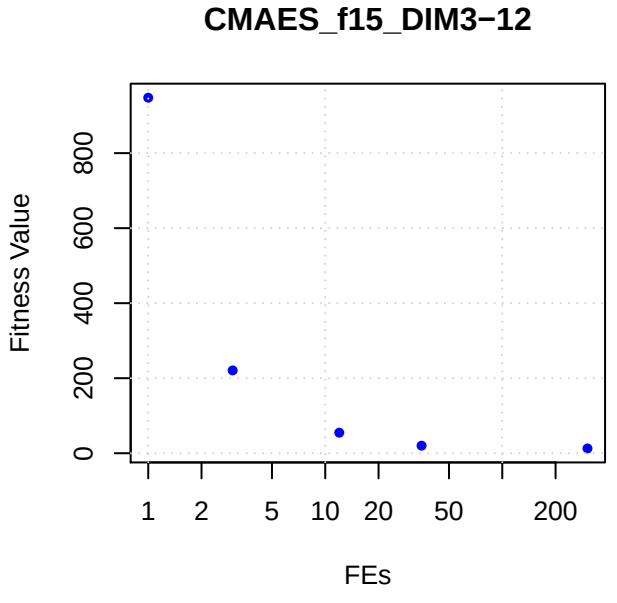
200
FEs


CMAES_f15_DIM3−12
Fitness Value
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1
2
5
10
20
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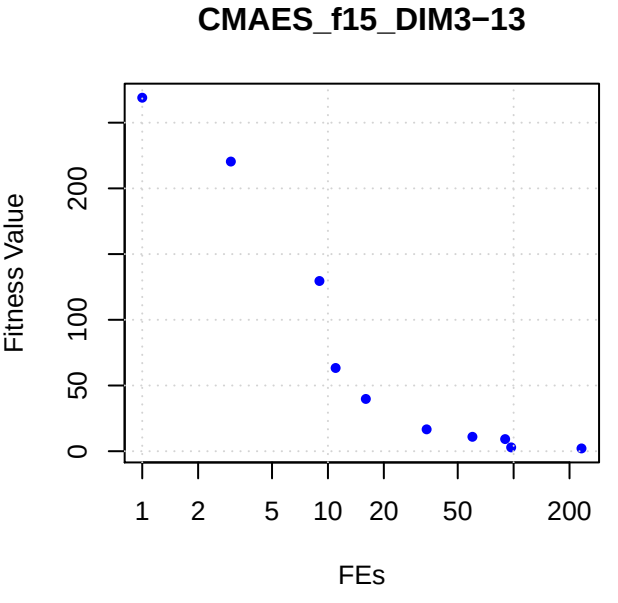
200
FEs


CMAES_f15_DIM3−13
Fitness Value
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1
2
5
10
20
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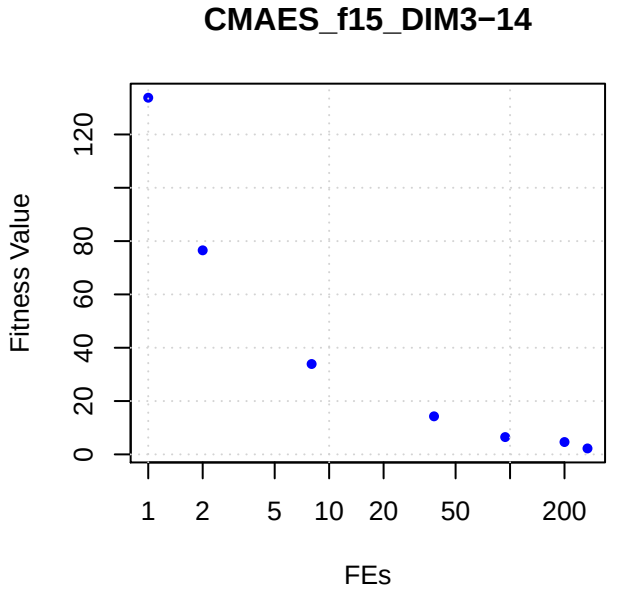
FEs


CMAES_f15_DIM3−14
Fitness Value
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80
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1
2
5
10
20
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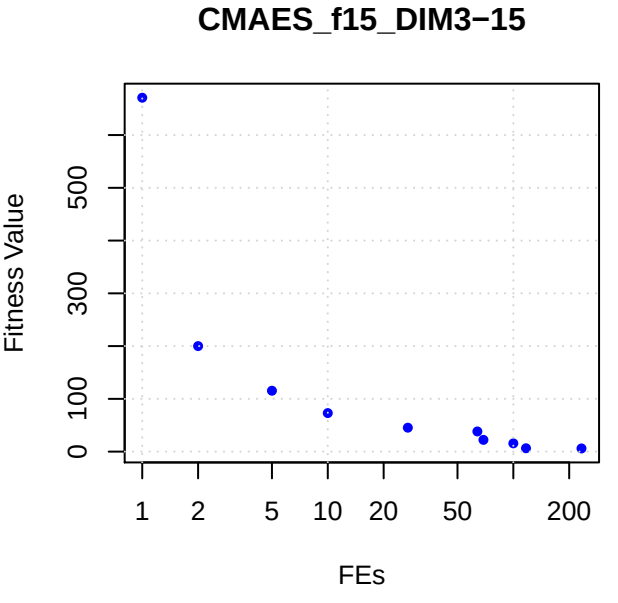
200
FEs


CMAES_f15_DIM3−15
Fitness Value
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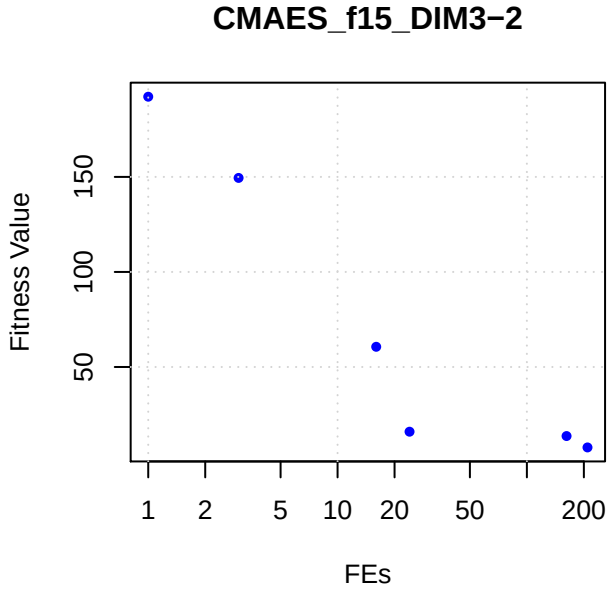
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM3−2
Fitness Value
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2
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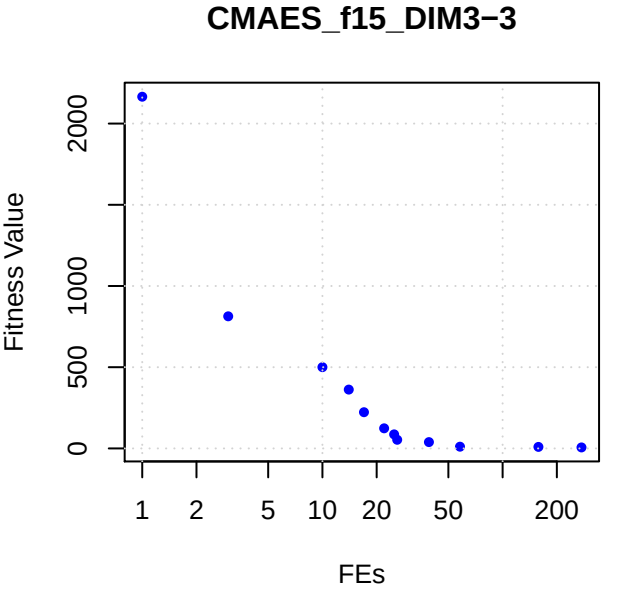
10
20
50
200
FEs


CMAES_f15_DIM3−3
Fitness Value
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1
2
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20
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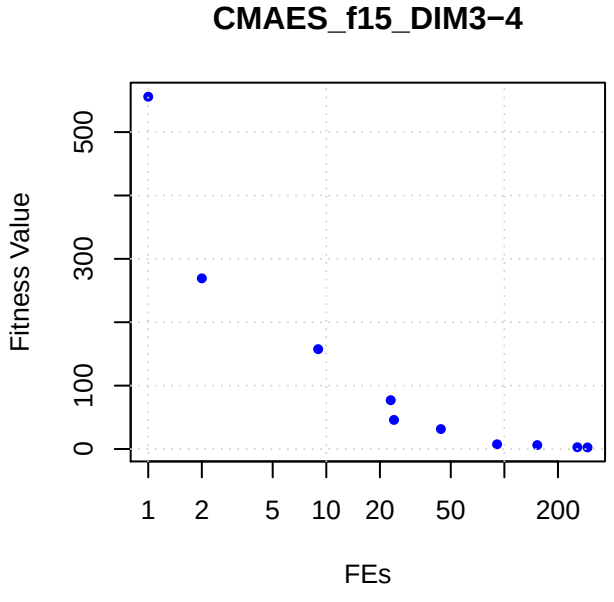
200
FEs


CMAES_f15_DIM3−4
Fitness Value
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1
2
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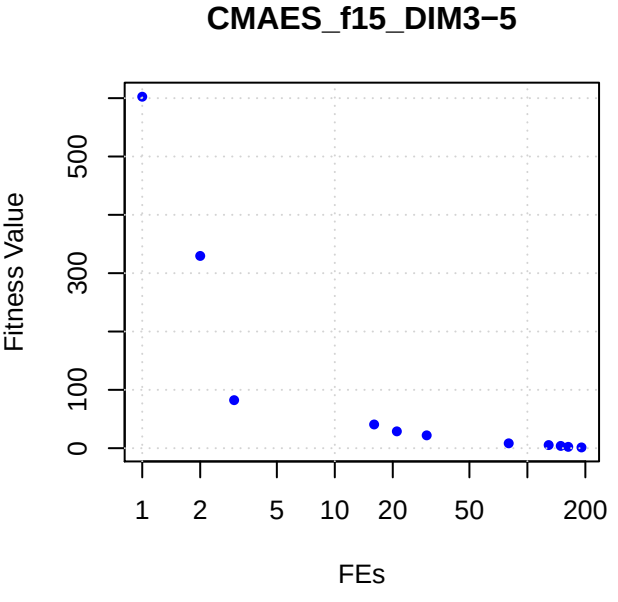
CMAES_f15_DIM3−5
Fitness Value
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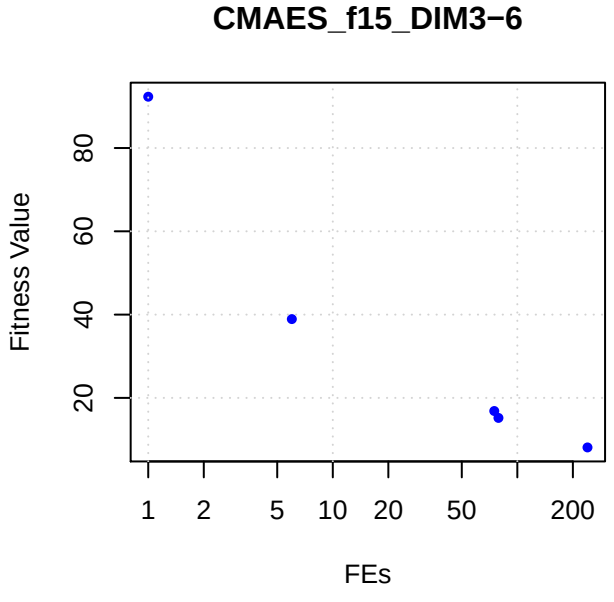
300
500
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM3−6
Fitness Value
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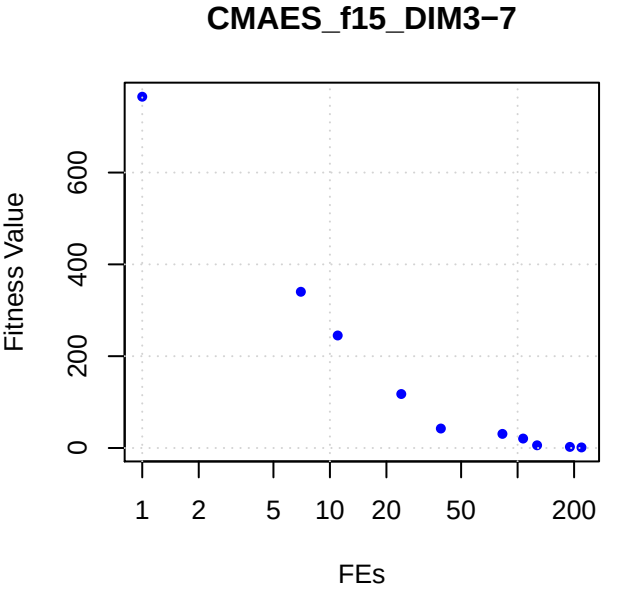
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM3−7
Fitness Value
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1
2
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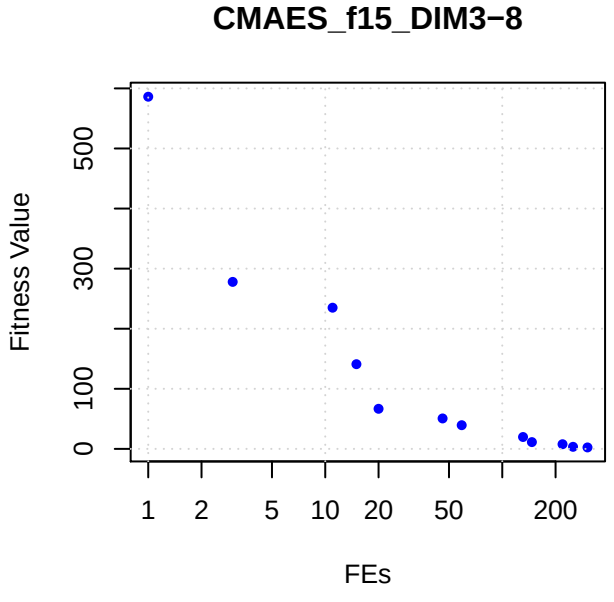
FEs


CMAES_f15_DIM3−8
Fitness Value
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1
2
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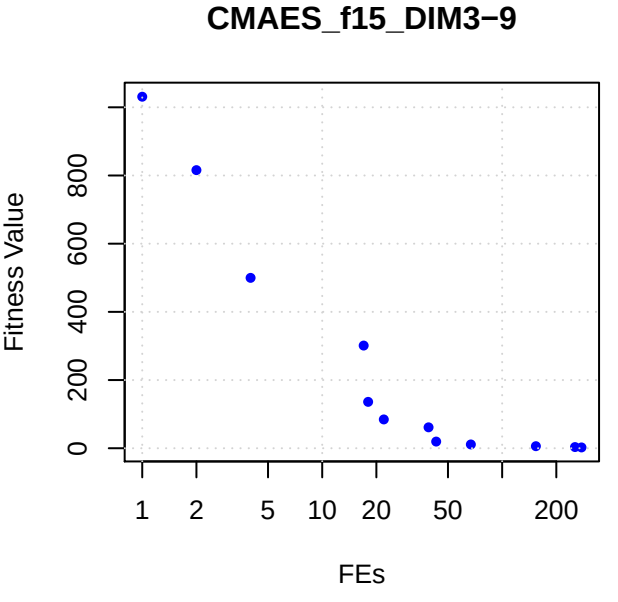
FEs


CMAES_f15_DIM3−9
Fitness Value
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600
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2
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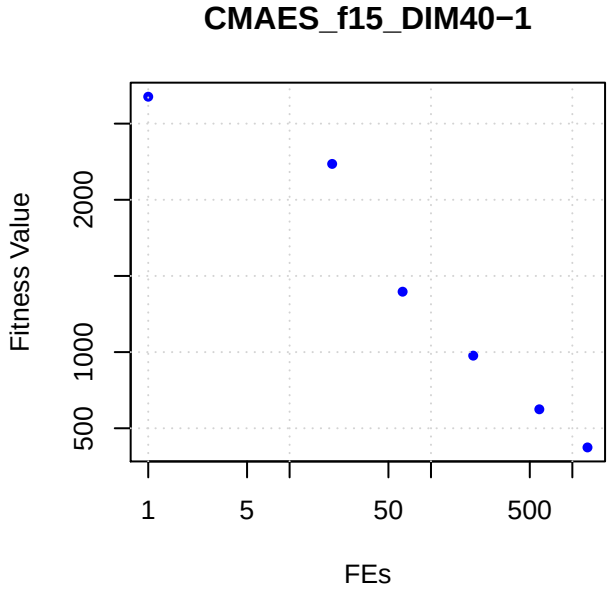
200
FEs


CMAES_f15_DIM40−1
Fitness Value
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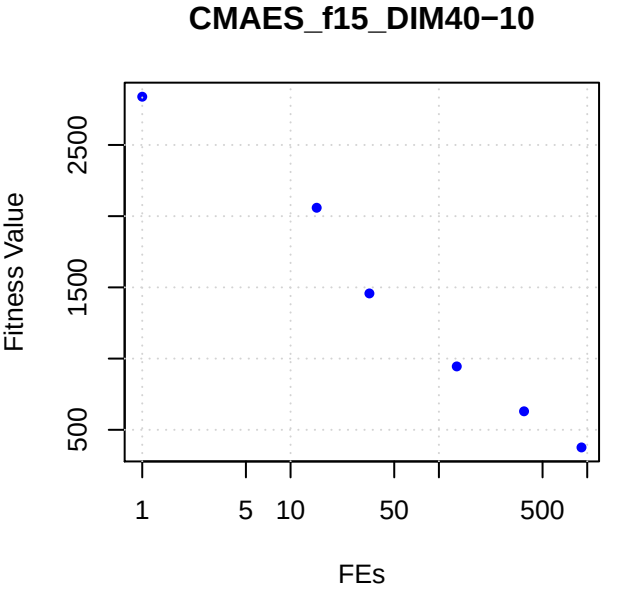
500
FEs


CMAES_f15_DIM40−10
Fitness Value
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2500
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10
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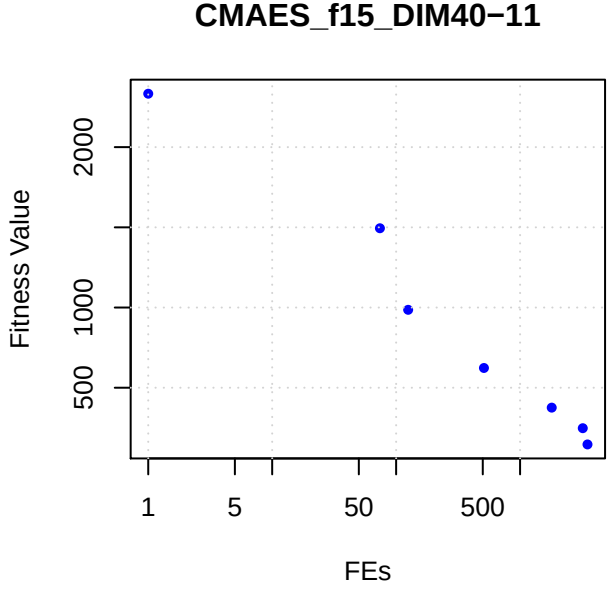
500
FEs


CMAES_f15_DIM40−11
Fitness Value
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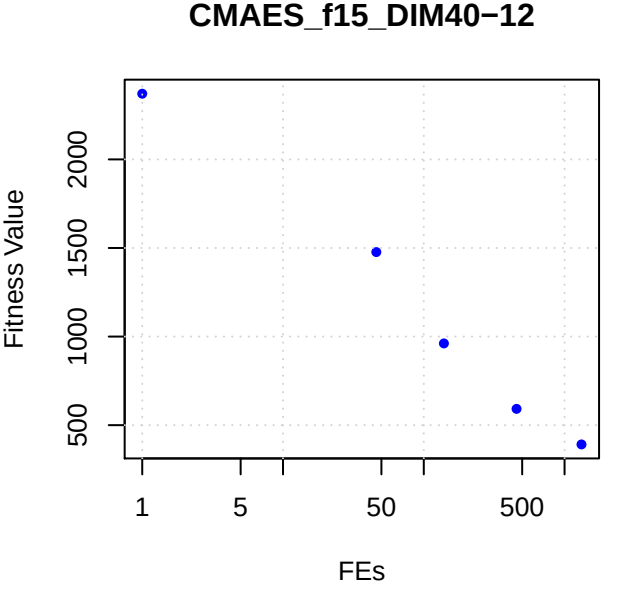
FEs


CMAES_f15_DIM40−12
Fitness Value
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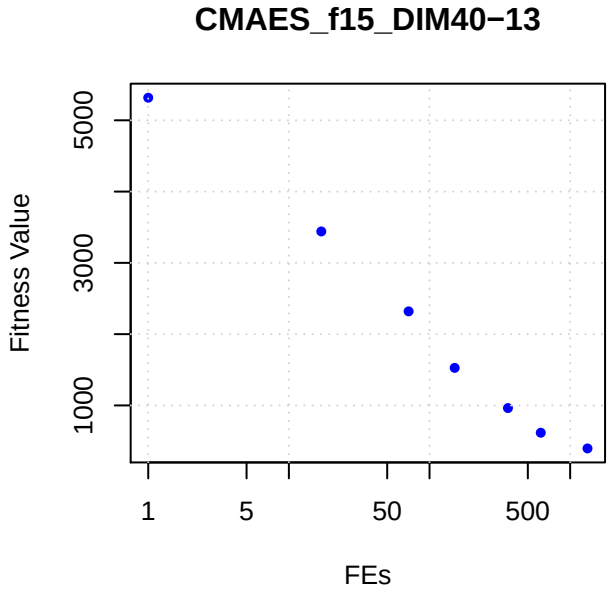
500
FEs


CMAES_f15_DIM40−13
Fitness Value
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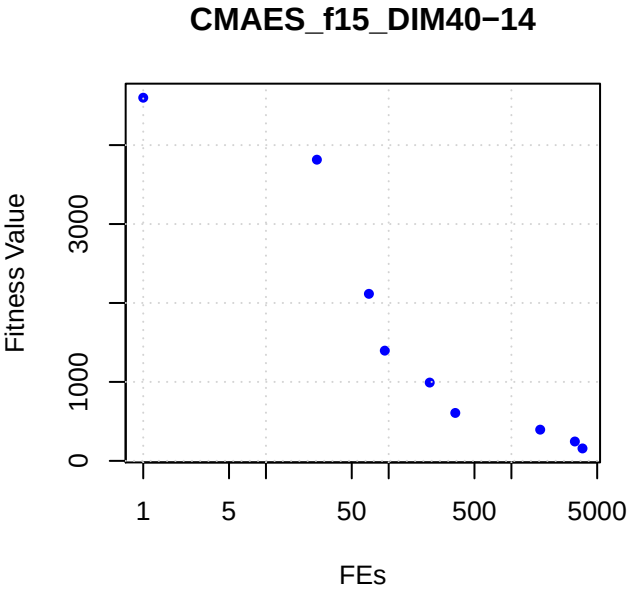
500
FEs


CMAES_f15_DIM40−14
Fitness Value
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50
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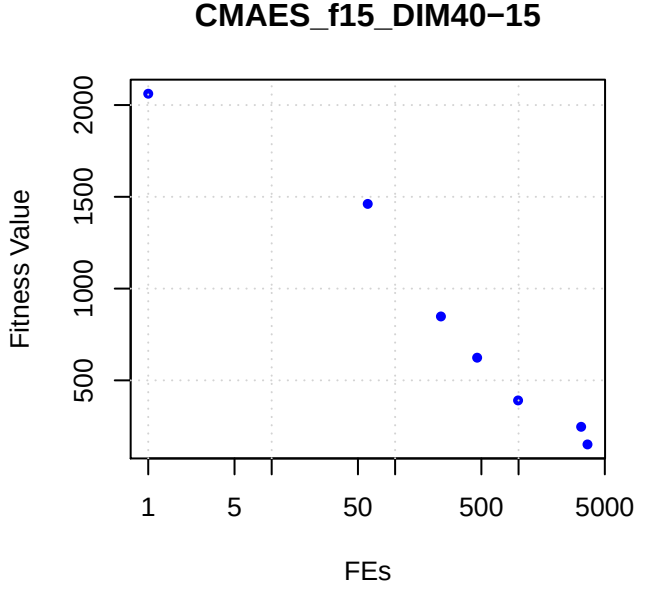
FEs


CMAES_f15_DIM40−15
Fitness Value
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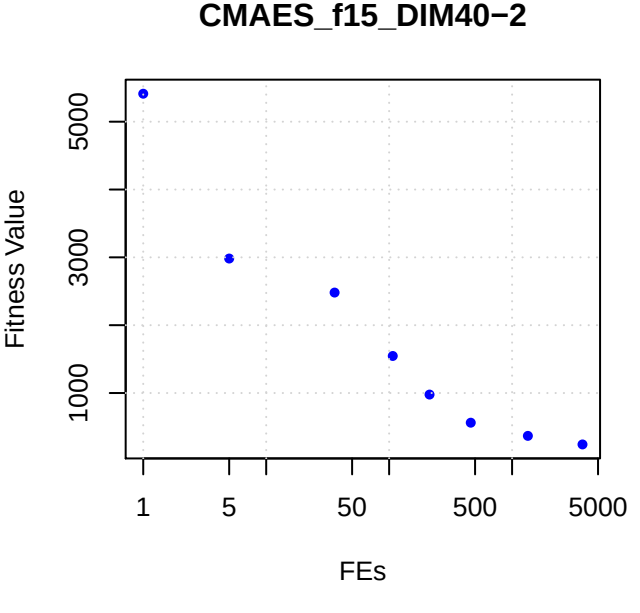
50
500
5000
FEs


CMAES_f15_DIM40−2
Fitness Value
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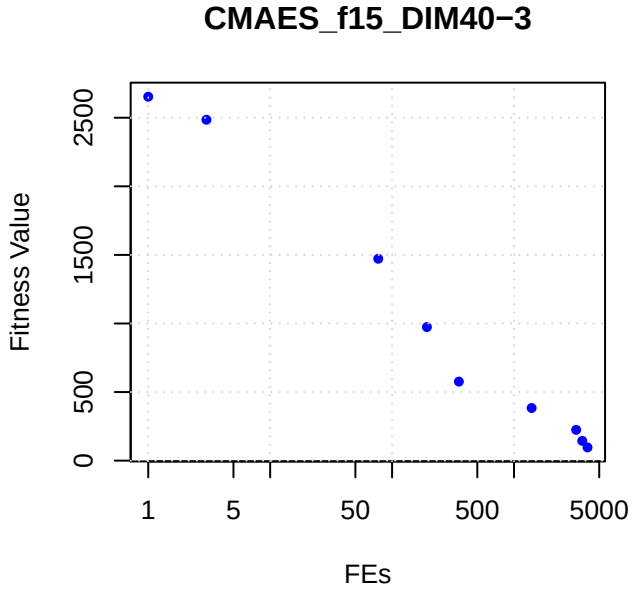
5000
FEs


CMAES_f15_DIM40−3
Fitness Value
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1500
2500
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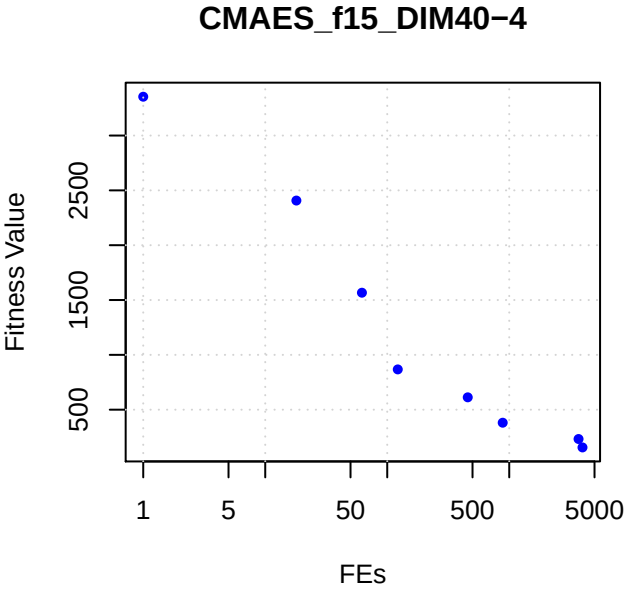
5000
FEs


CMAES_f15_DIM40−4
Fitness Value
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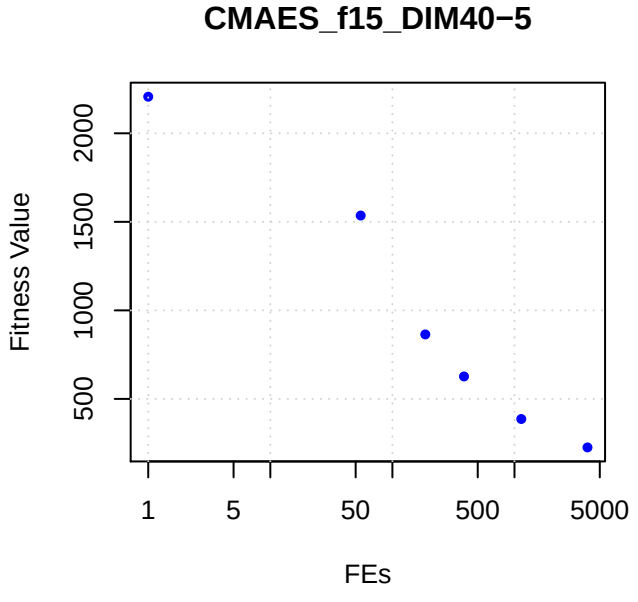
FEs


CMAES_f15_DIM40−5
Fitness Value
500
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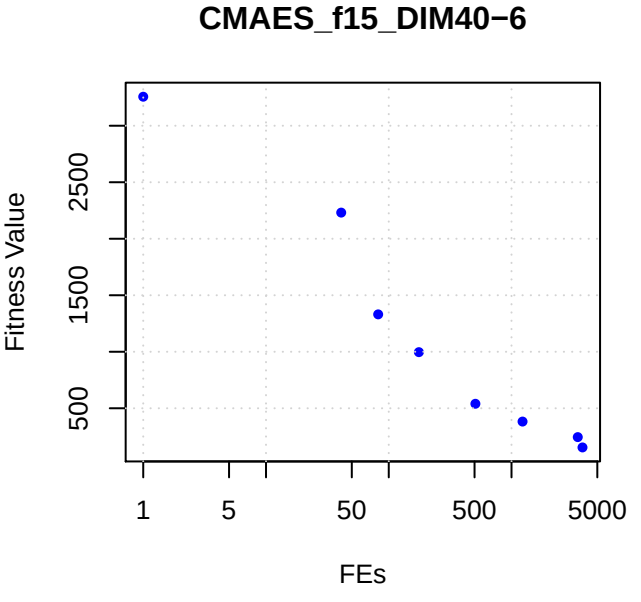
1500
2000
1
5
50
500
5000
FEs


CMAES_f15_DIM40−6
Fitness Value
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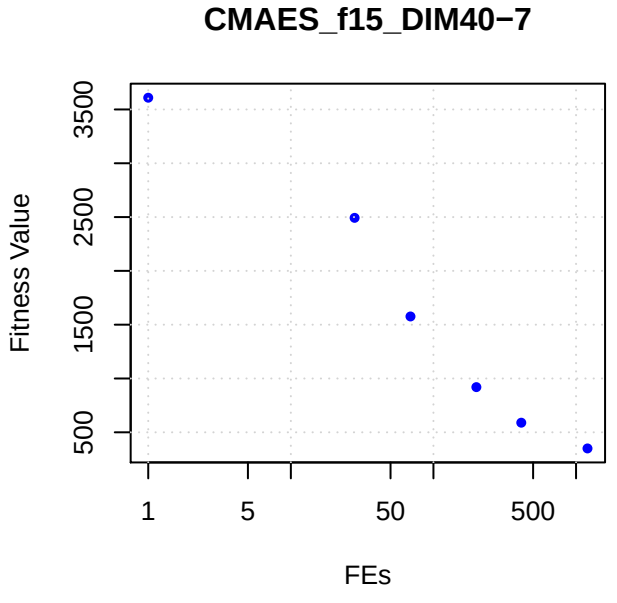
5000
FEs


CMAES_f15_DIM40−7
Fitness Value
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1500
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1
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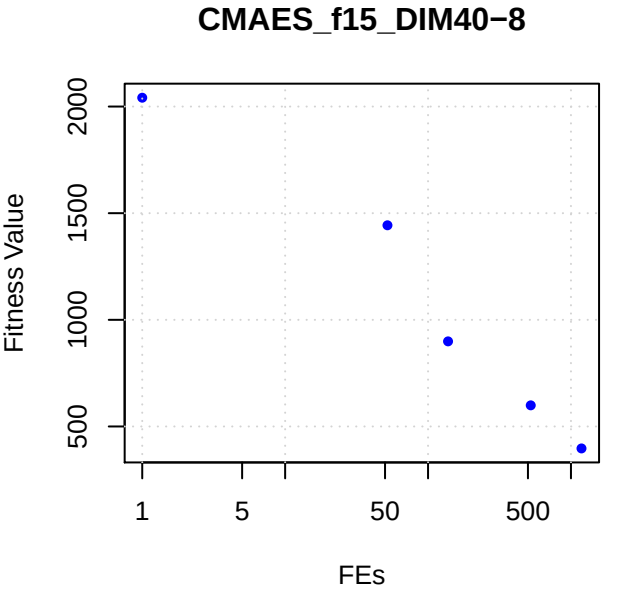
50
500
FEs


CMAES_f15_DIM40−8
Fitness Value
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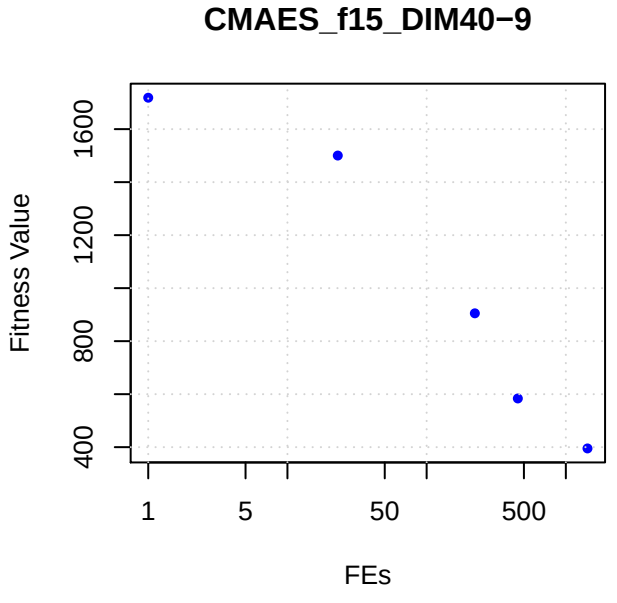
FEs


CMAES_f15_DIM40−9
Fitness Value
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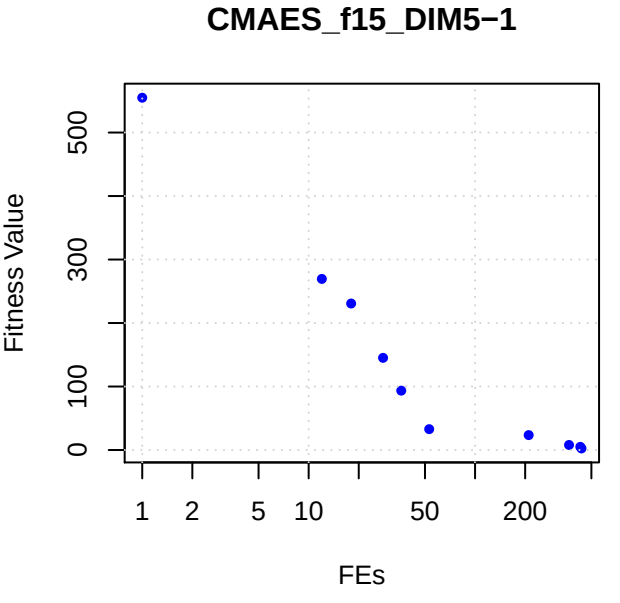
1200
800
400
1
5
50
500
FEs


CMAES_f15_DIM5−1
Fitness Value
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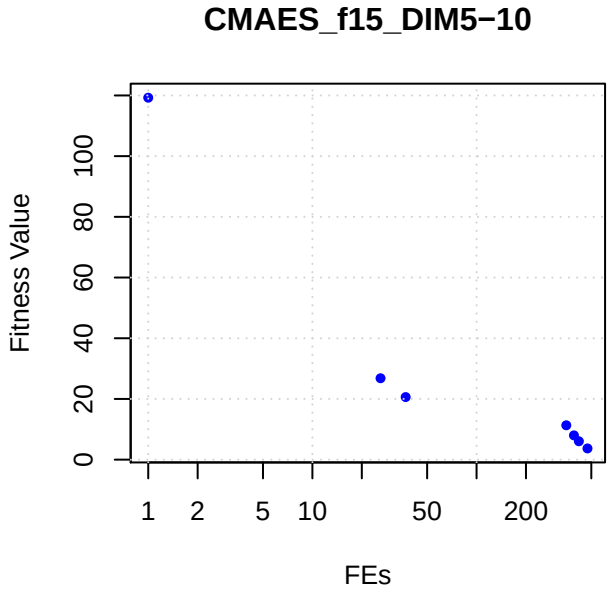
0
1
2
5
10
50
200
FEs


CMAES_f15_DIM5−10
Fitness Value
0
20
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60
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100
1
2
5
10
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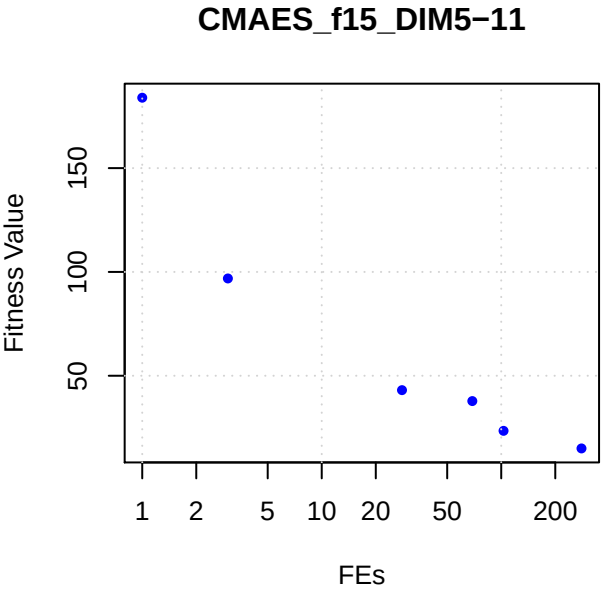
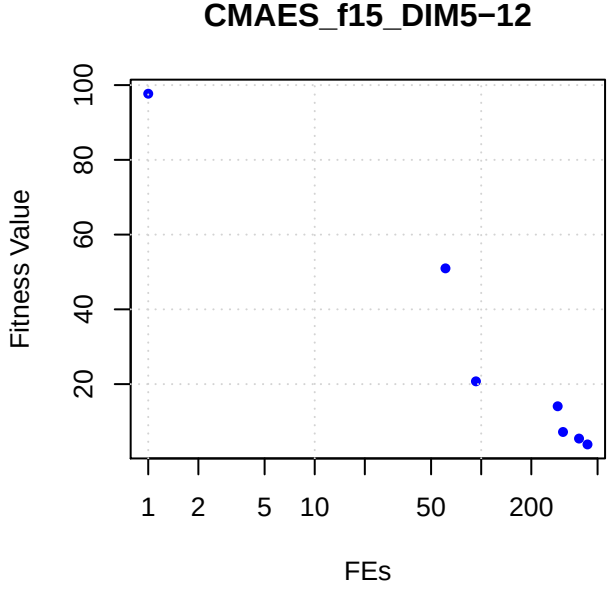
200
FEs


CMAES_f15_DIM5−11
Fitness Value
50
100
150
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM5−12
Fitness Value
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60
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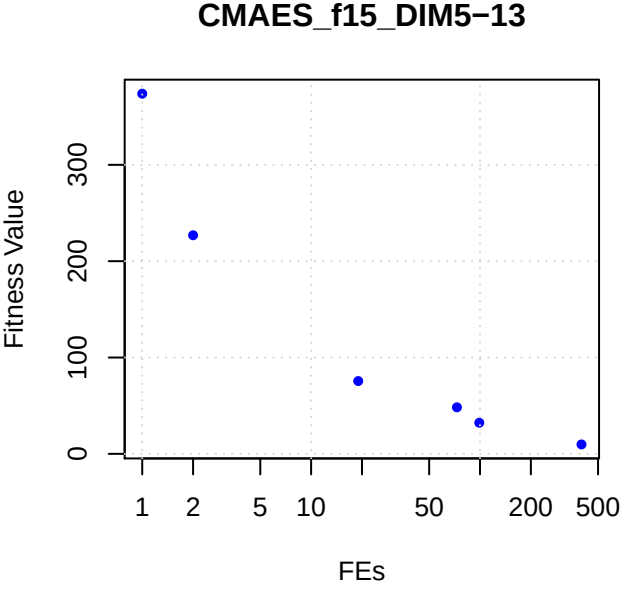
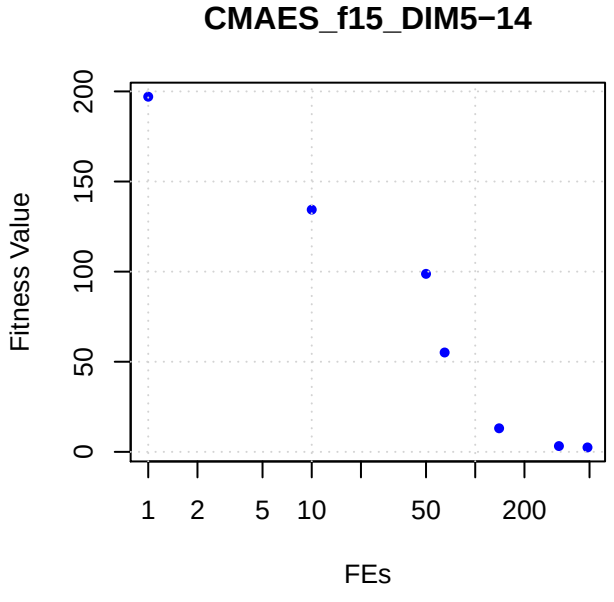
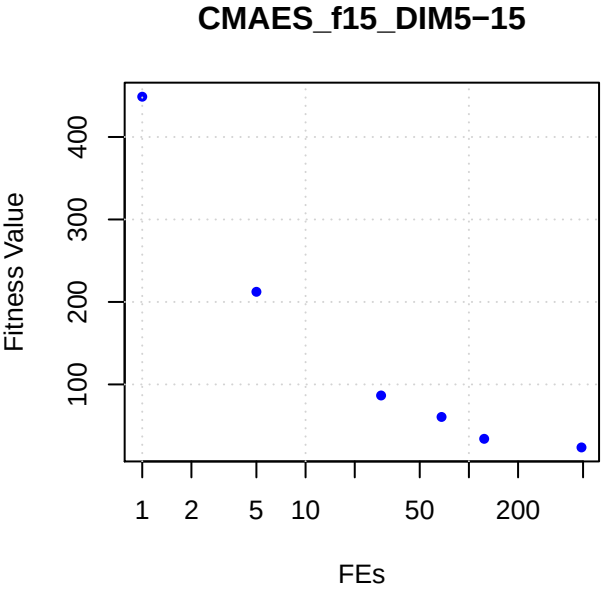
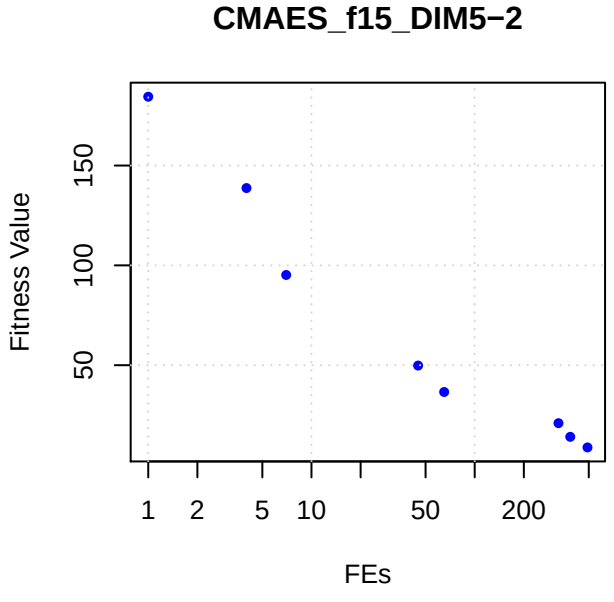
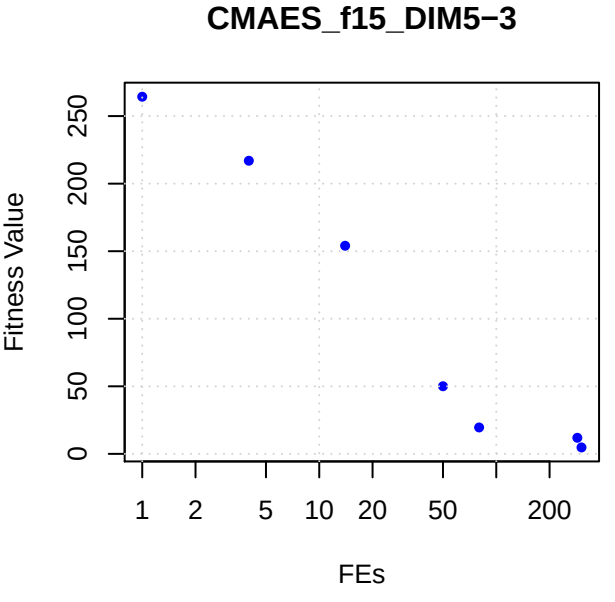
100
1
2
5
10
50
200
FEs

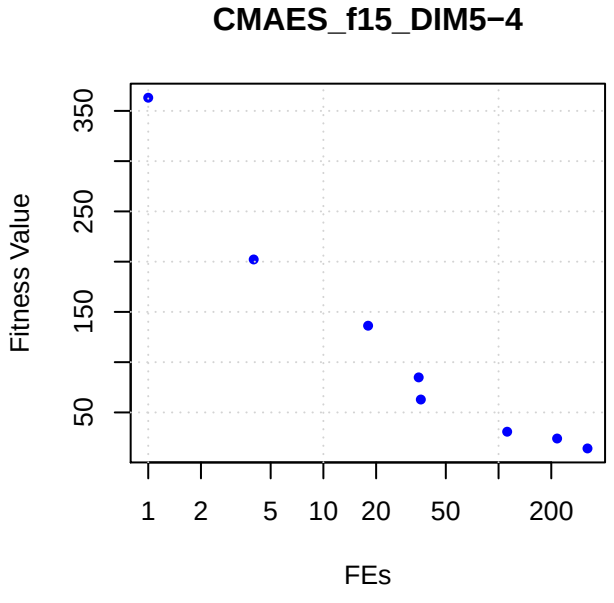

CMAES_f15_DIM5−13
Fitness Value
0
100
200
300
1
2
5
10
50
200
500
FEs

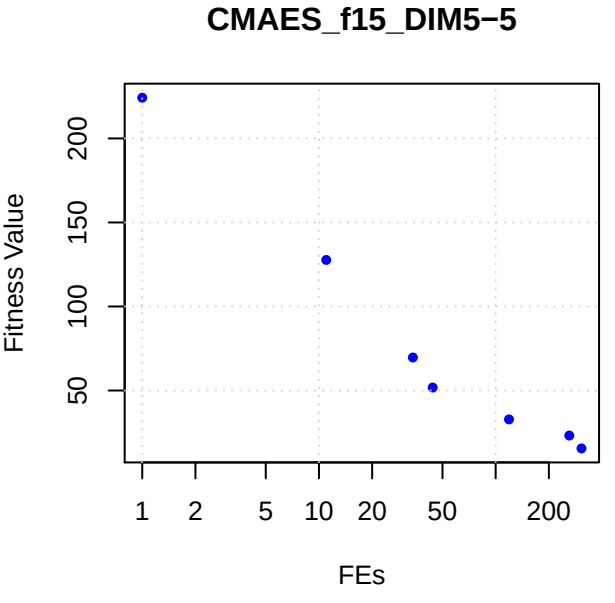

CMAES_f15_DIM5−14
Fitness Value
0
50
100
150
200
1
2
5
10
50
200
FEs


CMAES_f15_DIM5−15
Fitness Value
100
200
300
400
1
2
5
10
50
200
FEs


CMAES_f15_DIM5−2
Fitness Value
50
100
150
1
2
5
10
50
200
FEs


CMAES_f15_DIM5−3
Fitness Value
0
50
100
150
200
250
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM5−4
Fitness Value
50
150
250
350
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM5−5
Fitness Value
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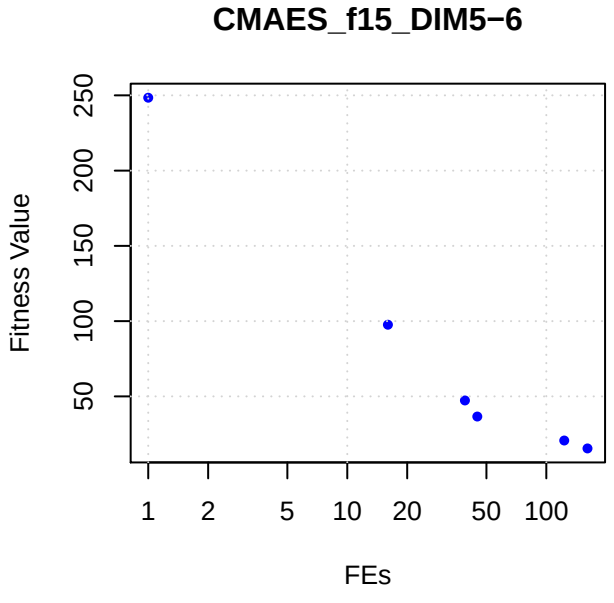
100
150
200
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM5−6
Fitness Value
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100
150
200
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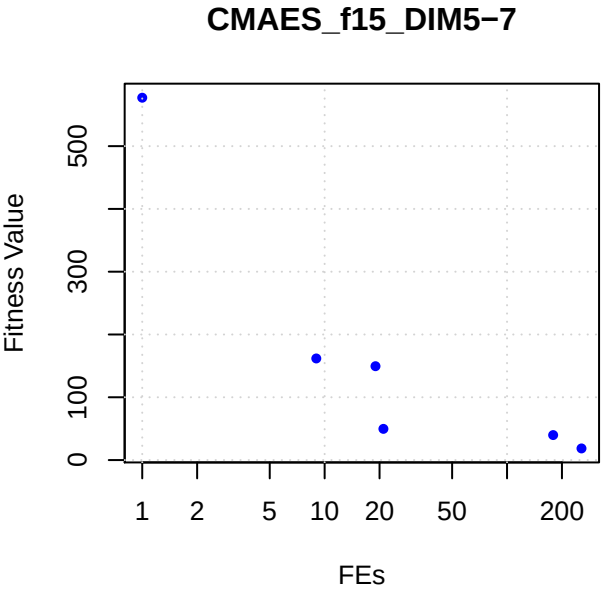
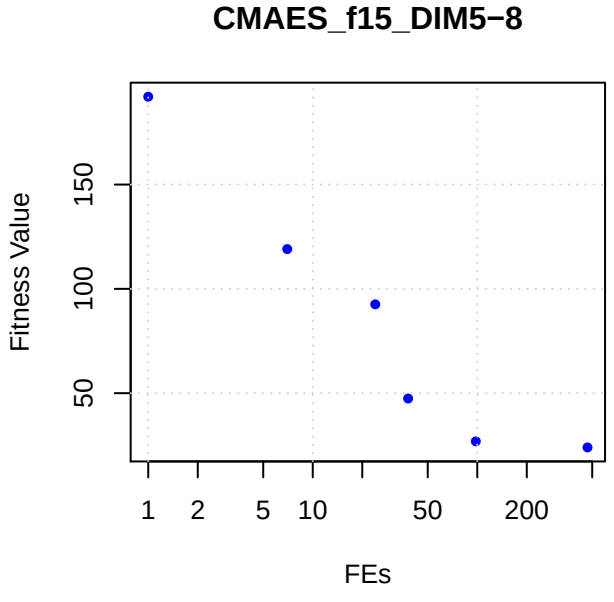
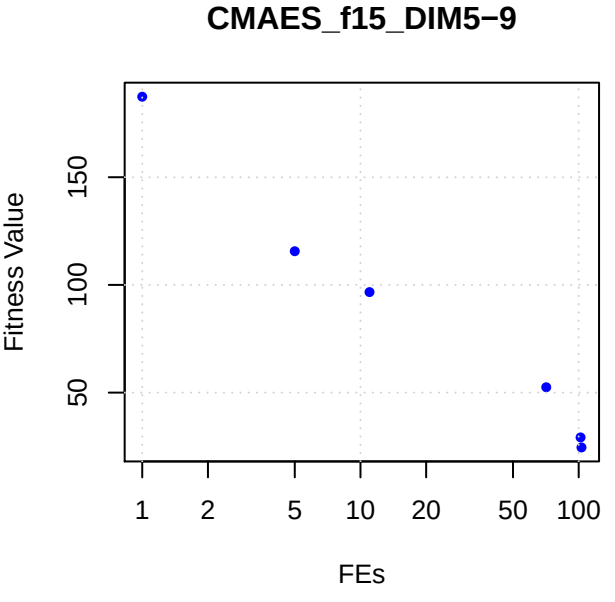
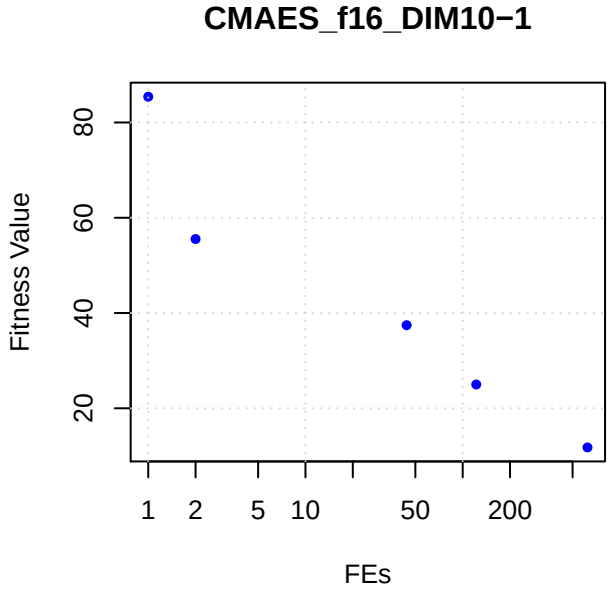
1
2
5
10
20
50
100
FEs


CMAES_f15_DIM5−7
Fitness Value
0
100
300
500
1
2
5
10
20
50
200
FEs


CMAES_f15_DIM5−8
Fitness Value
50
100
150
1
2
5
10
50
200
FEs


CMAES_f15_DIM5−9
Fitness Value
50
100
150
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM10−1
Fitness Value
20
40
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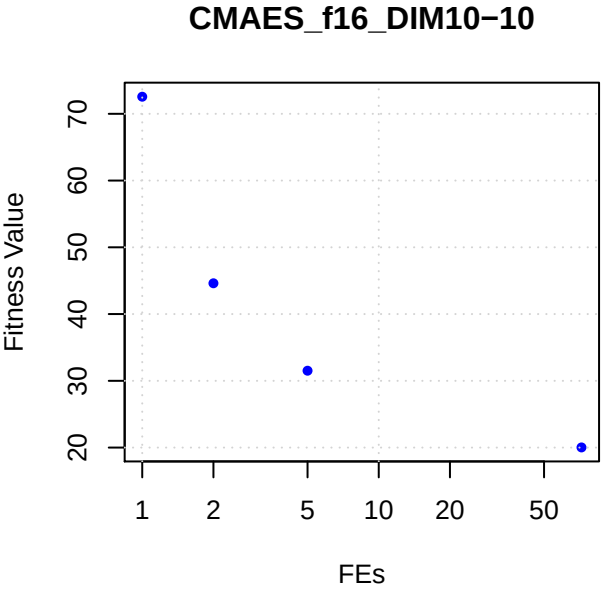
80
1
2
5
10
50
200
FEs


CMAES_f16_DIM10−10
Fitness Value
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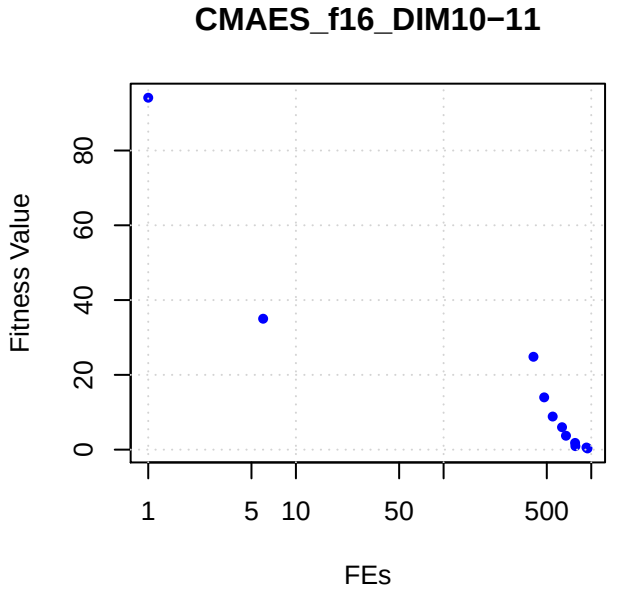
30
40
50
60
70
1
2
5
10
20
50
FEs


CMAES_f16_DIM10−11
Fitness Value
0
20
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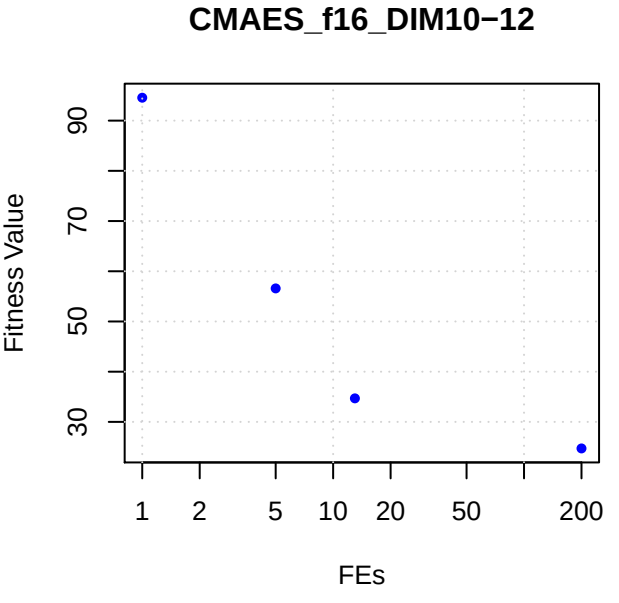
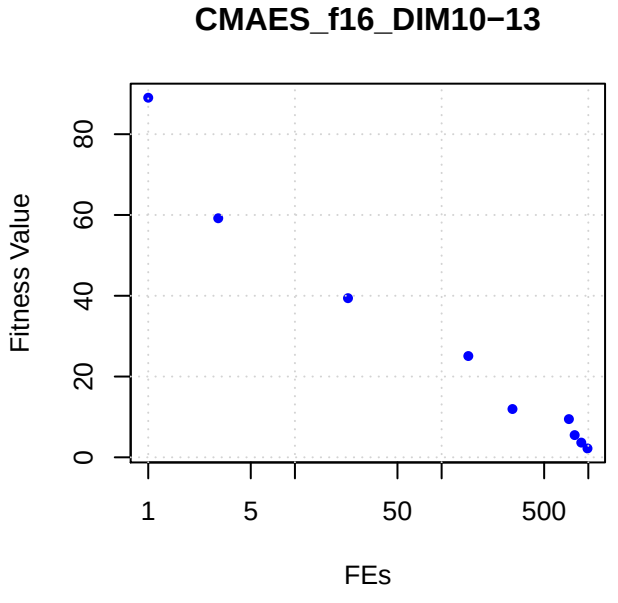
60
80
1
5
10
50
500
FEs


CMAES_f16_DIM10−12
Fitness Value
30
50
70
90
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM10−13
Fitness Value
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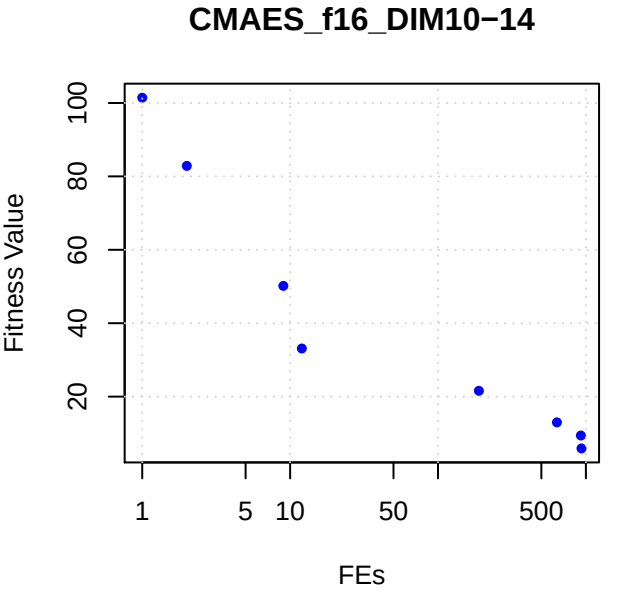
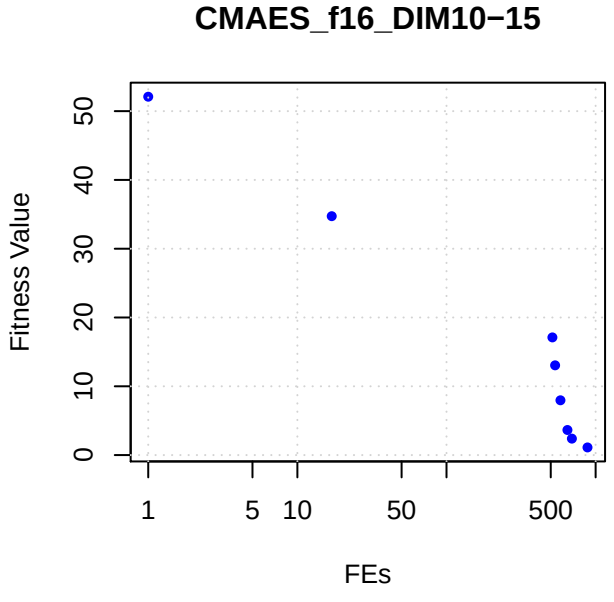
40
60
80
1
5
50
500
FEs


CMAES_f16_DIM10−14
Fitness Value
20
40
60
80
100
1
5
10
50
500
FEs


CMAES_f16_DIM10−15
Fitness Value
0
10
20
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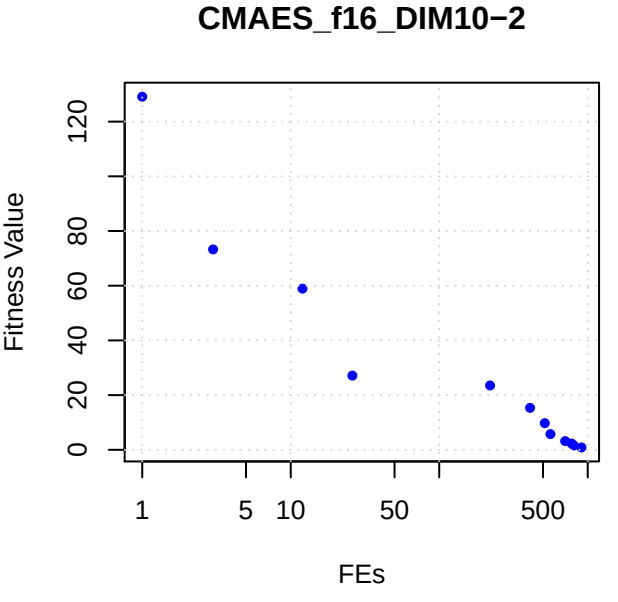
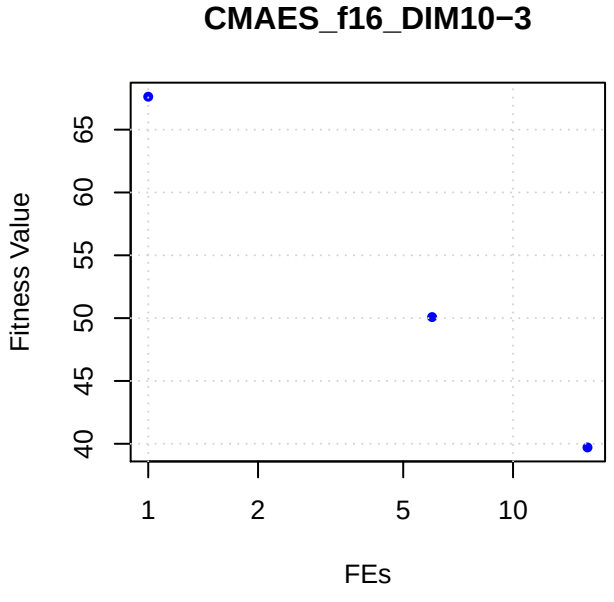
40
50
1
5
10
50
500
FEs


CMAES_f16_DIM10−2
Fitness Value
0
20
40
60
80
120
1
5
10
50
500
FEs


CMAES_f16_DIM10−3
Fitness Value
40
45
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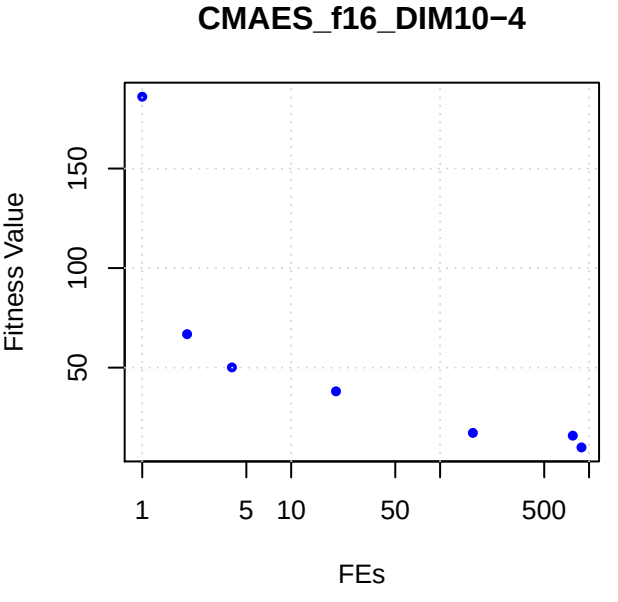
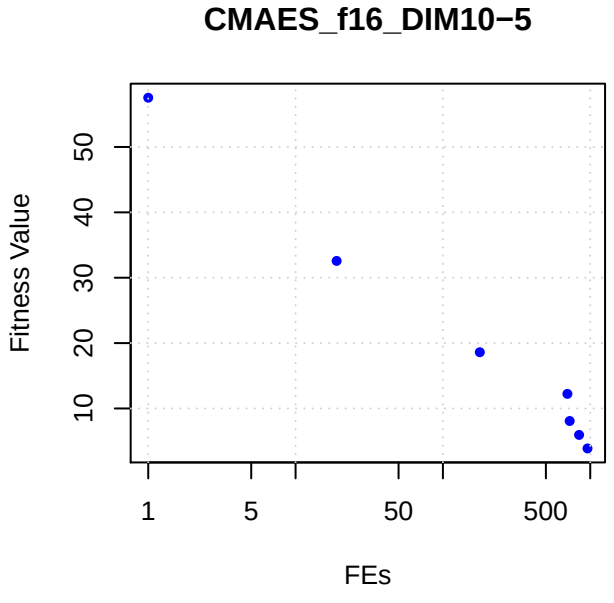
55
60
65
1
2
5
10
FEs


CMAES_f16_DIM10−4
Fitness Value
50
100
150
1
5
10
50
500
FEs


CMAES_f16_DIM10−5
Fitness Value
10
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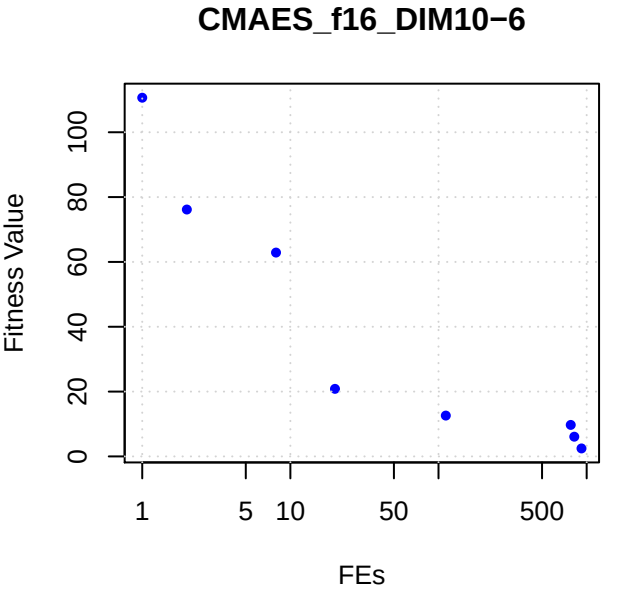
30
40
50
1
5
50
500
FEs


CMAES_f16_DIM10−6
Fitness Value
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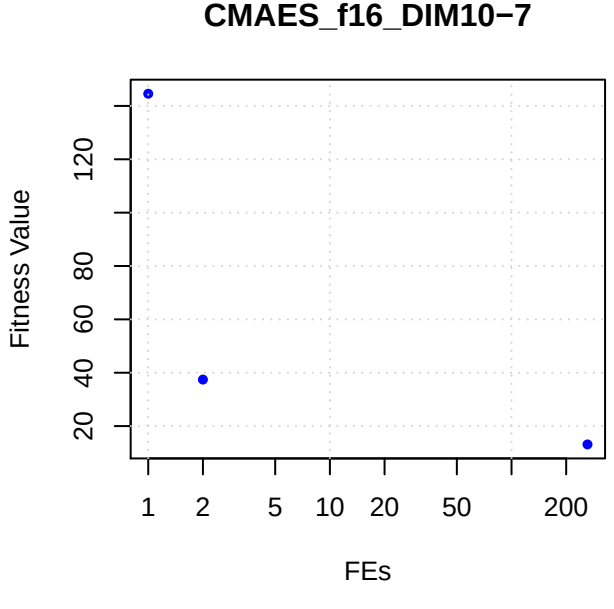
80
100
1
5
10
50
500
FEs


CMAES_f16_DIM10−7
Fitness Value
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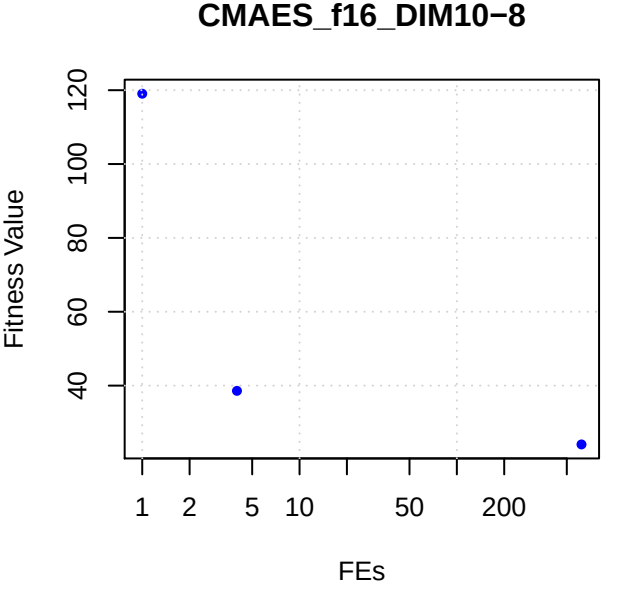
60
80
120
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM10−8
Fitness Value
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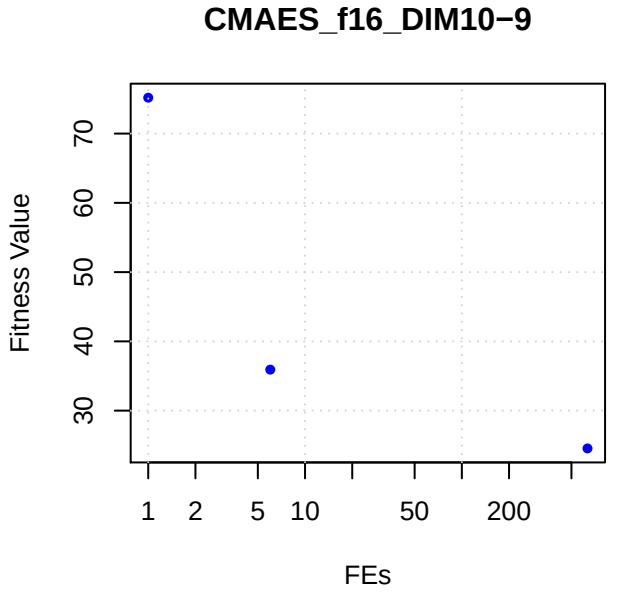
60
80
100
120
1
2
5
10
50
200
FEs


CMAES_f16_DIM10−9
Fitness Value
30
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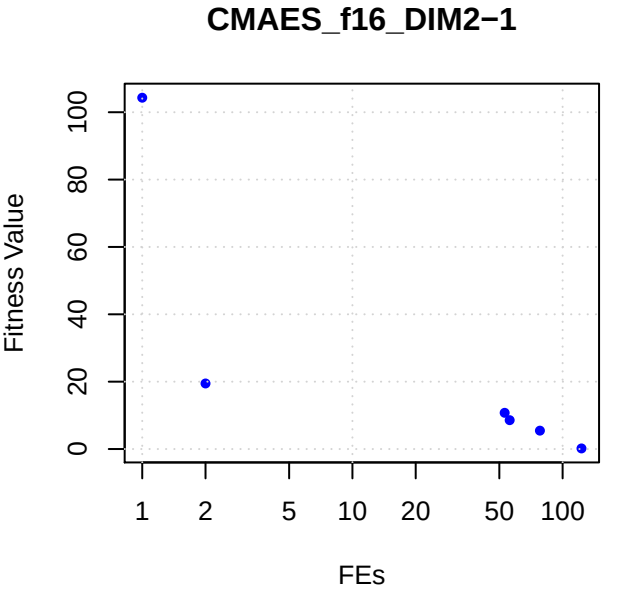
50
60
70
1
2
5
10
50
200
FEs


CMAES_f16_DIM2−1
Fitness Value
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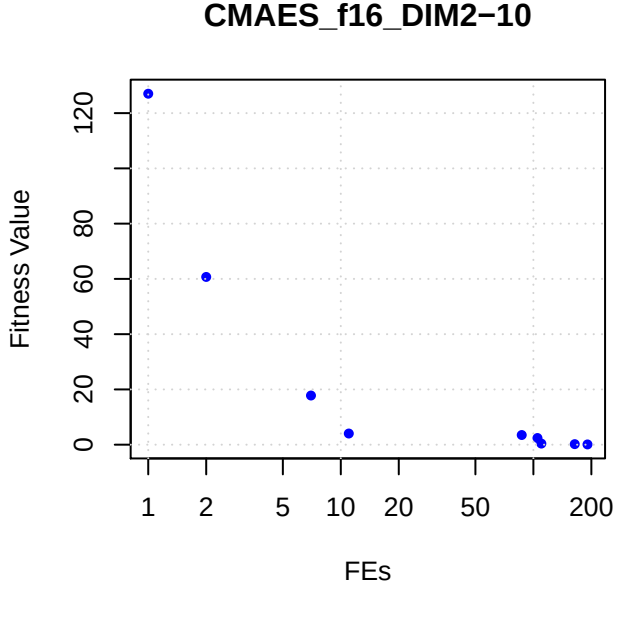
60
80
100
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM2−10
Fitness Value
0
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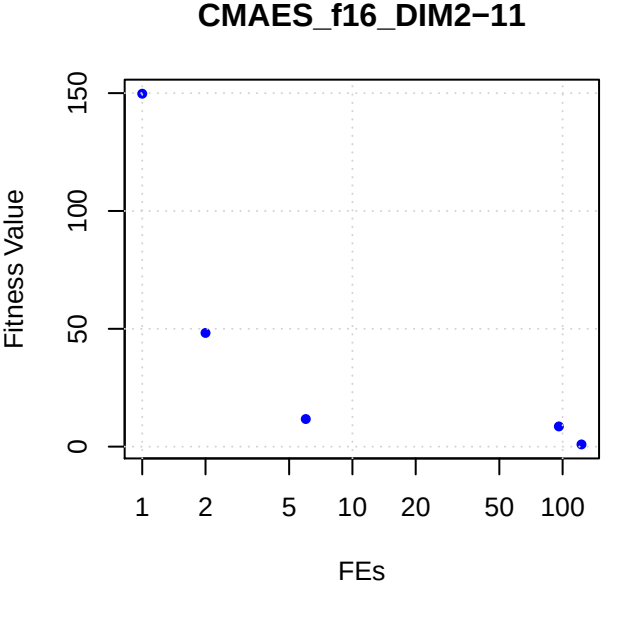
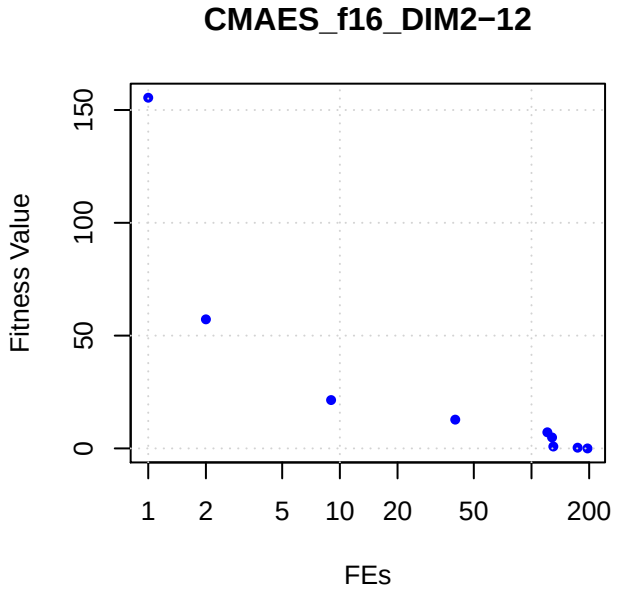
40
60
80
120
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM2−11
Fitness Value
0
50
100
150
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM2−12
Fitness Value
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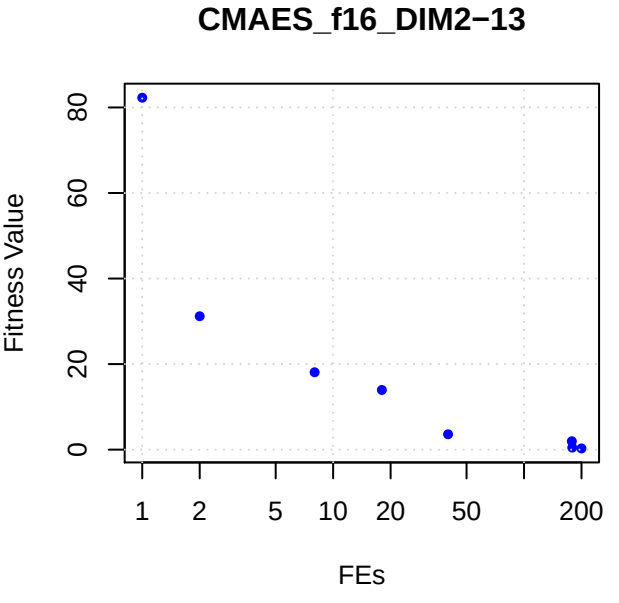
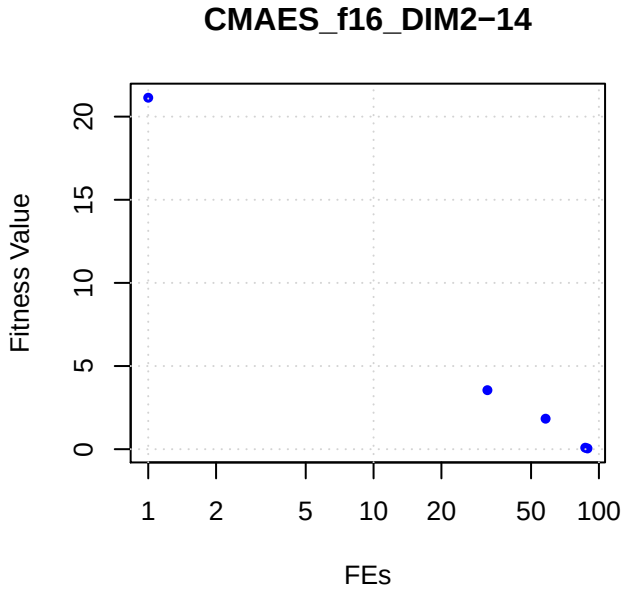
100
150
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM2−13
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM2−14
Fitness Value
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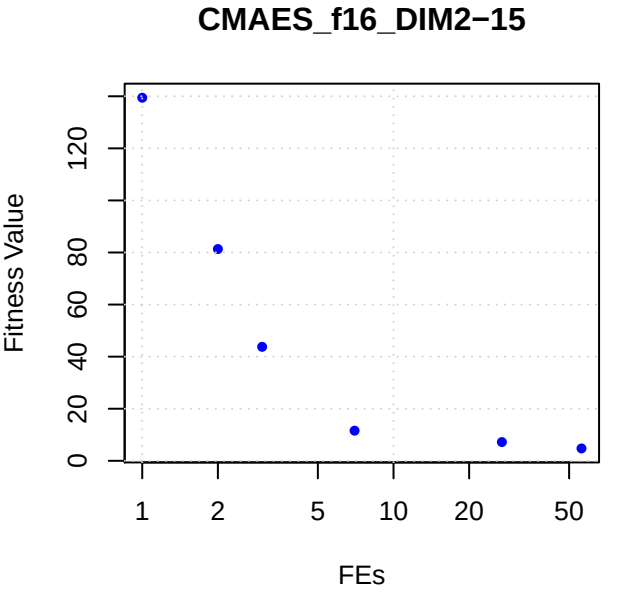
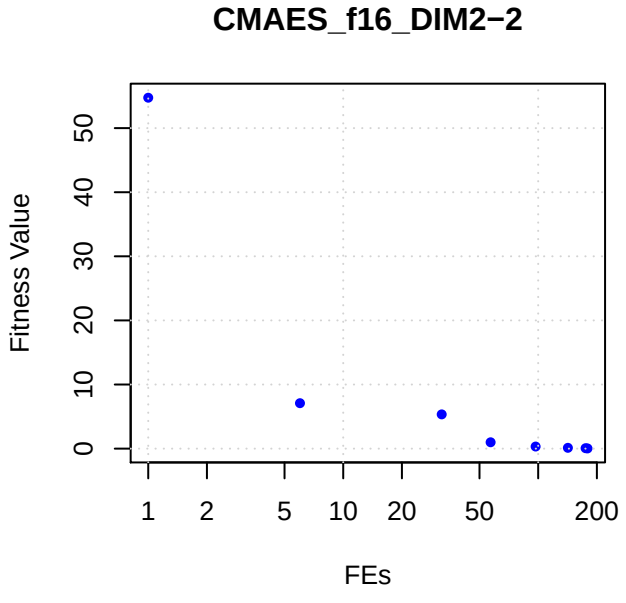
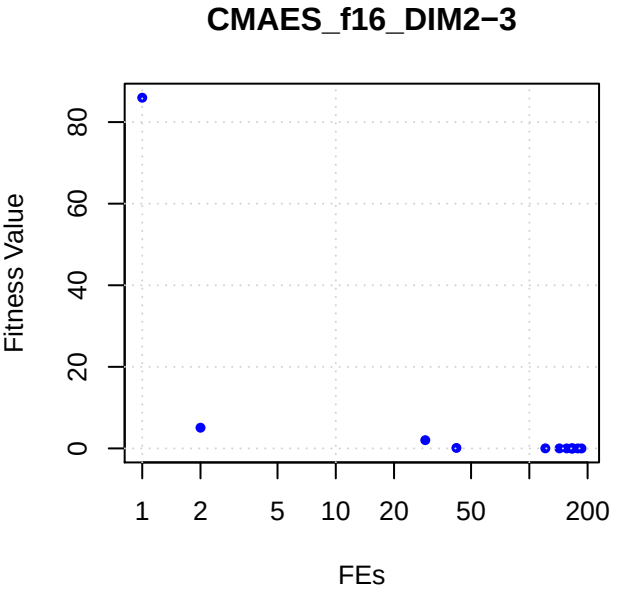
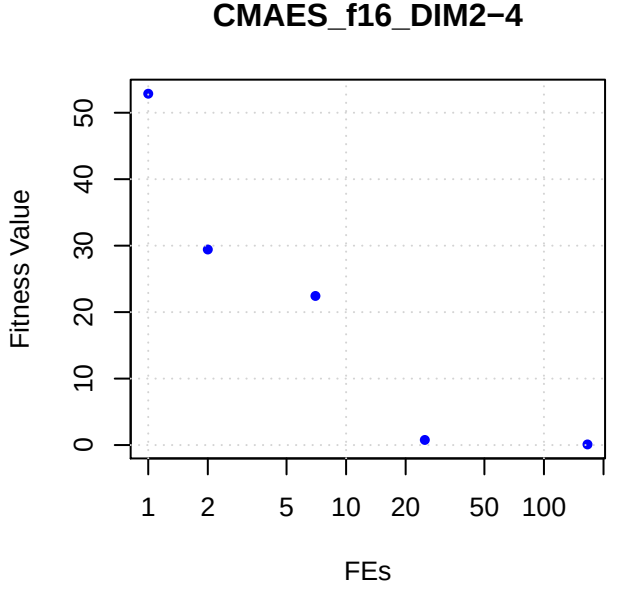
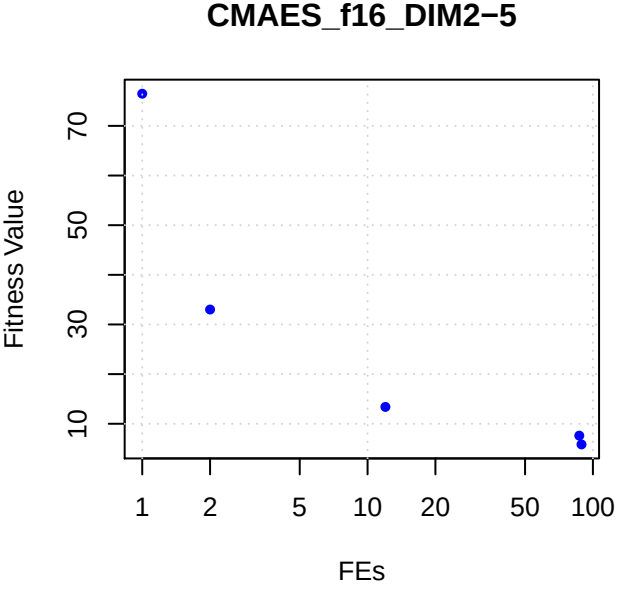
5
10
15
20
1
2
5
10
20
50
100
FEs

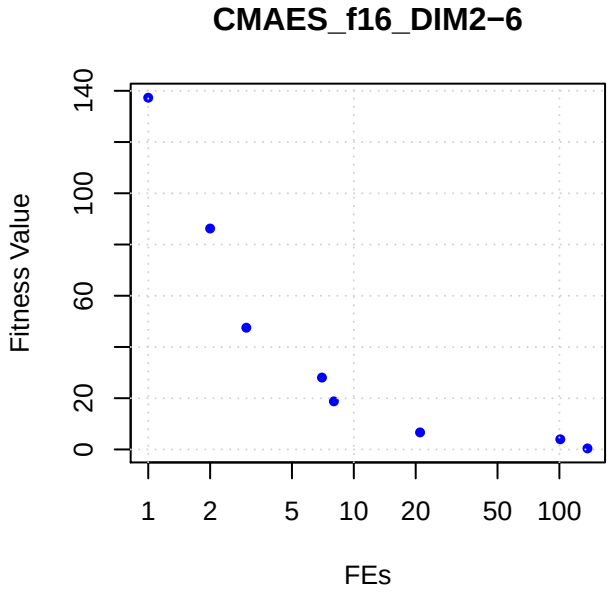

CMAES_f16_DIM2−15
Fitness Value
0
20
40
60
80
120
1
2
5
10
20
50
FEs

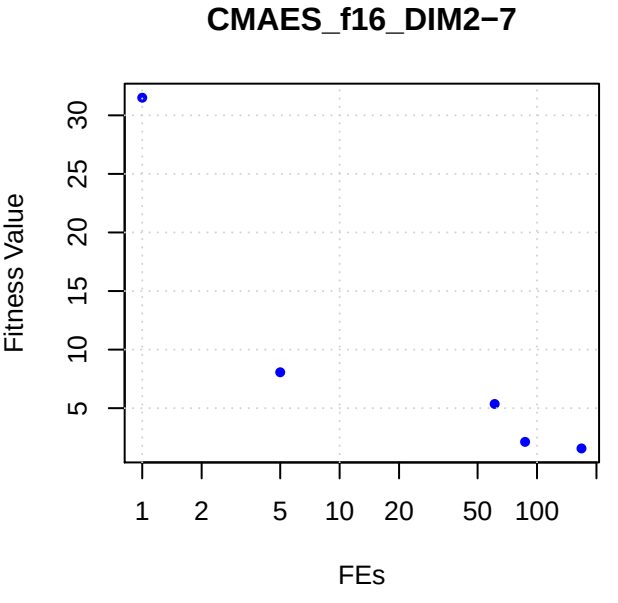

CMAES_f16_DIM2−2
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
200
FEs

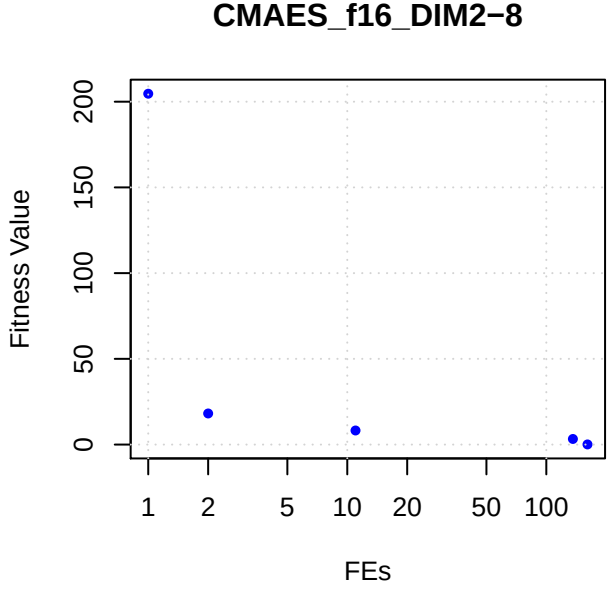

CMAES_f16_DIM2−3
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs

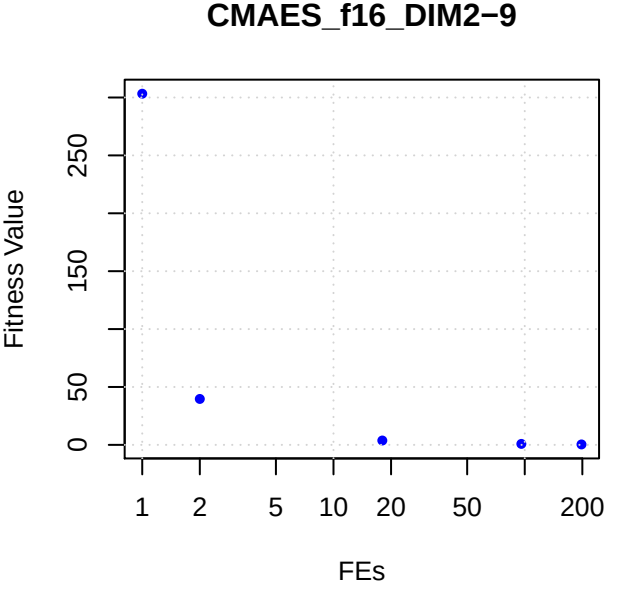

CMAES_f16_DIM2−4
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
100
FEs

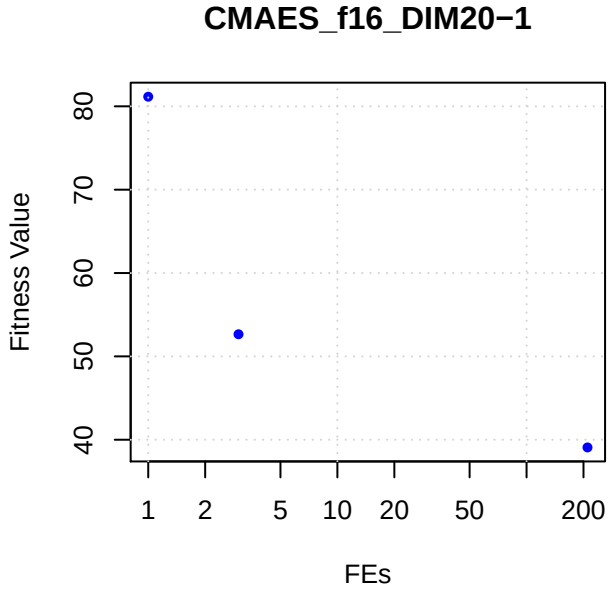

CMAES_f16_DIM2−5
Fitness Value
10
30
50
70
1
2
5
10
20
50
100
FEs

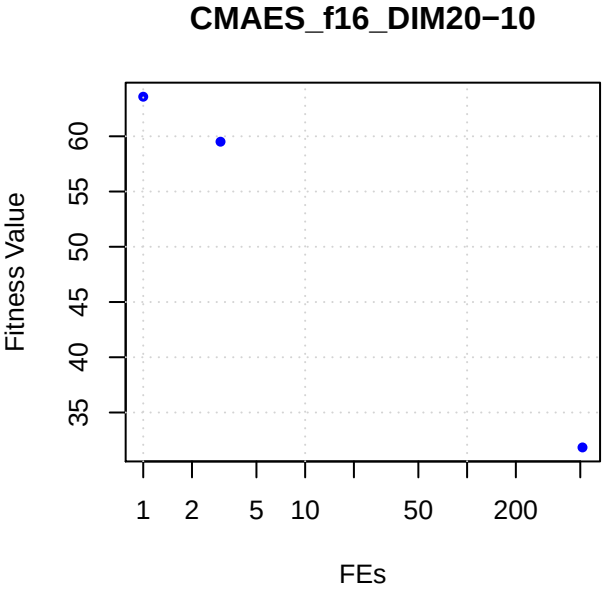

CMAES_f16_DIM2−6
Fitness Value
0
20
60
100
140
1
2
5
10
20
50
100
FEs

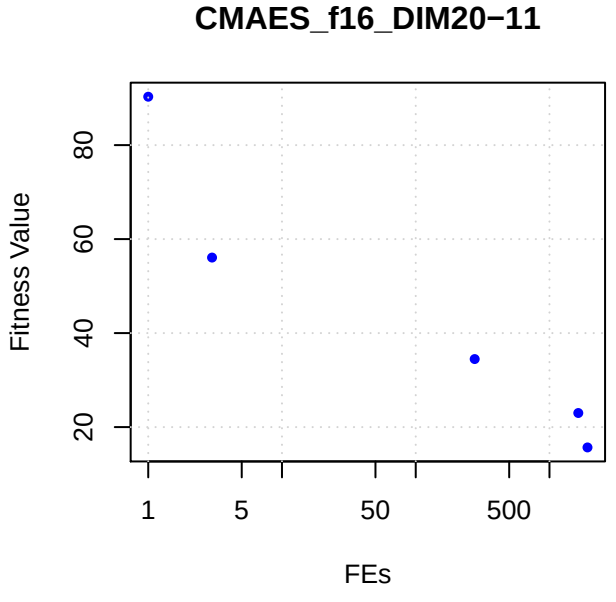

CMAES_f16_DIM2−7
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
100
FEs

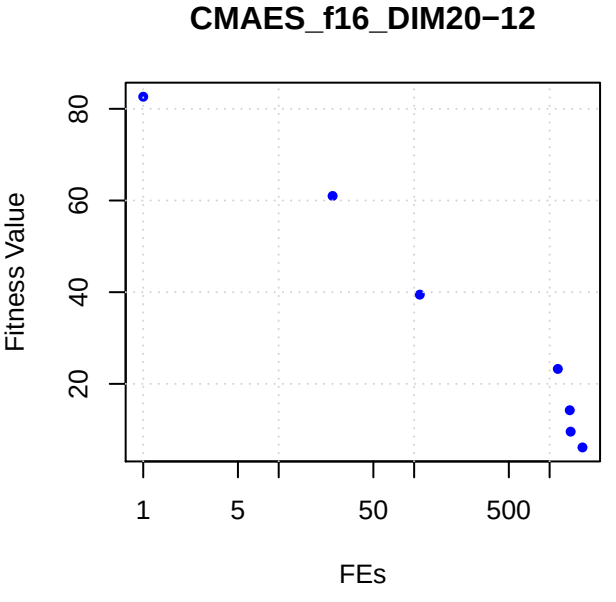

CMAES_f16_DIM2−8
Fitness Value
0
50
100
150
200
1
2
5
10
20
50
100
FEs

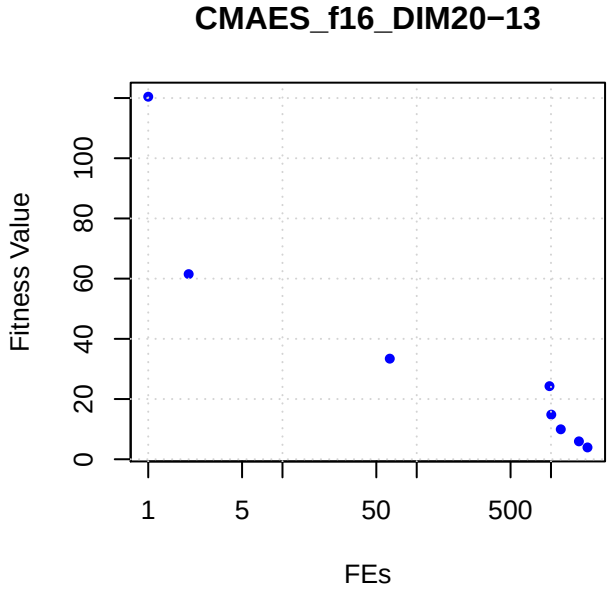

CMAES_f16_DIM2−9
Fitness Value
0
50
150
250
1
2
5
10
20
50
200
FEs

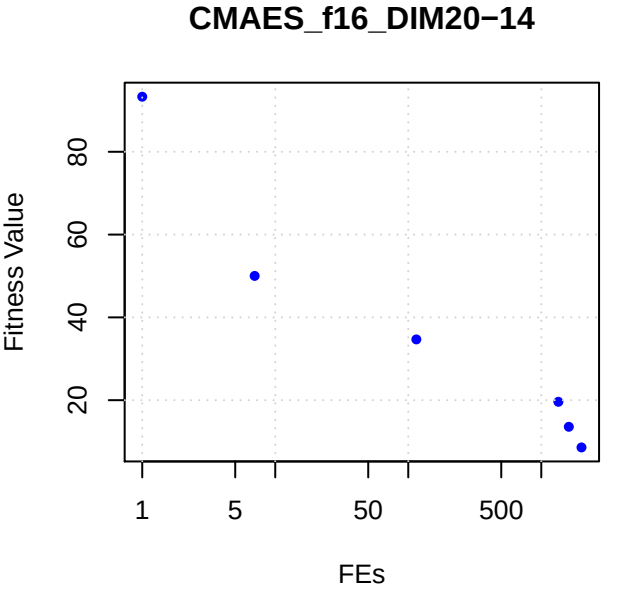

CMAES_f16_DIM20−1
Fitness Value
80
70
60
50
40
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM20−10
Fitness Value
60
55
50
45
40
35
1
2
5
10
50
200
FEs


CMAES_f16_DIM20−11
Fitness Value
80
60
40
20
1
5
50
500
FEs


CMAES_f16_DIM20−12
Fitness Value
80
60
40
20
1
5
50
500
FEs


CMAES_f16_DIM20−13
Fitness Value
0
20
40
60
80
100
1
5
50
500
FEs


CMAES_f16_DIM20−14
Fitness Value
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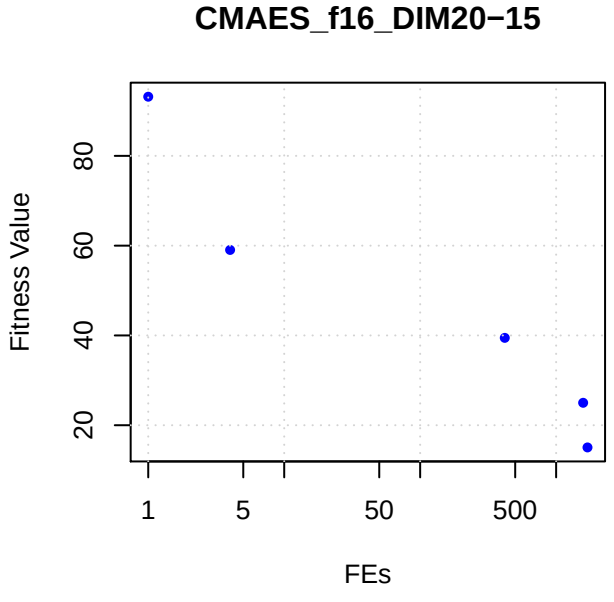
40
60
80
1
5
50
500
FEs


CMAES_f16_DIM20−15
Fitness Value
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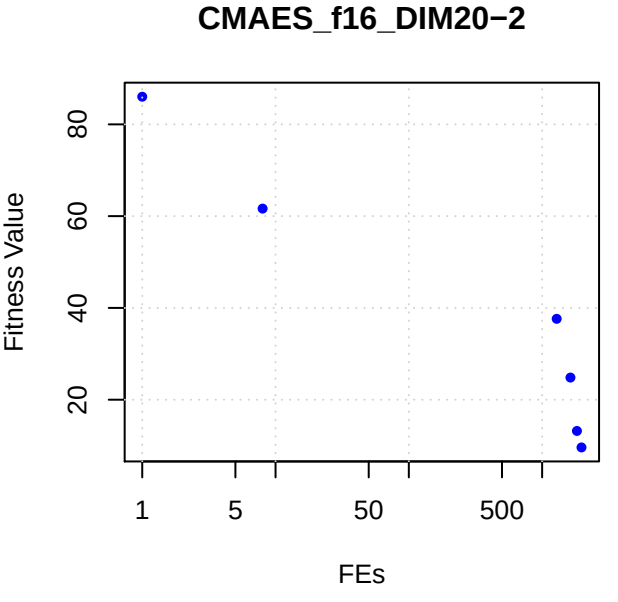
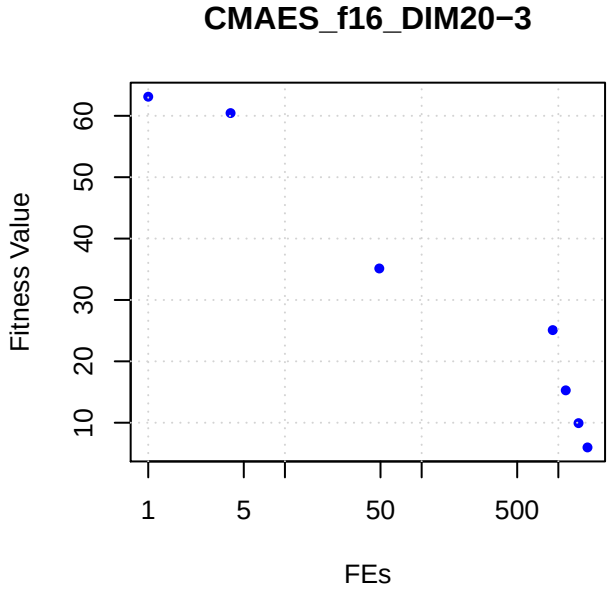
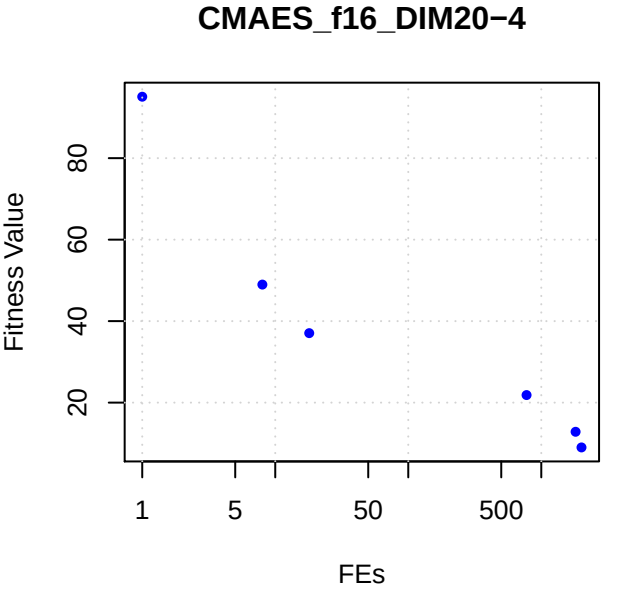
40
60
80
1
5
50
500
FEs


CMAES_f16_DIM20−2
Fitness Value
20
40
60
80
1
5
50
500
FEs


CMAES_f16_DIM20−3
Fitness Value
10
20
30
40
50
60
1
5
50
500
FEs


CMAES_f16_DIM20−4
Fitness Value
20
40
60
80
1
5
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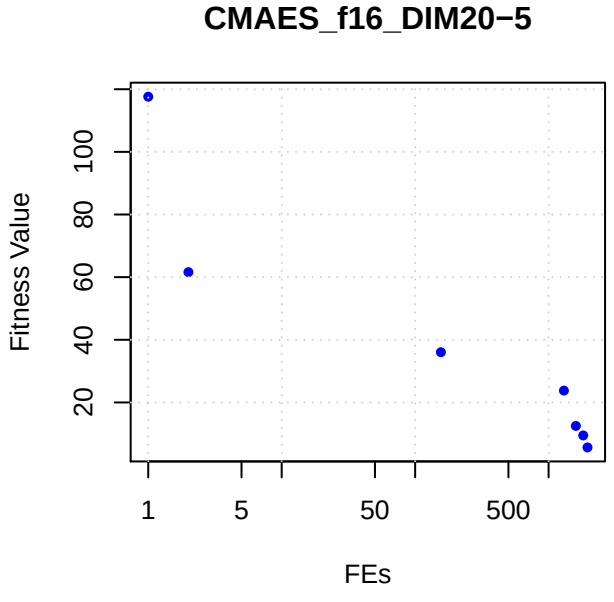
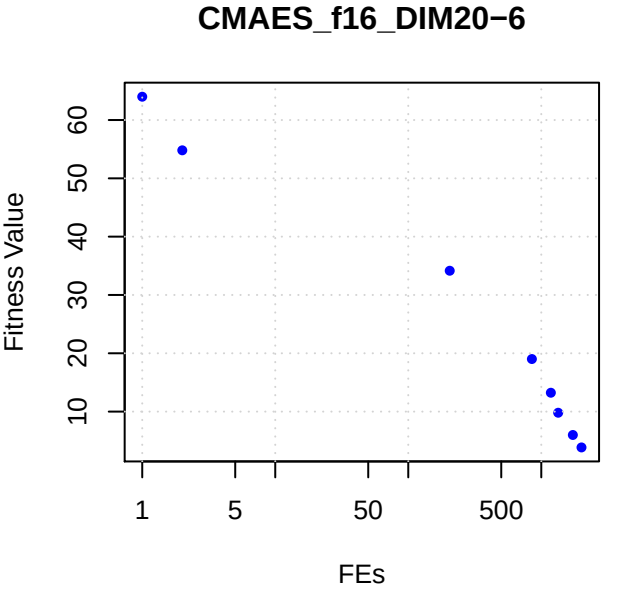
500
FEs


CMAES_f16_DIM20−5
Fitness Value
20
40
60
80
100
1
5
50
500
FEs


CMAES_f16_DIM20−6
Fitness Value
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40
50
60
1
5
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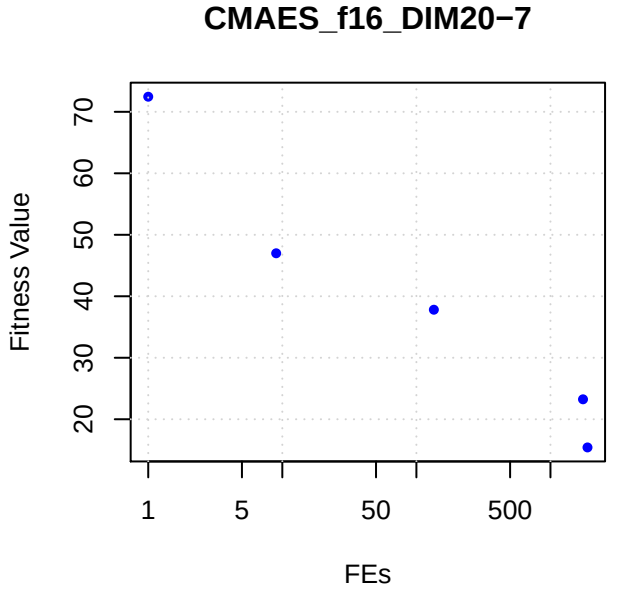
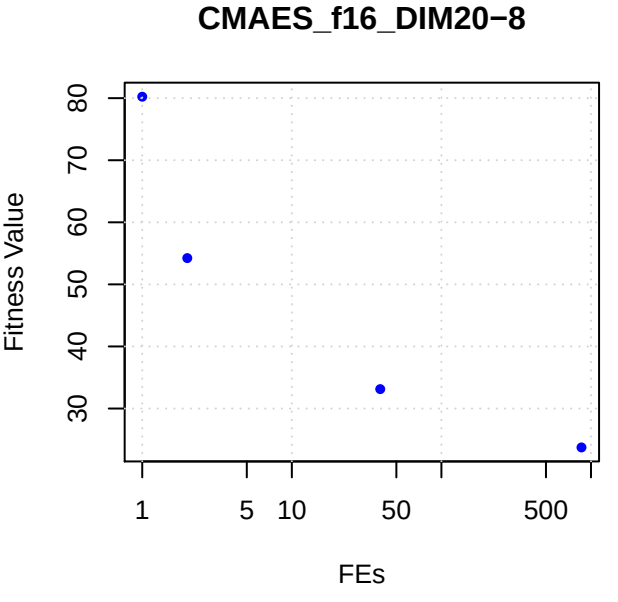
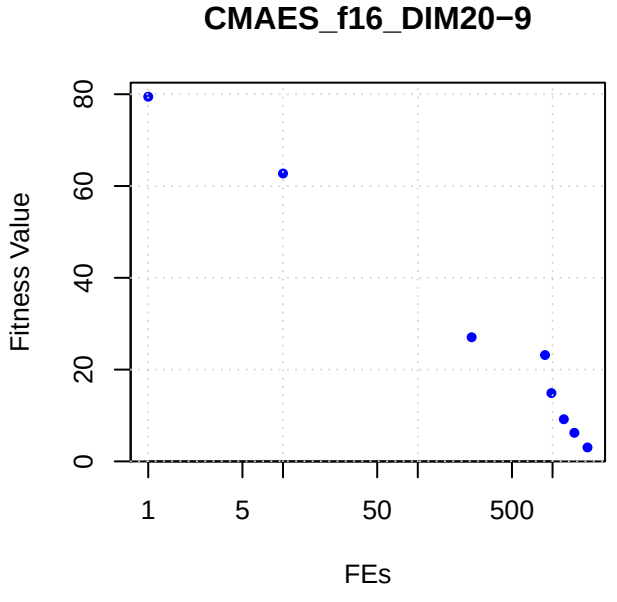
500
FEs


CMAES_f16_DIM20−7
Fitness Value
20
30
40
50
60
70
1
5
50
500
FEs


CMAES_f16_DIM20−8
Fitness Value
30
40
50
60
70
80
1
5
10
50
500
FEs


CMAES_f16_DIM20−9
Fitness Value
0
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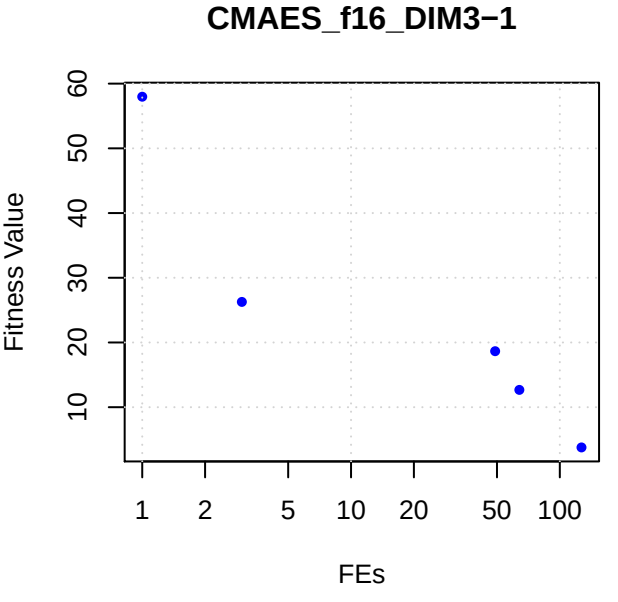
60
80
1
5
50
500
FEs


CMAES_f16_DIM3−1
Fitness Value
10
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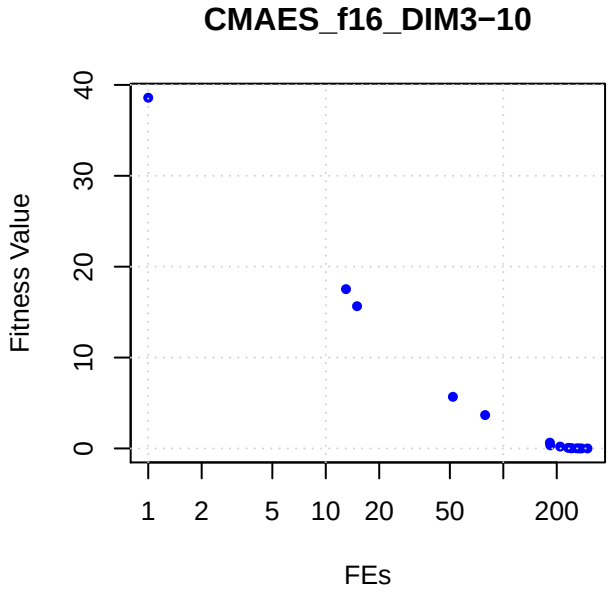
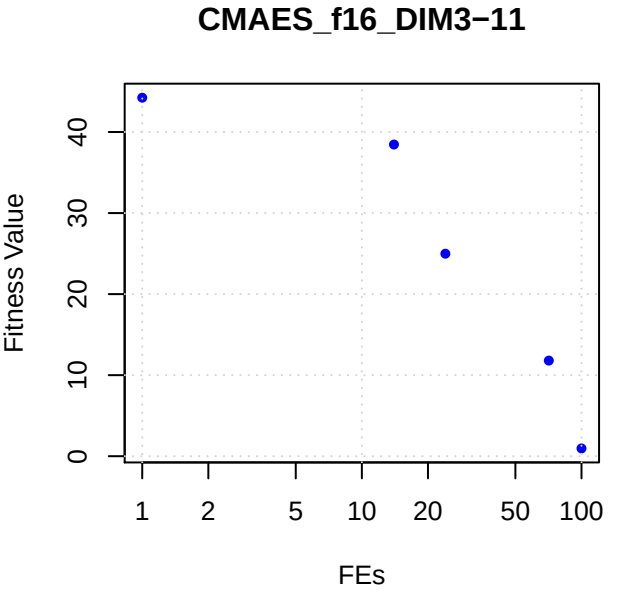
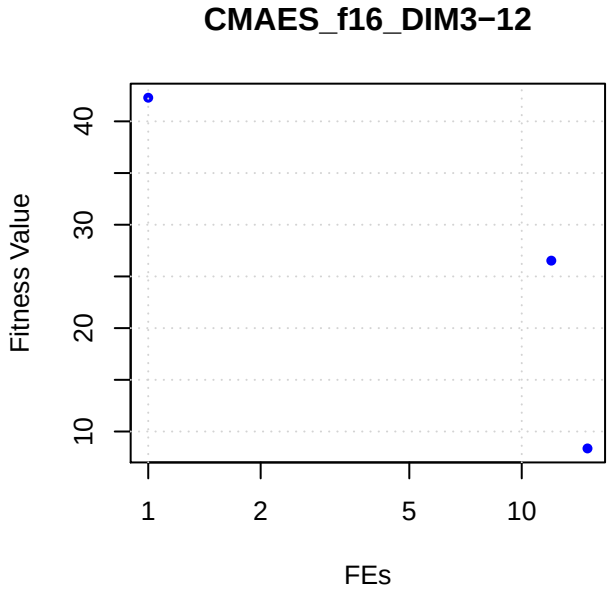
30
40
50
60
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM3−10
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−11
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM3−12
Fitness Value
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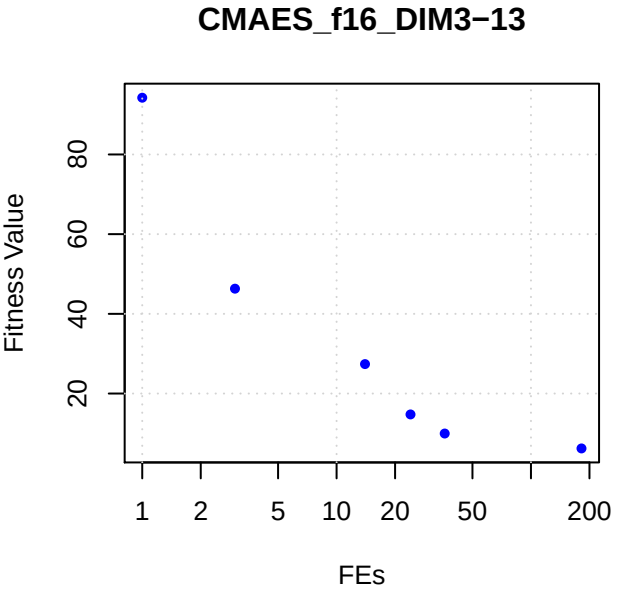
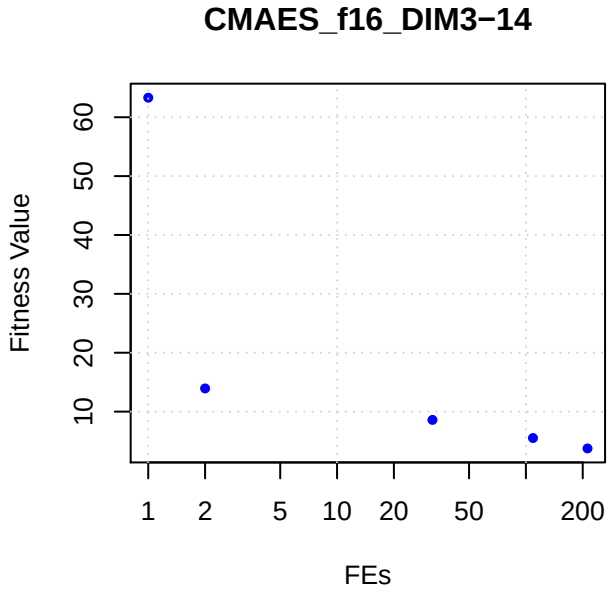
20
30
40
1
2
5
10
FEs


CMAES_f16_DIM3−13
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−14
Fitness Value
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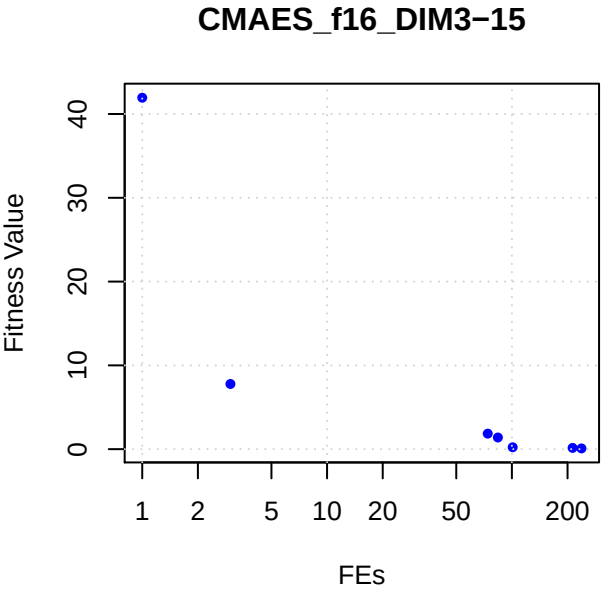
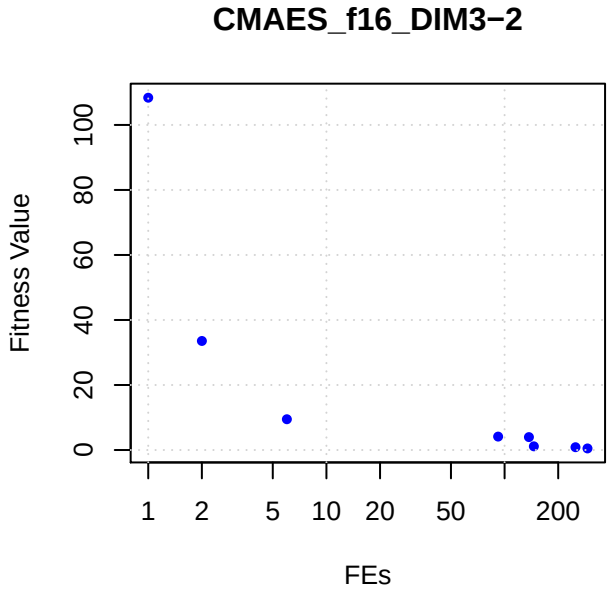
20
30
40
50
60
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−15
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−2
Fitness Value
0
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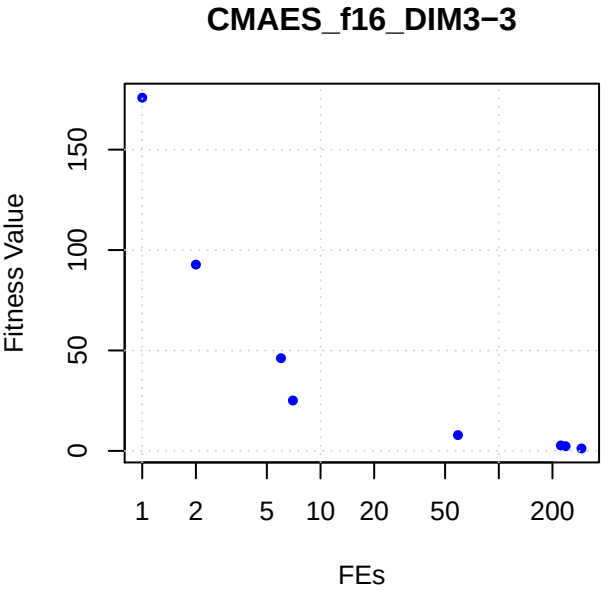
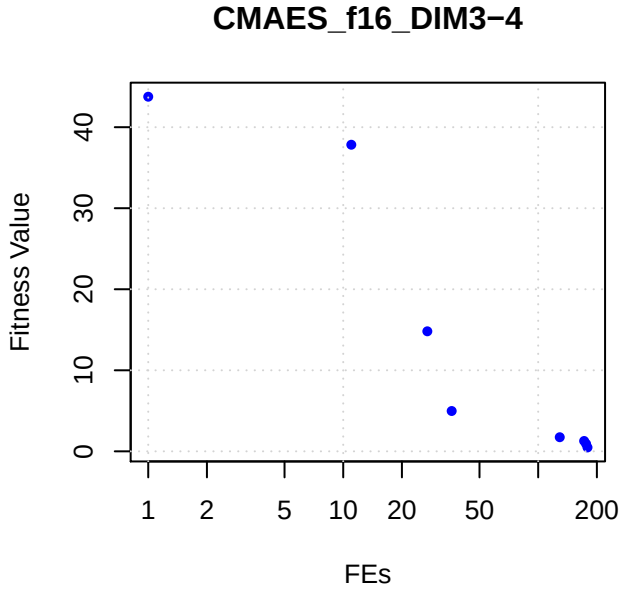
40
60
80
100
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−3
Fitness Value
0
50
100
150
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−4
Fitness Value
0
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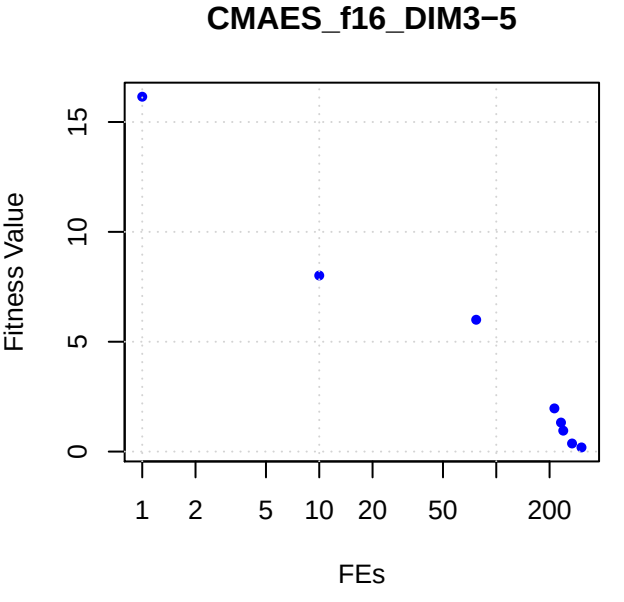
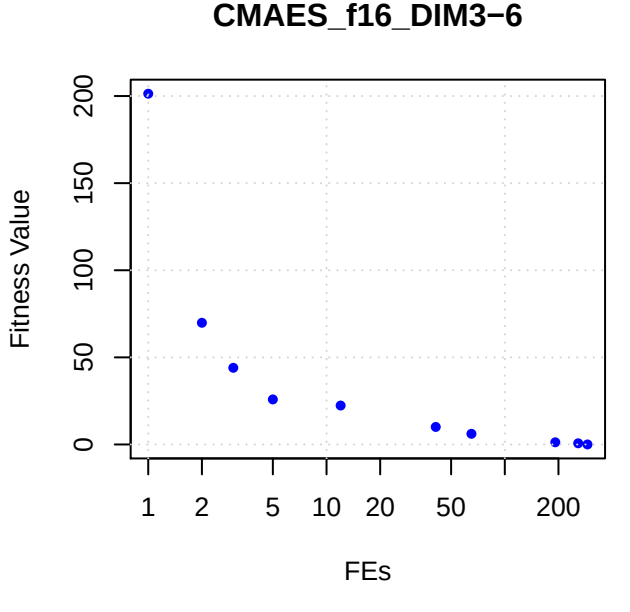
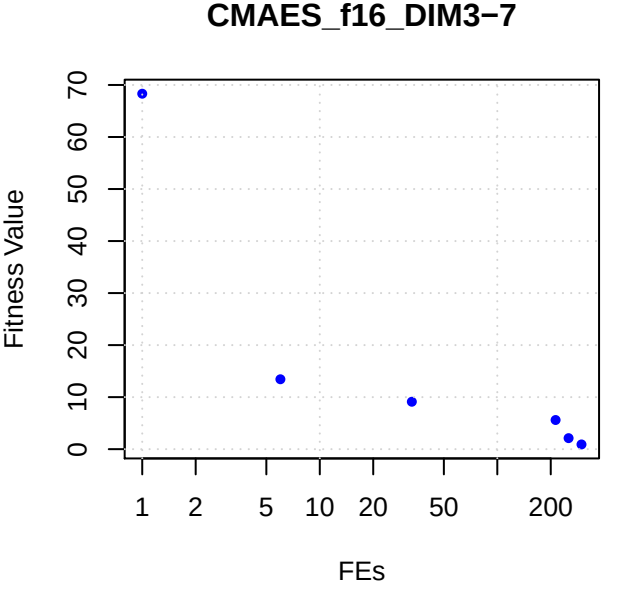
30
40
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−5
Fitness Value
0
5
10
15
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−6
Fitness Value
0
50
100
150
200
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−7
Fitness Value
0
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40
50
60
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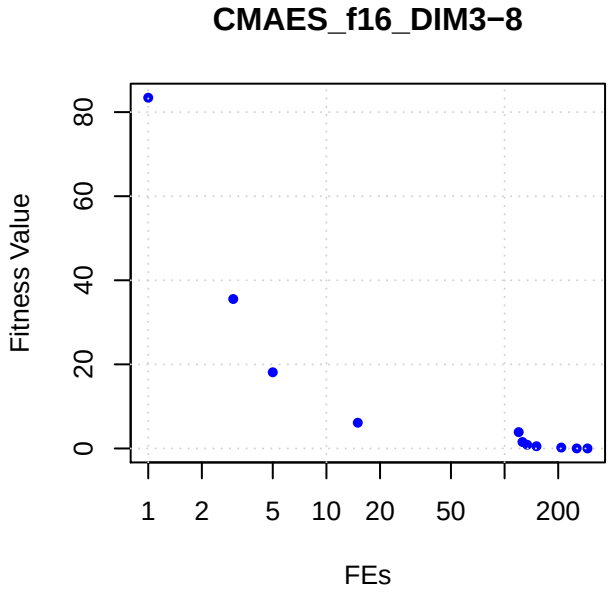
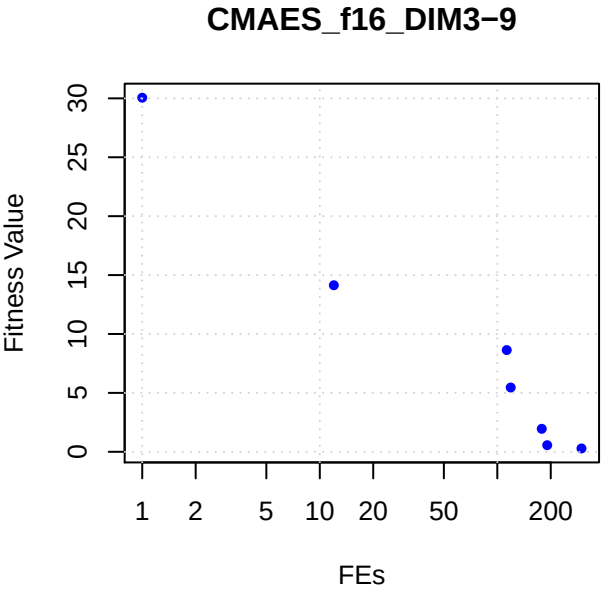
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−8
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM3−9
Fitness Value
0
5
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20
25
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1
2
5
10
20
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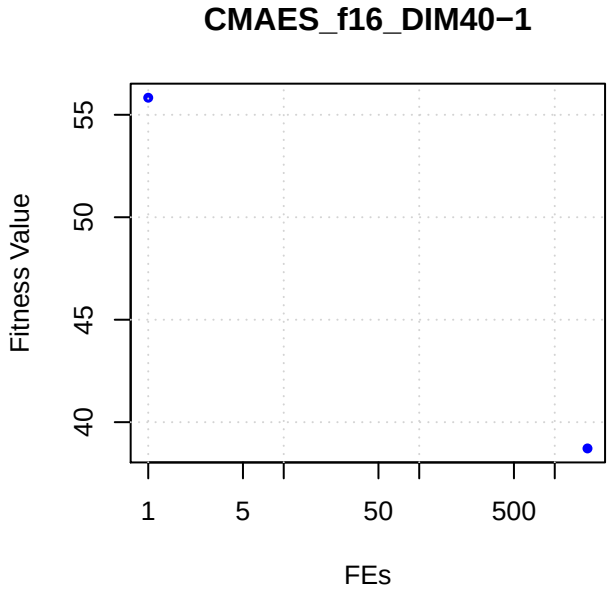
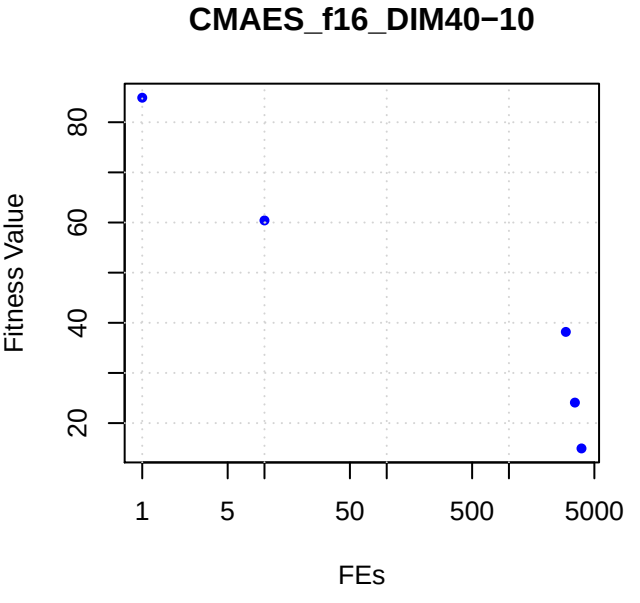
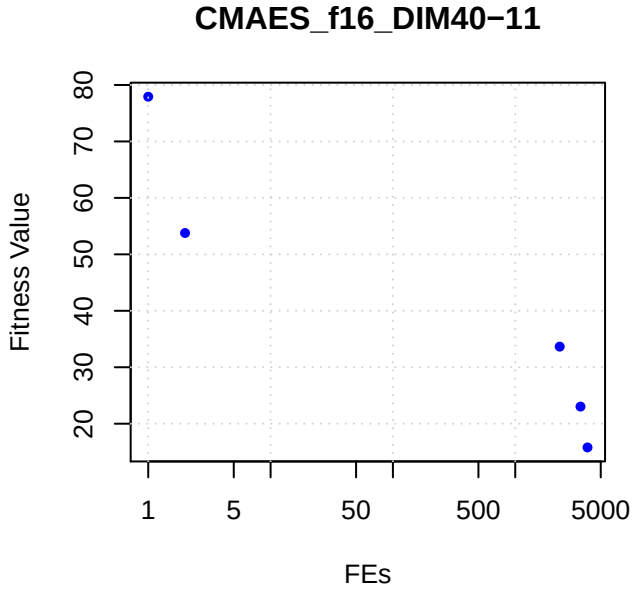
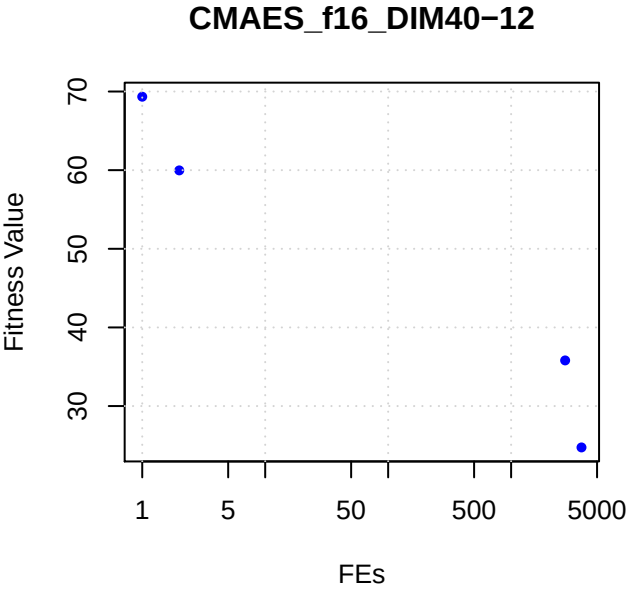
200
FEs


CMAES_f16_DIM40−1
Fitness Value
40
45
50
55
1
5
50
500
FEs


CMAES_f16_DIM40−10
Fitness Value
20
40
60
80
1
5
50
500
5000
FEs


CMAES_f16_DIM40−11
Fitness Value
20
30
40
50
60
70
80
1
5
50
500
5000
FEs


CMAES_f16_DIM40−12
Fitness Value
30
40
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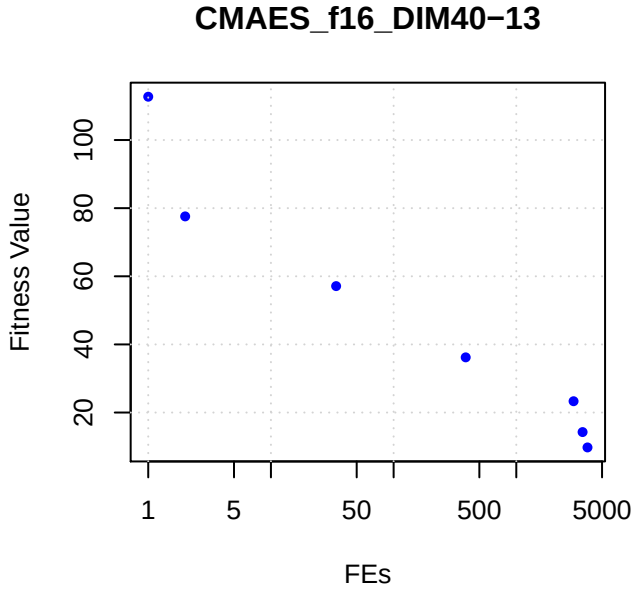
60
70
1
5
50
500
5000
FEs


CMAES_f16_DIM40−13
Fitness Value
20
40
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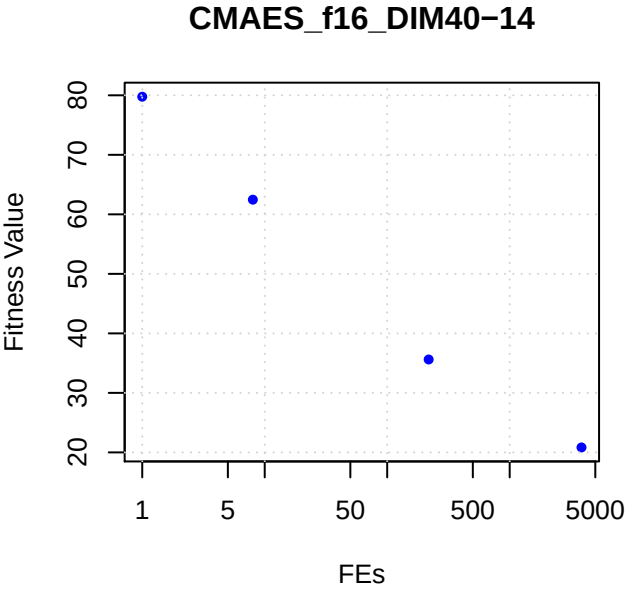
80
100
1
5
50
500
5000
FEs


CMAES_f16_DIM40−14
Fitness Value
20
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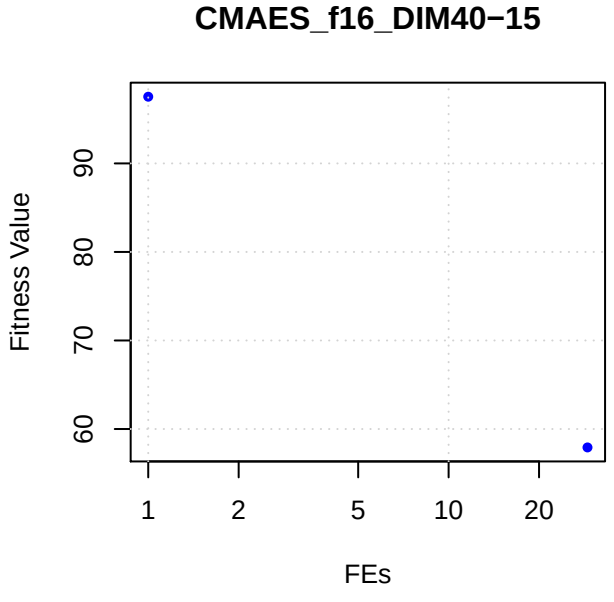
40
50
60
70
80
1
5
50
500
5000
FEs


CMAES_f16_DIM40−15
Fitness Value
60
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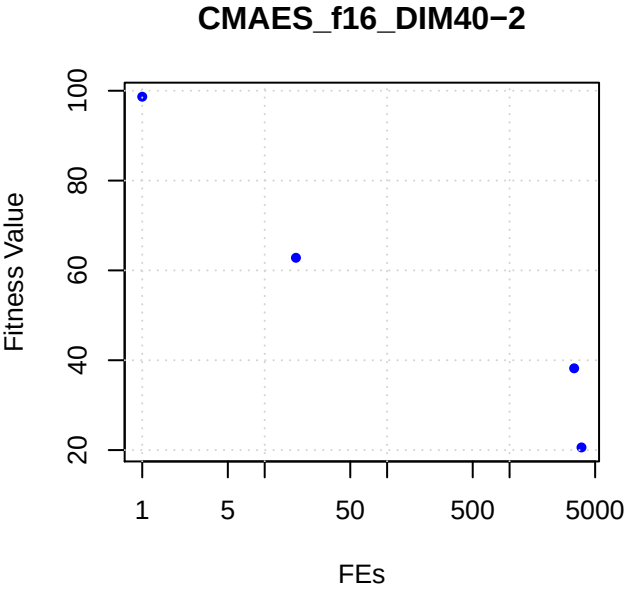
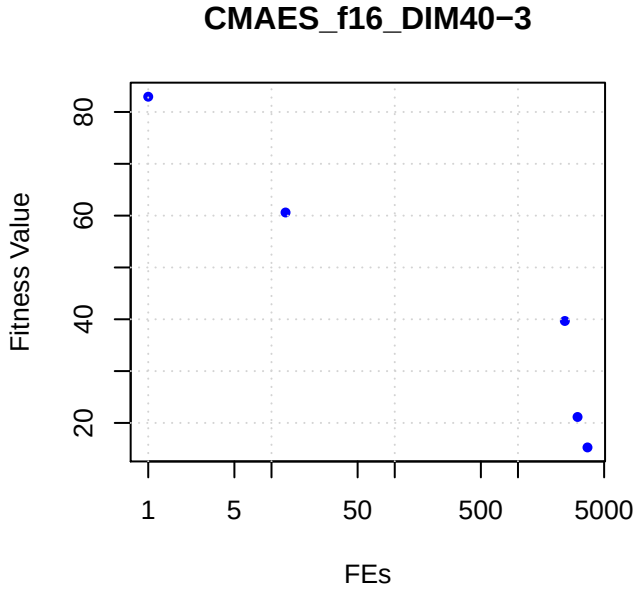
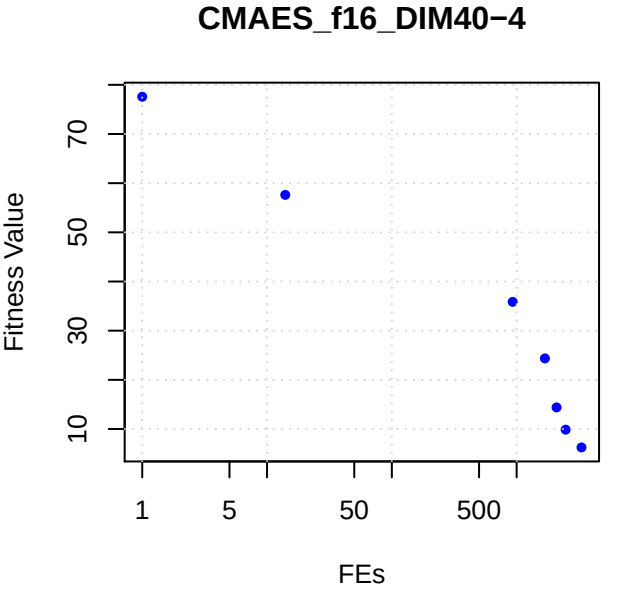
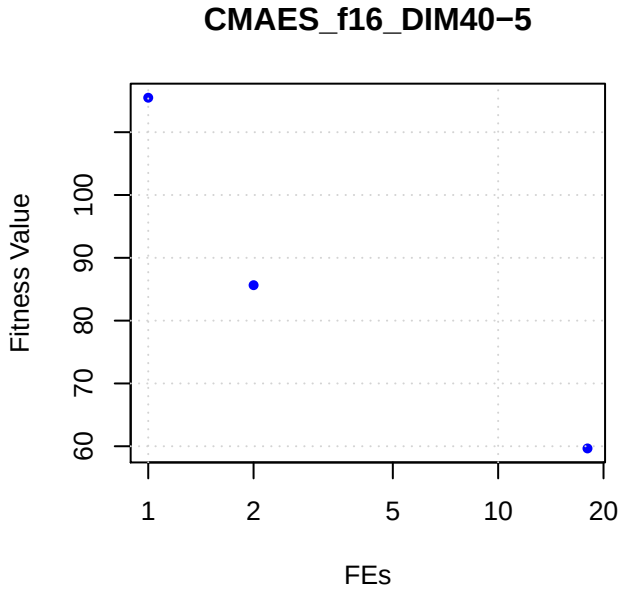
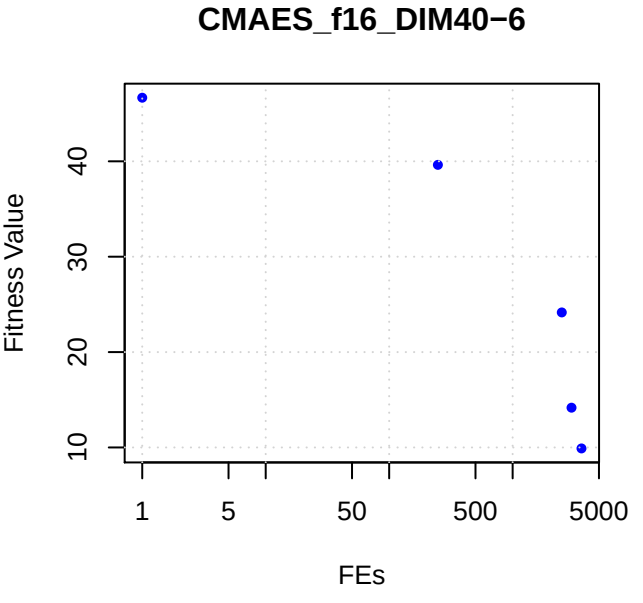
80
90
1
2
5
10
20
FEs

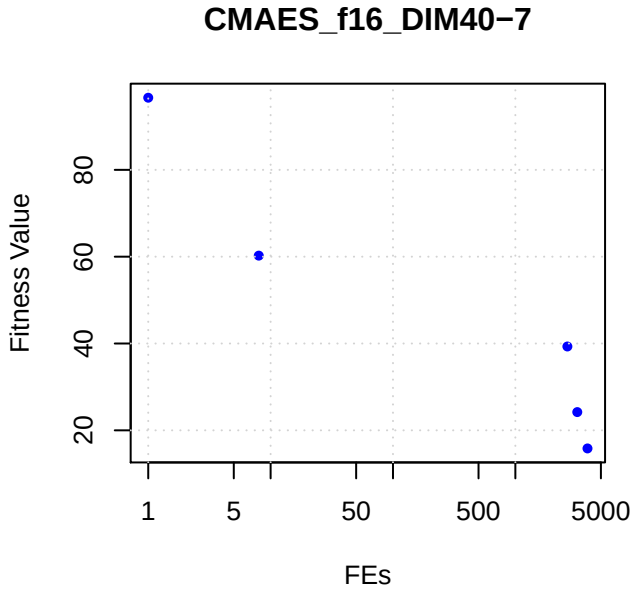

CMAES_f16_DIM40−2
Fitness Value
20
40
60
80
100
1
5
50
500
5000
FEs

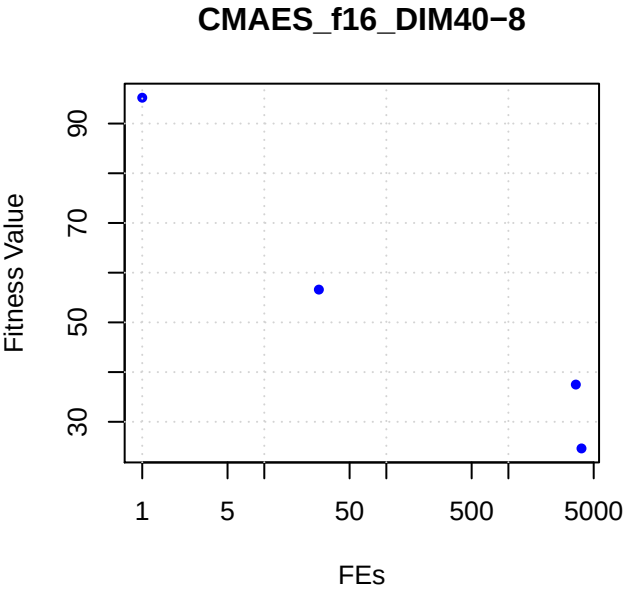

CMAES_f16_DIM40−3
Fitness Value
20
40
60
80
1
5
50
500
5000
FEs

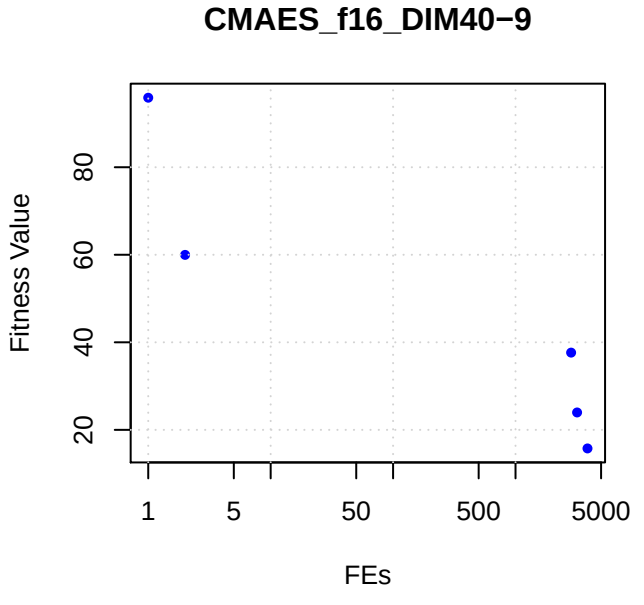

CMAES_f16_DIM40−4
Fitness Value
10
30
50
70
1
5
50
500
FEs


CMAES_f16_DIM40−5
Fitness Value
60
70
80
90
100
1
2
5
10
20
FEs


CMAES_f16_DIM40−6
Fitness Value
10
20
30
40
1
5
50
500
5000
FEs


CMAES_f16_DIM40−7
Fitness Value
20
40
60
80
1
5
50
500
5000
FEs


CMAES_f16_DIM40−8
Fitness Value
30
50
70
90
1
5
50
500
5000
FEs


CMAES_f16_DIM40−9
Fitness Value
20
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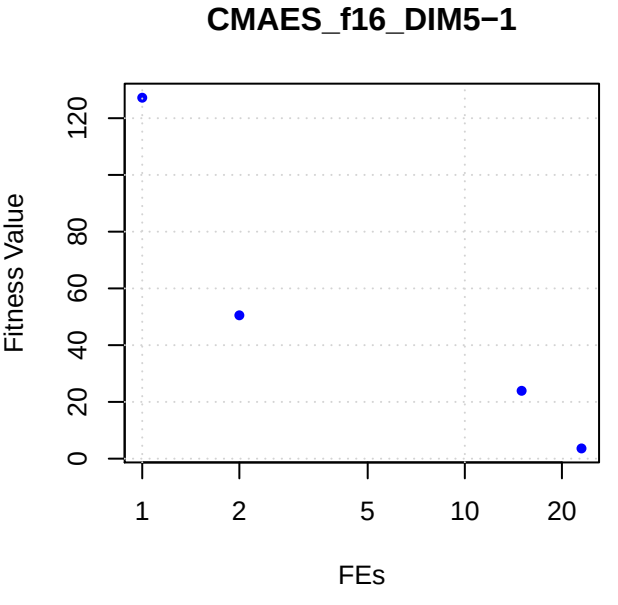
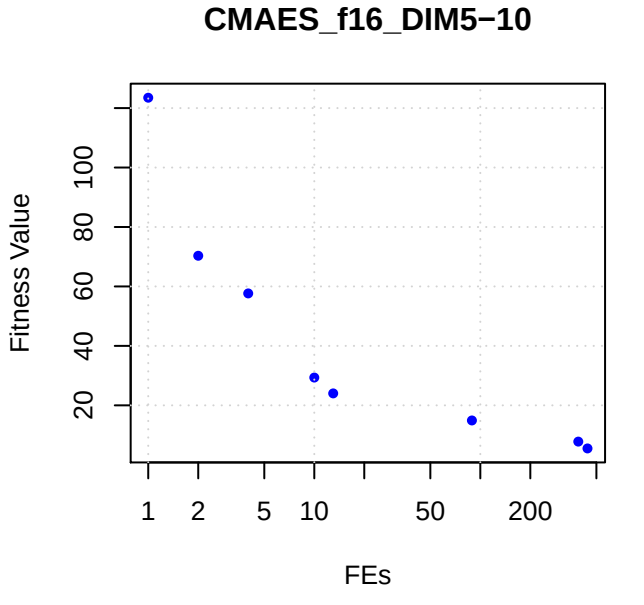
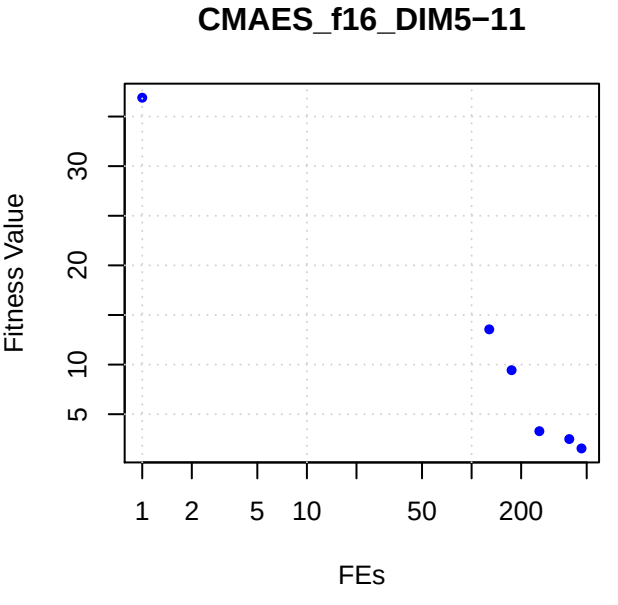
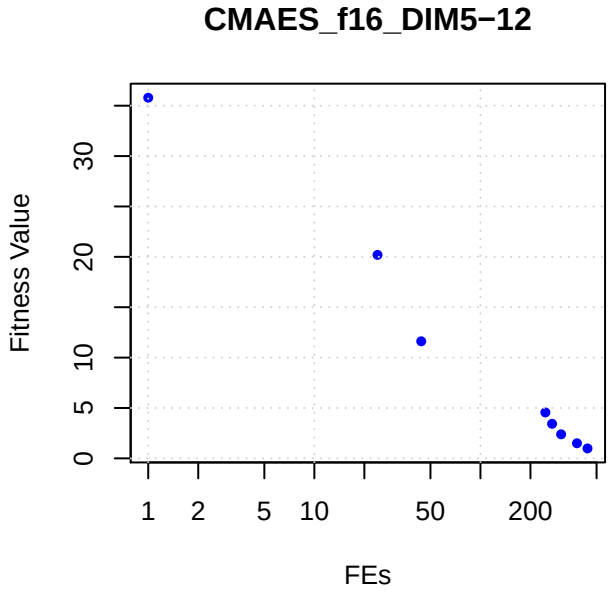
60
80
1
5
50
500
5000
FEs


CMAES_f16_DIM5−1
Fitness Value
0
20
40
60
80
120
1
2
5
10
20
FEs


CMAES_f16_DIM5−10
Fitness Value
20
40
60
80
100
1
2
5
10
50
200
FEs


CMAES_f16_DIM5−11
Fitness Value
5
10
20
30
1
2
5
10
50
200
FEs


CMAES_f16_DIM5−12
Fitness Value
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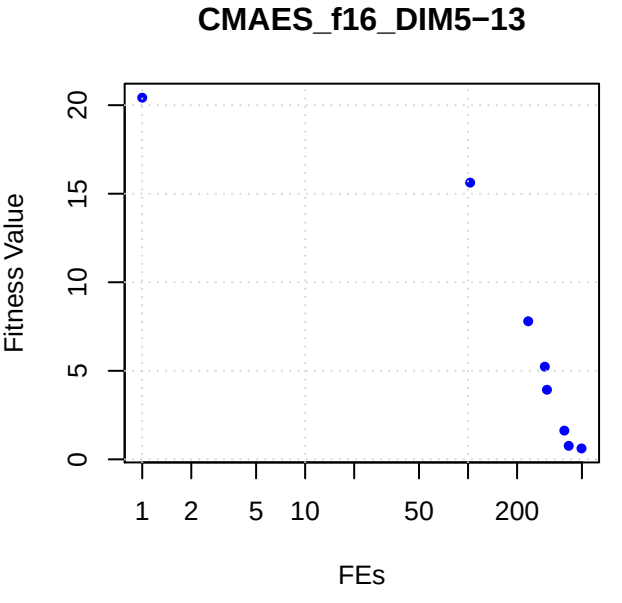
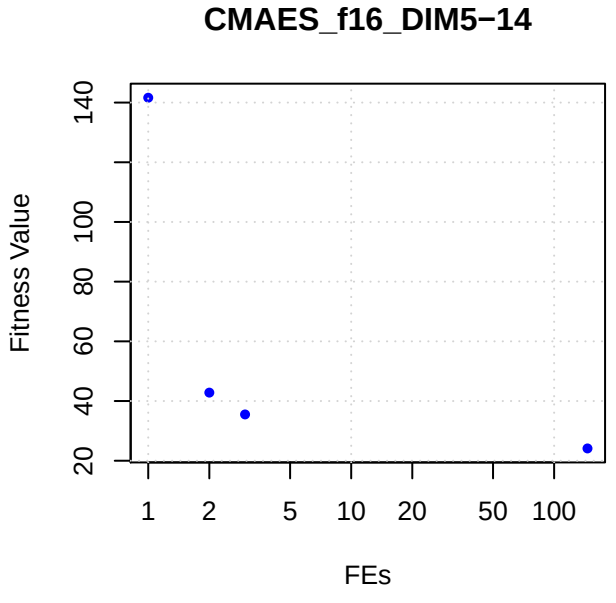
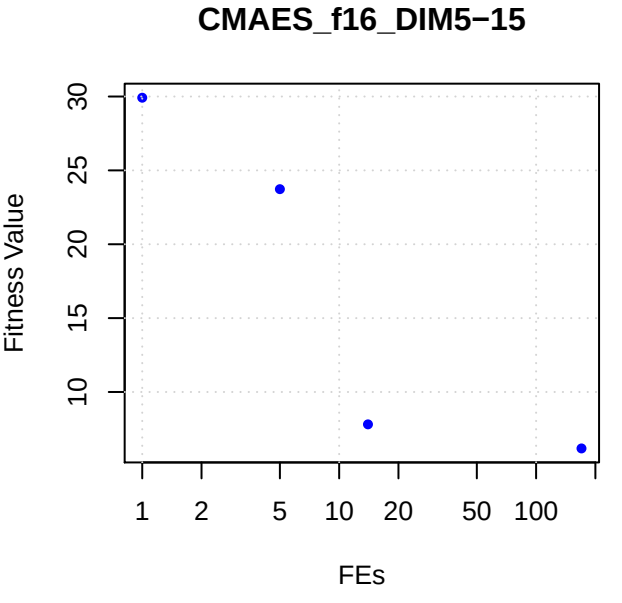
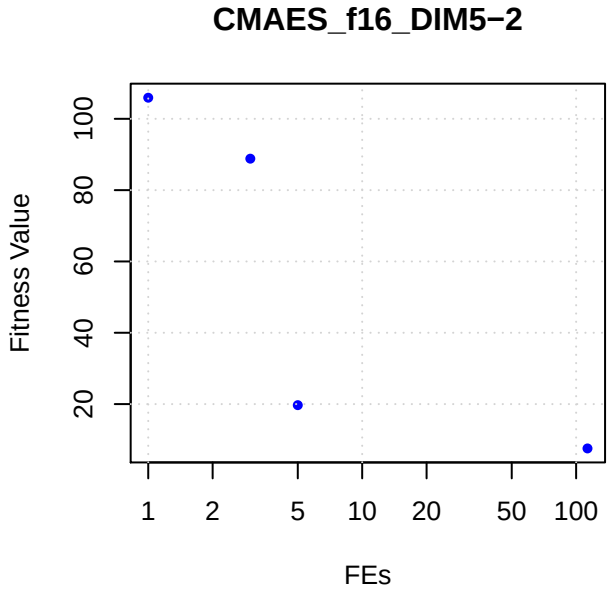
5
10
20
30
1
2
5
10
50
200
FEs


CMAES_f16_DIM5−13
Fitness Value
0
5
10
15
20
1
2
5
10
50
200
FEs


CMAES_f16_DIM5−14
Fitness Value
20
40
60
80
100
140
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM5−15
Fitness Value
10
15
20
25
30
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM5−2
Fitness Value
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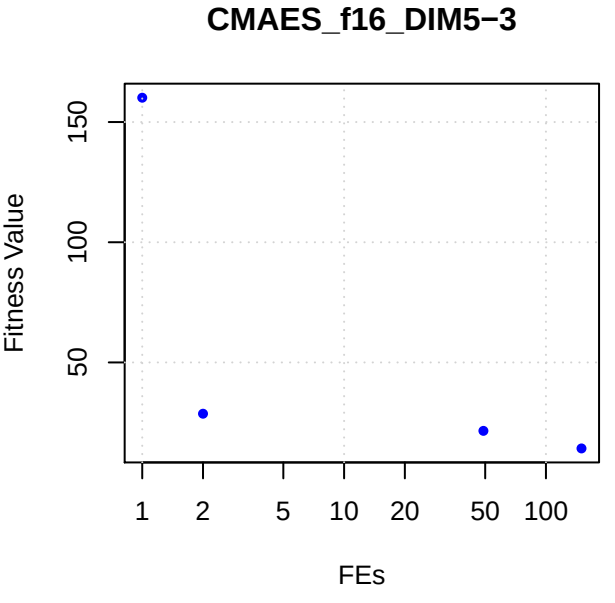
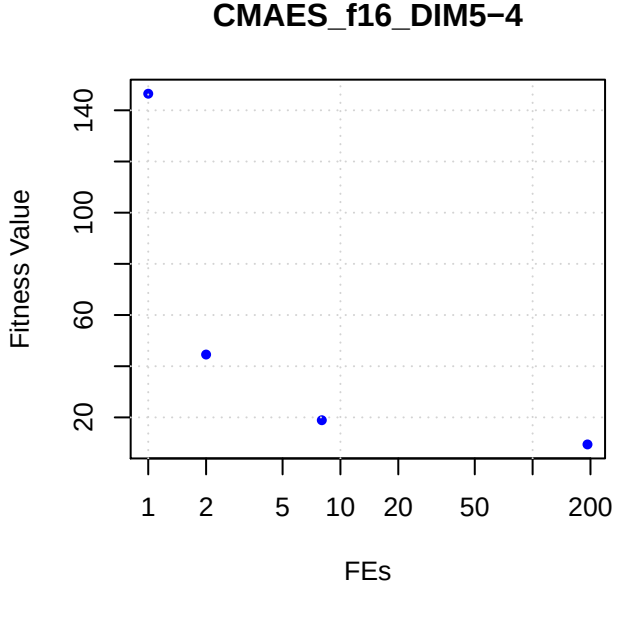
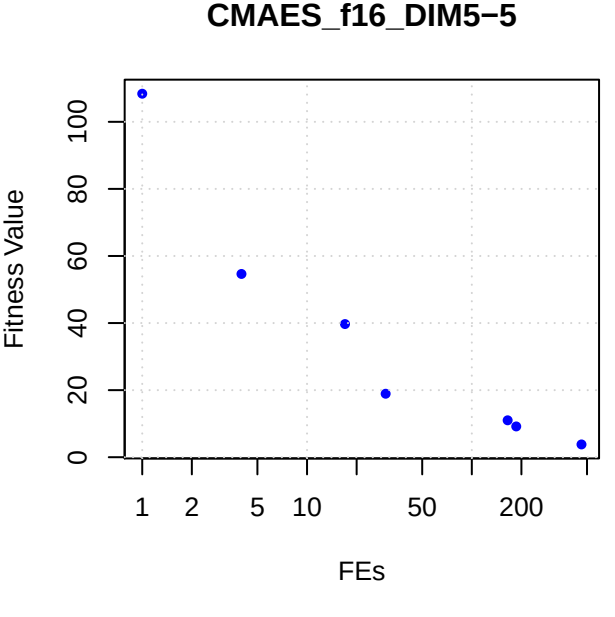
40
60
80
100
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM5−3
Fitness Value
50
100
150
1
2
5
10
20
50
100
FEs


CMAES_f16_DIM5−4
Fitness Value
20
60
100
140
1
2
5
10
20
50
200
FEs


CMAES_f16_DIM5−5
Fitness Value
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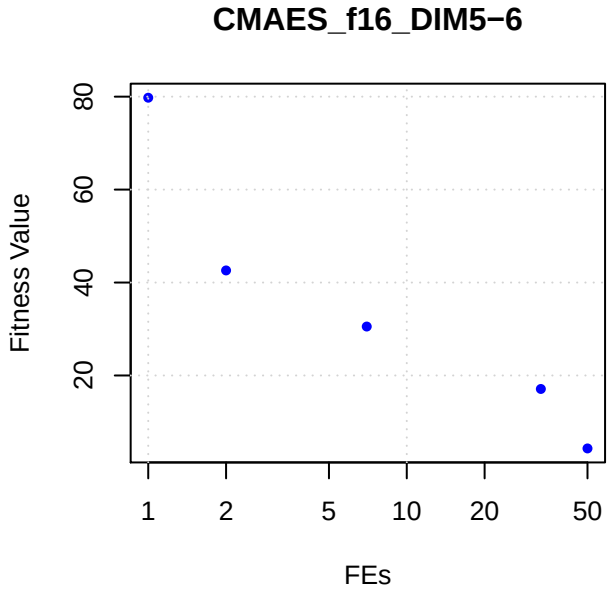
40
60
80
100
1
2
5
10
50
200
FEs


CMAES_f16_DIM5−6
Fitness Value
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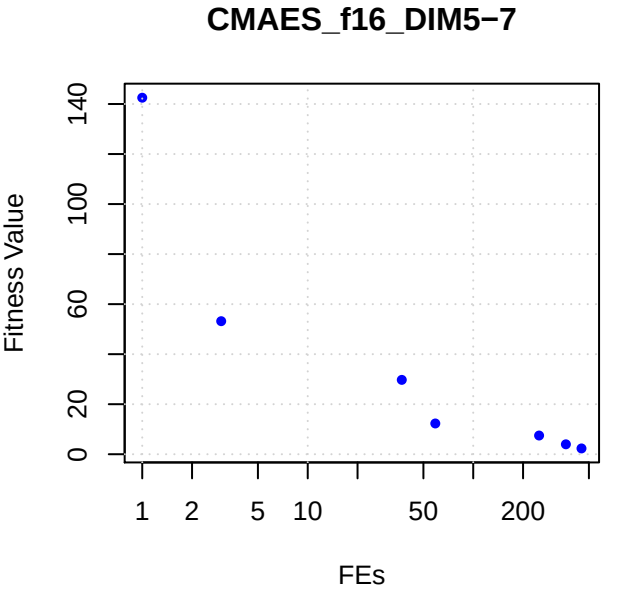
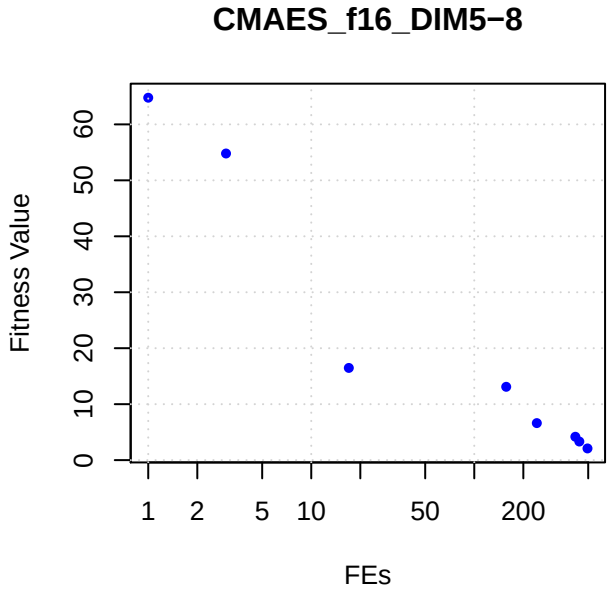
40
60
80
1
2
5
10
20
50
FEs


CMAES_f16_DIM5−7
Fitness Value
0
20
60
100
140
1
2
5
10
50
200
FEs


CMAES_f16_DIM5−8
Fitness Value
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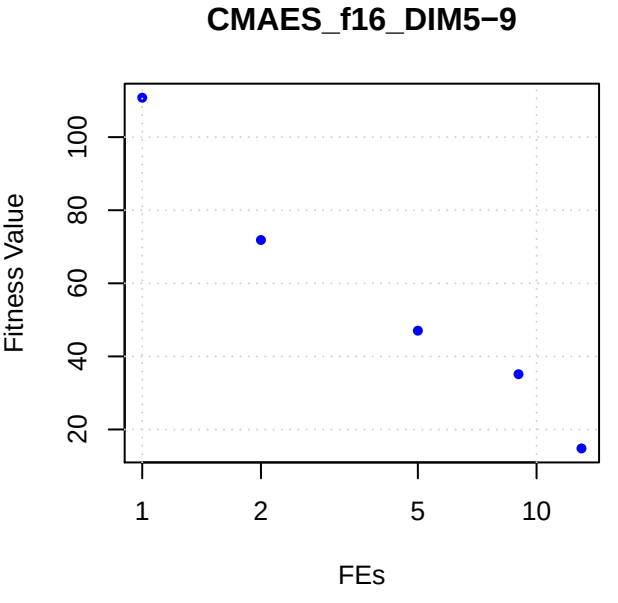
20
30
40
50
60
1
2
5
10
50
200
FEs


CMAES_f16_DIM5−9
Fitness Value
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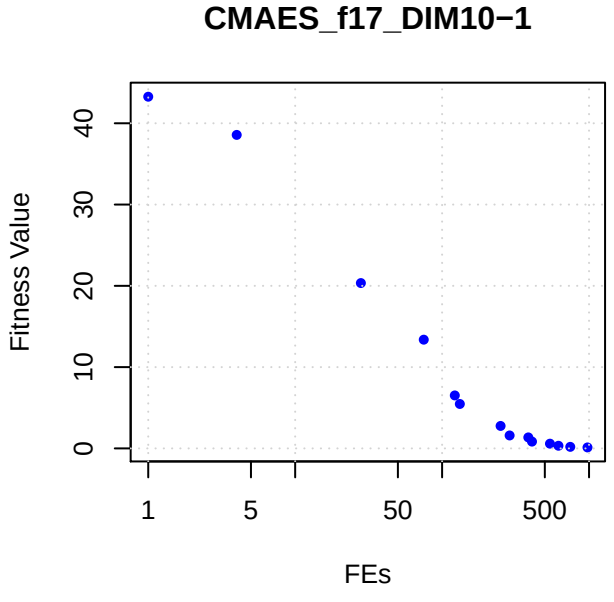
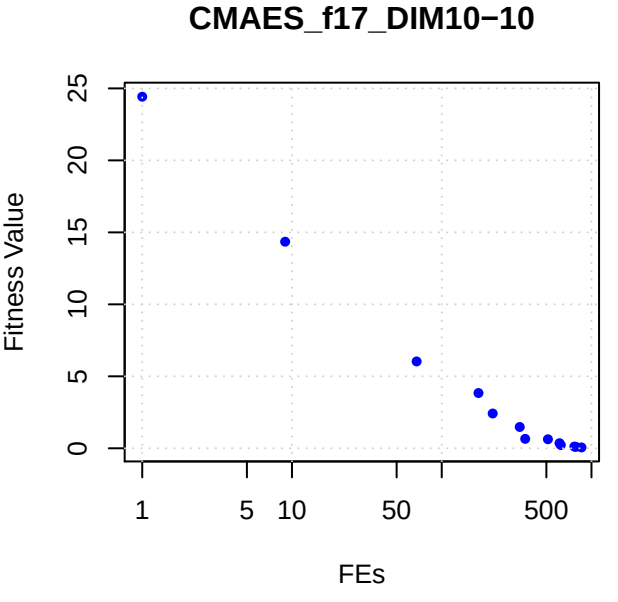
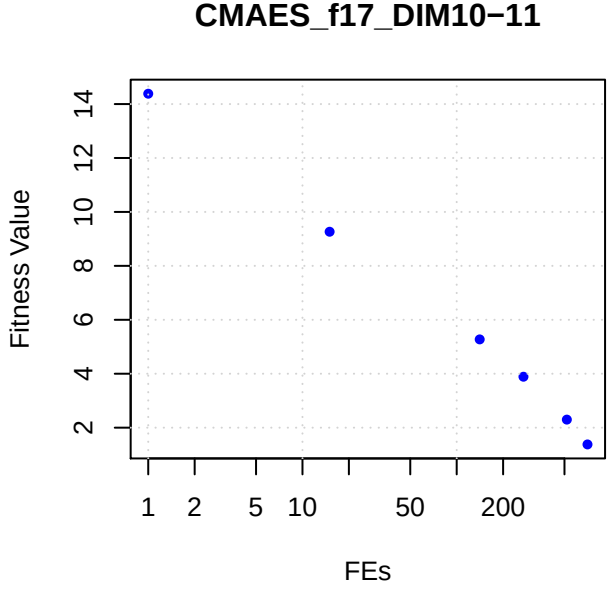
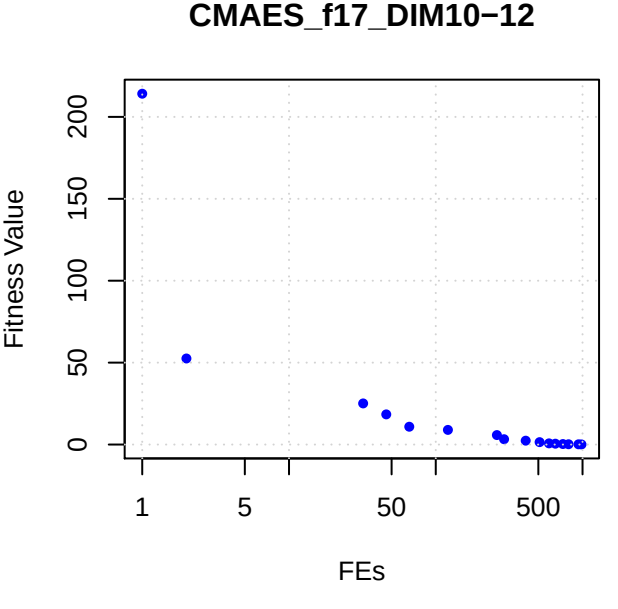
60
80
100
1
2
5
10
FEs


CMAES_f17_DIM10−1
Fitness Value
0
10
20
30
40
1
5
50
500
FEs


CMAES_f17_DIM10−10
Fitness Value
0
5
10
15
20
25
1
5
10
50
500
FEs


CMAES_f17_DIM10−11
Fitness Value
2
4
6
8
10
12
14
1
2
5
10
50
200
FEs


CMAES_f17_DIM10−12
Fitness Value
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100
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1
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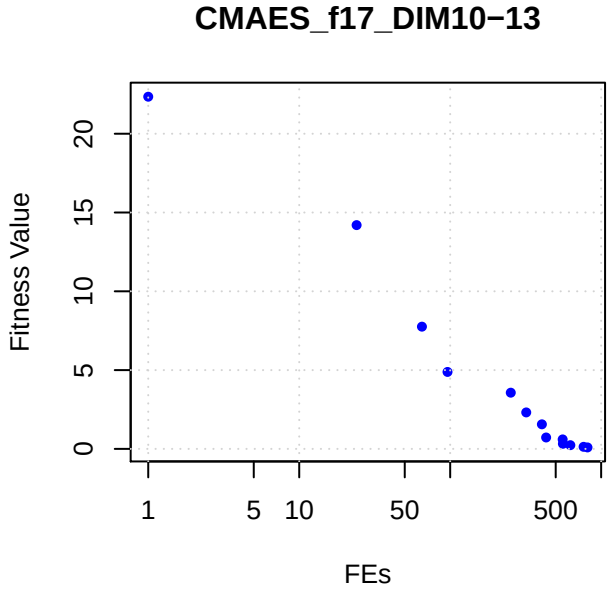
50
500
FEs


CMAES_f17_DIM10−13
Fitness Value
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10
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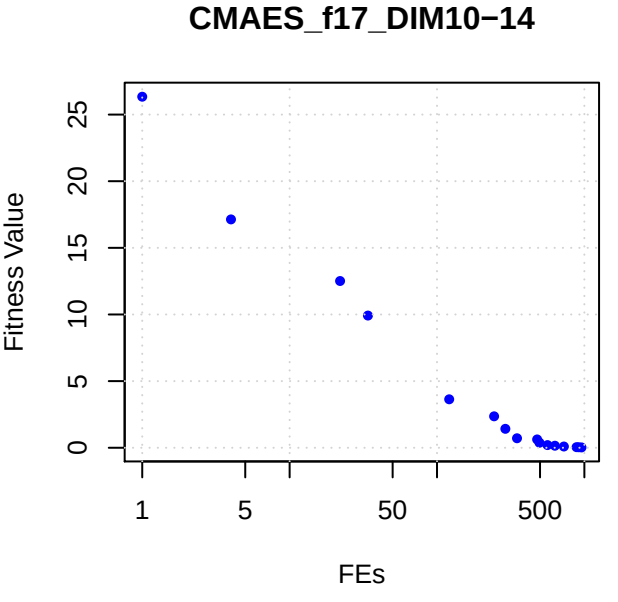
500
FEs


CMAES_f17_DIM10−14
Fitness Value
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20
25
1
5
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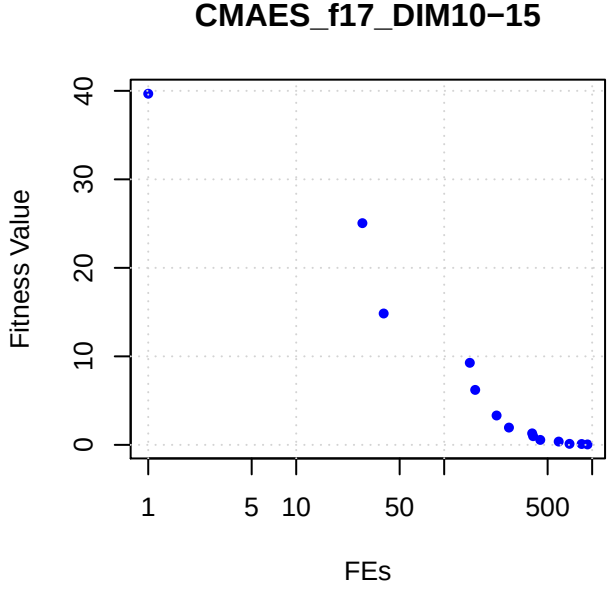
500
FEs


CMAES_f17_DIM10−15
Fitness Value
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30
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1
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10
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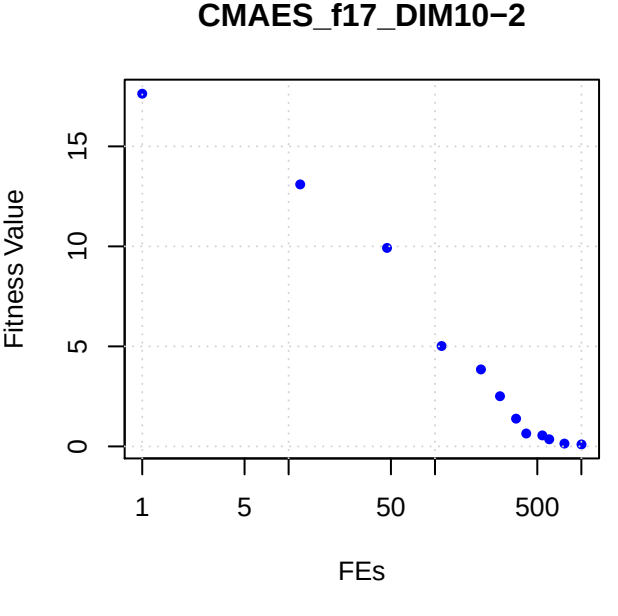
500
FEs


CMAES_f17_DIM10−2
Fitness Value
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10
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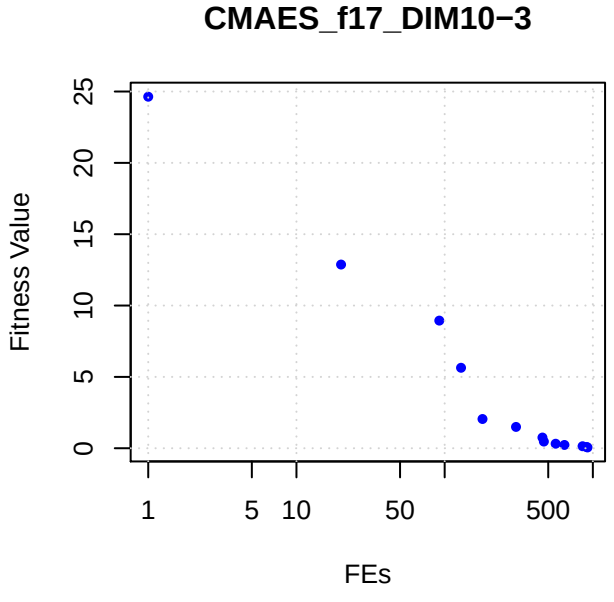
1
5
50
500
FEs


CMAES_f17_DIM10−3
Fitness Value
0
5
10
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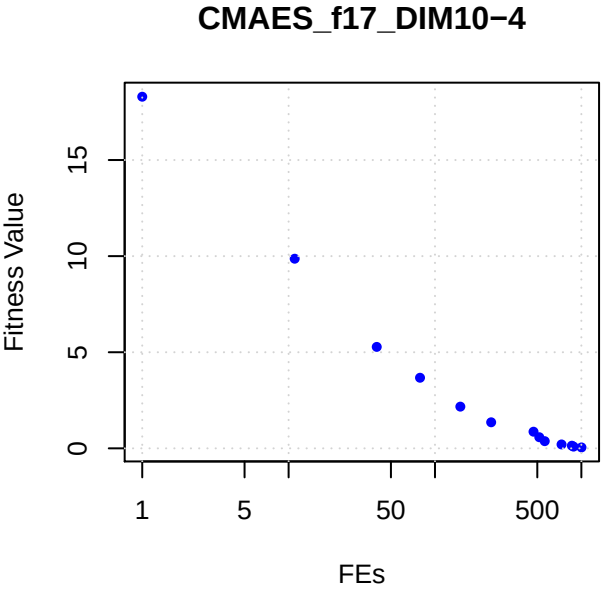
20
25
1
5
10
50
500
FEs


CMAES_f17_DIM10−4
Fitness Value
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5
10
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5
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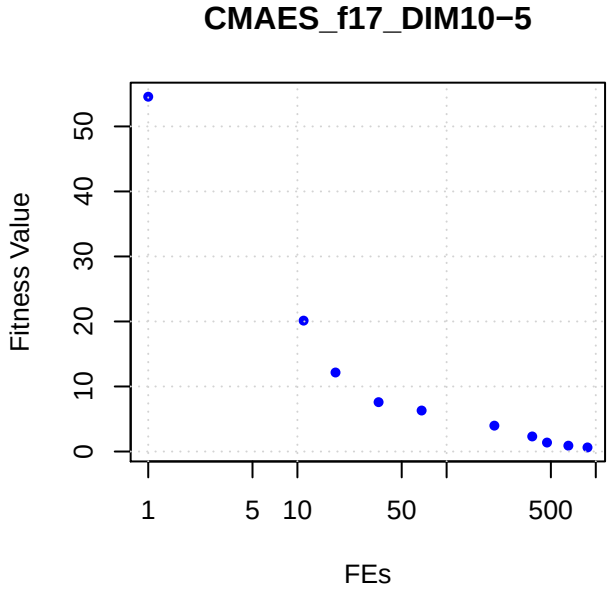
500
FEs


CMAES_f17_DIM10−5
Fitness Value
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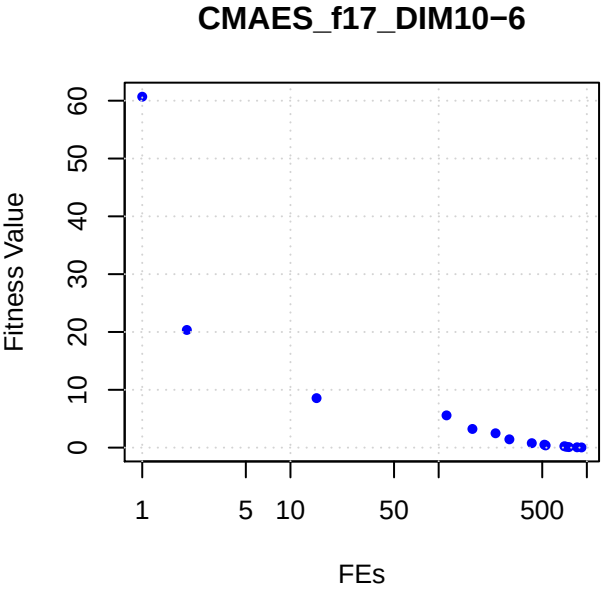
10
20
30
40
50
1
5
10
50
500
FEs


CMAES_f17_DIM10−6
Fitness Value
0
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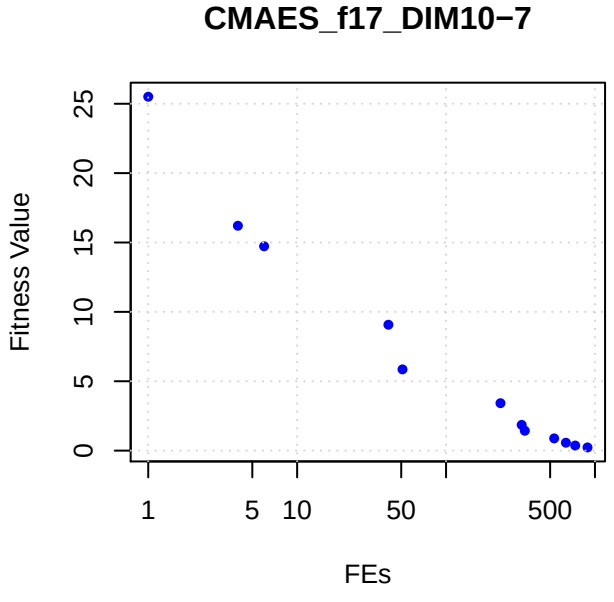
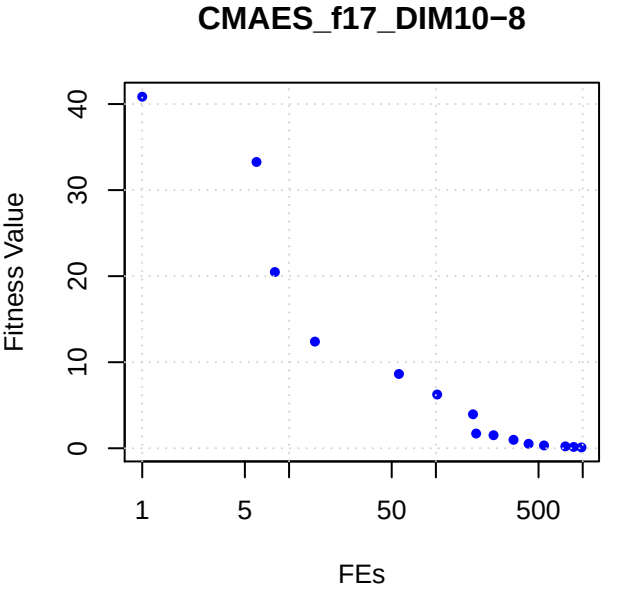
20
30
40
50
60
1
5
10
50
500
FEs


CMAES_f17_DIM10−7
Fitness Value
0
5
10
15
20
25
1
5
10
50
500
FEs


CMAES_f17_DIM10−8
Fitness Value
0
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20
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1
5
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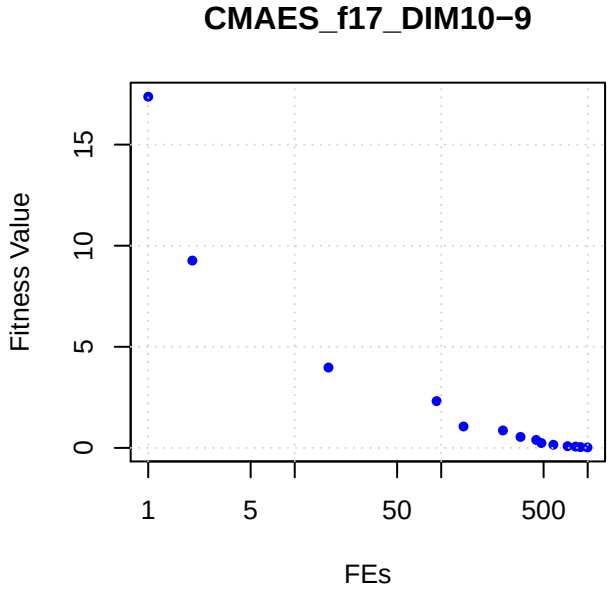
500
FEs


CMAES_f17_DIM10−9
Fitness Value
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10
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1
5
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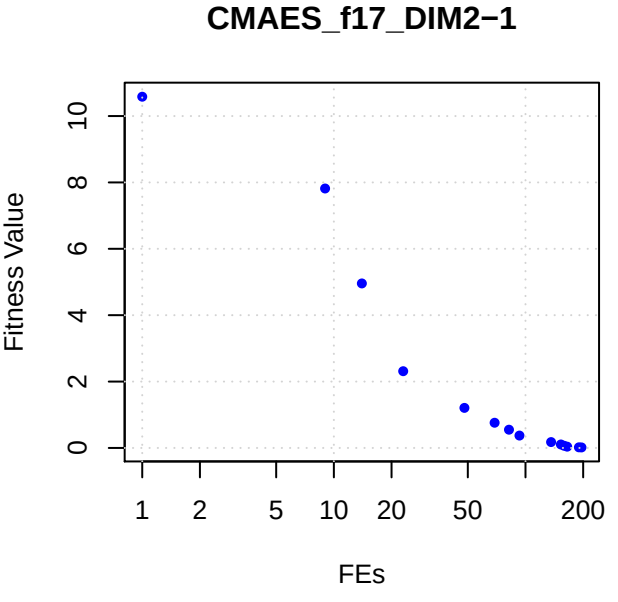
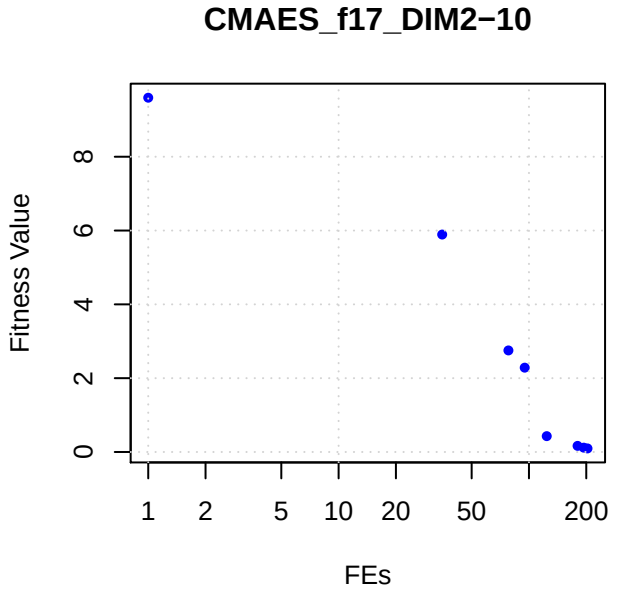
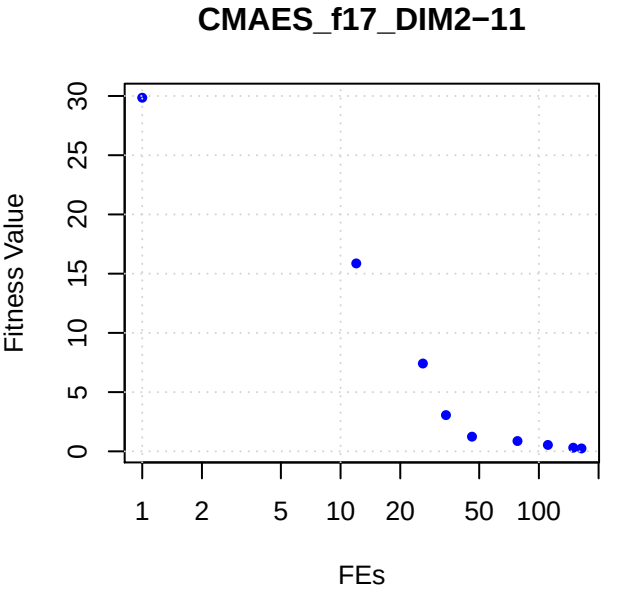
500
FEs


CMAES_f17_DIM2−1
Fitness Value
0
2
4
6
8
10
1
2
5
10
20
50
200
FEs


CMAES_f17_DIM2−10
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
200
FEs


CMAES_f17_DIM2−11
Fitness Value
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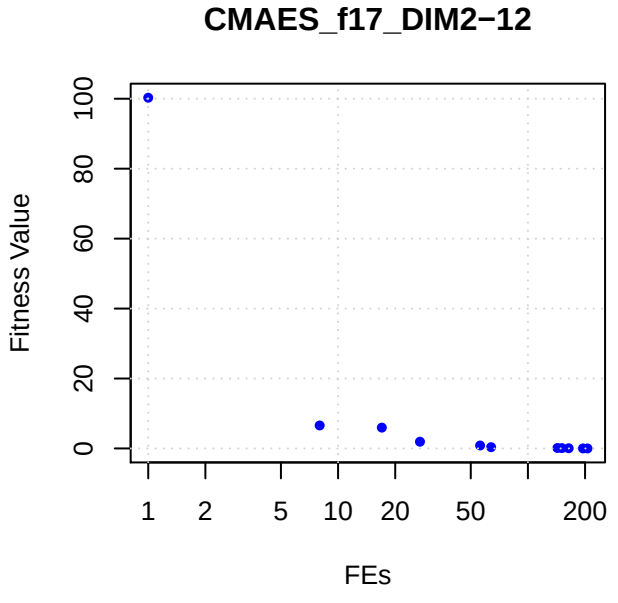
10
15
20
25
30
1
2
5
10
20
50
100
FEs


CMAES_f17_DIM2−12
Fitness Value
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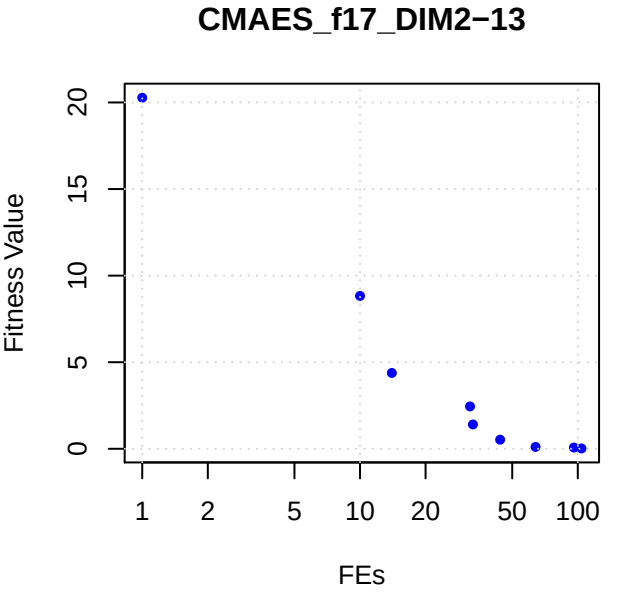
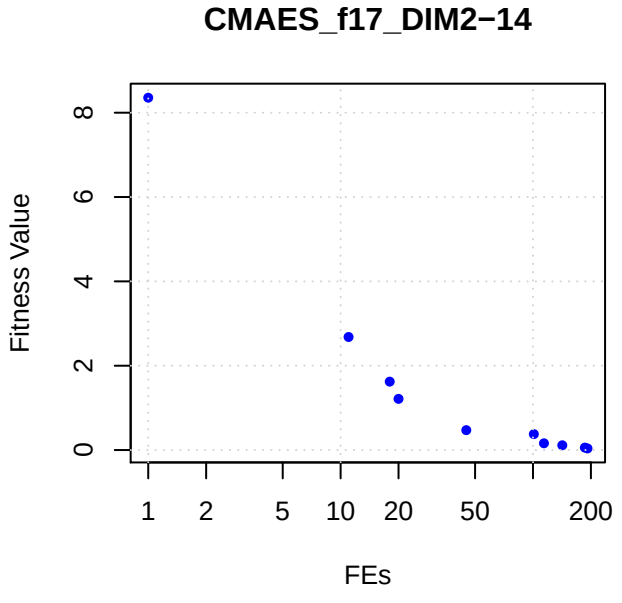
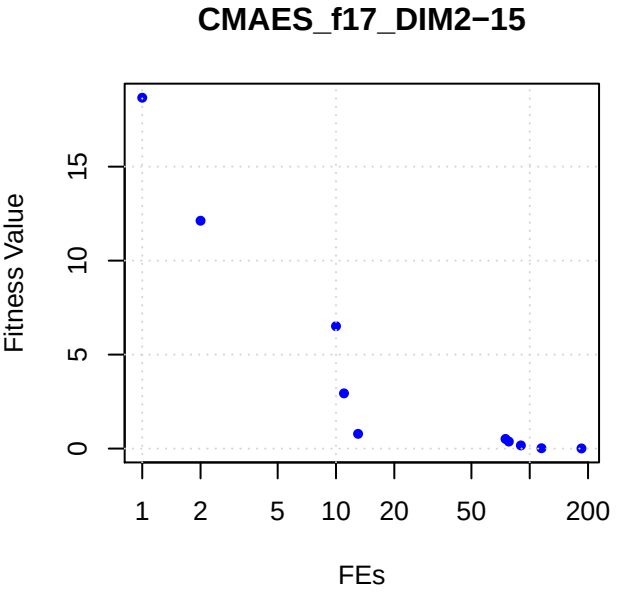
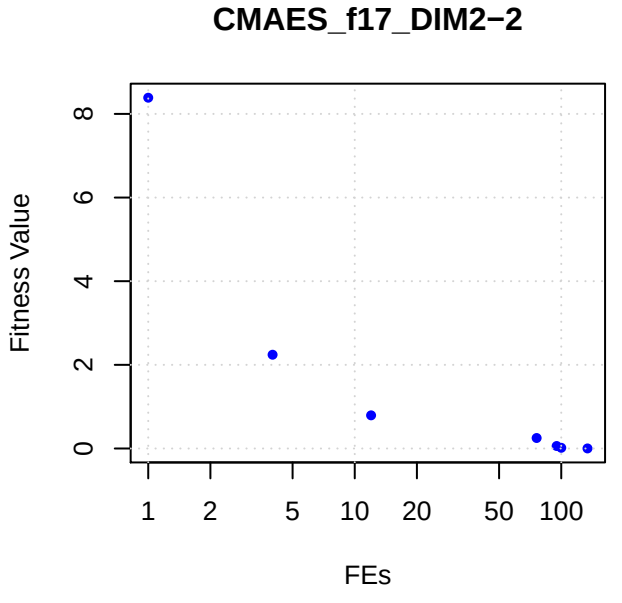
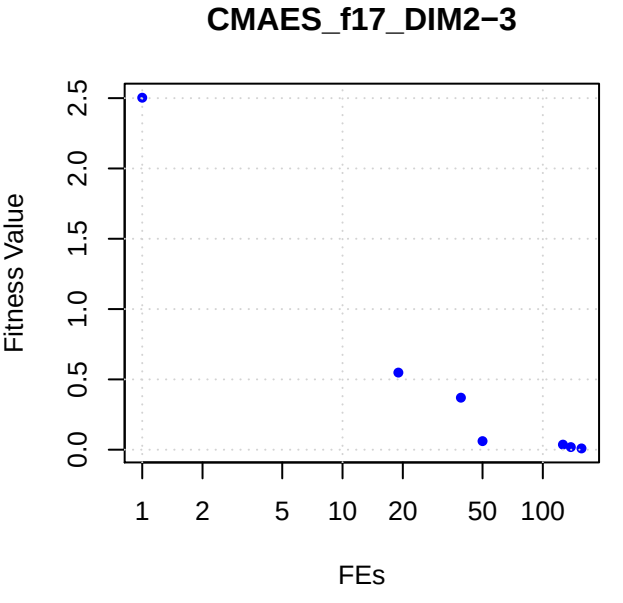
20
40
60
80
100
1
2
5
10
20
50
200
FEs

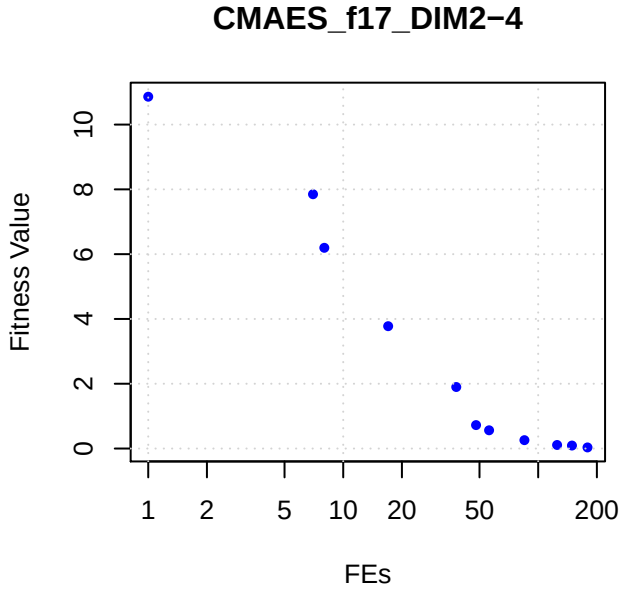

CMAES_f17_DIM2−13
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
100
FEs

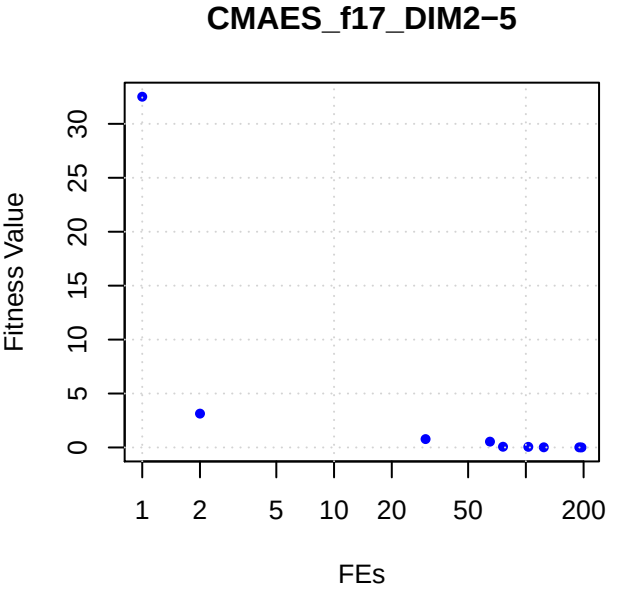

CMAES_f17_DIM2−14
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
200
FEs

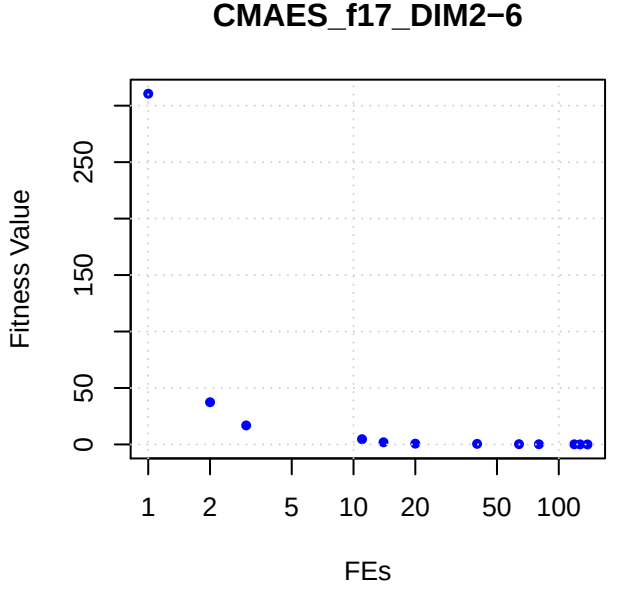

CMAES_f17_DIM2−15
Fitness Value
0
5
10
15
1
2
5
10
20
50
200
FEs

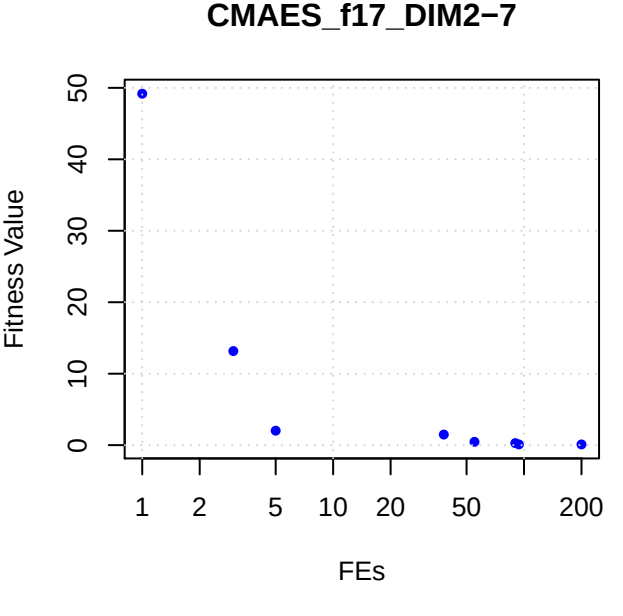

CMAES_f17_DIM2−2
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
100
FEs

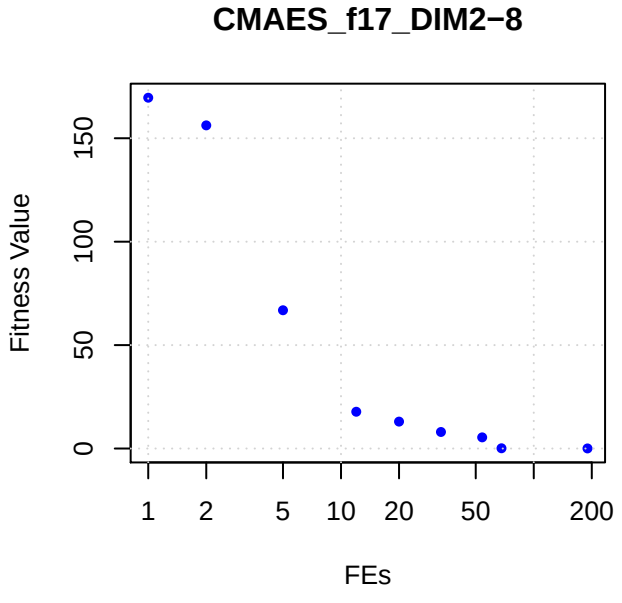

CMAES_f17_DIM2−3
Fitness Value
0.0
0.5
1.0
1.5
2.0
2.5
1
2
5
10
20
50
100
FEs

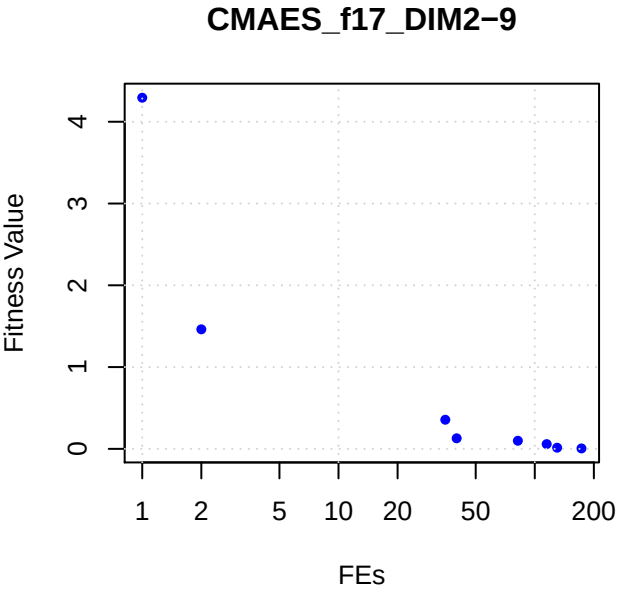

CMAES_f17_DIM2−4
Fitness Value
0
2
4
6
8
10
1
2
5
10
20
50
200
FEs

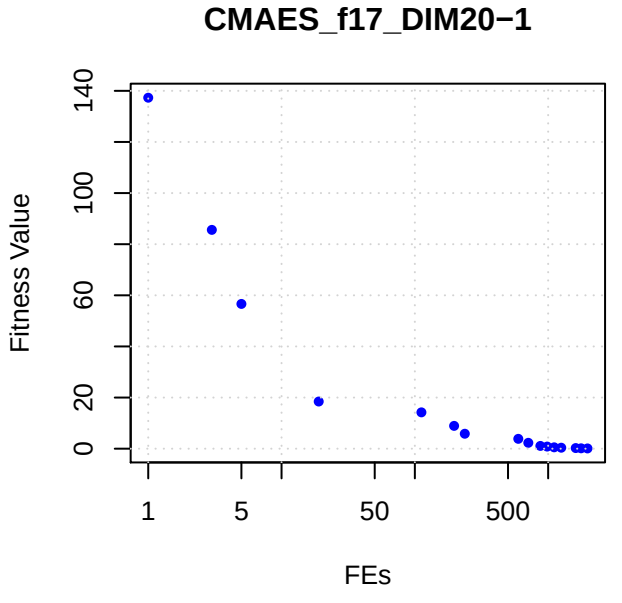

CMAES_f17_DIM2−5
Fitness Value
0
5
10
15
20
25
30
1
2
5
10
20
50
200
FEs

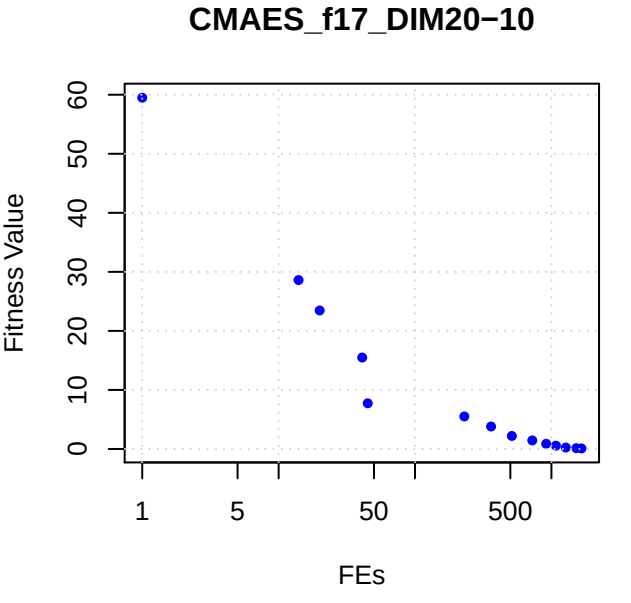

CMAES_f17_DIM2−6
Fitness Value
0
50
150
250
1
2
5
10
20
50
100
FEs

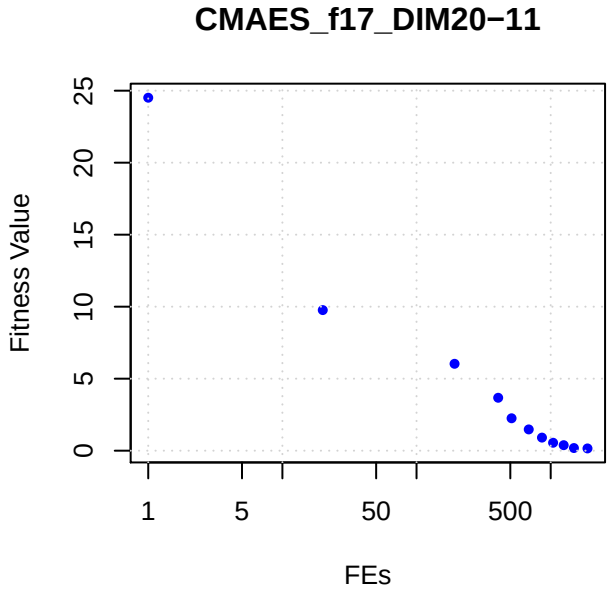

CMAES_f17_DIM2−7
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
200
FEs

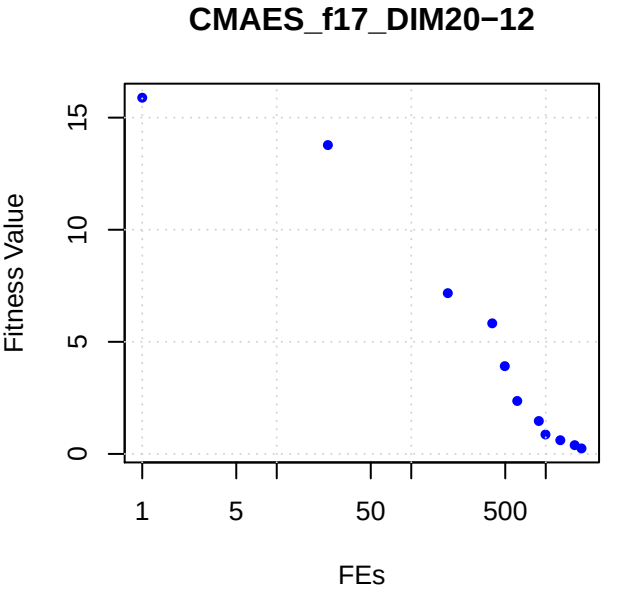

CMAES_f17_DIM2−8
Fitness Value
0
50
100
150
1
2
5
10
20
50
200
FEs

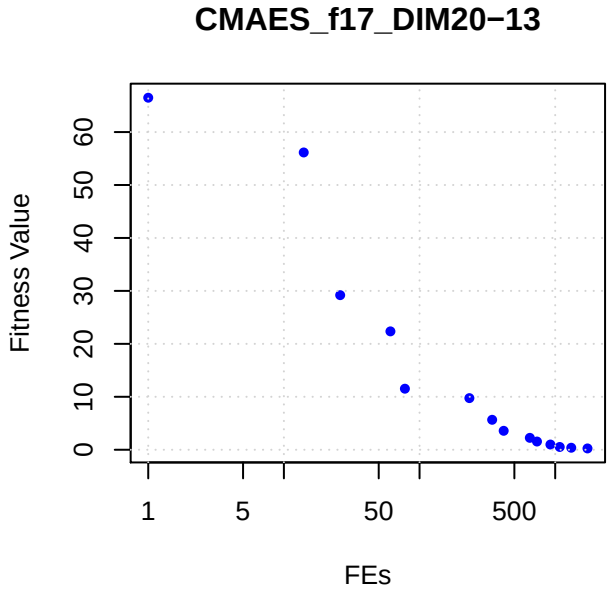

CMAES_f17_DIM2−9
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
200
FEs

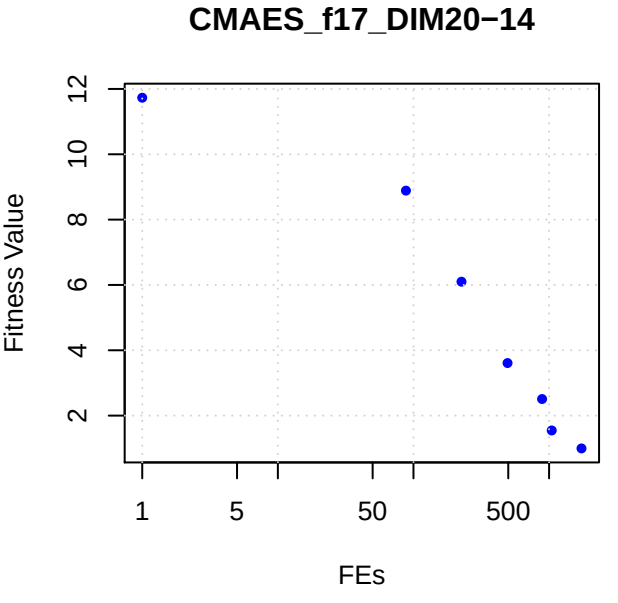

CMAES_f17_DIM20−1
Fitness Value
0
20
60
100
140
1
5
50
500
FEs

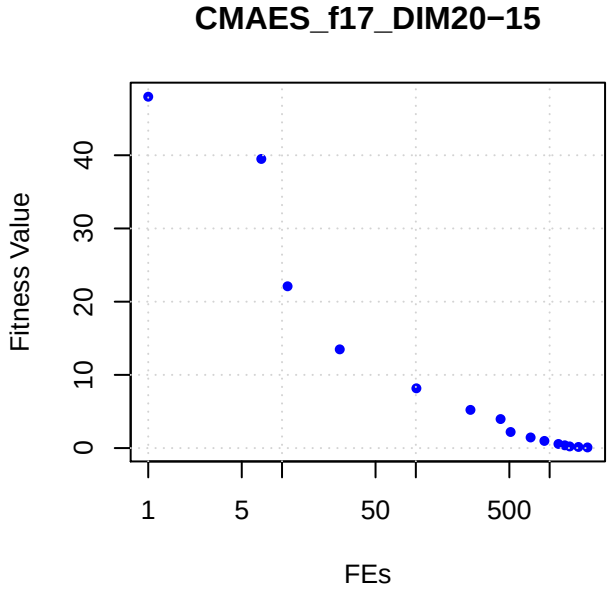

CMAES_f17_DIM20−10
Fitness Value
0
10
20
30
40
50
60
1
5
50
500
FEs

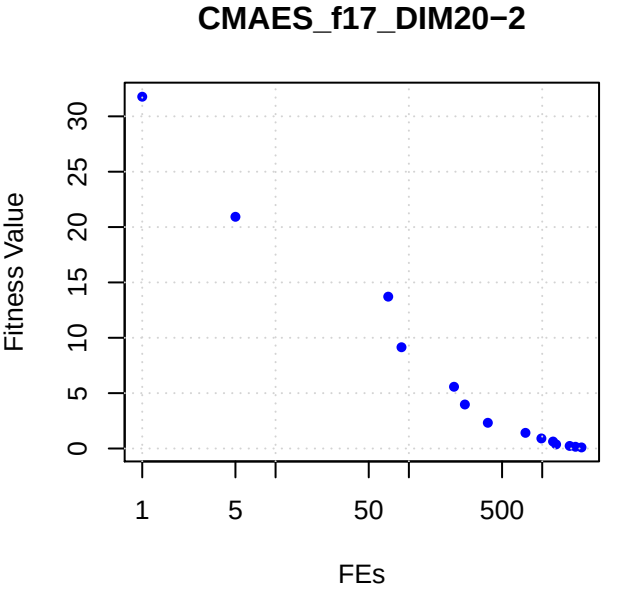

CMAES_f17_DIM20−11
Fitness Value
0
5
10
15
20
25
1
5
50
500
FEs

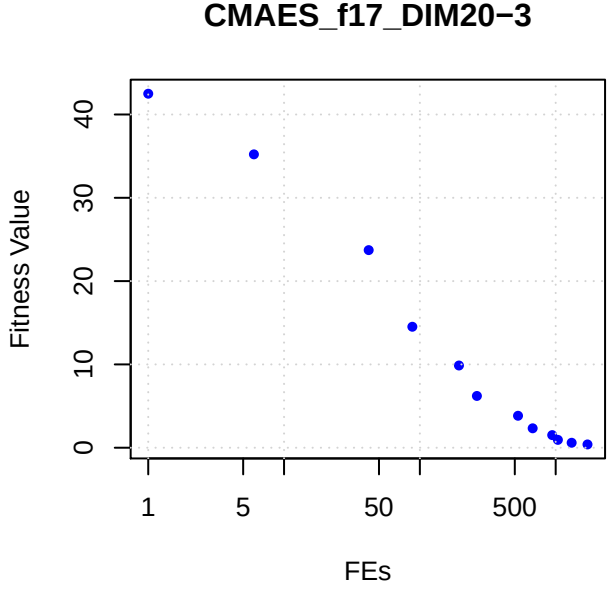

CMAES_f17_DIM20−12
Fitness Value
0
5
10
15
1
5
50
500
FEs

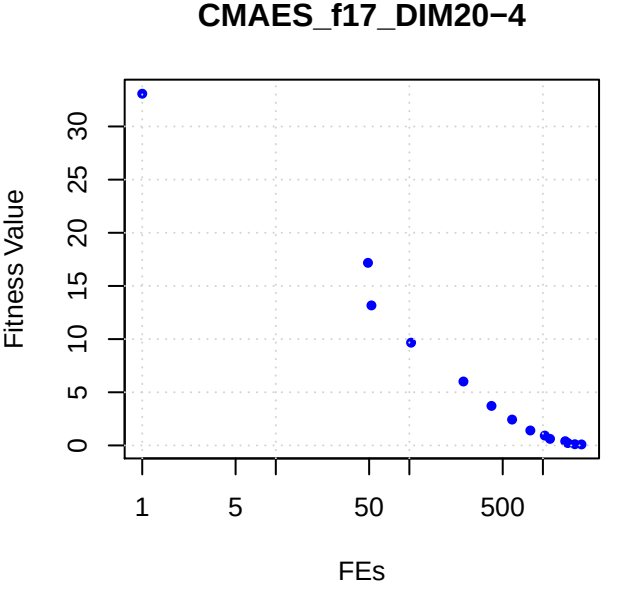

CMAES_f17_DIM20−13
Fitness Value
0
10
20
30
40
50
60
1
5
50
500
FEs

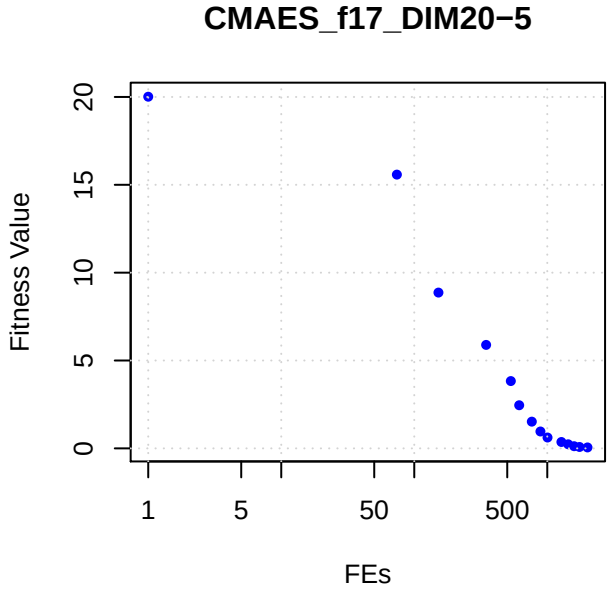

CMAES_f17_DIM20−14
Fitness Value
2
4
6
8
10
12
1
5
50
500
FEs

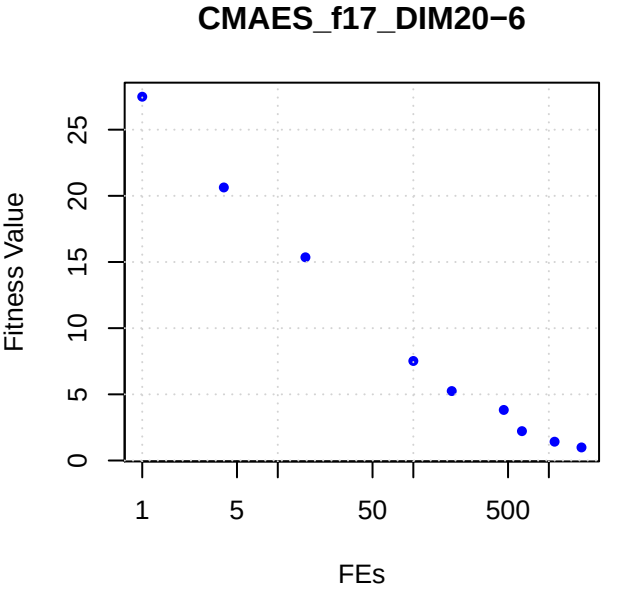

CMAES_f17_DIM20−15
Fitness Value
0
10
20
30
40
1
5
50
500
FEs

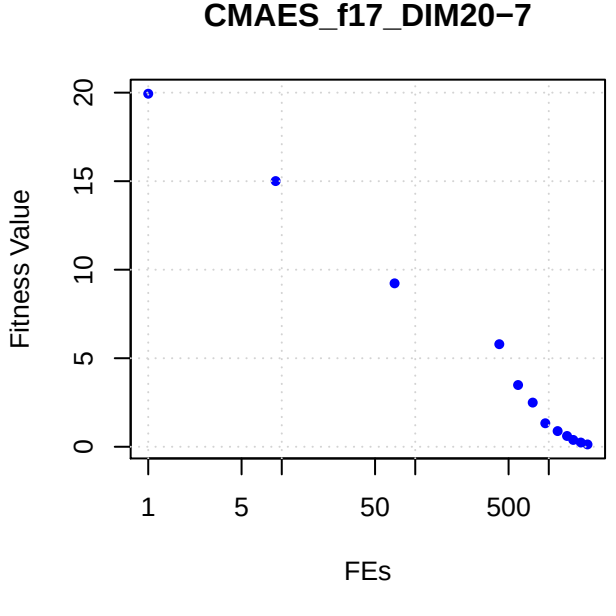

CMAES_f17_DIM20−2
Fitness Value
0
5
10
15
20
25
30
1
5
50
500
FEs

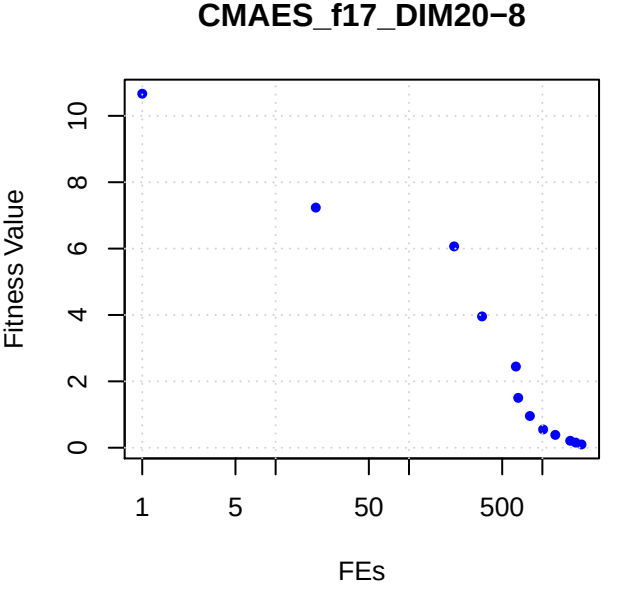

CMAES_f17_DIM20−3
Fitness Value
0
10
20
30
40
1
5
50
500
FEs

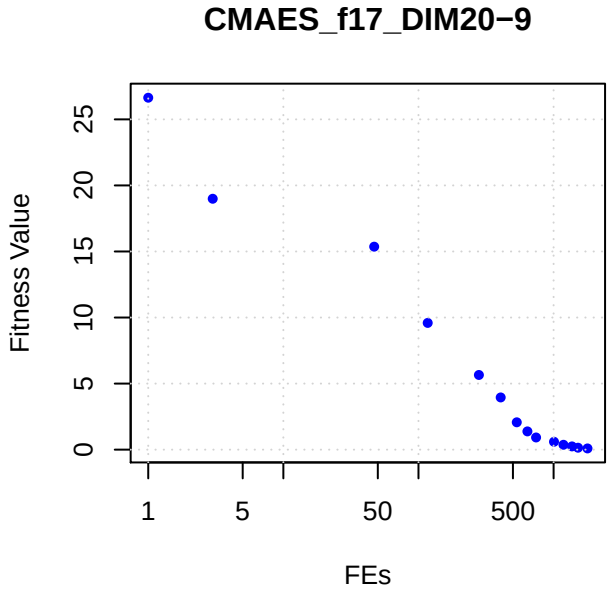

CMAES_f17_DIM20−4
Fitness Value
0
5
10
15
20
25
30
1
5
50
500
FEs

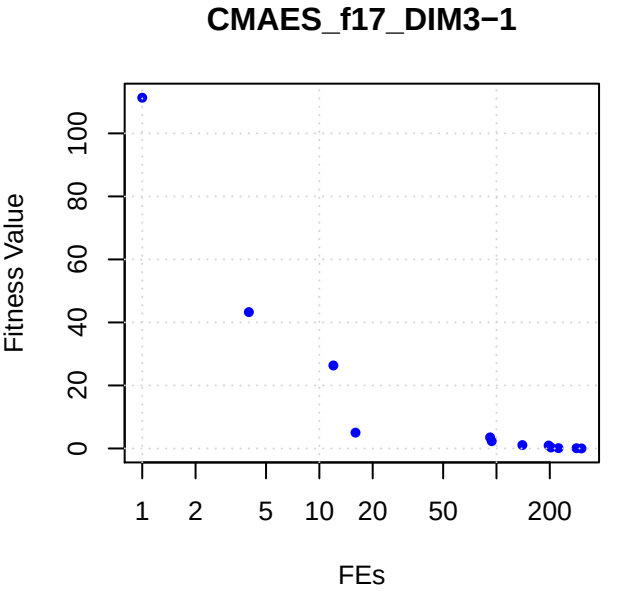

CMAES_f17_DIM20−5
Fitness Value
0
5
10
15
20
1
5
50
500
FEs

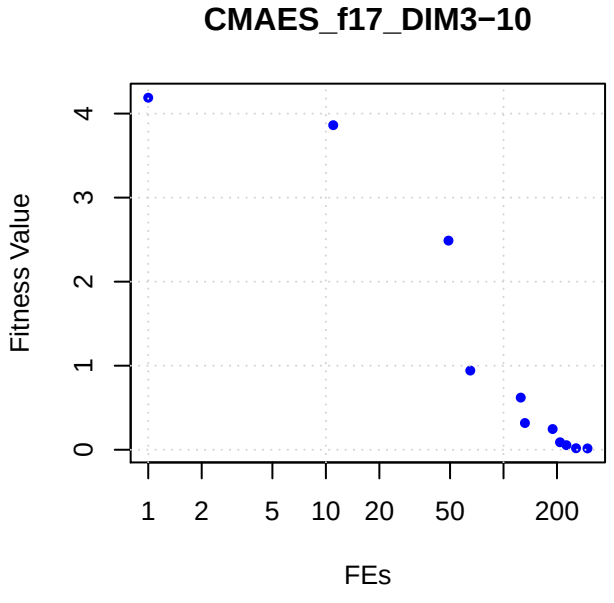

CMAES_f17_DIM20−6
Fitness Value
0
5
10
15
20
25
1
5
50
500
FEs

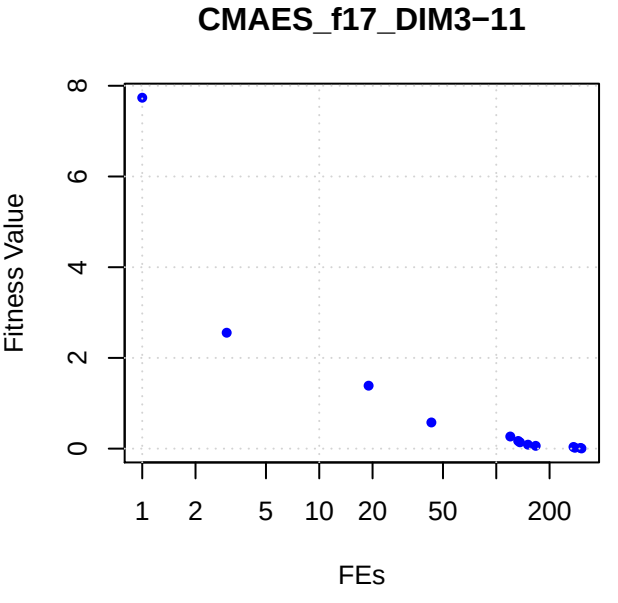

CMAES_f17_DIM20−7
Fitness Value
0
5
10
15
20
1
5
50
500
FEs

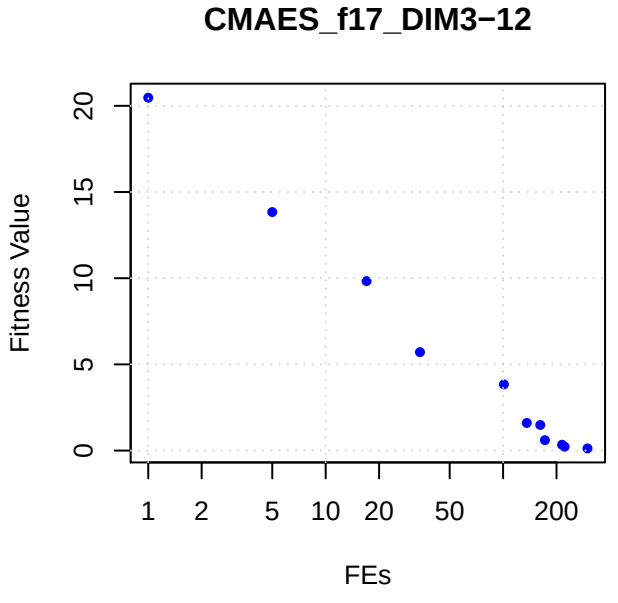

CMAES_f17_DIM20−8
Fitness Value
0
2
4
6
8
10
1
5
50
500
FEs

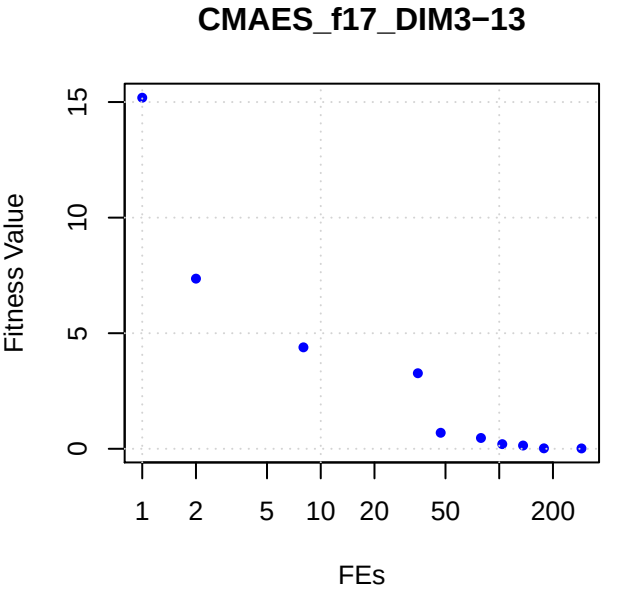

CMAES_f17_DIM20−9
Fitness Value
0
5
10
15
20
25
1
5
50
500
FEs

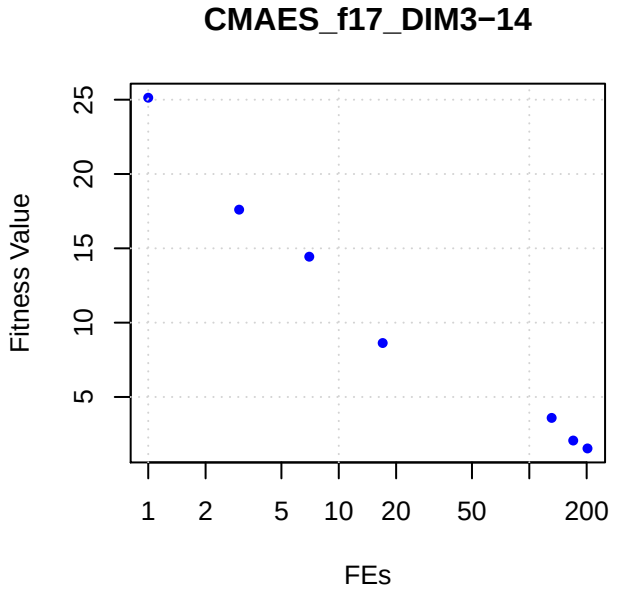

CMAES_f17_DIM3−1
Fitness Value
0
20
40
60
80
100
1
2
5
10
20
50
200
FEs

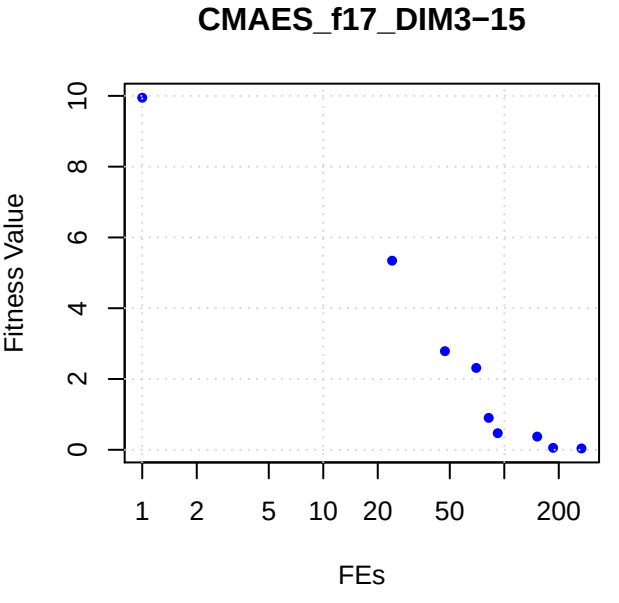

CMAES_f17_DIM3−10
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
200
FEs

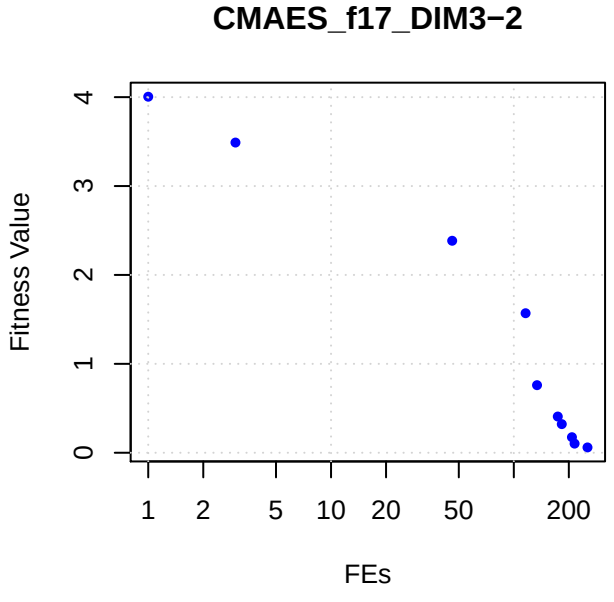

CMAES_f17_DIM3−11
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
200
FEs

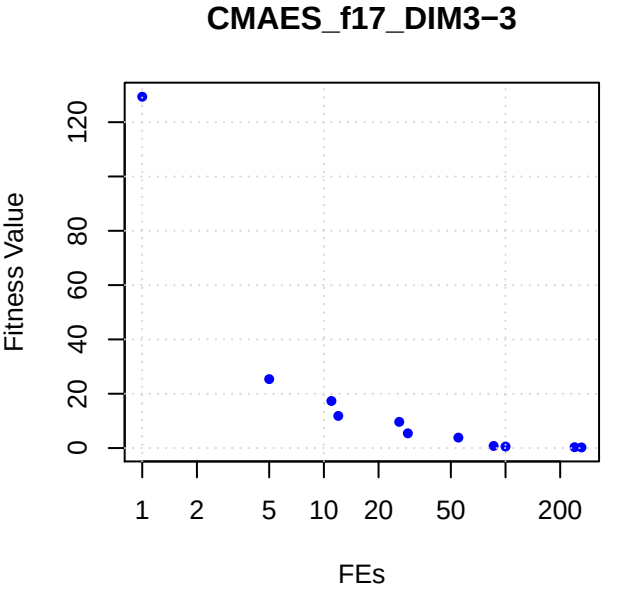

CMAES_f17_DIM3−12
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs

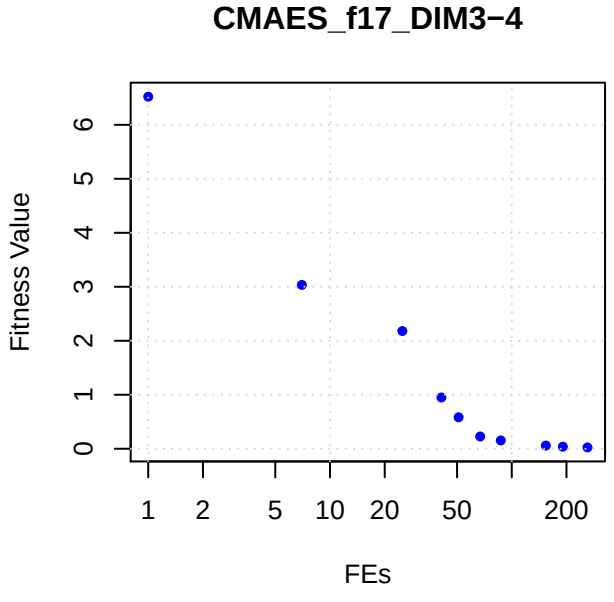

CMAES_f17_DIM3−13
Fitness Value
0
5
10
15
1
2
5
10
20
50
200
FEs

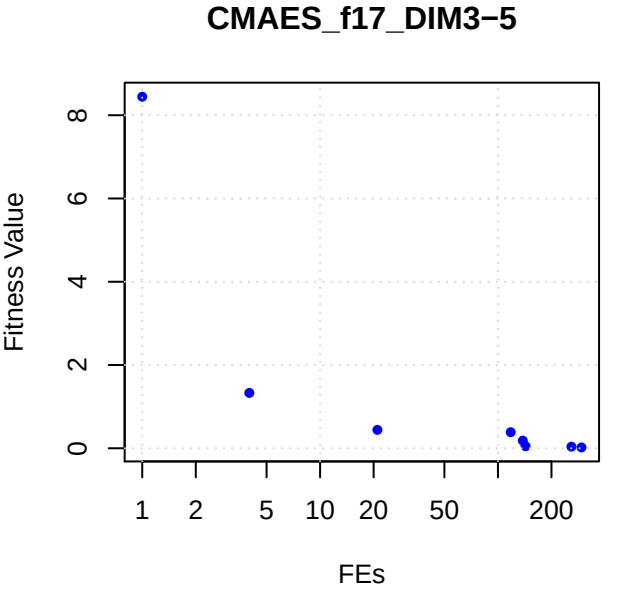

CMAES_f17_DIM3−14
Fitness Value
5
10
15
20
25
1
2
5
10
20
50
200
FEs

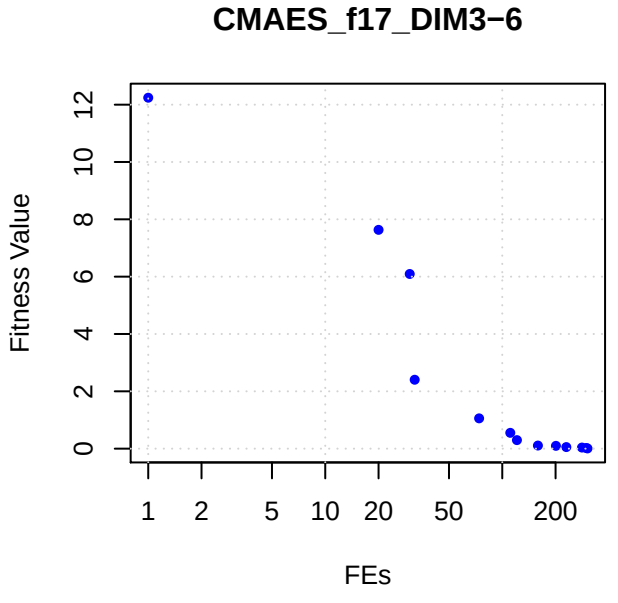

CMAES_f17_DIM3−15
Fitness Value
0
2
4
6
8
10
1
2
5
10
20
50
200
FEs

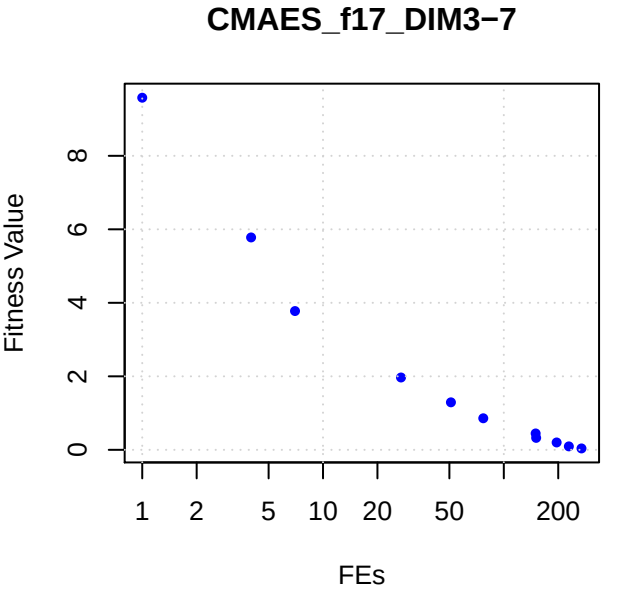

CMAES_f17_DIM3−2
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
200
FEs

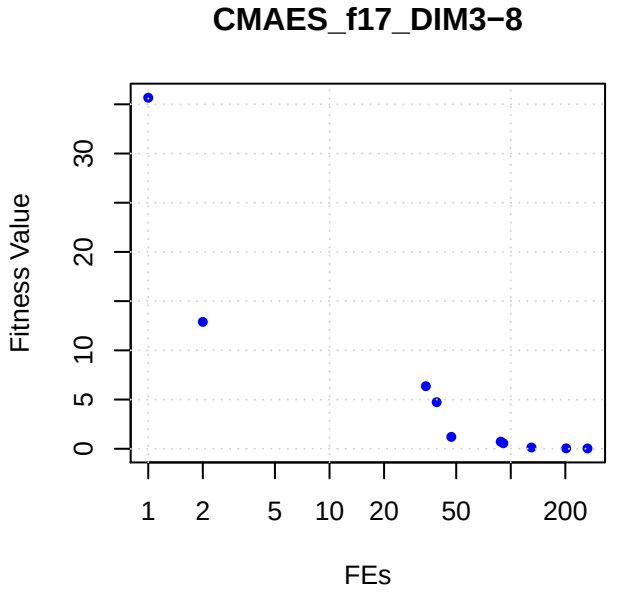

CMAES_f17_DIM3−3
Fitness Value
0
20
40
60
80
120
1
2
5
10
20
50
200
FEs

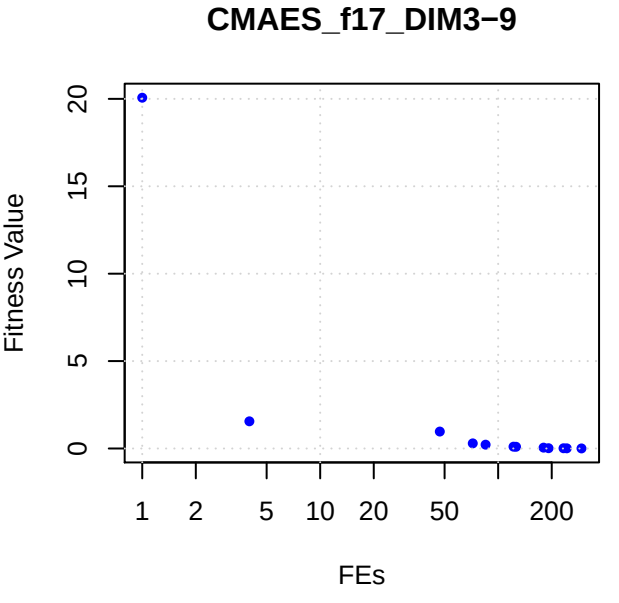

CMAES_f17_DIM3−4
Fitness Value
0
1
2
3
4
5
6
1
2
5
10
20
50
200
FEs

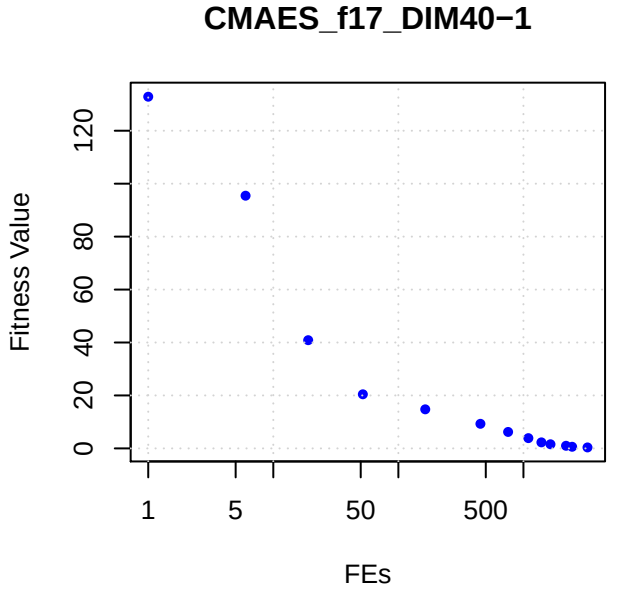

CMAES_f17_DIM3−5
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
200
FEs

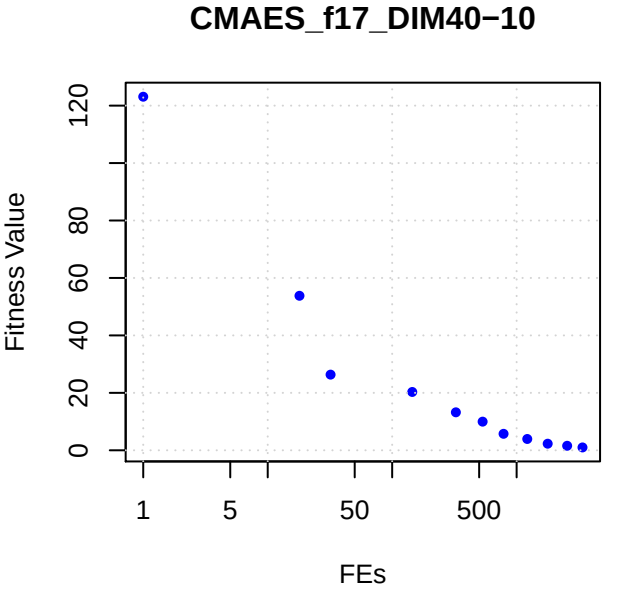

CMAES_f17_DIM3−6
Fitness Value
0
2
4
6
8
10
12
1
2
5
10
20
50
200
FEs


CMAES_f17_DIM3−7
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
200
FEs


CMAES_f17_DIM3−8
Fitness Value
0
5
10
20
30
1
2
5
10
20
50
200
FEs


CMAES_f17_DIM3−9
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f17_DIM40−1
Fitness Value
0
20
40
60
80
120
1
5
50
500
FEs


CMAES_f17_DIM40−10
Fitness Value
0
20
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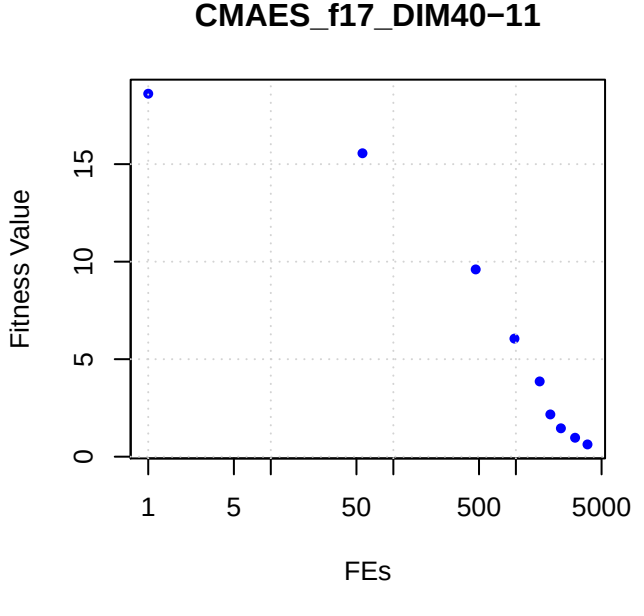
60
80
120
1
5
50
500
FEs


CMAES_f17_DIM40−11
Fitness Value
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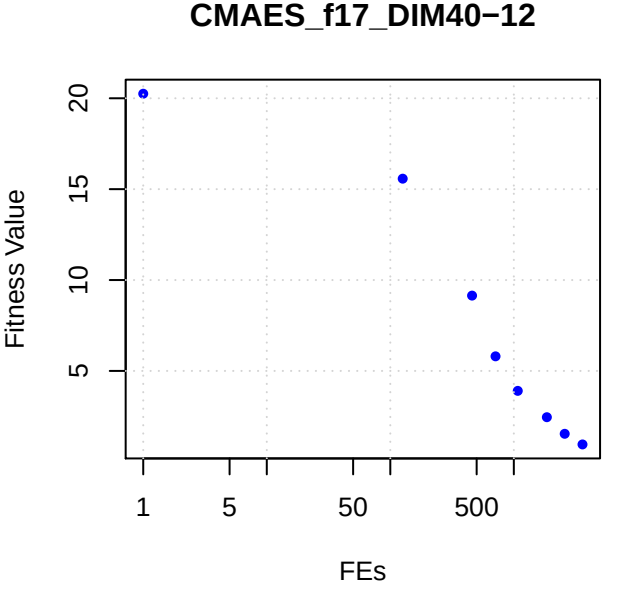
10
15
1
5
50
500
5000
FEs


CMAES_f17_DIM40−12
Fitness Value
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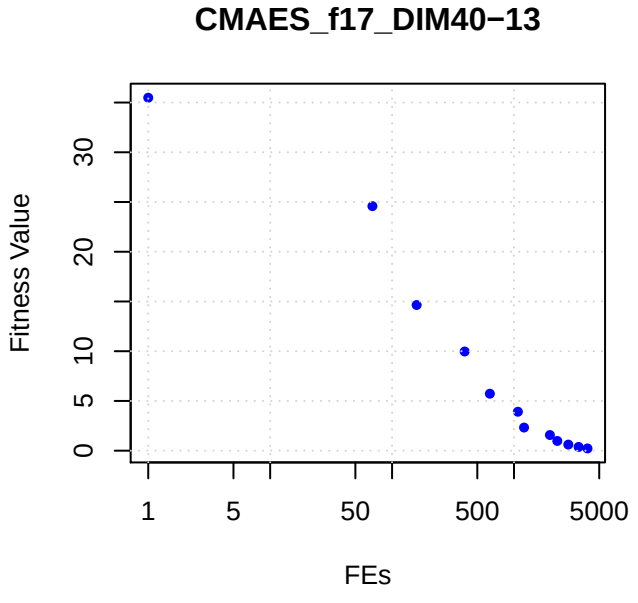
1
5
50
500
FEs


CMAES_f17_DIM40−13
Fitness Value
0
5
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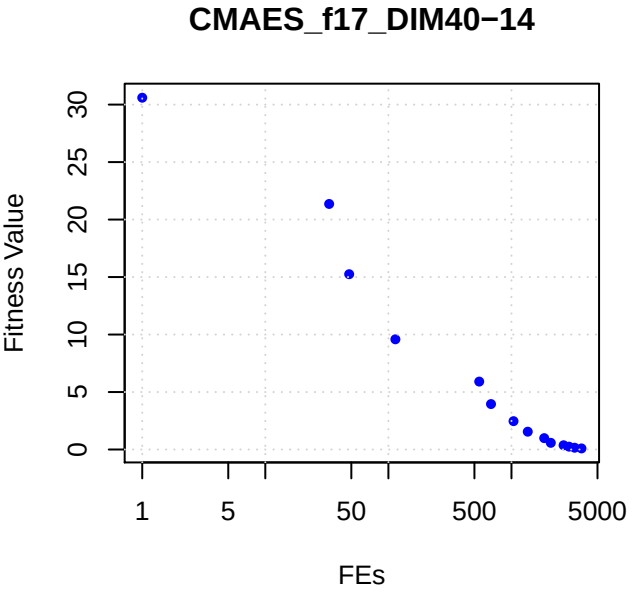
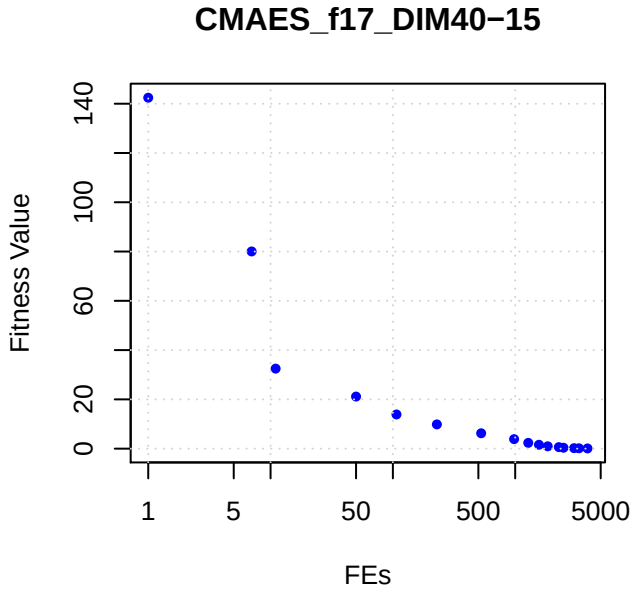
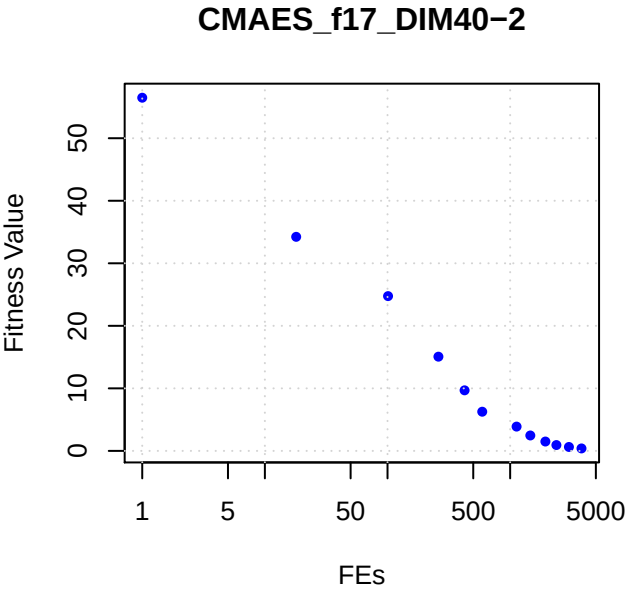
20
30
1
5
50
500
5000
FEs


CMAES_f17_DIM40−14
Fitness Value
0
5
10
15
20
25
30
1
5
50
500
5000
FEs


CMAES_f17_DIM40−15
Fitness Value
0
20
60
100
140
1
5
50
500
5000
FEs


CMAES_f17_DIM40−2
Fitness Value
0
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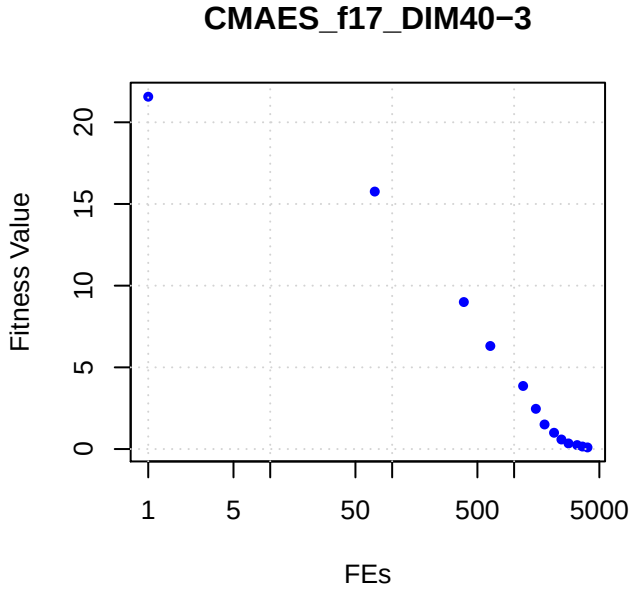
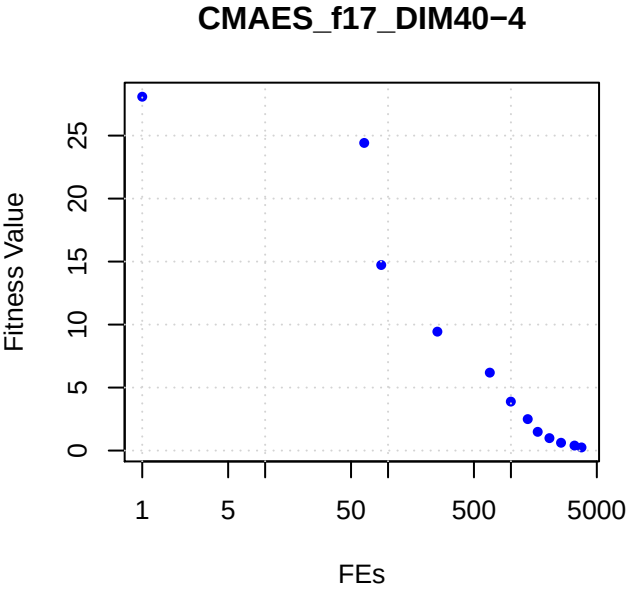
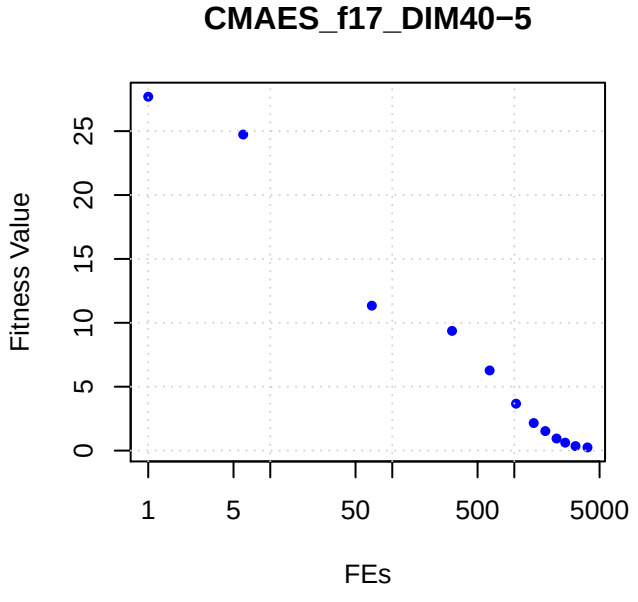
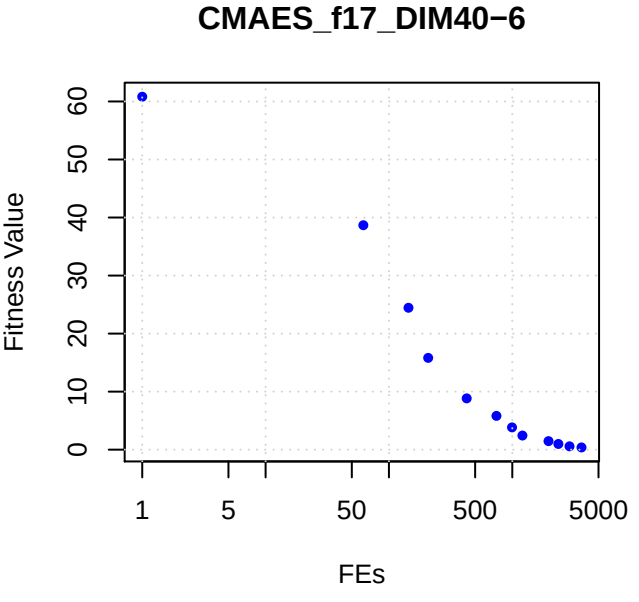
20
30
40
50
1
5
50
500
5000
FEs


CMAES_f17_DIM40−3
Fitness Value
0
5
10
15
20
1
5
50
500
5000
FEs


CMAES_f17_DIM40−4
Fitness Value
0
5
10
15
20
25
1
5
50
500
5000
FEs


CMAES_f17_DIM40−5
Fitness Value
0
5
10
15
20
25
1
5
50
500
5000
FEs


CMAES_f17_DIM40−6
Fitness Value
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30
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50
60
1
5
50
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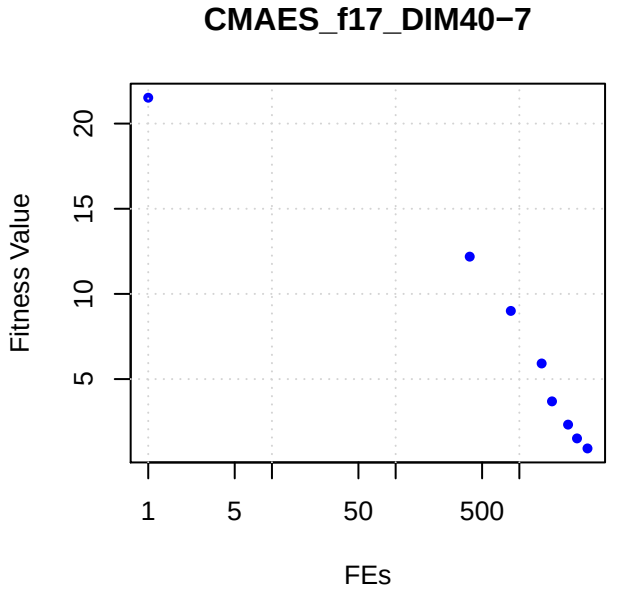
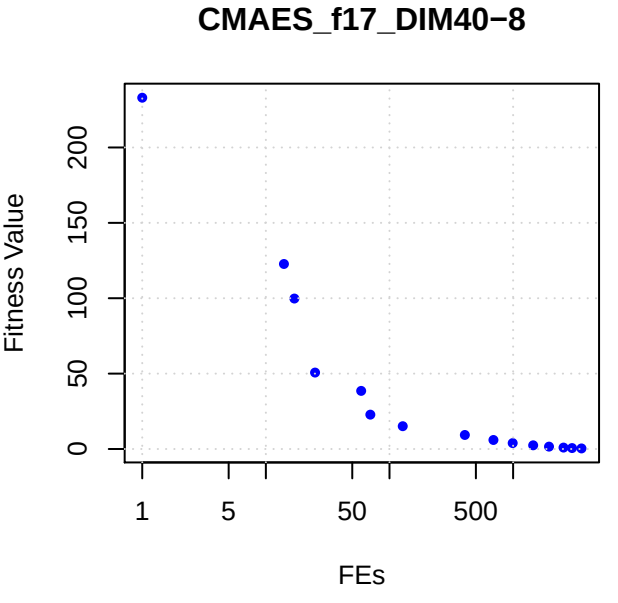
5000
FEs


CMAES_f17_DIM40−7
Fitness Value
5
10
15
20
1
5
50
500
FEs


CMAES_f17_DIM40−8
Fitness Value
0
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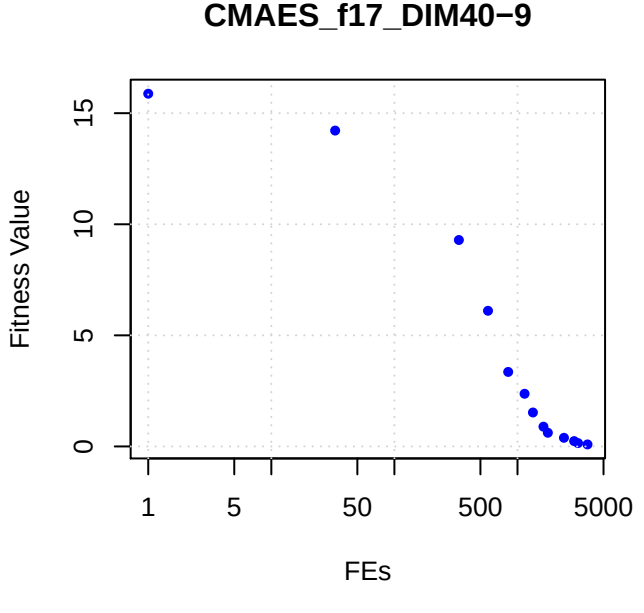
100
150
200
1
5
50
500
FEs


CMAES_f17_DIM40−9
Fitness Value
0
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10
15
1
5
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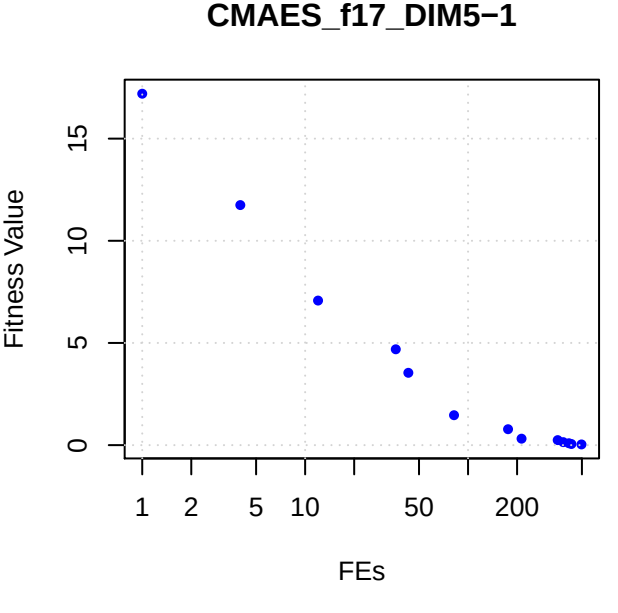
5000
FEs


CMAES_f17_DIM5−1
Fitness Value
0
5
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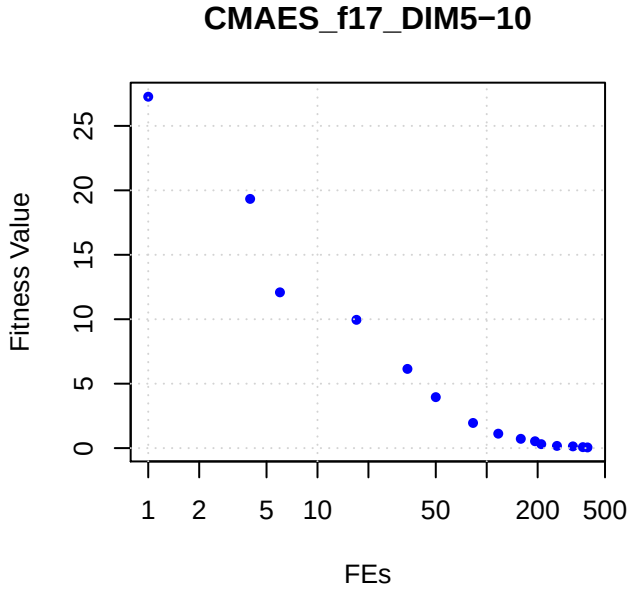
15
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−10
Fitness Value
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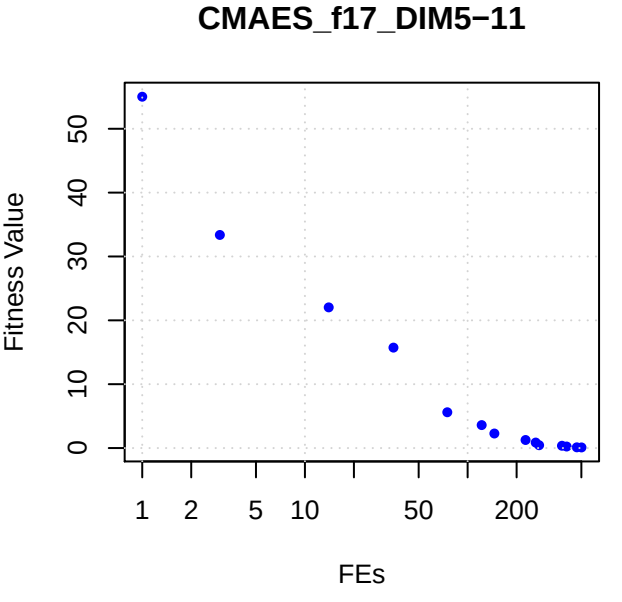
5
10
15
20
25
1
2
5
10
50
200
500
FEs


CMAES_f17_DIM5−11
Fitness Value
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10
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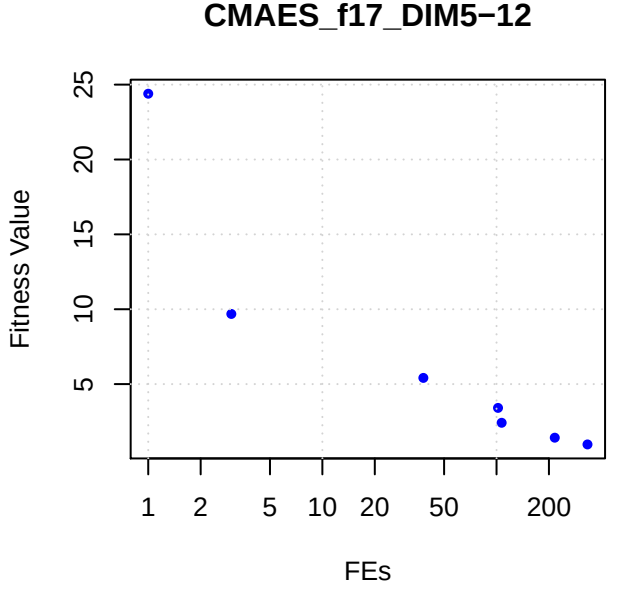
50
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−12
Fitness Value
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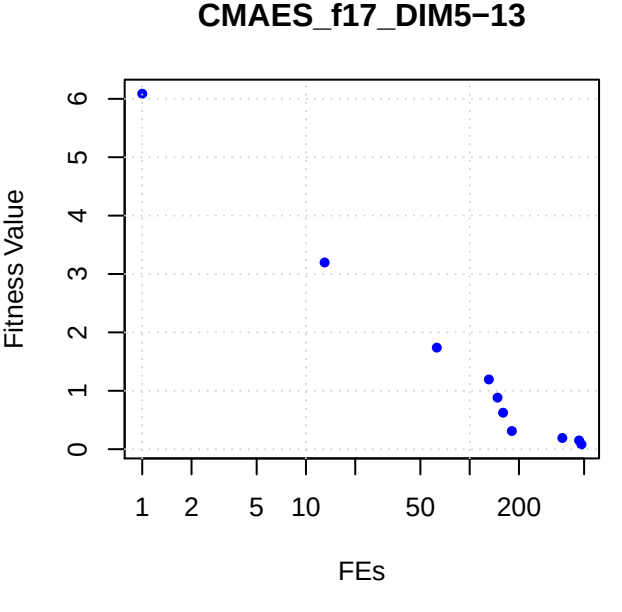
10
15
20
25
1
2
5
10
20
50
200
FEs


CMAES_f17_DIM5−13
Fitness Value
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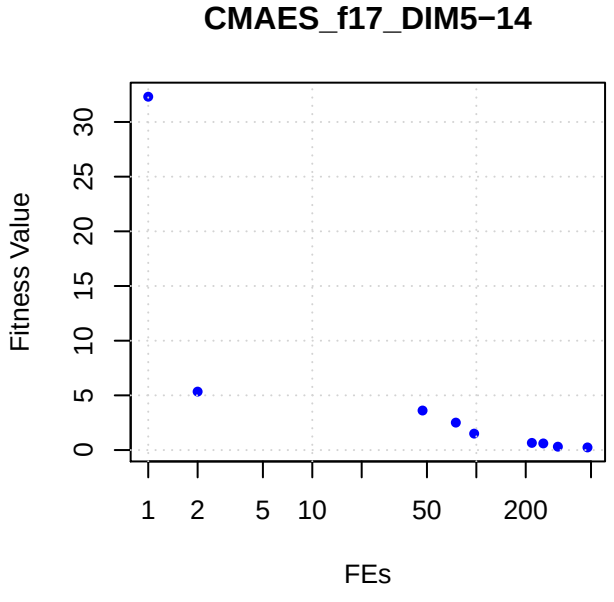
1
2
3
4
5
6
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−14
Fitness Value
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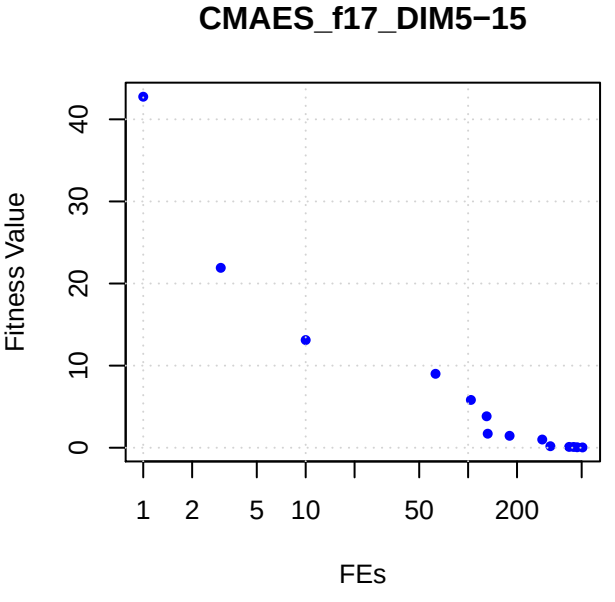
10
15
20
25
30
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−15
Fitness Value
0
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20
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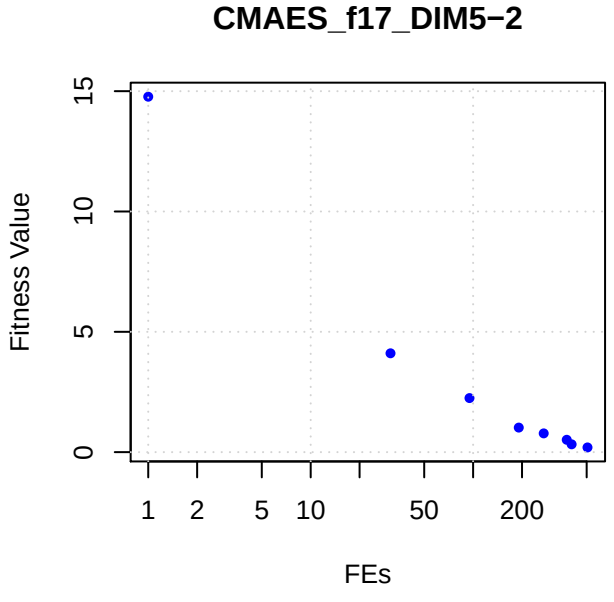
40
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−2
Fitness Value
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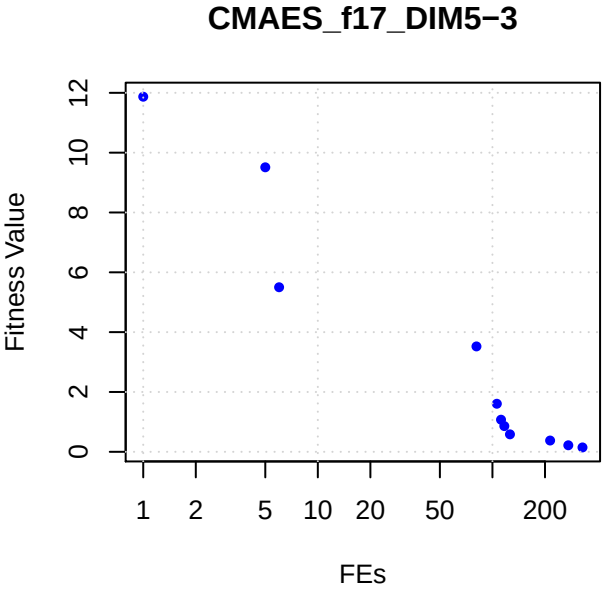
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−3
Fitness Value
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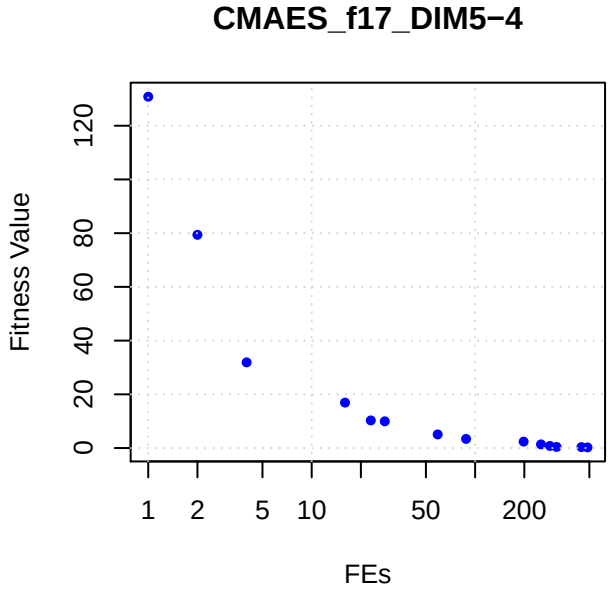
2
4
6
8
10
12
1
2
5
10
20
50
200
FEs


CMAES_f17_DIM5−4
Fitness Value
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20
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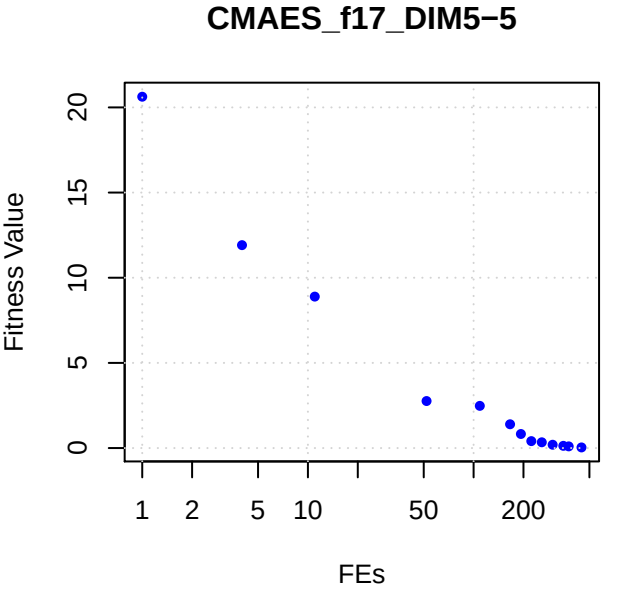
60
80
120
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−5
Fitness Value
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10
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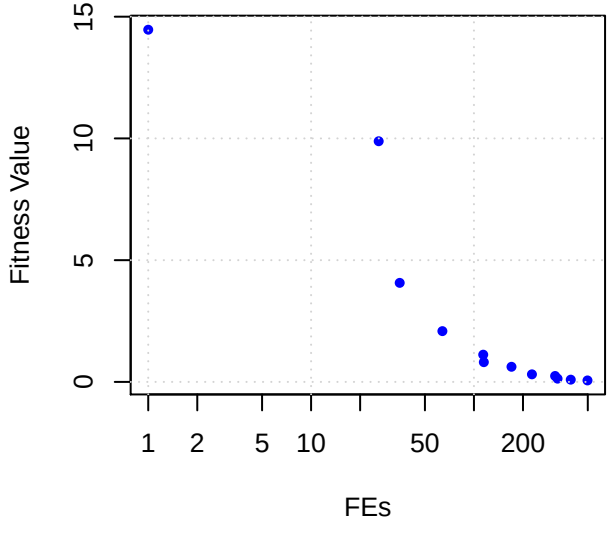
20
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−6
Fitness Value
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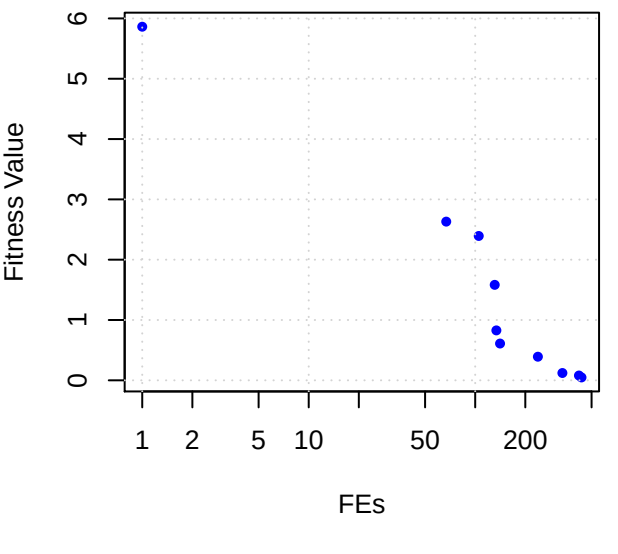
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−7
Fitness Value
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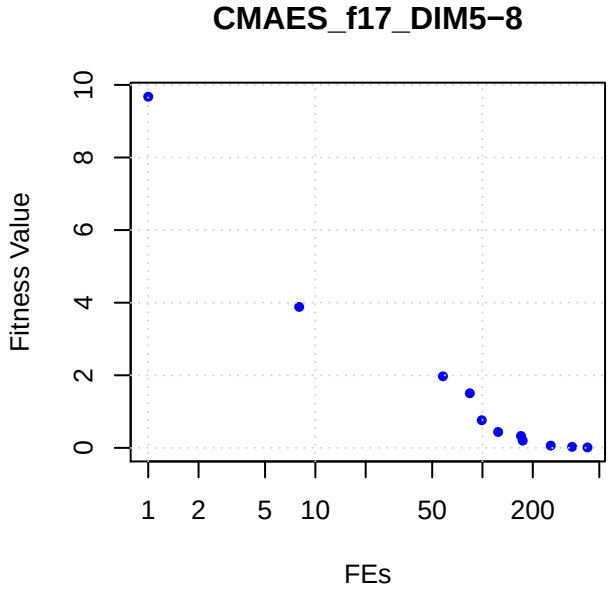
2
3
4
5
6
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−8
Fitness Value
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4
6
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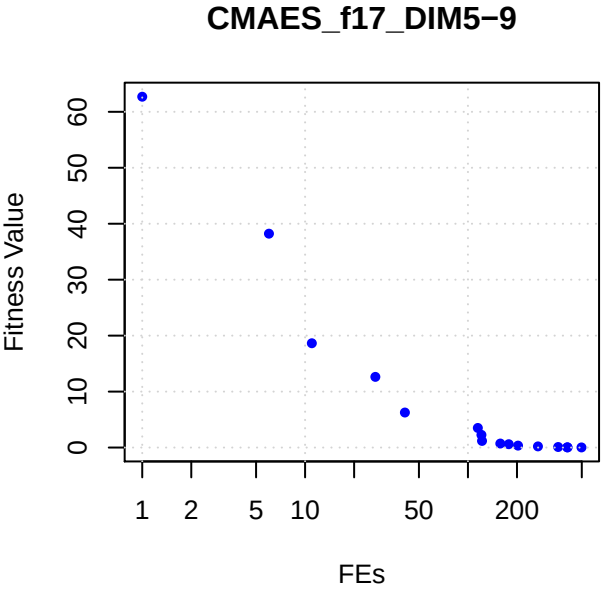
10
1
2
5
10
50
200
FEs


CMAES_f17_DIM5−9
Fitness Value
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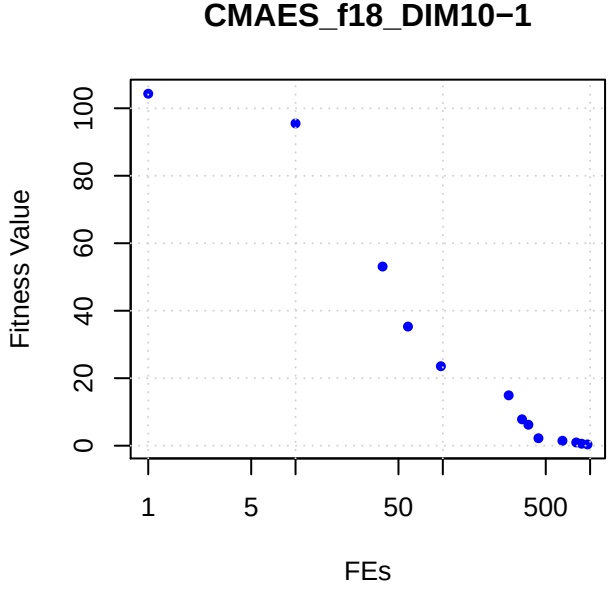
40
50
60
1
2
5
10
50
200
FEs


CMAES_f18_DIM10−1
Fitness Value
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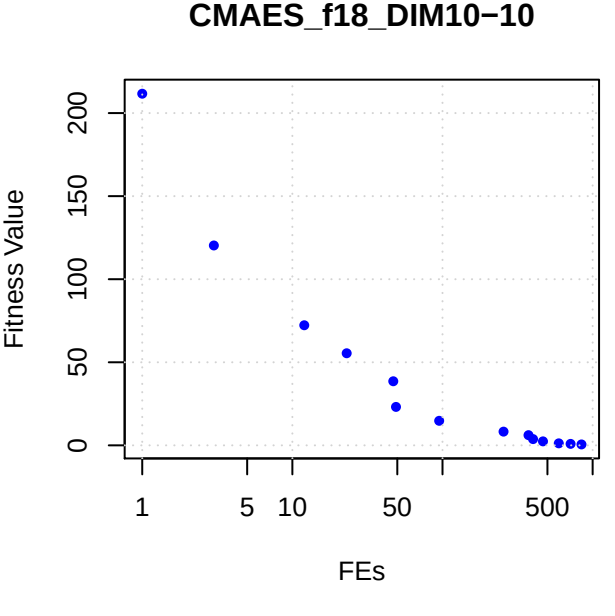
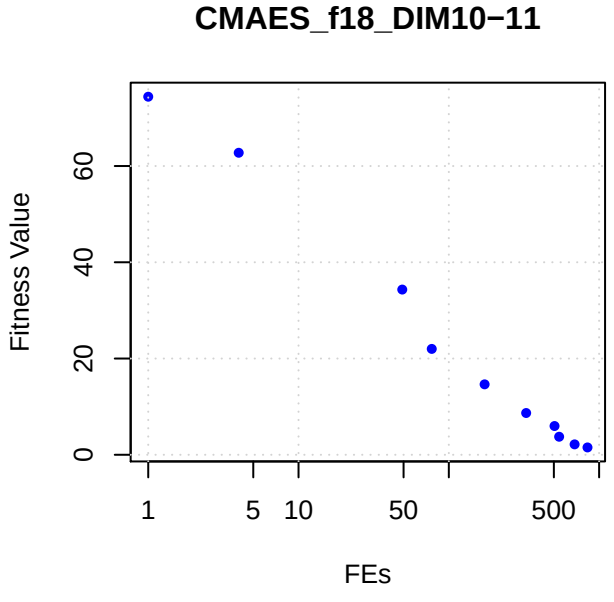
60
80
100
1
5
50
500
FEs


CMAES_f18_DIM10−10
Fitness Value
0
50
100
150
200
1
5
10
50
500
FEs


CMAES_f18_DIM10−11
Fitness Value
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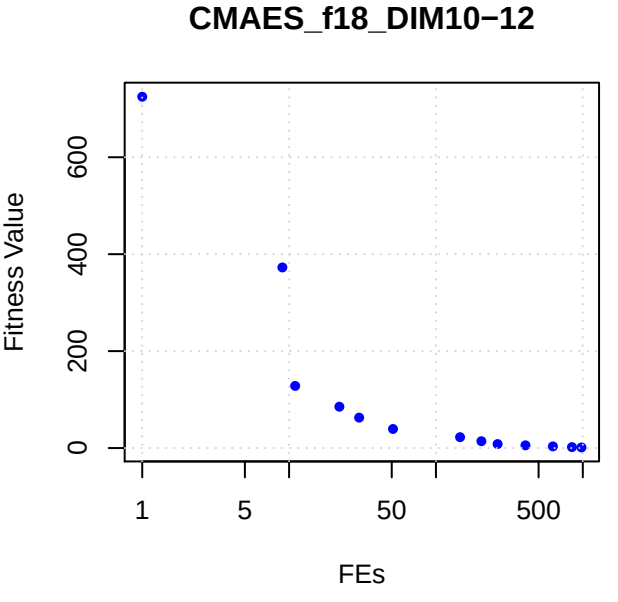
60
1
5
10
50
500
FEs


CMAES_f18_DIM10−12
Fitness Value
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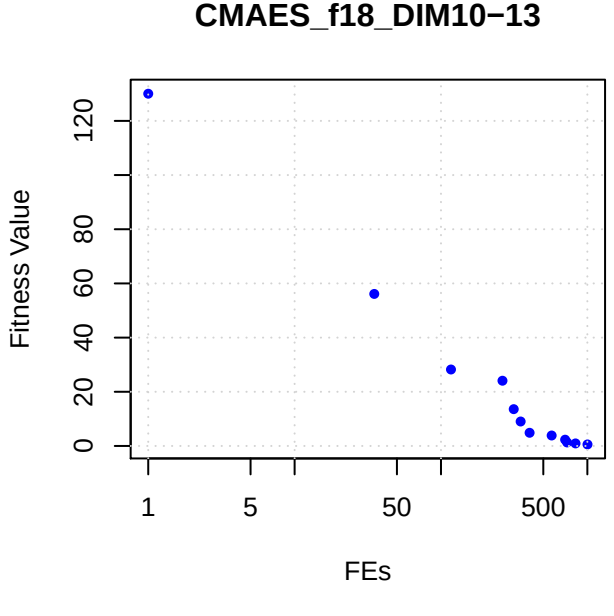
600
1
5
50
500
FEs


CMAES_f18_DIM10−13
Fitness Value
0
20
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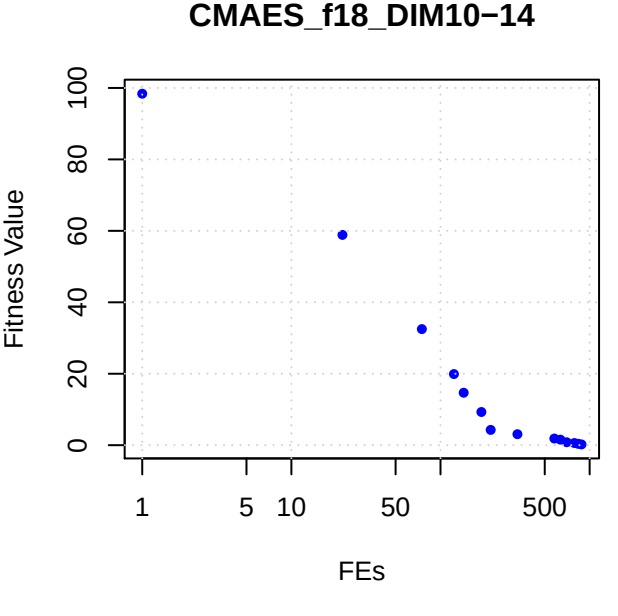
60
80
120
1
5
50
500
FEs


CMAES_f18_DIM10−14
Fitness Value
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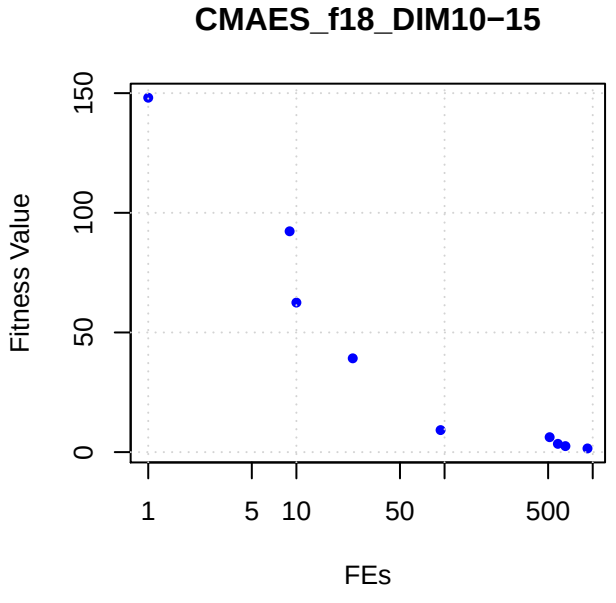
80
100
1
5
10
50
500
FEs


CMAES_f18_DIM10−15
Fitness Value
0
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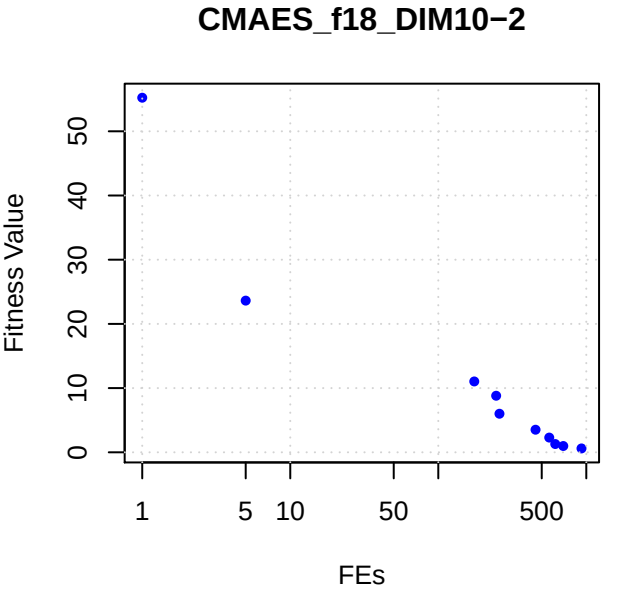
100
150
1
5
10
50
500
FEs


CMAES_f18_DIM10−2
Fitness Value
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20
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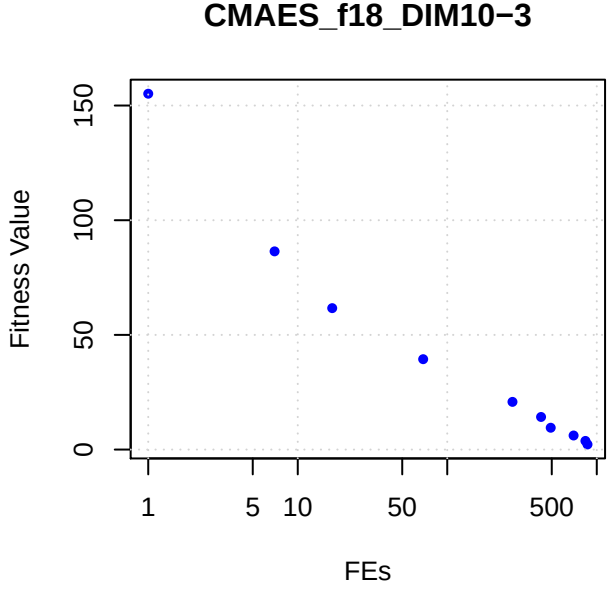
40
50
1
5
10
50
500
FEs


CMAES_f18_DIM10−3
Fitness Value
0
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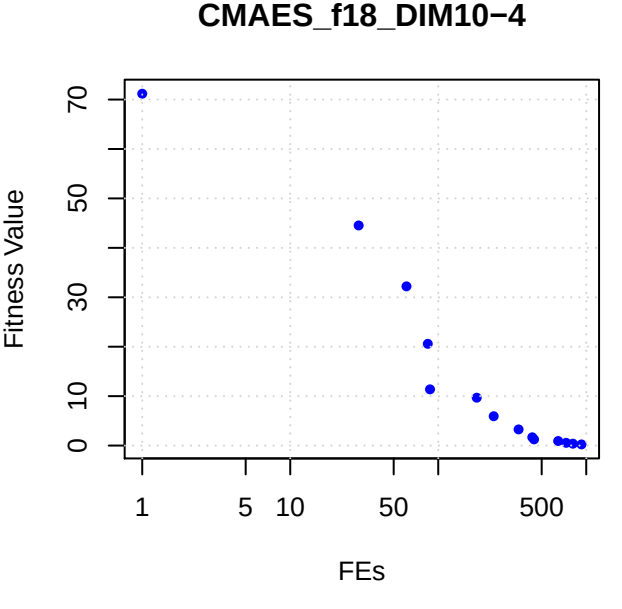
100
150
1
5
10
50
500
FEs


CMAES_f18_DIM10−4
Fitness Value
0
10
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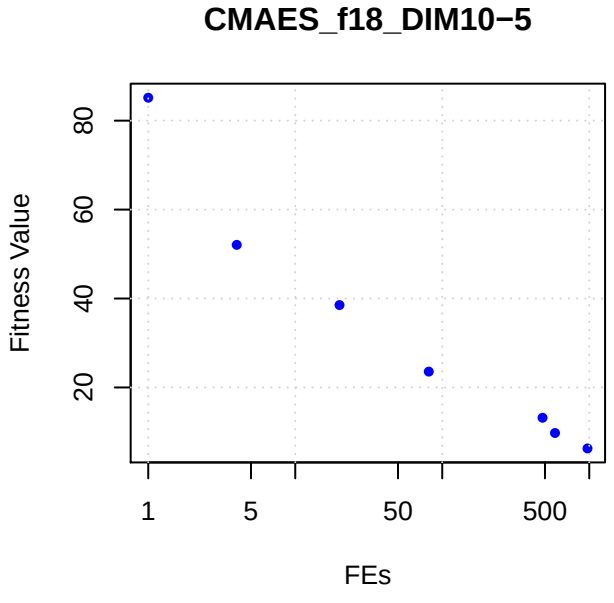
50
70
1
5
10
50
500
FEs


CMAES_f18_DIM10−5
Fitness Value
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40
60
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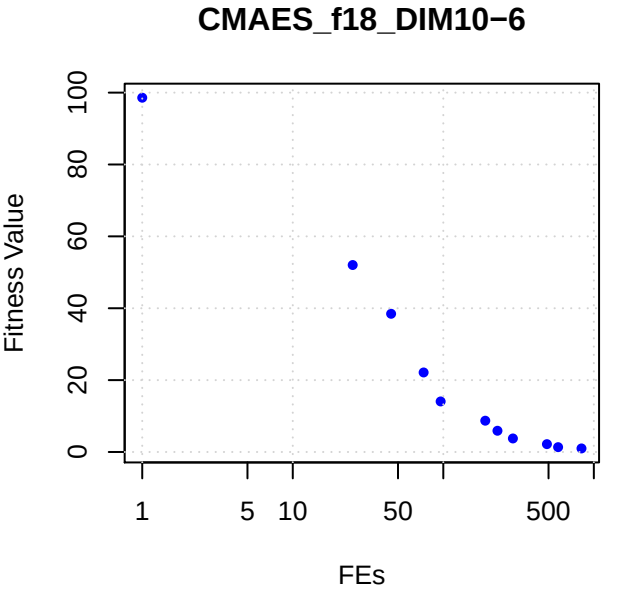
1
5
50
500
FEs


CMAES_f18_DIM10−6
Fitness Value
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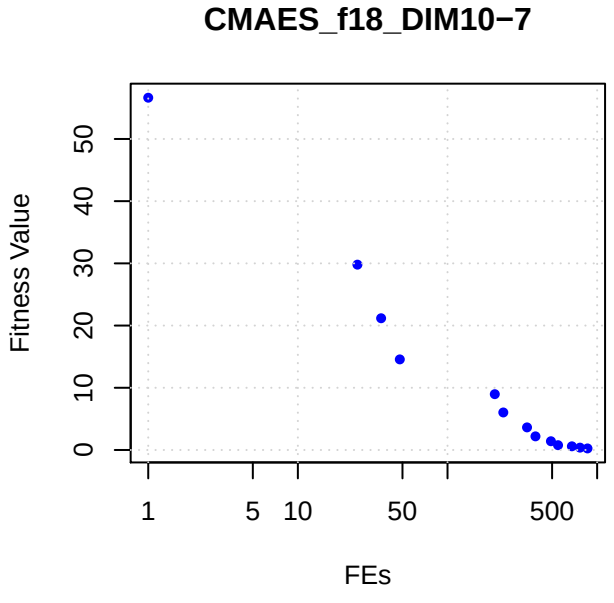
20
40
60
80
100
1
5
10
50
500
FEs


CMAES_f18_DIM10−7
Fitness Value
0
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20
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50
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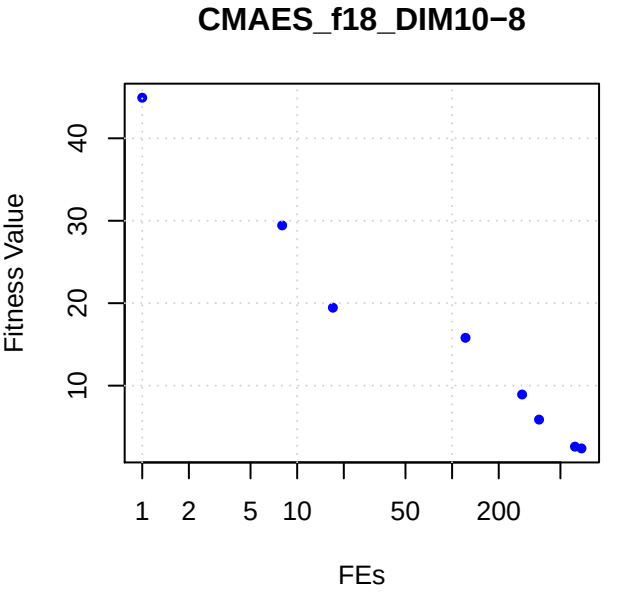
500
FEs


CMAES_f18_DIM10−8
Fitness Value
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1
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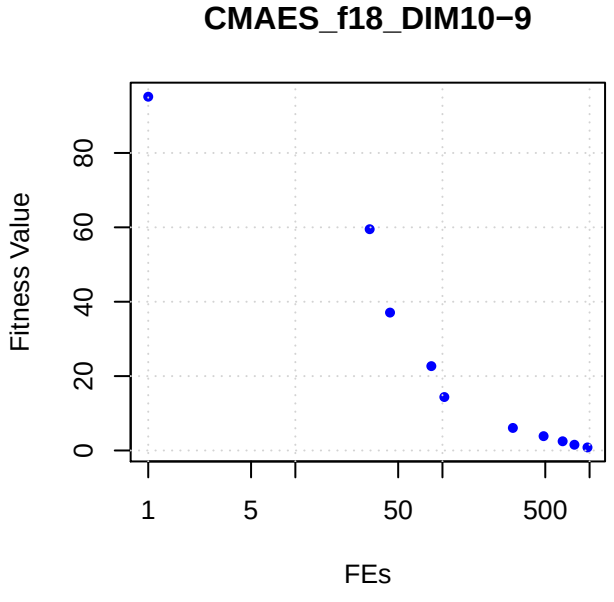
200
FEs


CMAES_f18_DIM10−9
Fitness Value
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40
60
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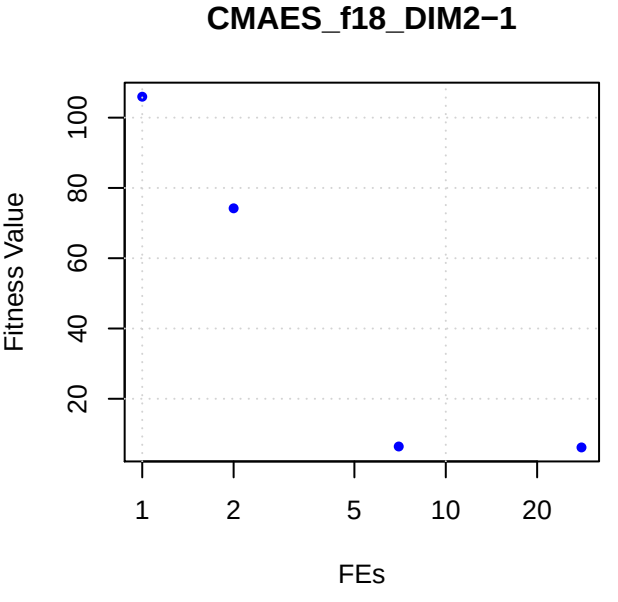
1
5
50
500
FEs


CMAES_f18_DIM2−1
Fitness Value
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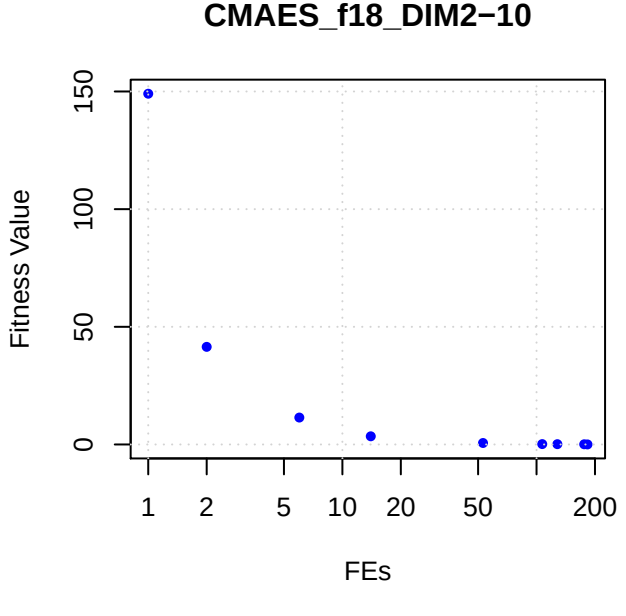
80
100
1
2
5
10
20
FEs


CMAES_f18_DIM2−10
Fitness Value
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100
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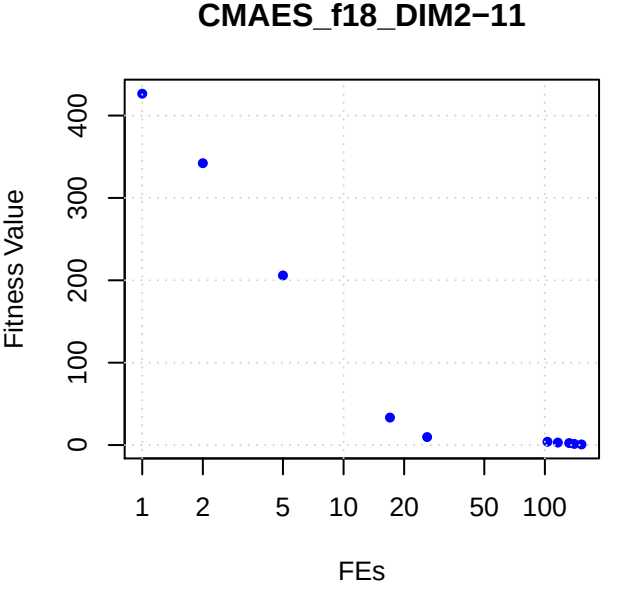
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM2−11
Fitness Value
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100
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300
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1
2
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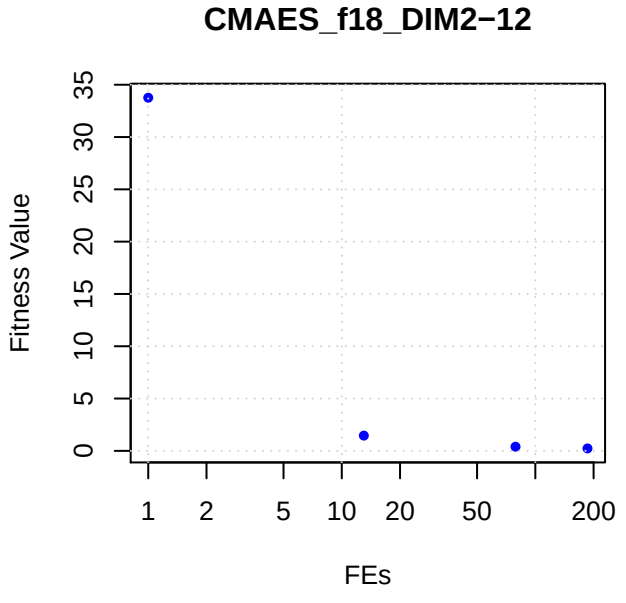
20
50
100
FEs


CMAES_f18_DIM2−12
Fitness Value
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20
25
30
35
1
2
5
10
20
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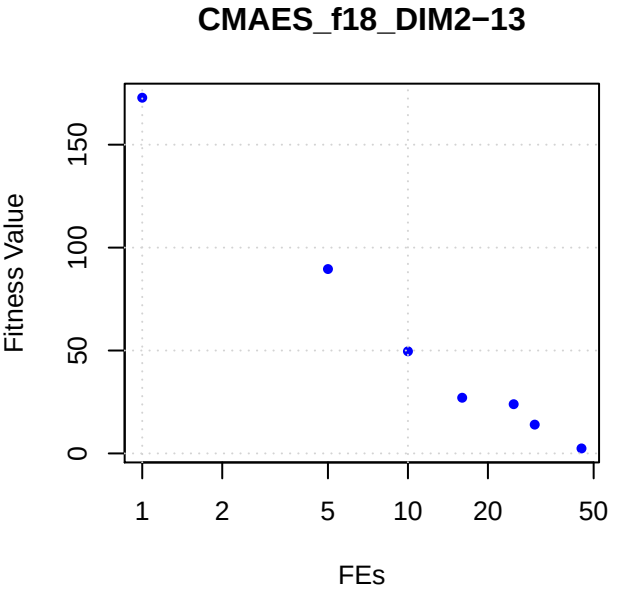
200
FEs


CMAES_f18_DIM2−13
Fitness Value
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50
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1
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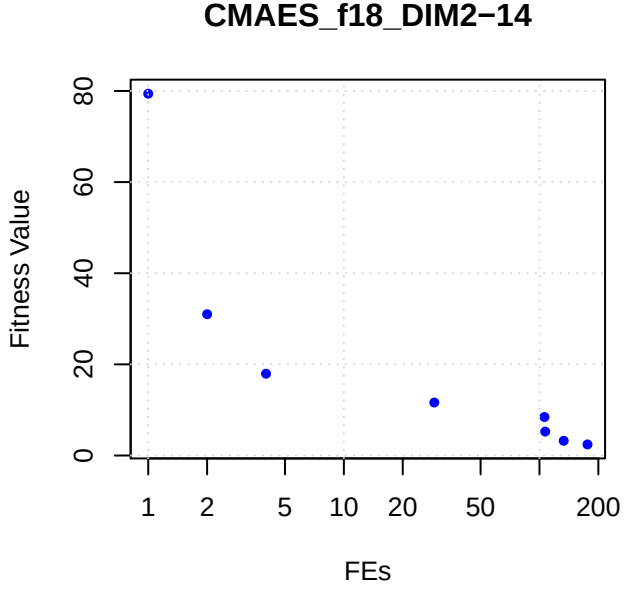
5
10
20
50
FEs


CMAES_f18_DIM2−14
Fitness Value
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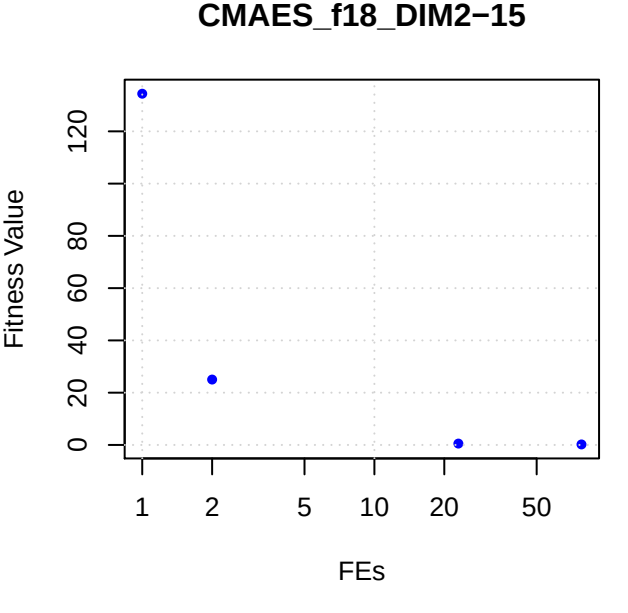
200
FEs


CMAES_f18_DIM2−15
Fitness Value
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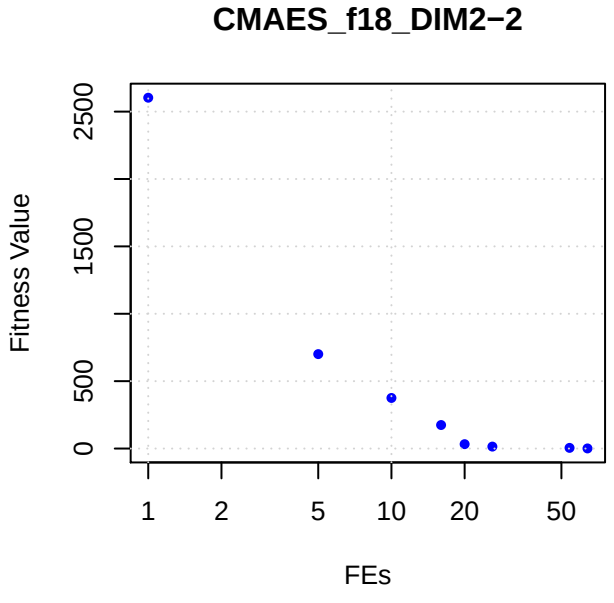
120
1
2
5
10
20
50
FEs


CMAES_f18_DIM2−2
Fitness Value
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2500
1
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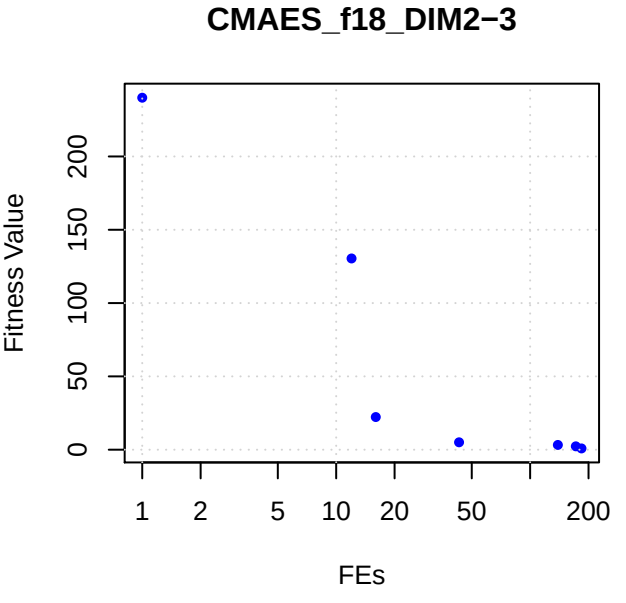
10
20
50
FEs


CMAES_f18_DIM2−3
Fitness Value
0
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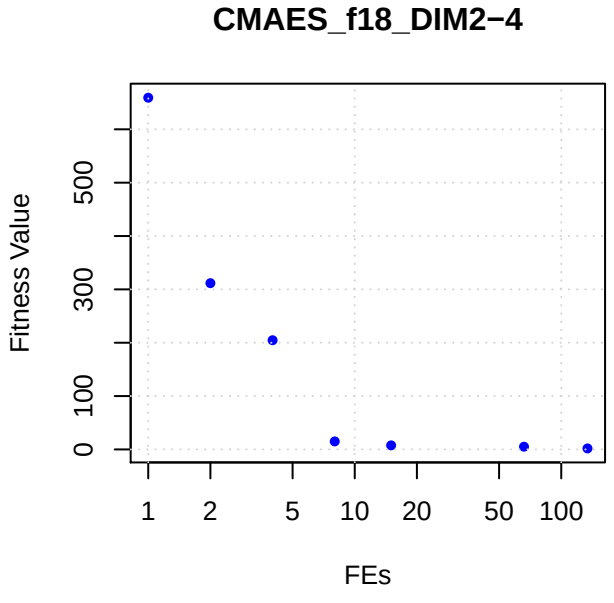
100
150
200
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM2−4
Fitness Value
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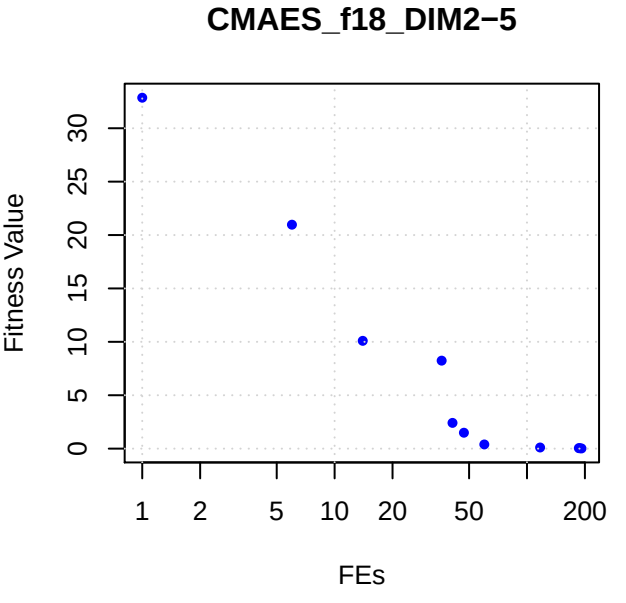
1
2
5
10
20
50
100
FEs


CMAES_f18_DIM2−5
Fitness Value
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25
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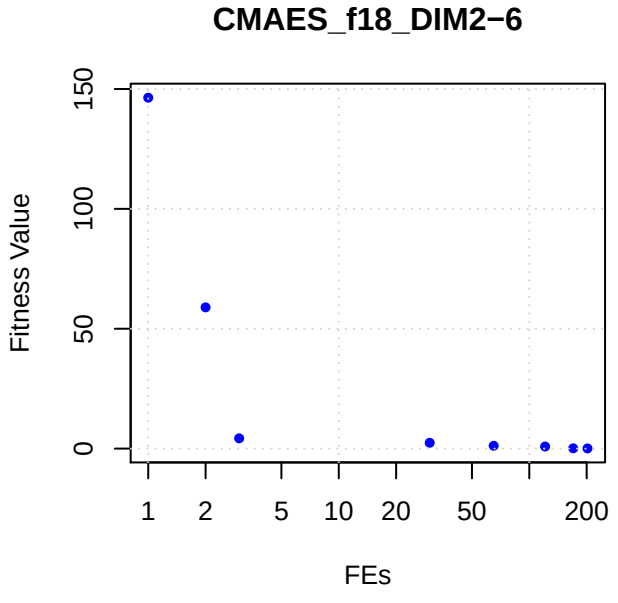
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM2−6
Fitness Value
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1
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5
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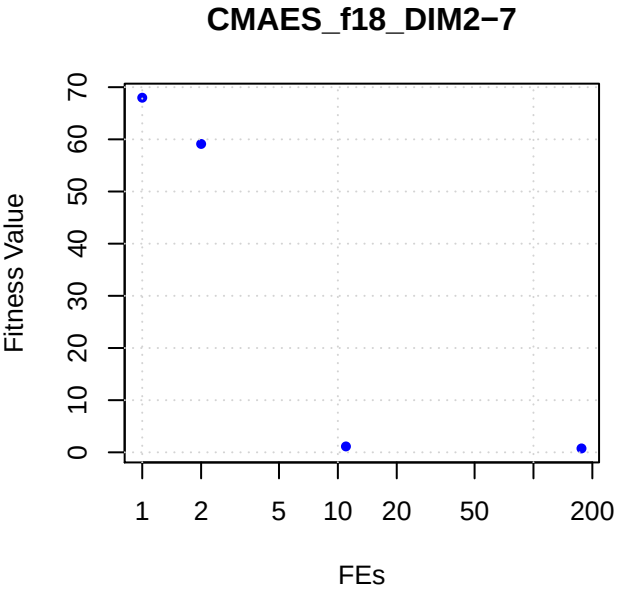
50
200
FEs


CMAES_f18_DIM2−7
Fitness Value
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60
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1
2
5
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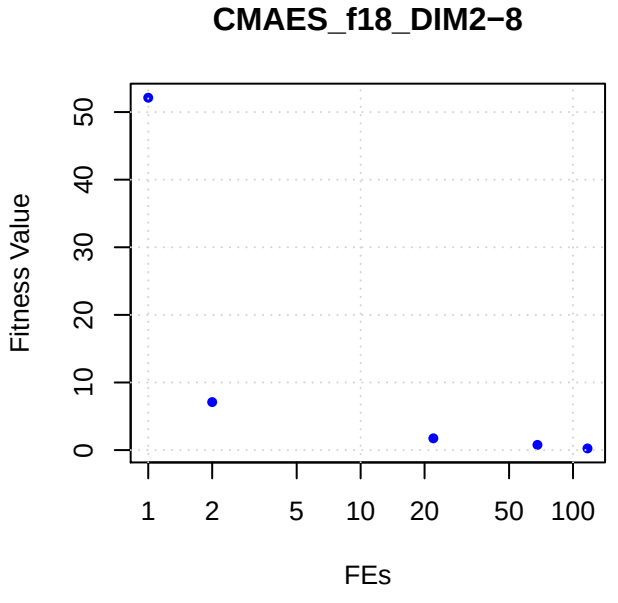
200
FEs


CMAES_f18_DIM2−8
Fitness Value
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1
2
5
10
20
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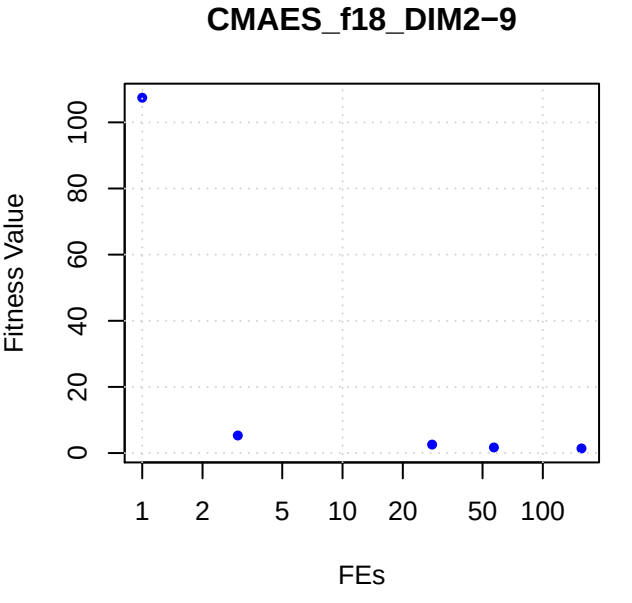
100
FEs


CMAES_f18_DIM2−9
Fitness Value
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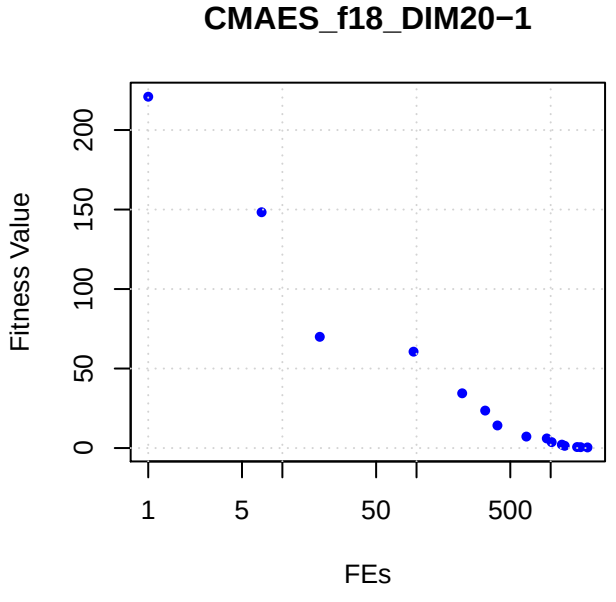
80
100
1
2
5
10
20
50
100
FEs


CMAES_f18_DIM20−1
Fitness Value
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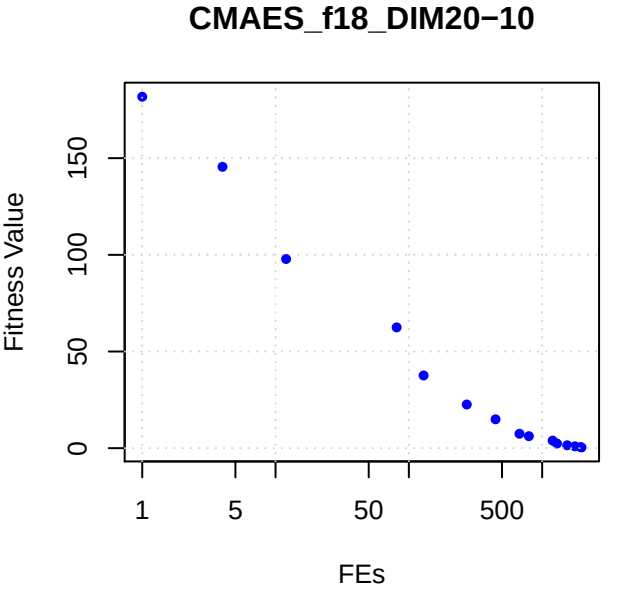
1
5
50
500
FEs


CMAES_f18_DIM20−10
Fitness Value
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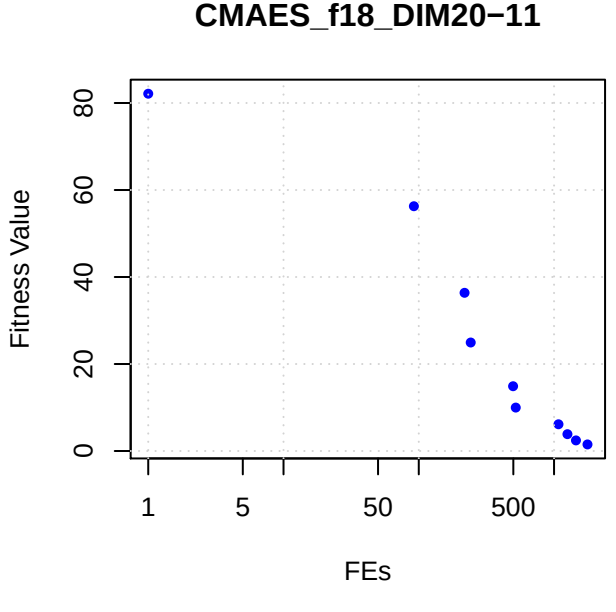
1
5
50
500
FEs


CMAES_f18_DIM20−11
Fitness Value
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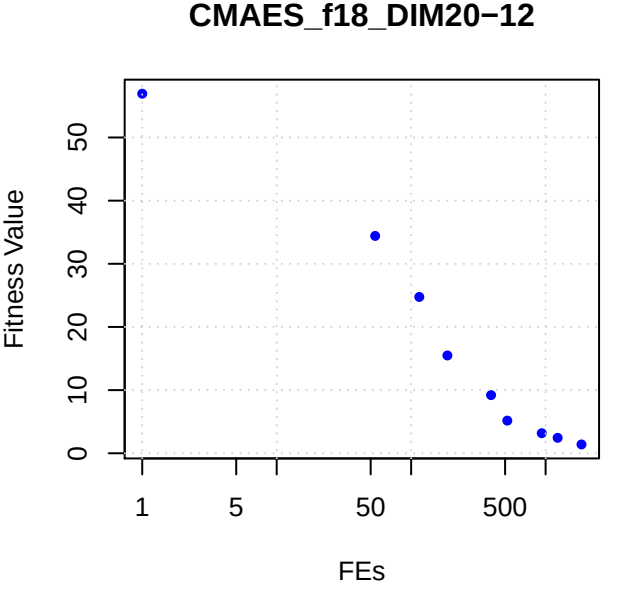
1
5
50
500
FEs


CMAES_f18_DIM20−12
Fitness Value
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1
5
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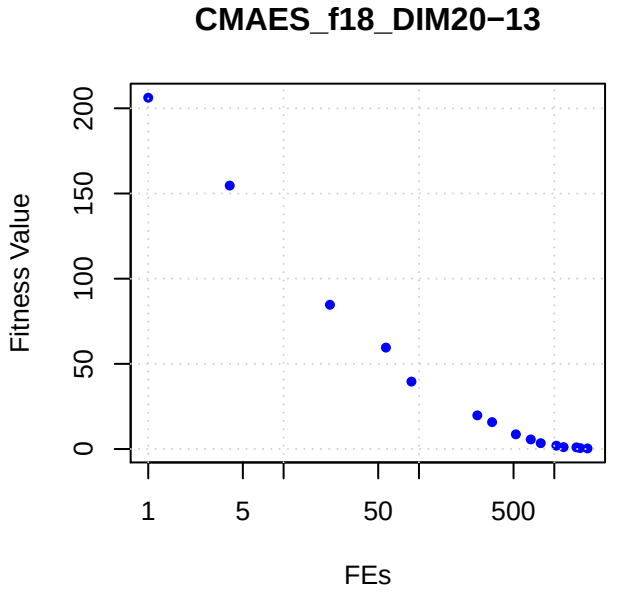
500
FEs


CMAES_f18_DIM20−13
Fitness Value
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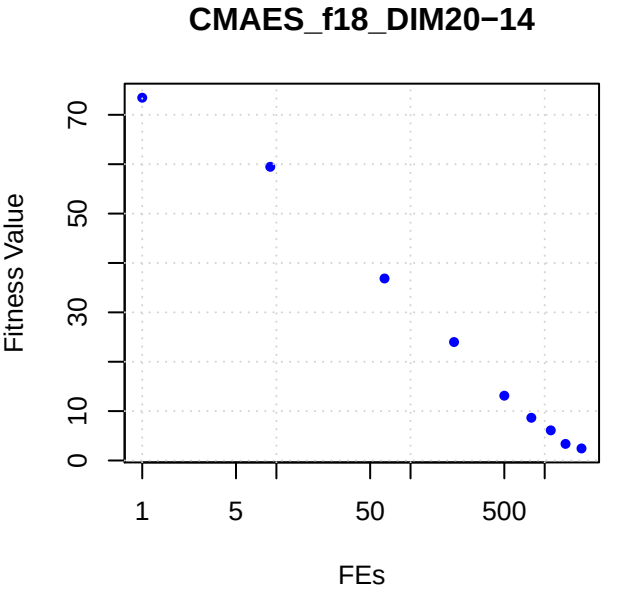
500
FEs


CMAES_f18_DIM20−14
Fitness Value
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1
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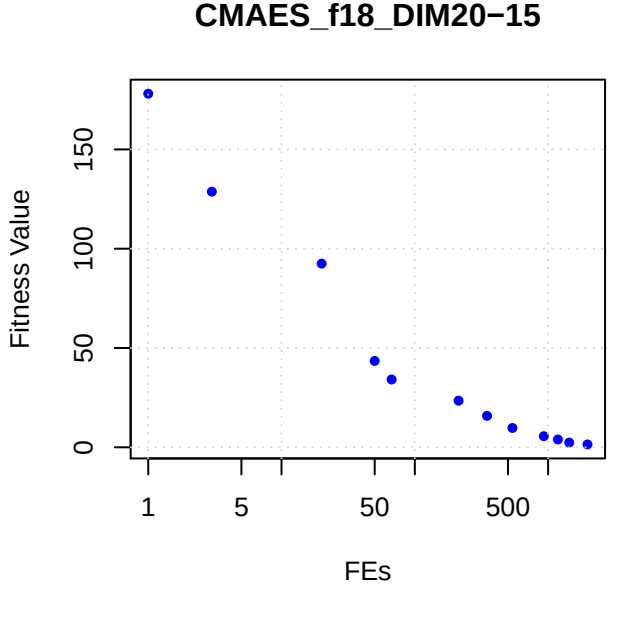
500
FEs


CMAES_f18_DIM20−15
Fitness Value
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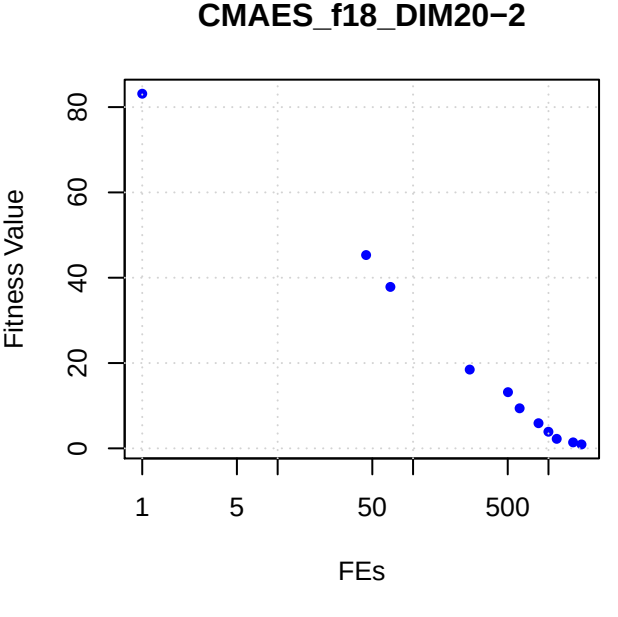
500
FEs


CMAES_f18_DIM20−2
Fitness Value
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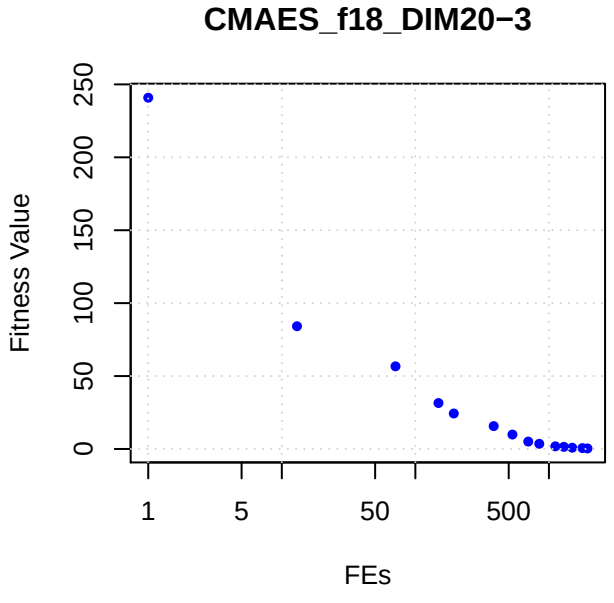
FEs


CMAES_f18_DIM20−3
Fitness Value
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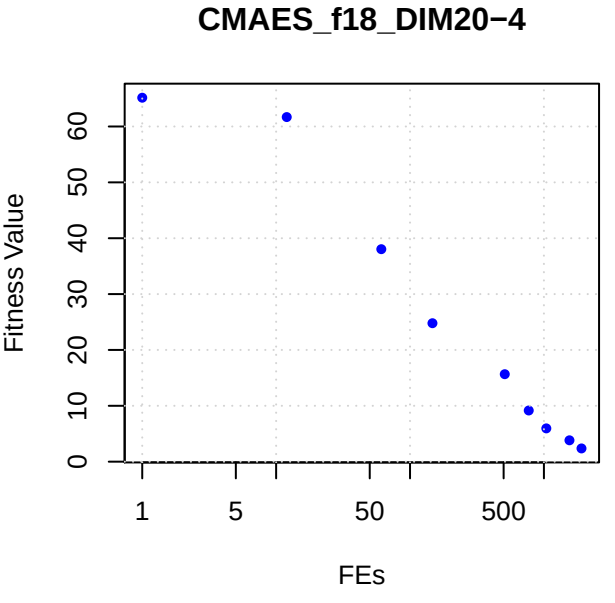
500
FEs


CMAES_f18_DIM20−4
Fitness Value
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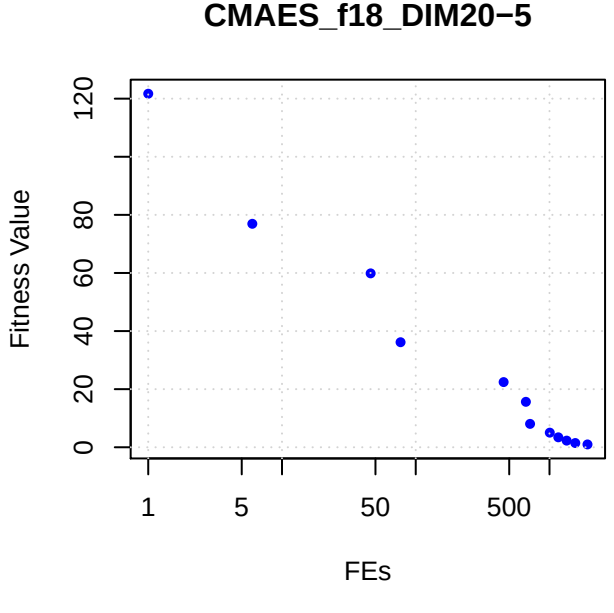
500
FEs


CMAES_f18_DIM20−5
Fitness Value
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80
120
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5
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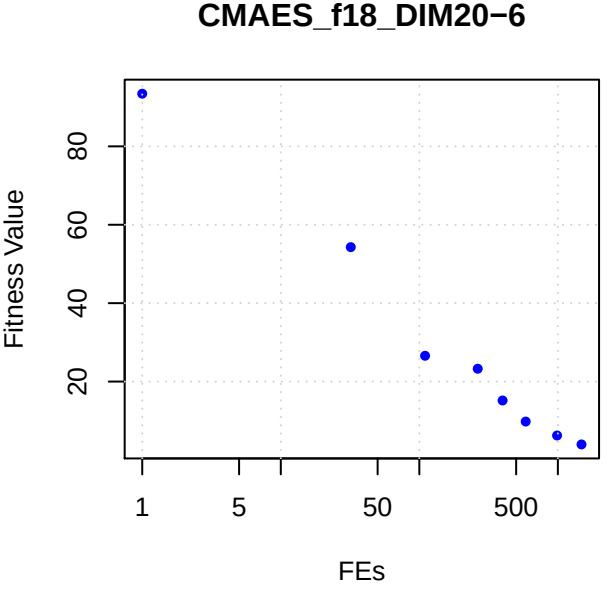
500
FEs


CMAES_f18_DIM20−6
Fitness Value
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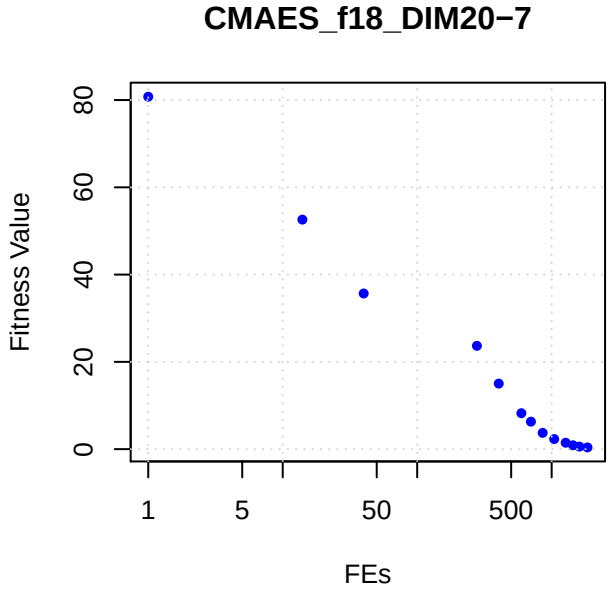
500
FEs


CMAES_f18_DIM20−7
Fitness Value
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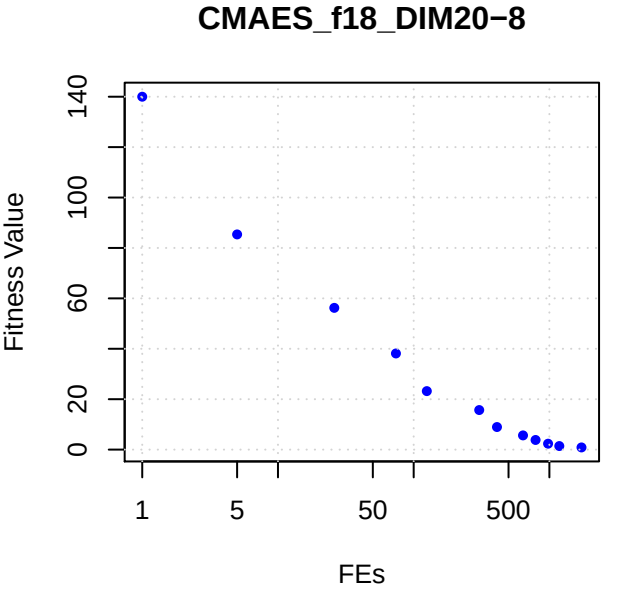
FEs


CMAES_f18_DIM20−8
Fitness Value
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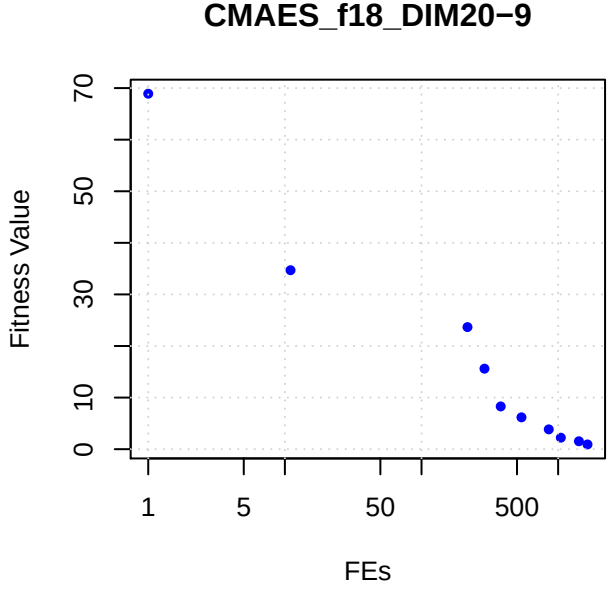
FEs


CMAES_f18_DIM20−9
Fitness Value
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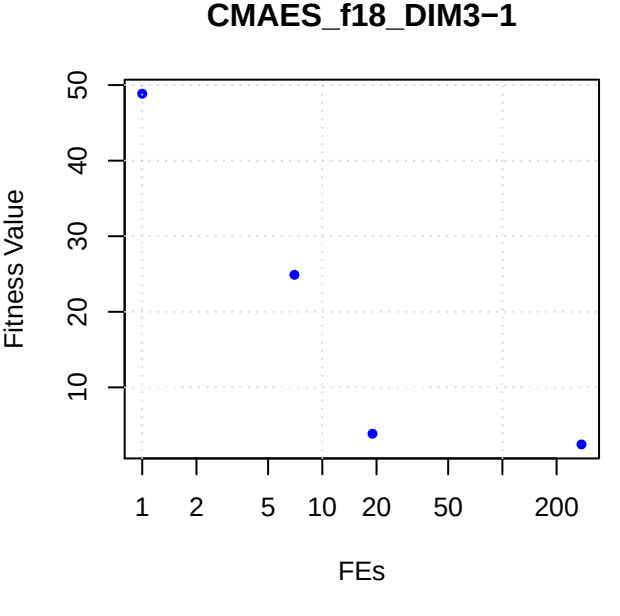
FEs


CMAES_f18_DIM3−1
Fitness Value
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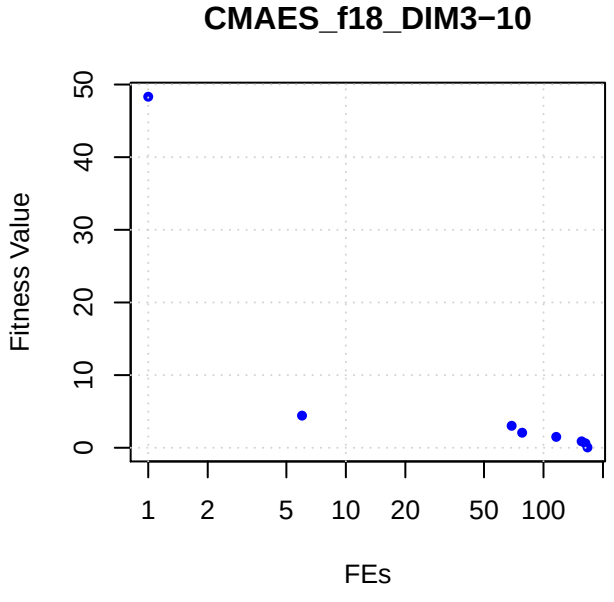
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM3−10
Fitness Value
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40
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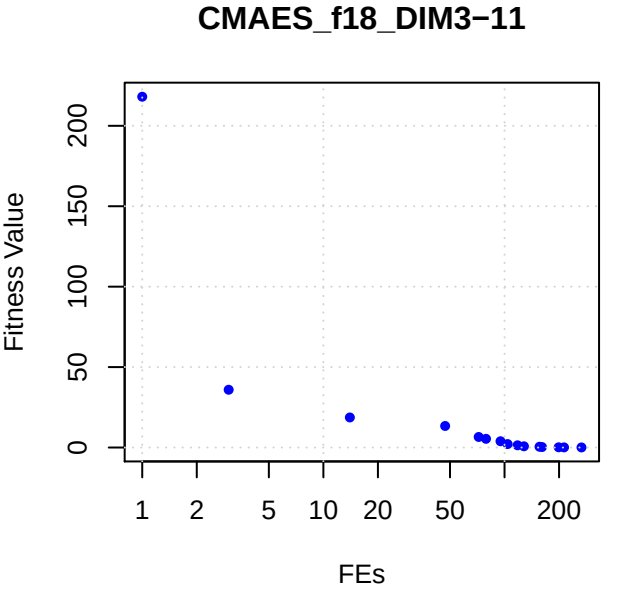
1
2
5
10
20
50
100
FEs


CMAES_f18_DIM3−11
Fitness Value
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1
2
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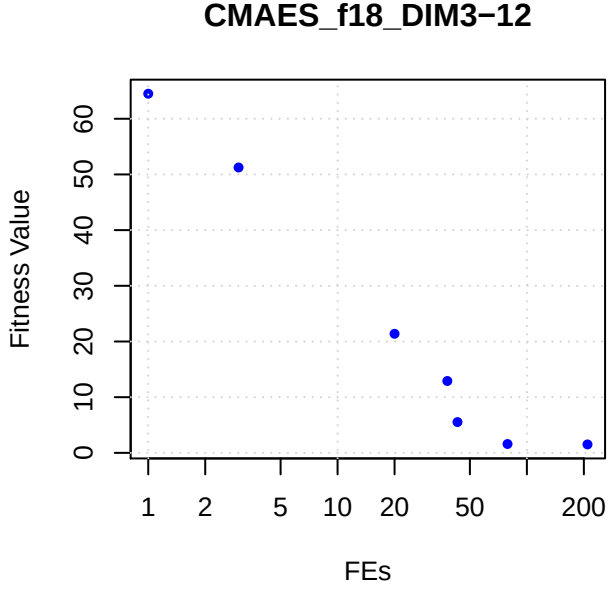
200
FEs


CMAES_f18_DIM3−12
Fitness Value
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1
2
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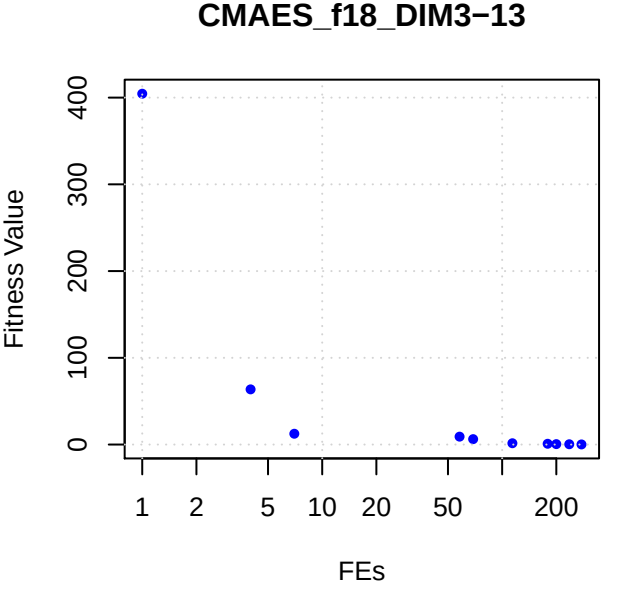
20
50
200
FEs


CMAES_f18_DIM3−13
Fitness Value
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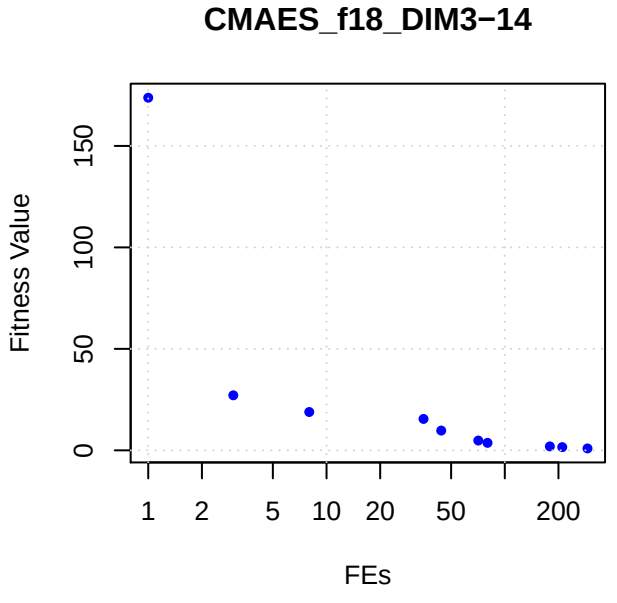
300
400
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM3−14
Fitness Value
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1
2
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10
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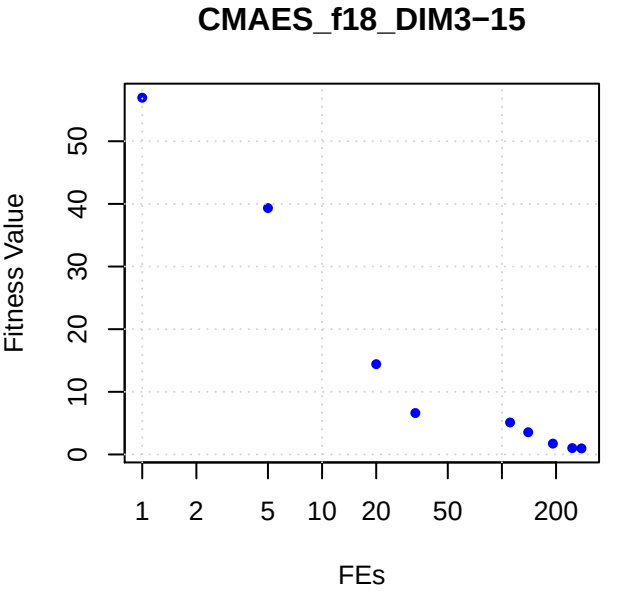
200
FEs


CMAES_f18_DIM3−15
Fitness Value
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1
2
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10
20
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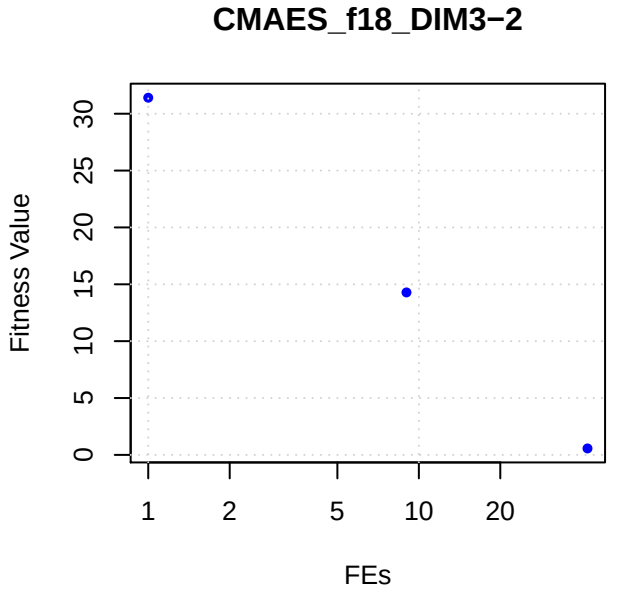
200
FEs


CMAES_f18_DIM3−2
Fitness Value
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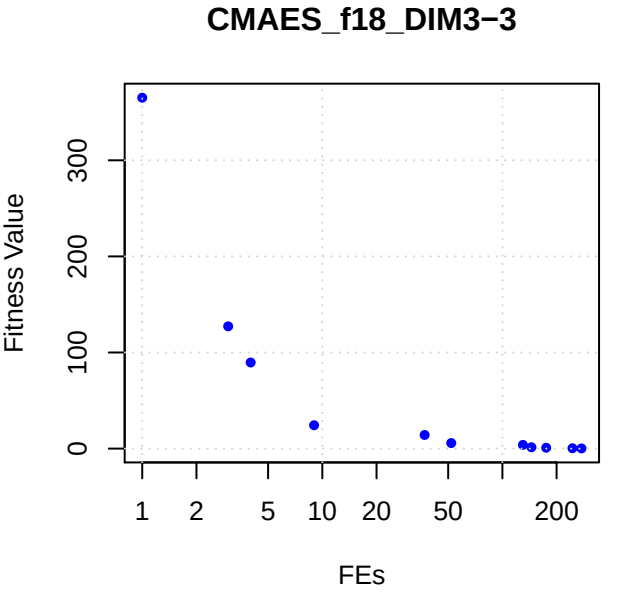
10
15
20
25
30
1
2
5
10
20
FEs


CMAES_f18_DIM3−3
Fitness Value
0
100
200
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1
2
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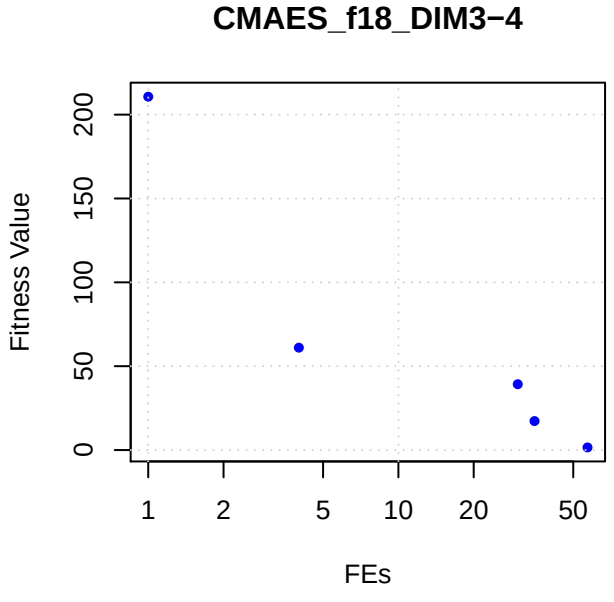
10
20
50
200
FEs


CMAES_f18_DIM3−4
Fitness Value
0
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100
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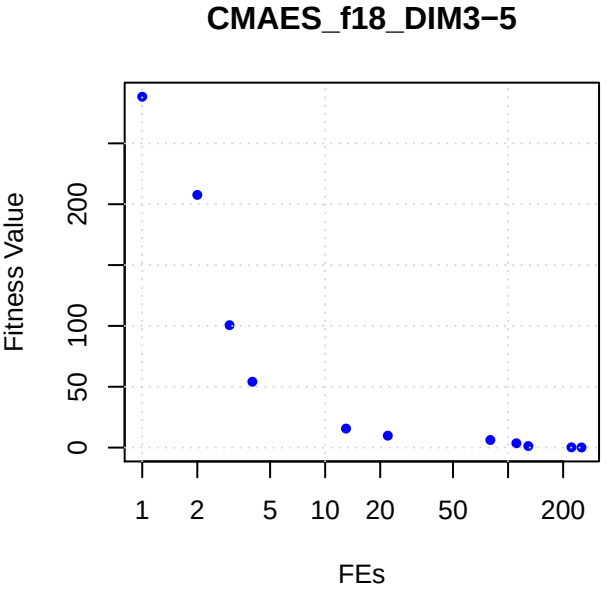
200
1
2
5
10
20
50
FEs


CMAES_f18_DIM3−5
Fitness Value
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100
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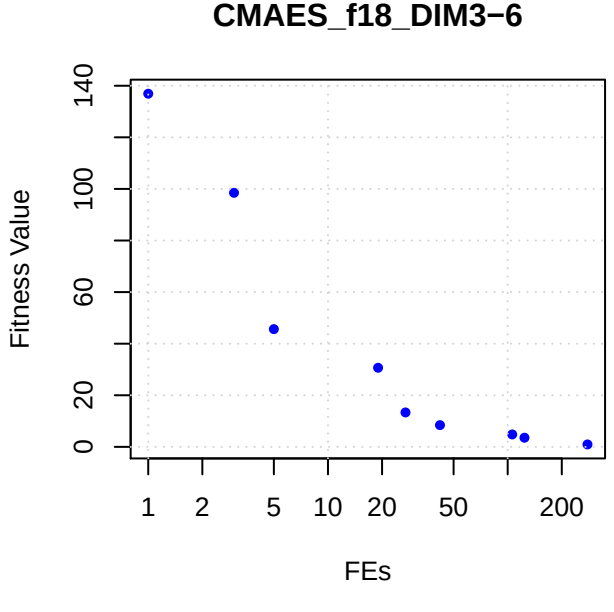
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM3−6
Fitness Value
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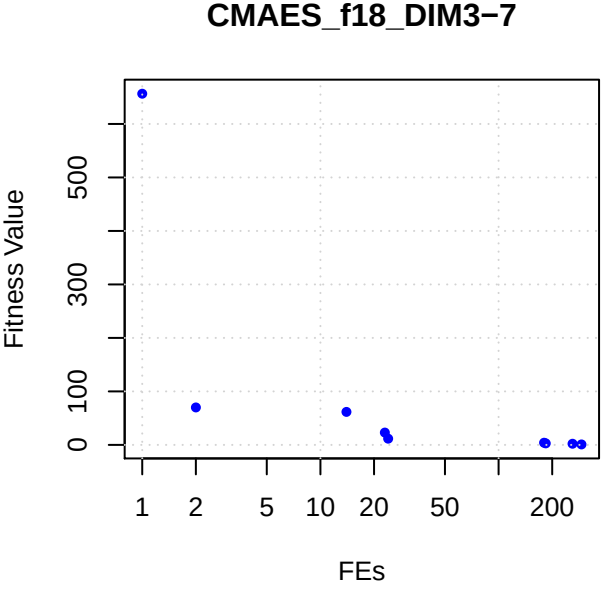
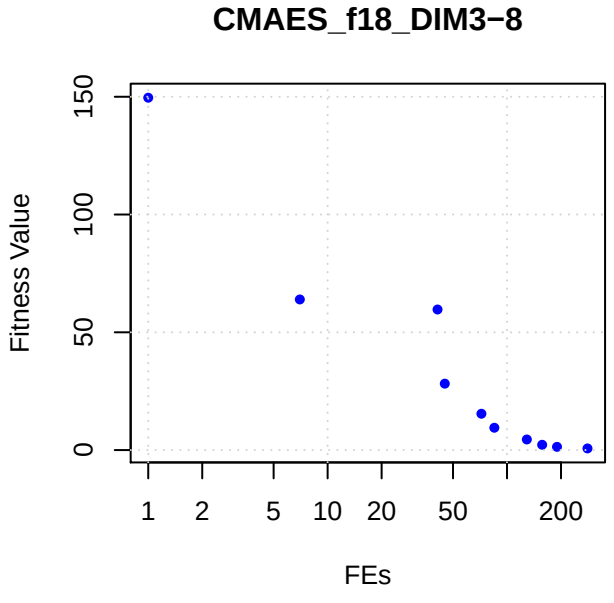
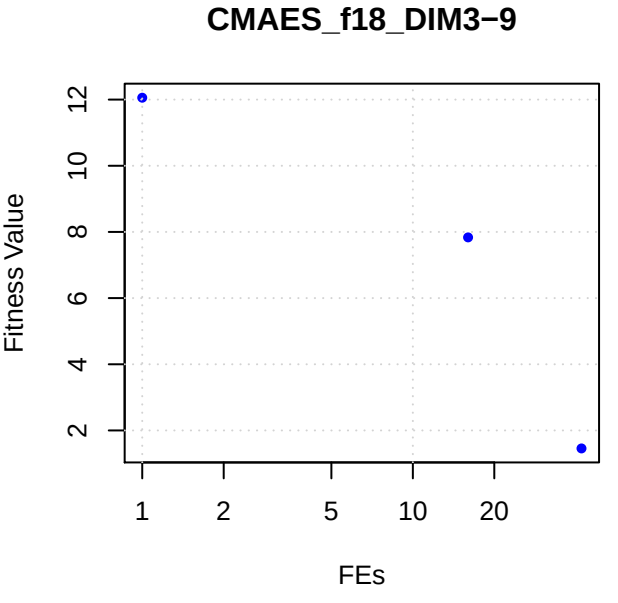
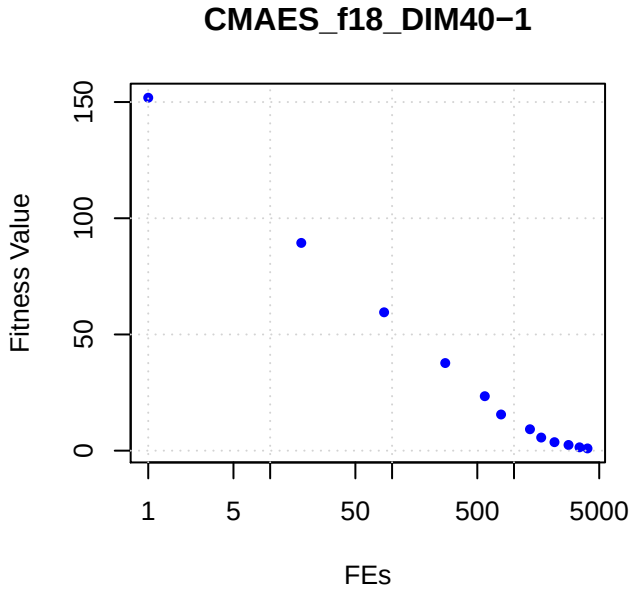
20
60
100
140
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM3−7
Fitness Value
0
100
300
500
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM3−8
Fitness Value
0
50
100
150
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM3−9
Fitness Value
2
4
6
8
10
12
1
2
5
10
20
FEs


CMAES_f18_DIM40−1
Fitness Value
0
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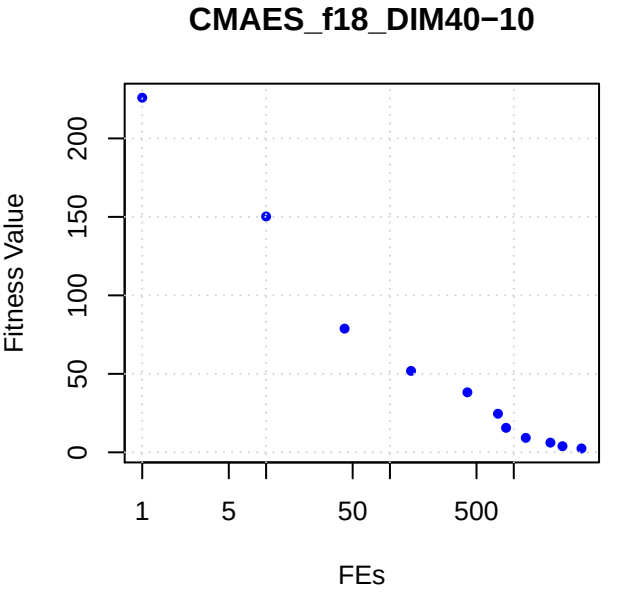
100
150
1
5
50
500
5000
FEs


CMAES_f18_DIM40−10
Fitness Value
0
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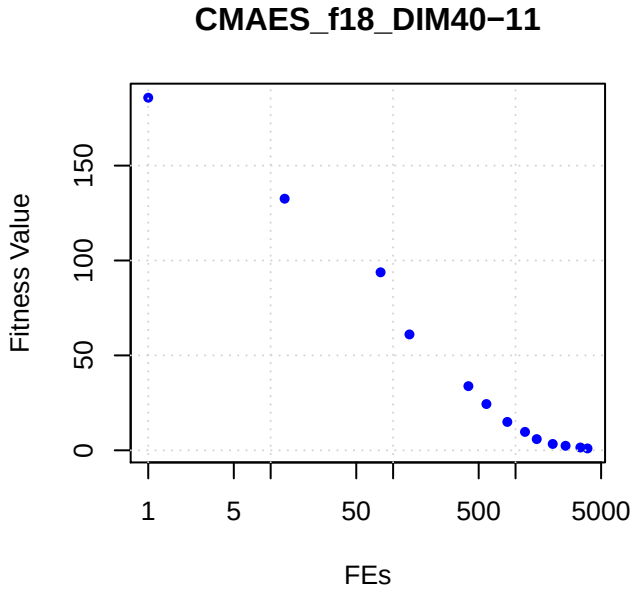
100
150
200
1
5
50
500
FEs


CMAES_f18_DIM40−11
Fitness Value
0
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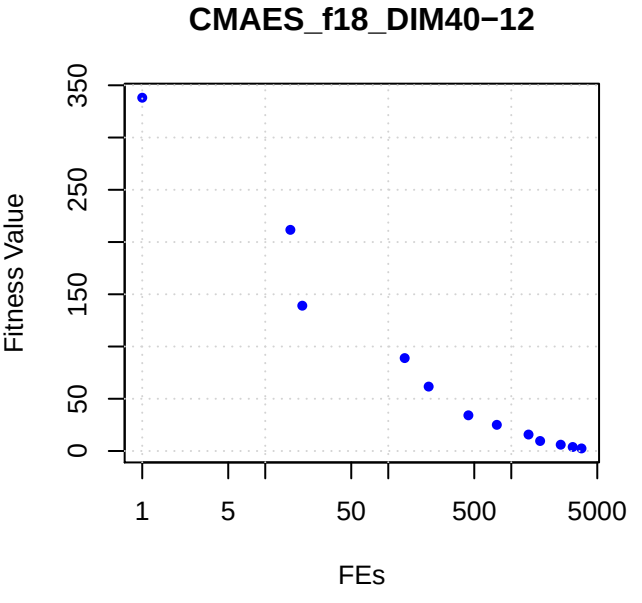
100
150
1
5
50
500
5000
FEs


CMAES_f18_DIM40−12
Fitness Value
0
50
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250
350
1
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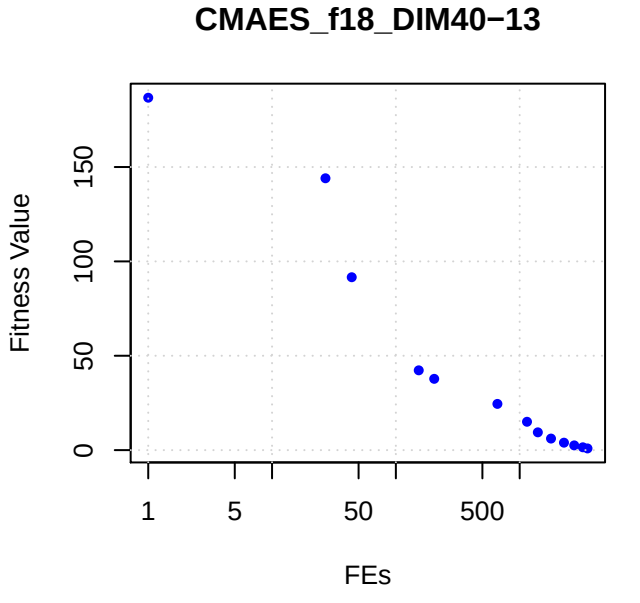
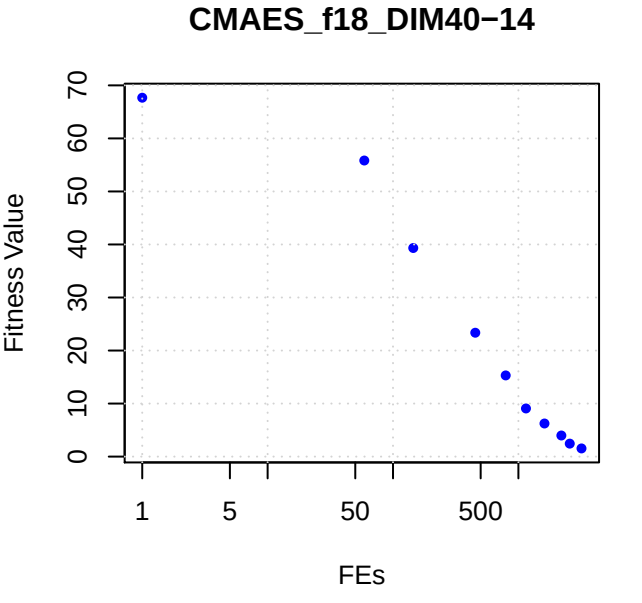
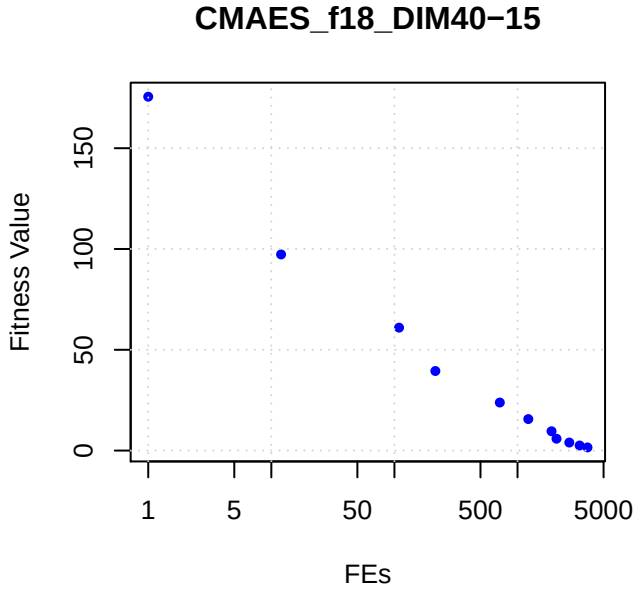
50
500
5000
FEs


CMAES_f18_DIM40−13
Fitness Value
0
50
100
150
1
5
50
500
FEs


CMAES_f18_DIM40−14
Fitness Value
0
10
20
30
40
50
60
70
1
5
50
500
FEs


CMAES_f18_DIM40−15
Fitness Value
0
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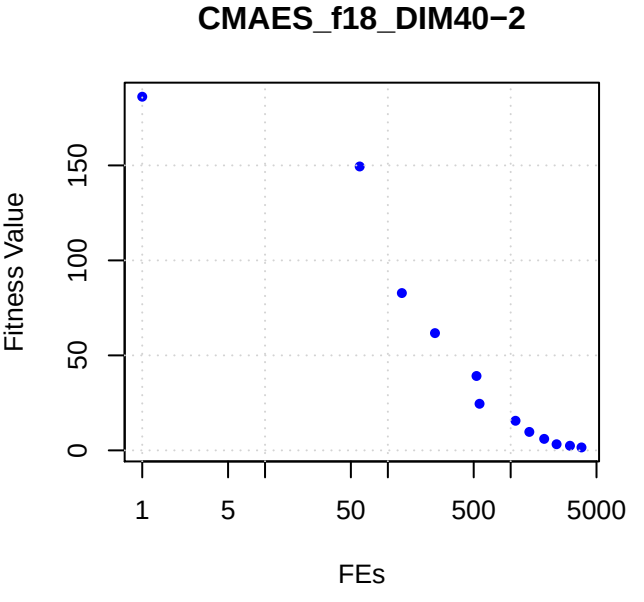
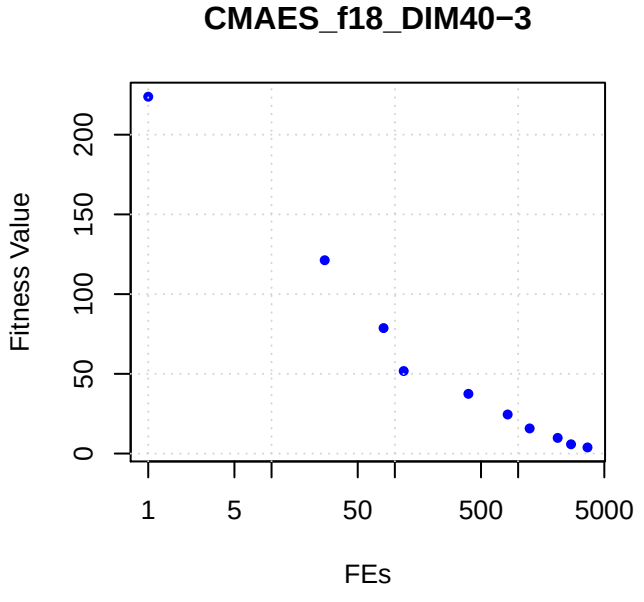
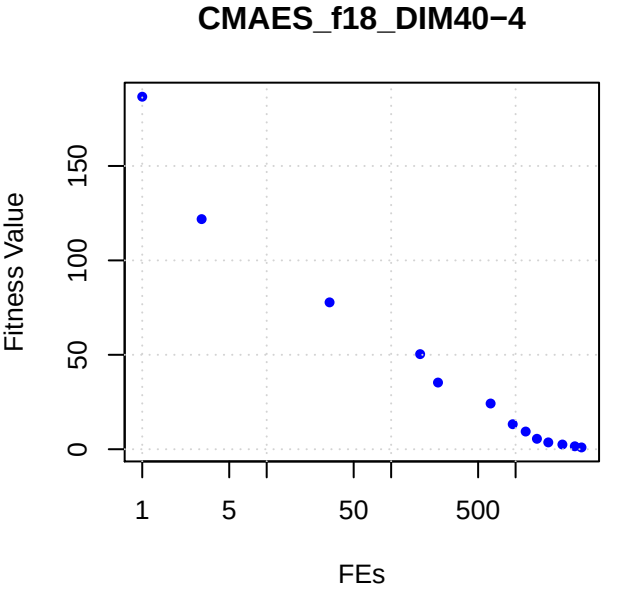
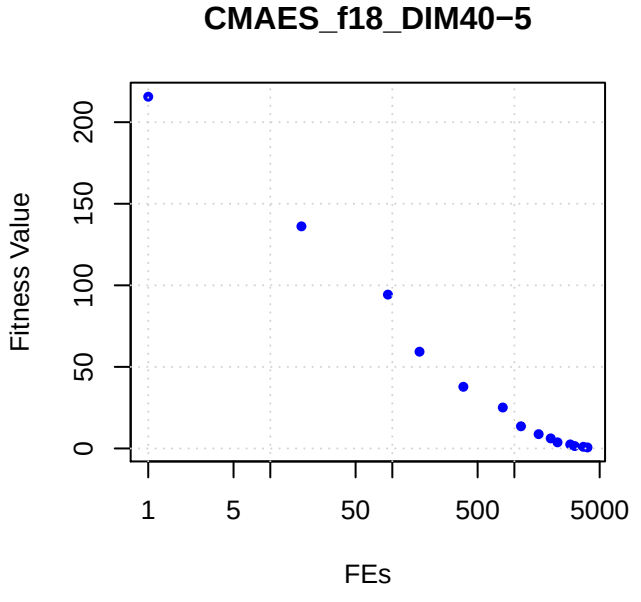
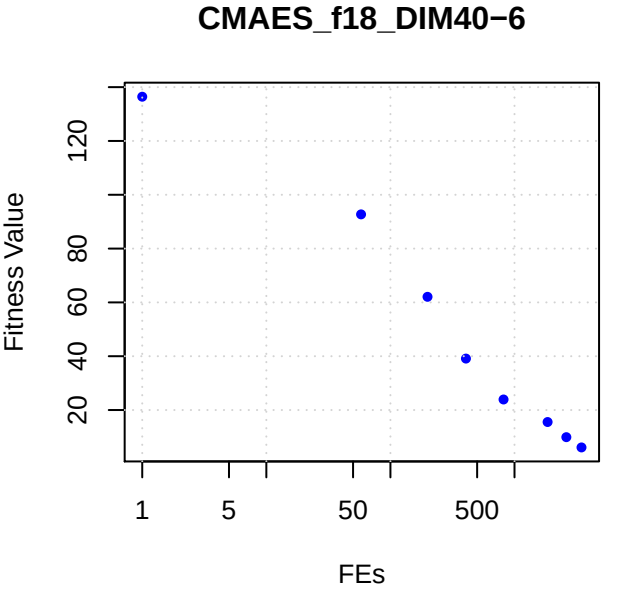
100
150
1
5
50
500
5000
FEs


CMAES_f18_DIM40−2
Fitness Value
0
50
100
150
1
5
50
500
5000
FEs


CMAES_f18_DIM40−3
Fitness Value
0
50
100
150
200
1
5
50
500
5000
FEs


CMAES_f18_DIM40−4
Fitness Value
0
50
100
150
1
5
50
500
FEs


CMAES_f18_DIM40−5
Fitness Value
0
50
100
150
200
1
5
50
500
5000
FEs


CMAES_f18_DIM40−6
Fitness Value
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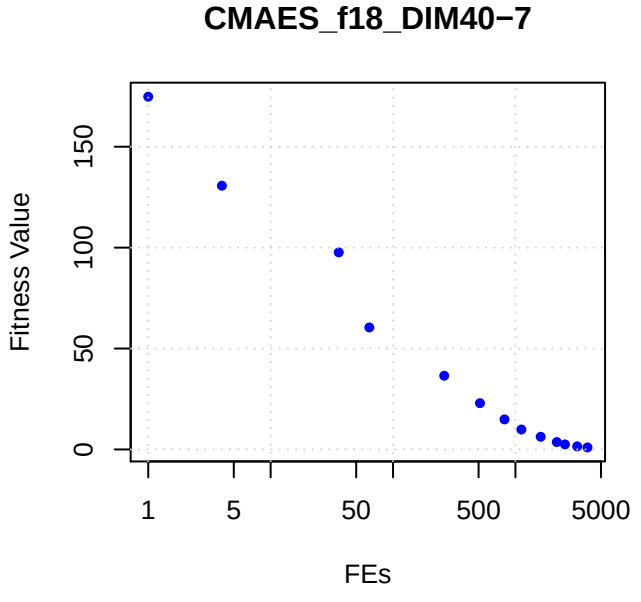
60
80
120
1
5
50
500
FEs


CMAES_f18_DIM40−7
Fitness Value
0
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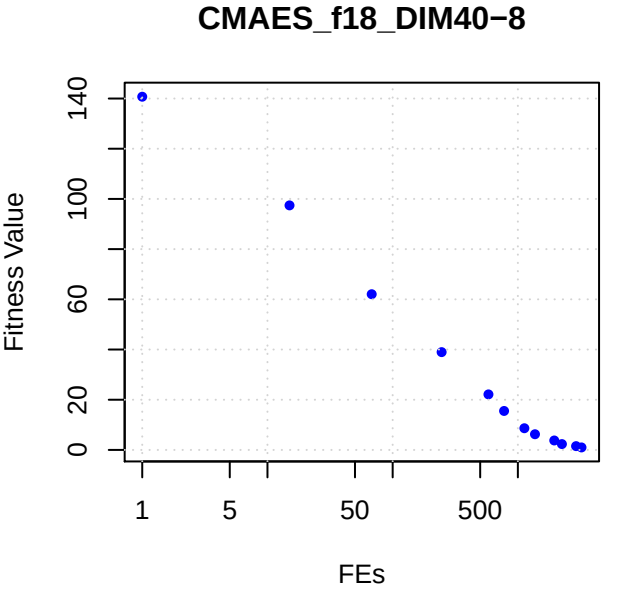
100
150
1
5
50
500
5000
FEs


CMAES_f18_DIM40−8
Fitness Value
0
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60
100
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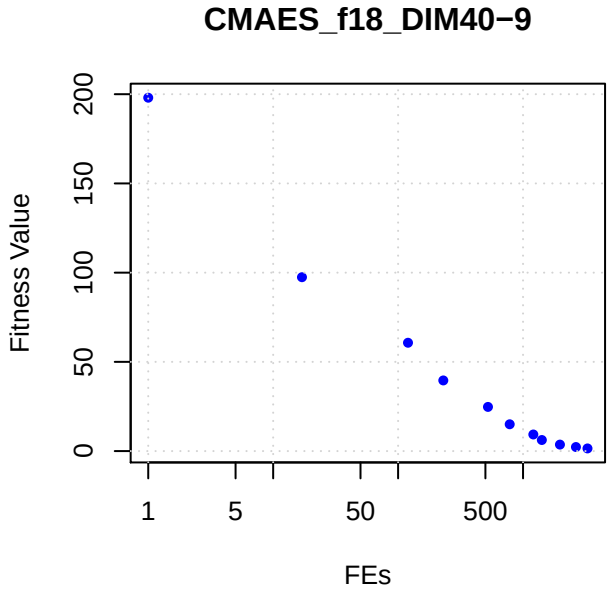
1
5
50
500
FEs


CMAES_f18_DIM40−9
Fitness Value
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100
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1
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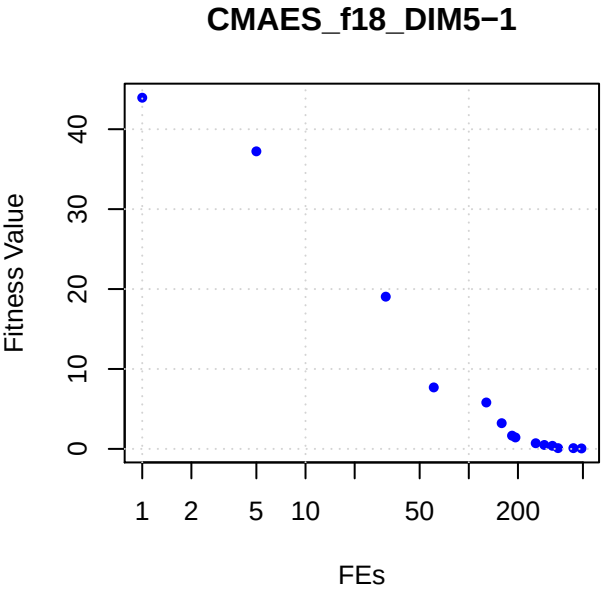
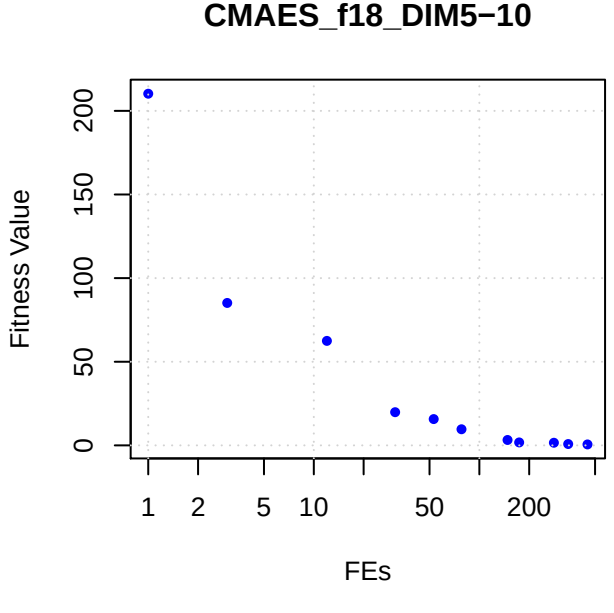
FEs


CMAES_f18_DIM5−1
Fitness Value
0
10
20
30
40
1
2
5
10
50
200
FEs


CMAES_f18_DIM5−10
Fitness Value
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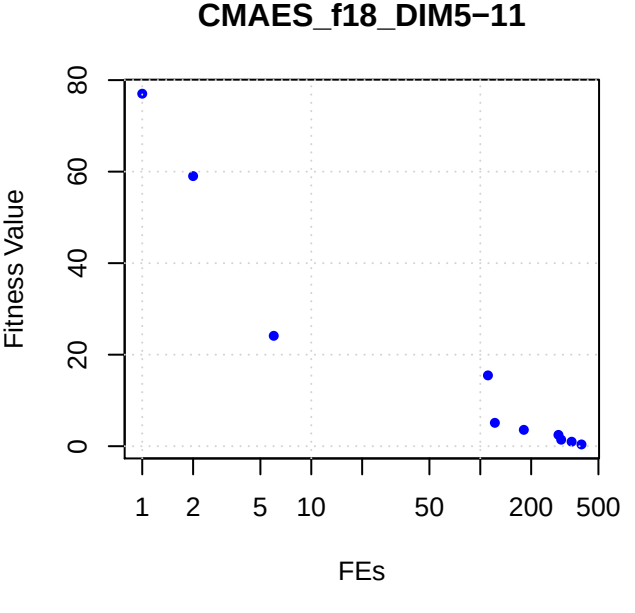
100
150
200
1
2
5
10
50
200
FEs


CMAES_f18_DIM5−11
Fitness Value
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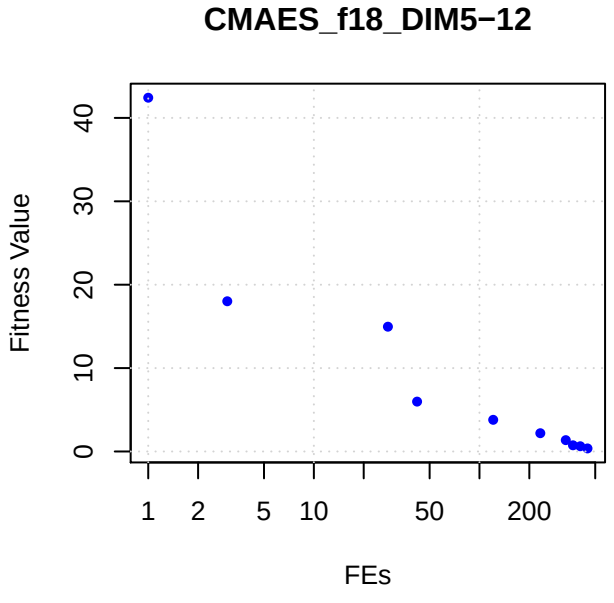
20
40
60
80
1
2
5
10
50
200
500
FEs


CMAES_f18_DIM5−12
Fitness Value
0
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20
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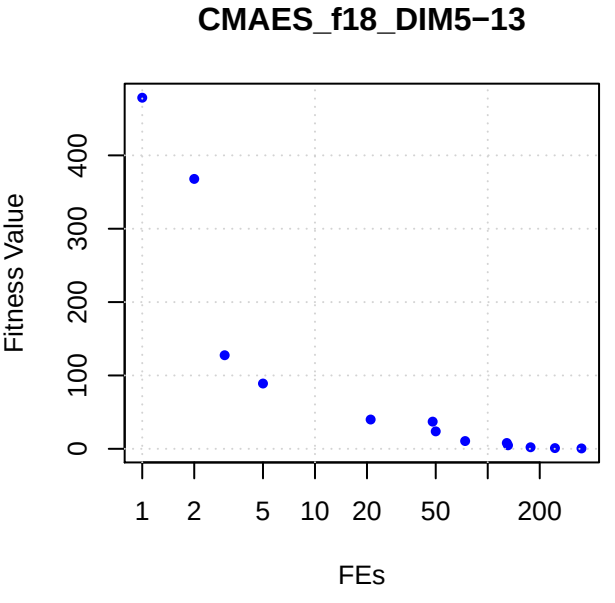
40
1
2
5
10
50
200
FEs


CMAES_f18_DIM5−13
Fitness Value
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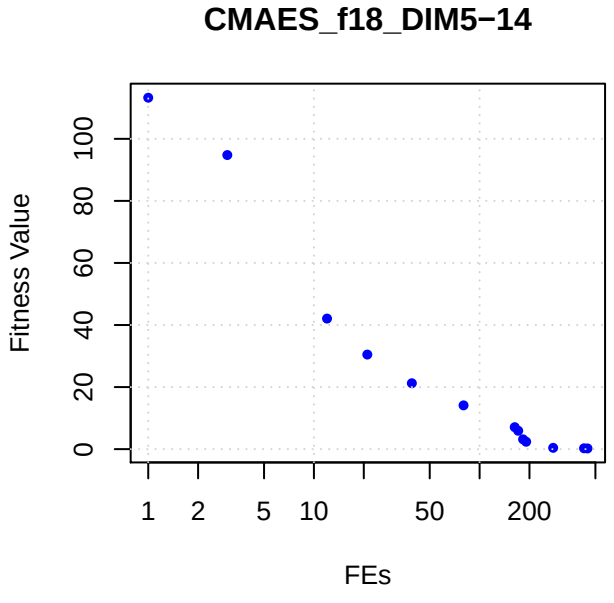
100
200
300
400
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM5−14
Fitness Value
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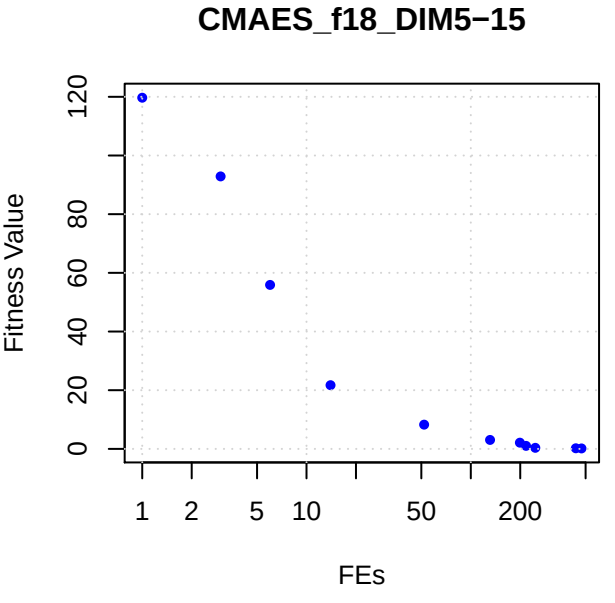
100
1
2
5
10
50
200
FEs


CMAES_f18_DIM5−15
Fitness Value
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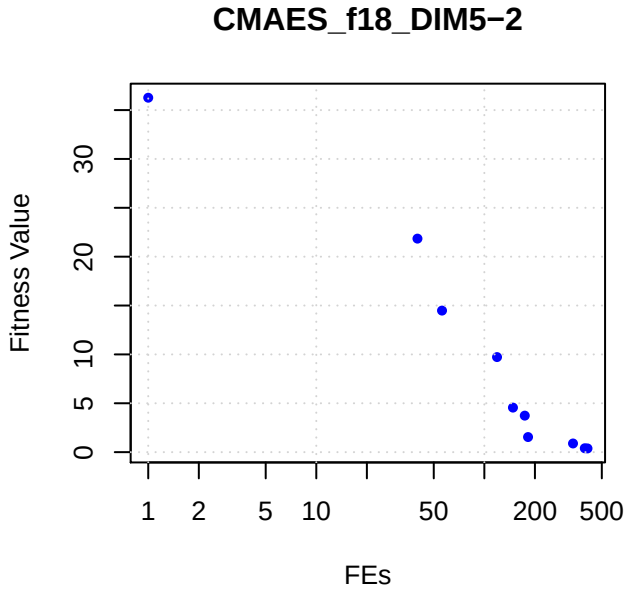
120
1
2
5
10
50
200
FEs


CMAES_f18_DIM5−2
Fitness Value
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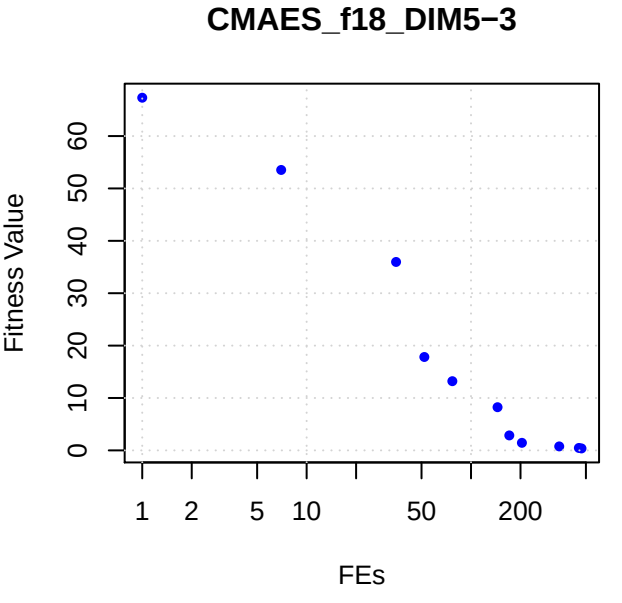
1
2
5
10
50
200
500
FEs


CMAES_f18_DIM5−3
Fitness Value
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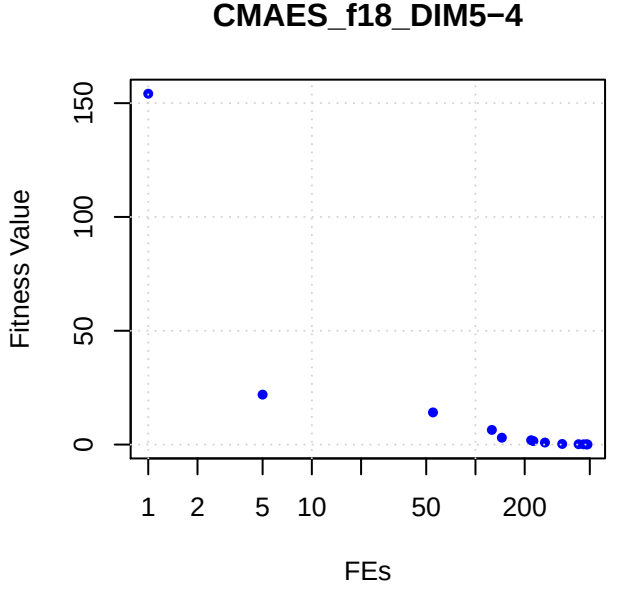
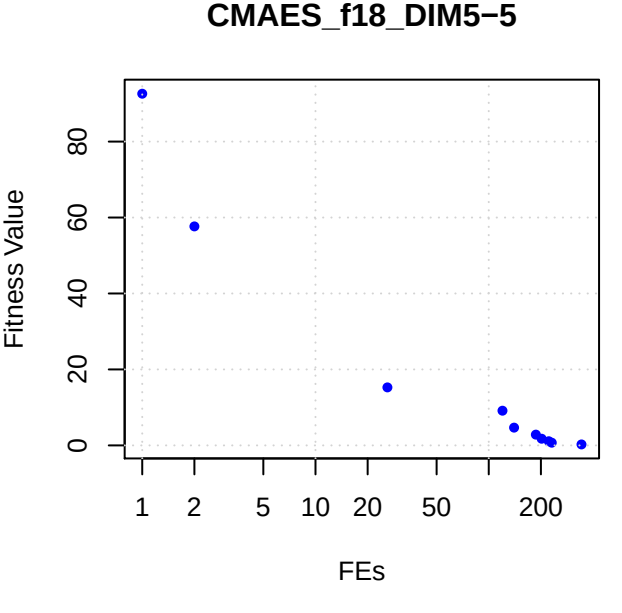
20
30
40
50
60
1
2
5
10
50
200
FEs


CMAES_f18_DIM5−4
Fitness Value
0
50
100
150
1
2
5
10
50
200
FEs


CMAES_f18_DIM5−5
Fitness Value
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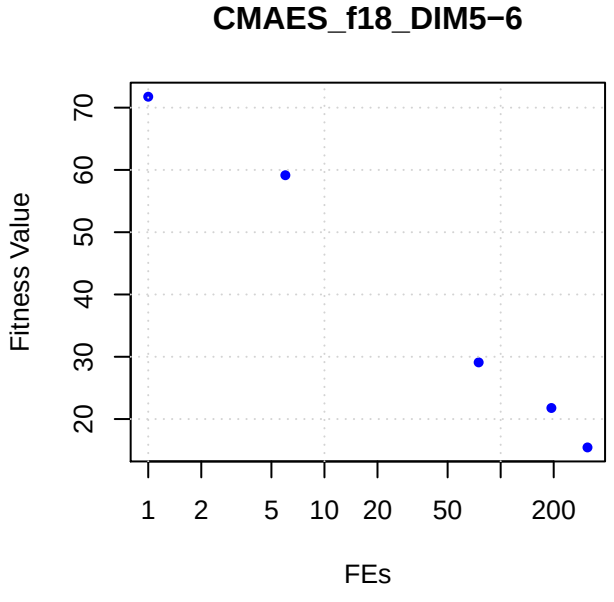
80
1
2
5
10
20
50
200
FEs


CMAES_f18_DIM5−6
Fitness Value
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50
60
70
1
2
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10
20
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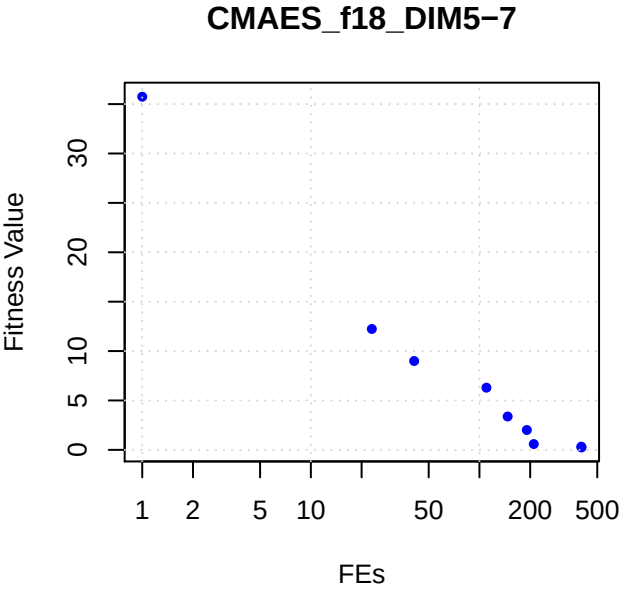
200
FEs


CMAES_f18_DIM5−7
Fitness Value
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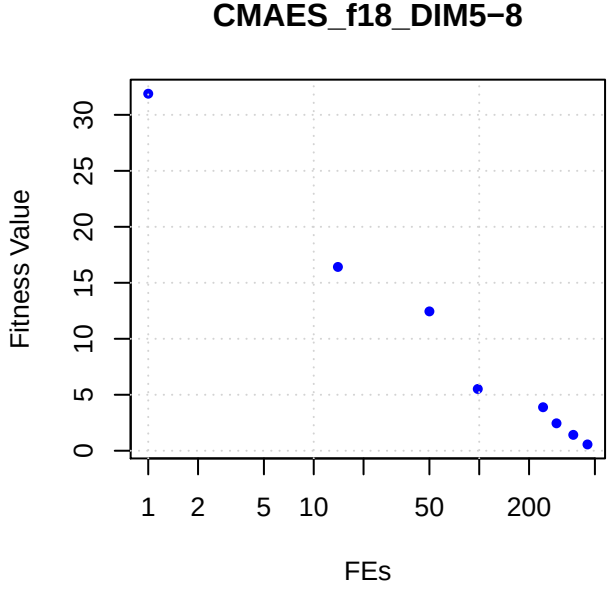
5
10
20
30
1
2
5
10
50
200
500
FEs


CMAES_f18_DIM5−8
Fitness Value
0
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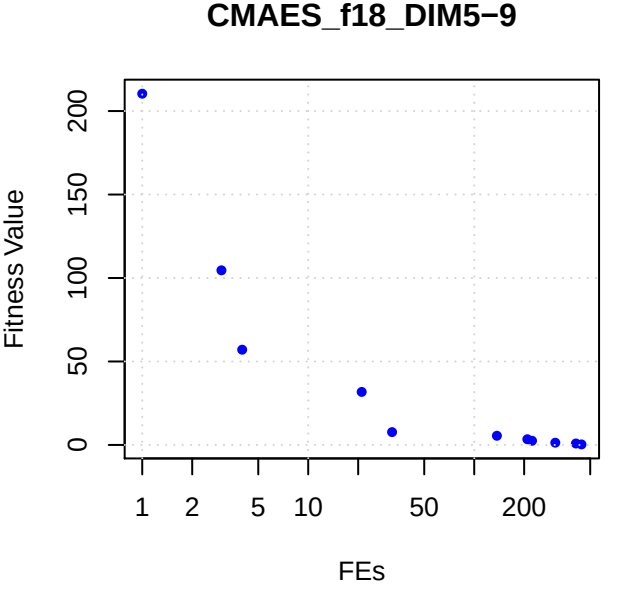
10
15
20
25
30
1
2
5
10
50
200
FEs


CMAES_f18_DIM5−9
Fitness Value
0
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100
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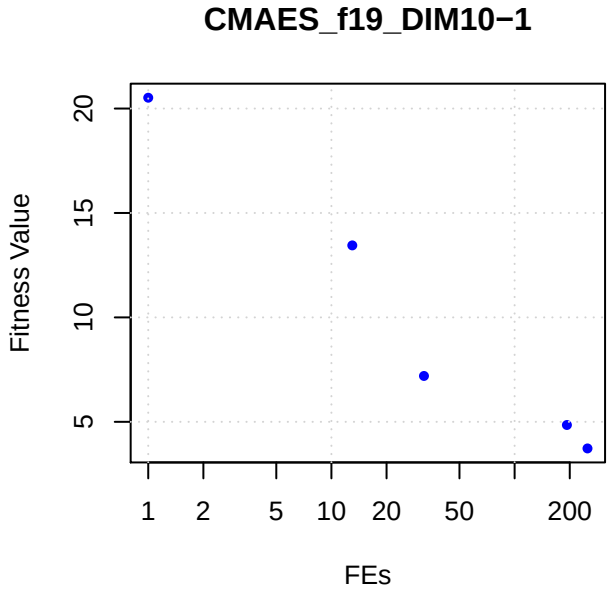
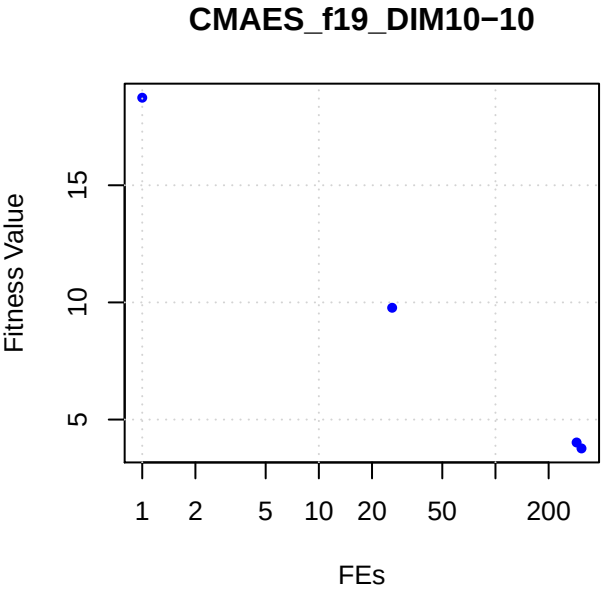
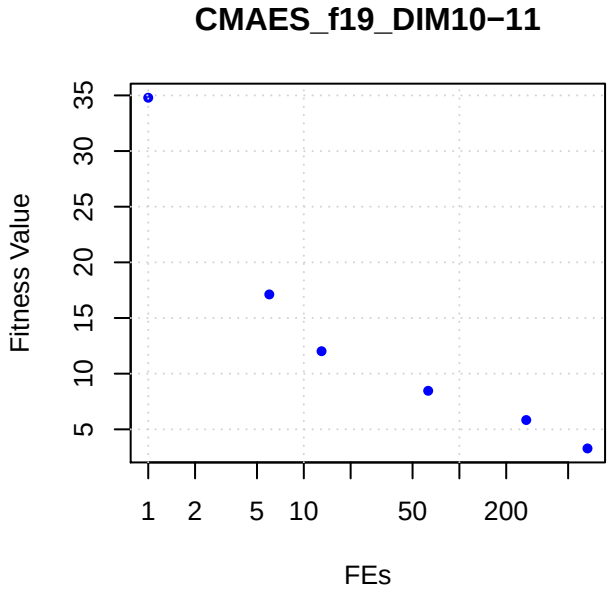
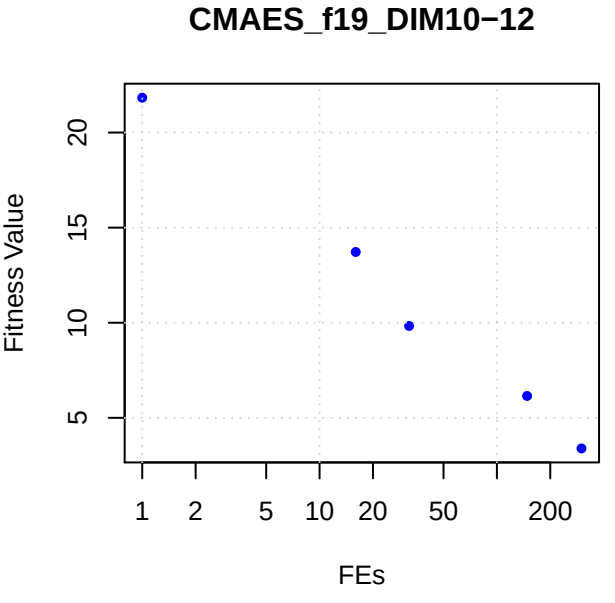
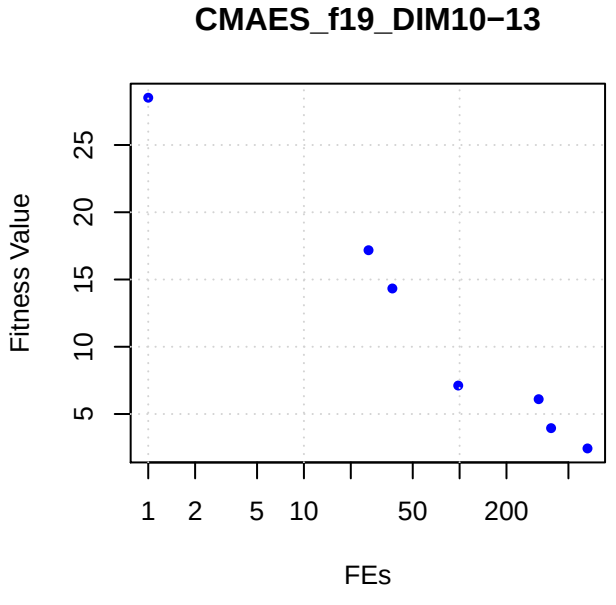
200
1
2
5
10
50
200
FEs

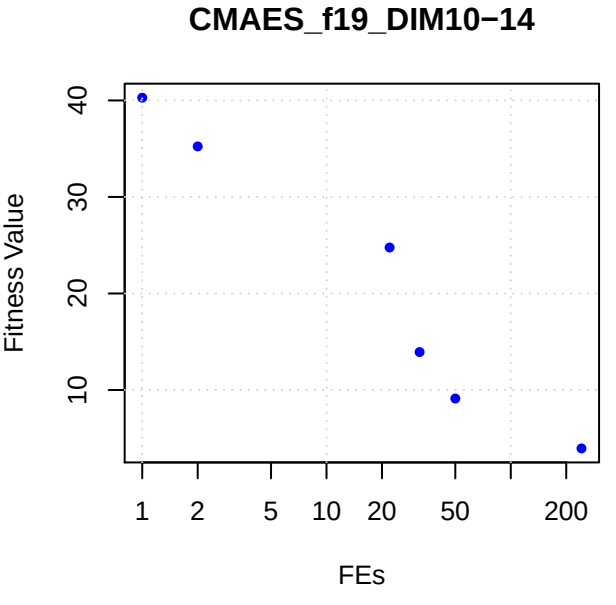

CMAES_f19_DIM10−1
Fitness Value
5
10
15
20
1
2
5
10
20
50
200
FEs

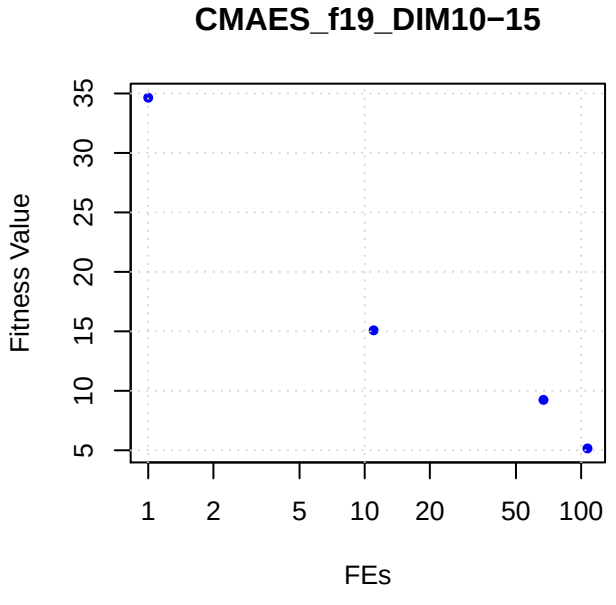

CMAES_f19_DIM10−10
Fitness Value
5
10
15
1
2
5
10
20
50
200
FEs

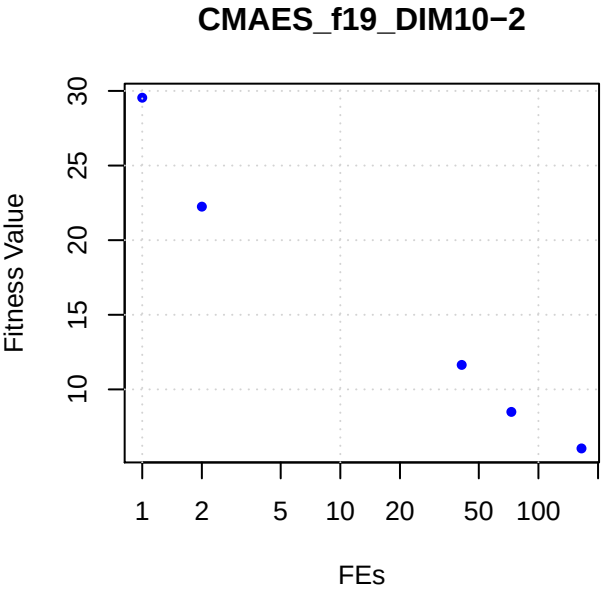

CMAES_f19_DIM10−11
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
50
200
FEs

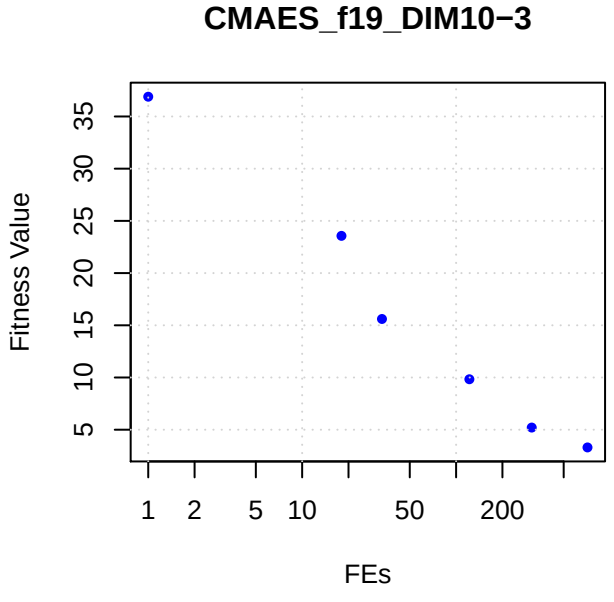

CMAES_f19_DIM10−12
Fitness Value
5
10
15
20
1
2
5
10
20
50
200
FEs

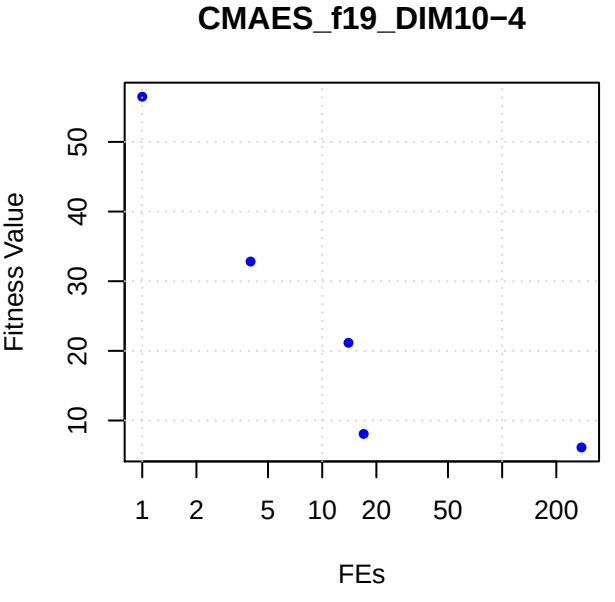

CMAES_f19_DIM10−13
Fitness Value
5
10
15
20
25
1
2
5
10
50
200
FEs

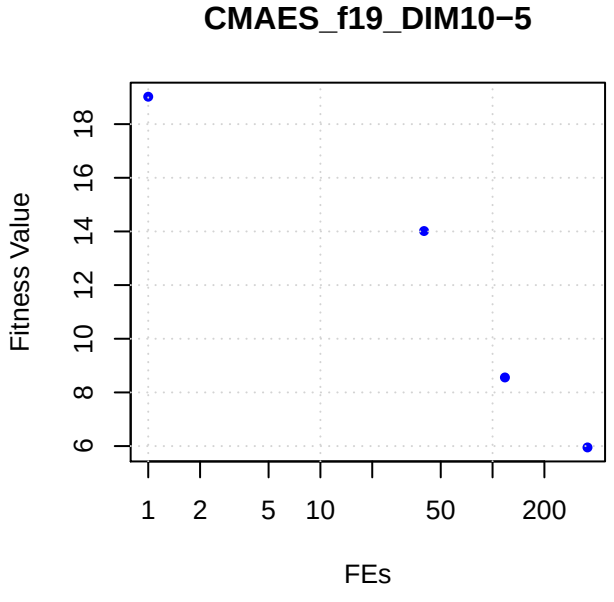

CMAES_f19_DIM10−14
Fitness Value
10
20
30
40
1
2
5
10
20
50
200
FEs

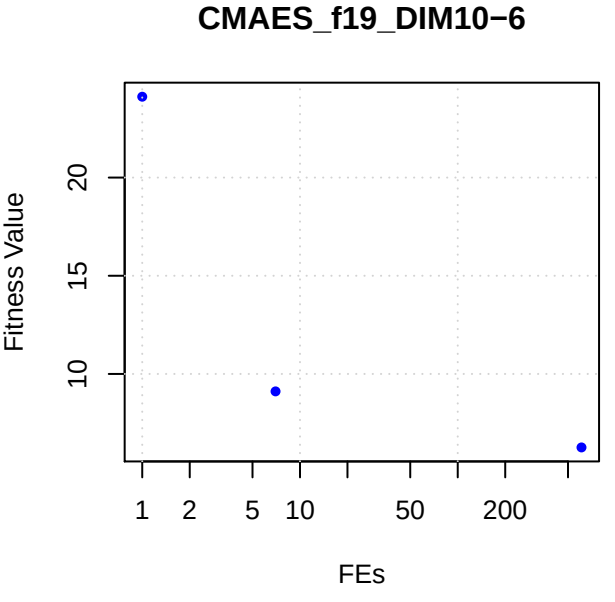

CMAES_f19_DIM10−15
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
20
50
100
FEs

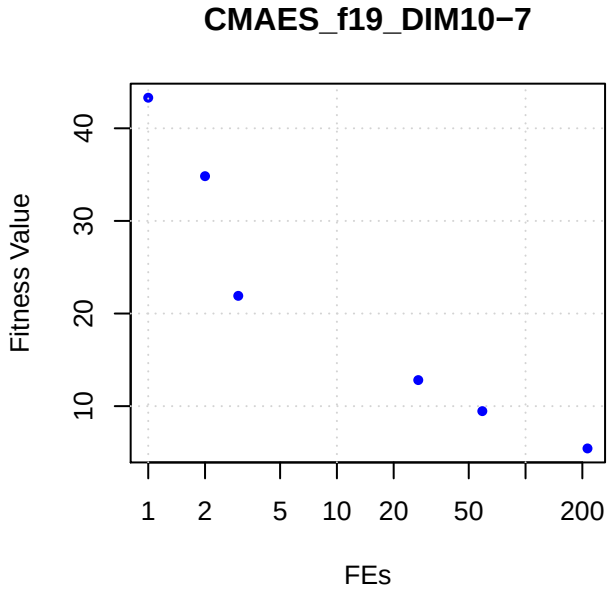

CMAES_f19_DIM10−2
Fitness Value
10
15
20
25
30
1
2
5
10
20
50
100
FEs

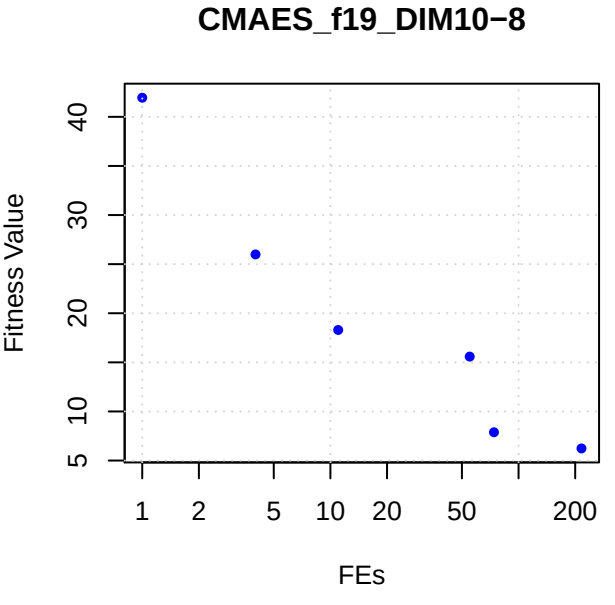

CMAES_f19_DIM10−3
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
50
200
FEs

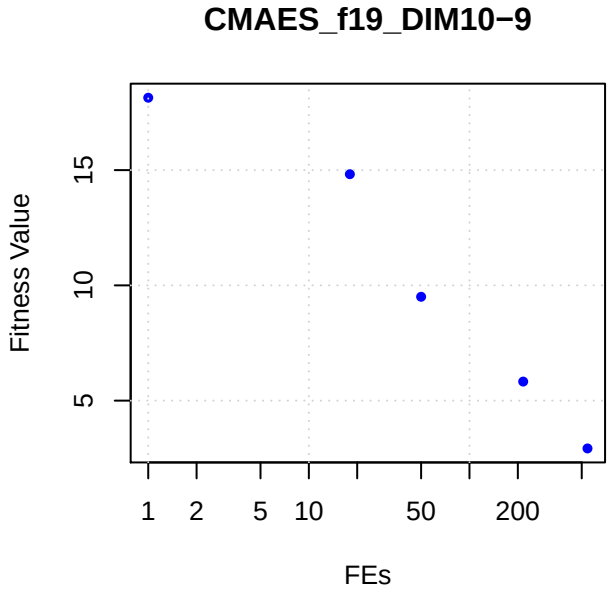

CMAES_f19_DIM10−4
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM10−5
Fitness Value
6
8
10
12
14
16
18
1
2
5
10
50
200
FEs


CMAES_f19_DIM10−6
Fitness Value
10
15
20
1
2
5
10
50
200
FEs


CMAES_f19_DIM10−7
Fitness Value
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM10−8
Fitness Value
5
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM10−9
Fitness Value
5
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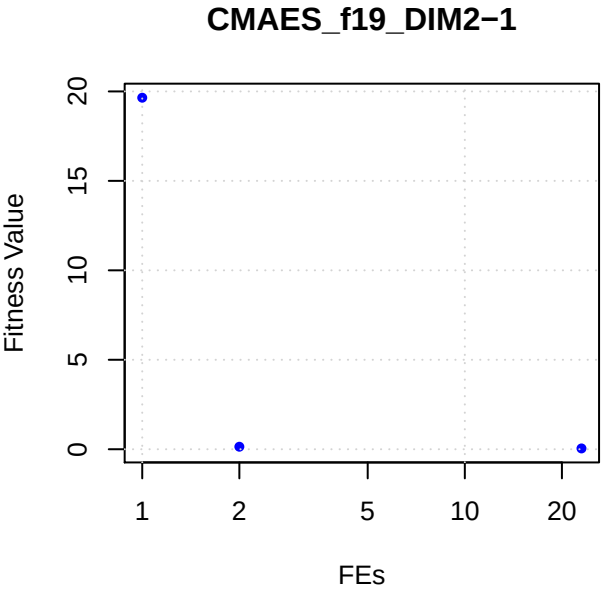
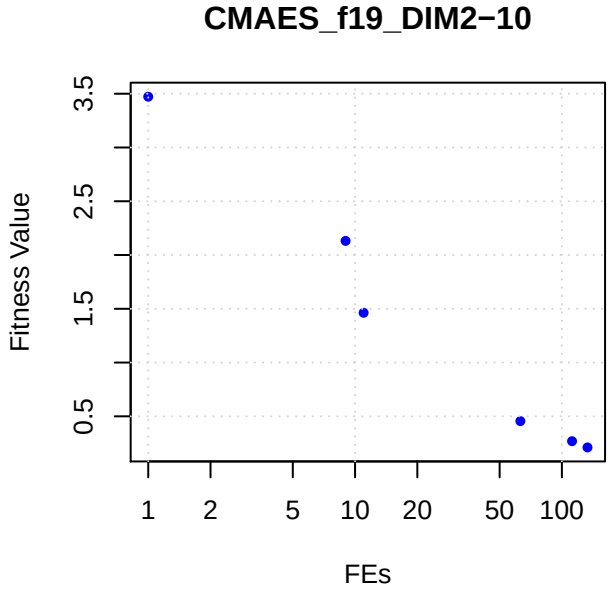
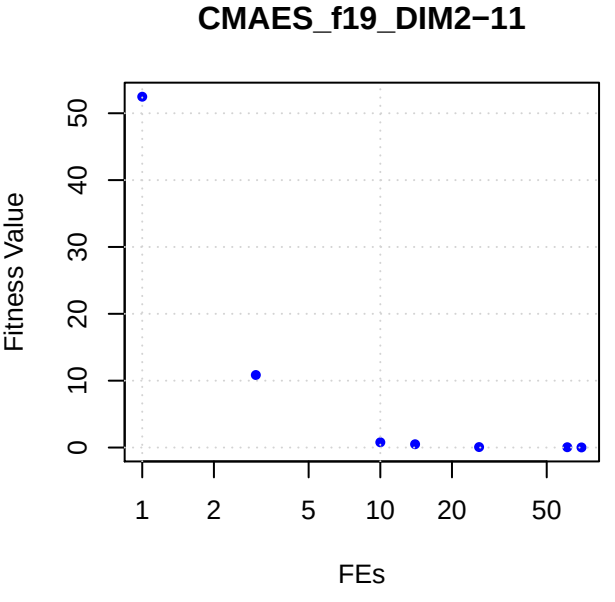
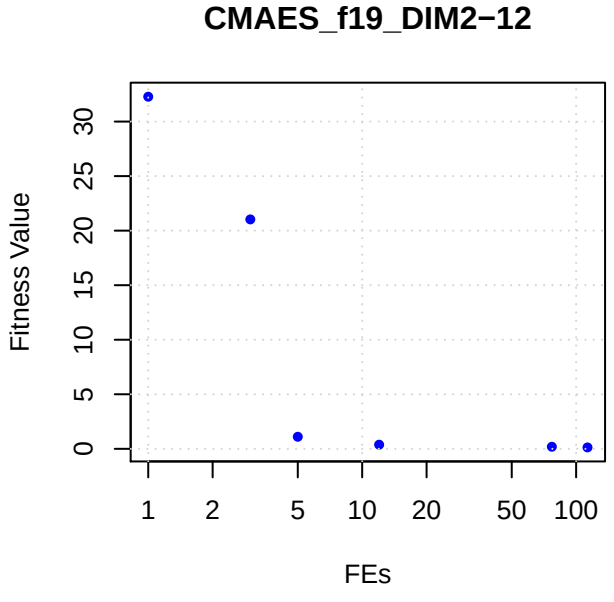
15
1
2
5
10
50
200
FEs


CMAES_f19_DIM2−1
Fitness Value
0
5
10
15
20
1
2
5
10
20
FEs


CMAES_f19_DIM2−10
Fitness Value
0.5
1.5
2.5
3.5
1
2
5
10
20
50
100
FEs


CMAES_f19_DIM2−11
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
FEs


CMAES_f19_DIM2−12
Fitness Value
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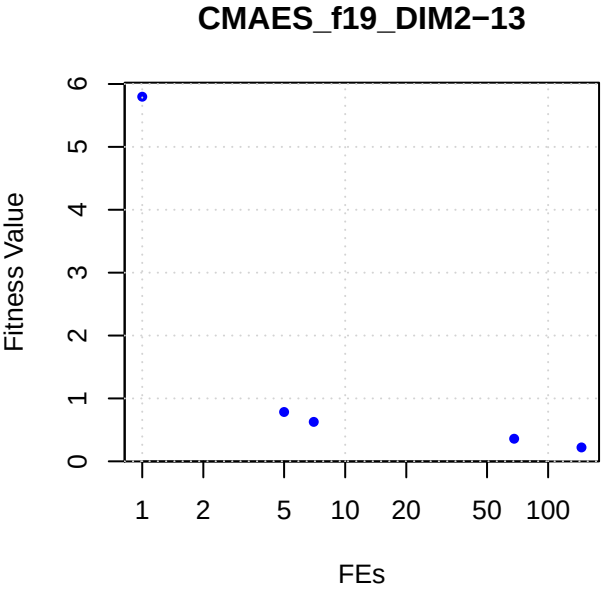
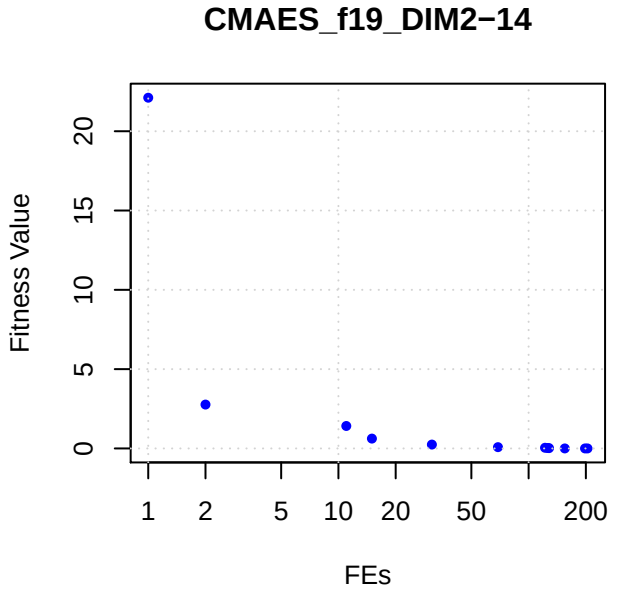
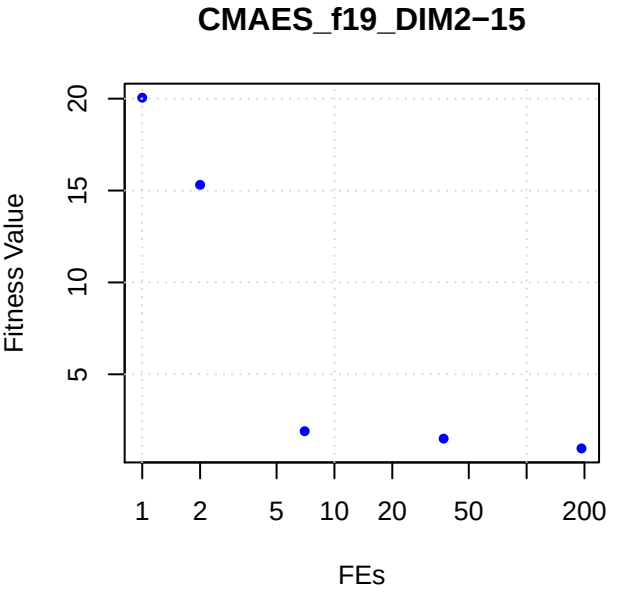
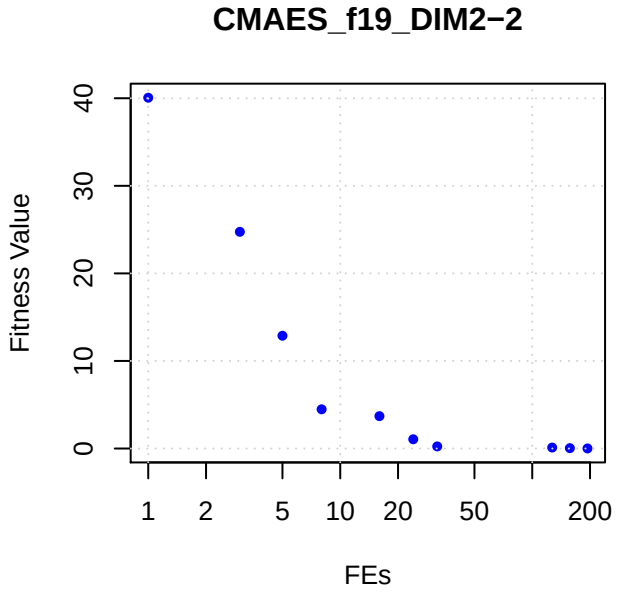
10
15
20
25
30
1
2
5
10
20
50
100
FEs


CMAES_f19_DIM2−13
Fitness Value
0
1
2
3
4
5
6
1
2
5
10
20
50
100
FEs


CMAES_f19_DIM2−14
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM2−15
Fitness Value
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM2−2
Fitness Value
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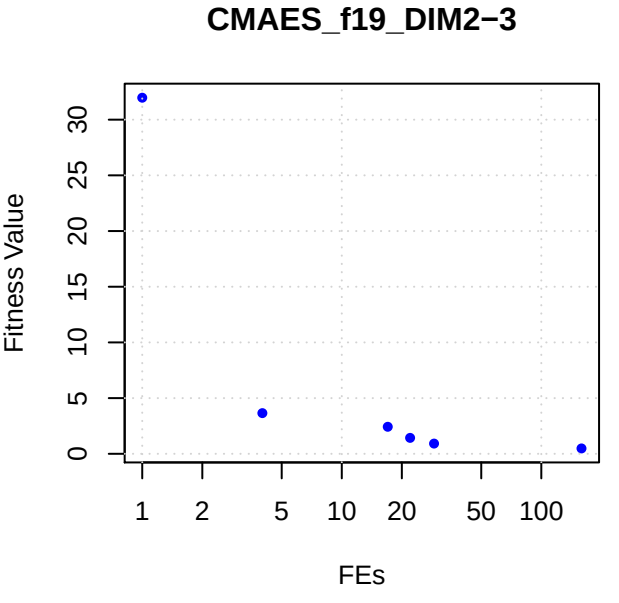
30
40
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM2−3
Fitness Value
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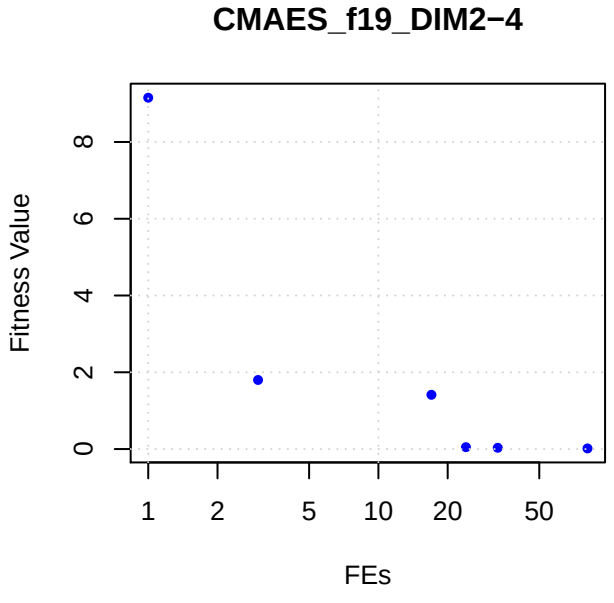
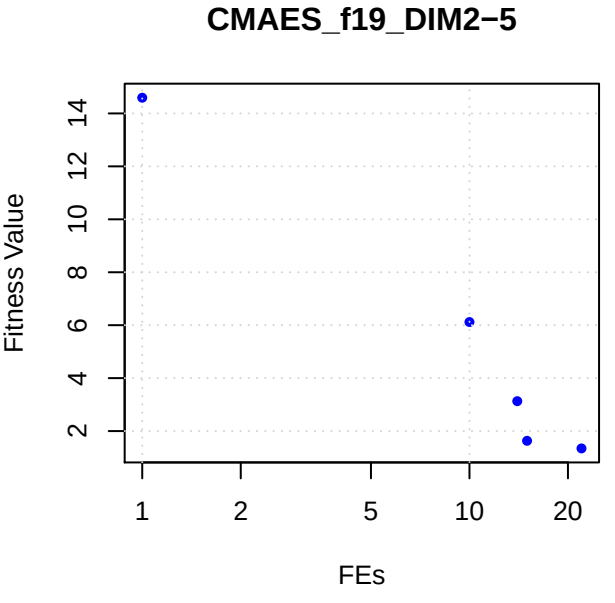
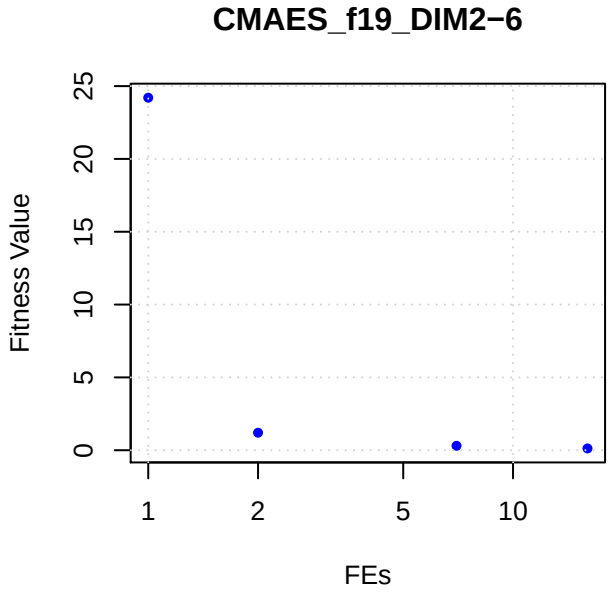
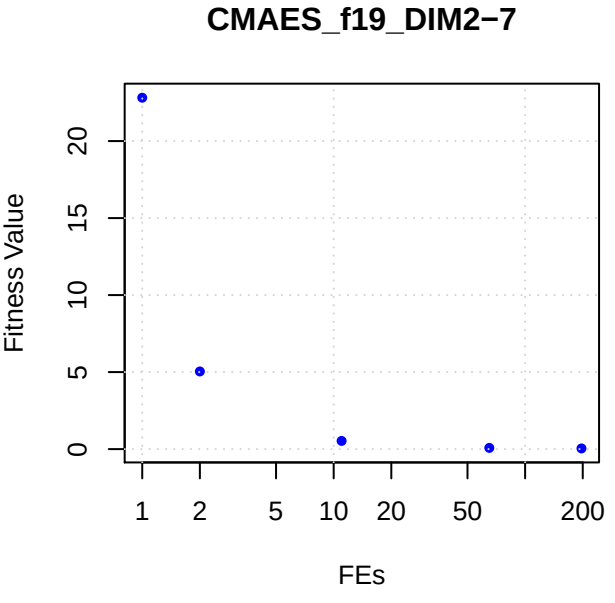
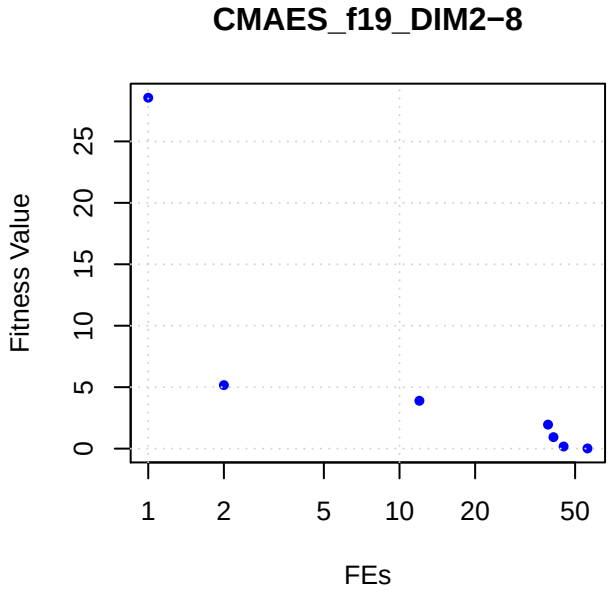
5
10
15
20
25
30
1
2
5
10
20
50
100
FEs

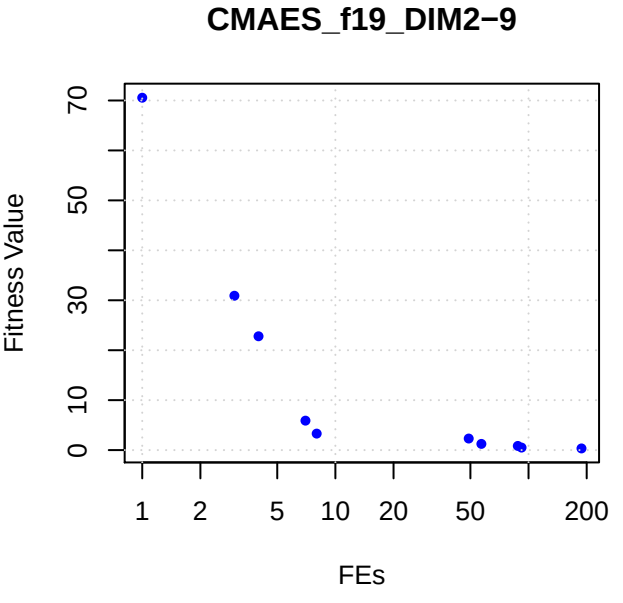

CMAES_f19_DIM2−4
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
FEs

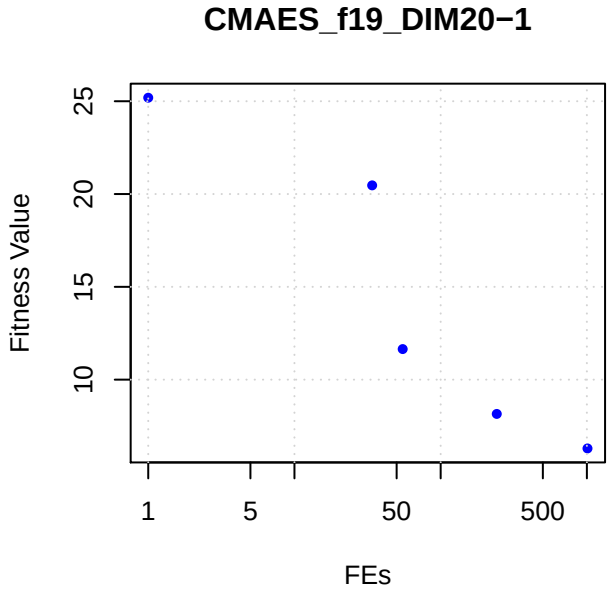

CMAES_f19_DIM2−5
Fitness Value
2
4
6
8
10
12
14
1
2
5
10
20
FEs

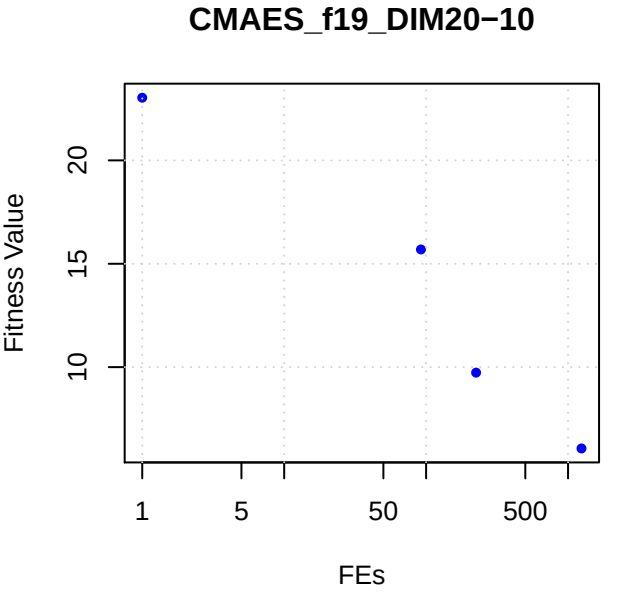

CMAES_f19_DIM2−6
Fitness Value
0
5
10
15
20
25
1
2
5
10
FEs

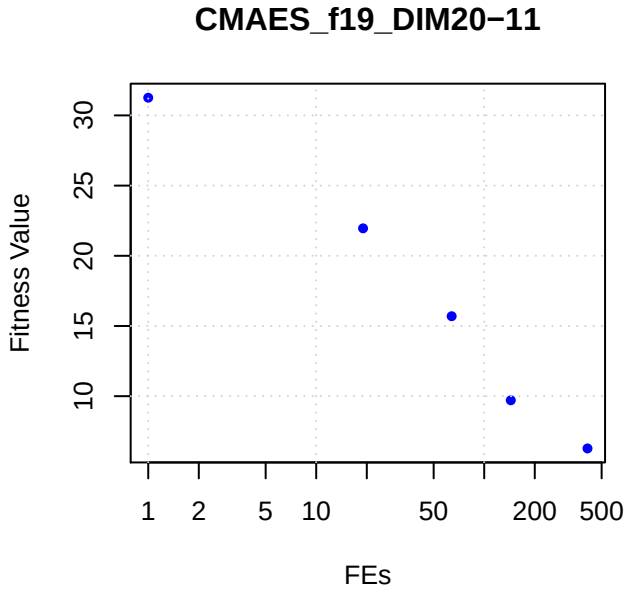

CMAES_f19_DIM2−7
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM2−8
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
FEs


CMAES_f19_DIM2−9
Fitness Value
0
10
30
50
70
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM20−1
Fitness Value
10
15
20
25
1
5
50
500
FEs


CMAES_f19_DIM20−10
Fitness Value
10
15
20
1
5
50
500
FEs


CMAES_f19_DIM20−11
Fitness Value
10
15
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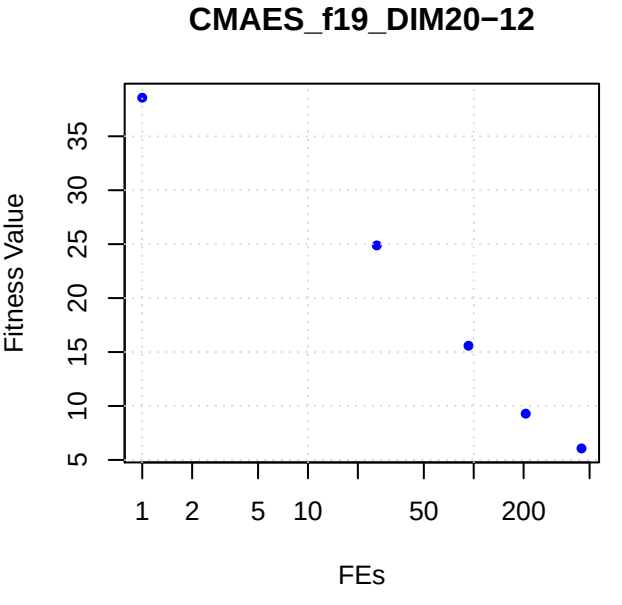
25
30
1
2
5
10
50
200
500
FEs


CMAES_f19_DIM20−12
Fitness Value
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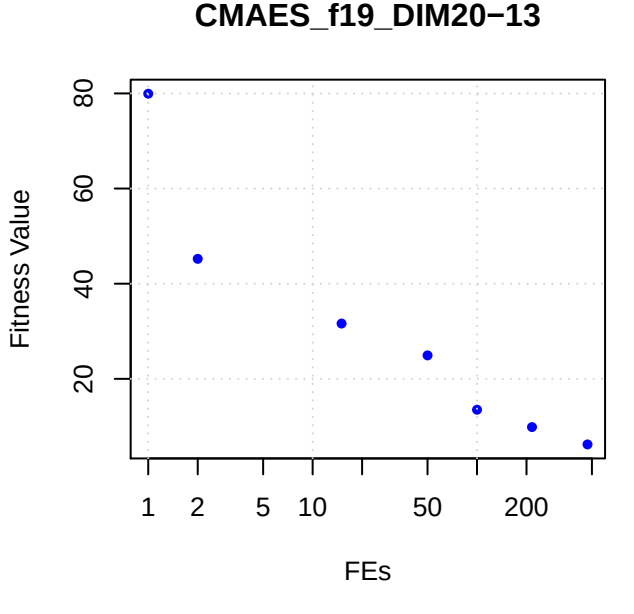
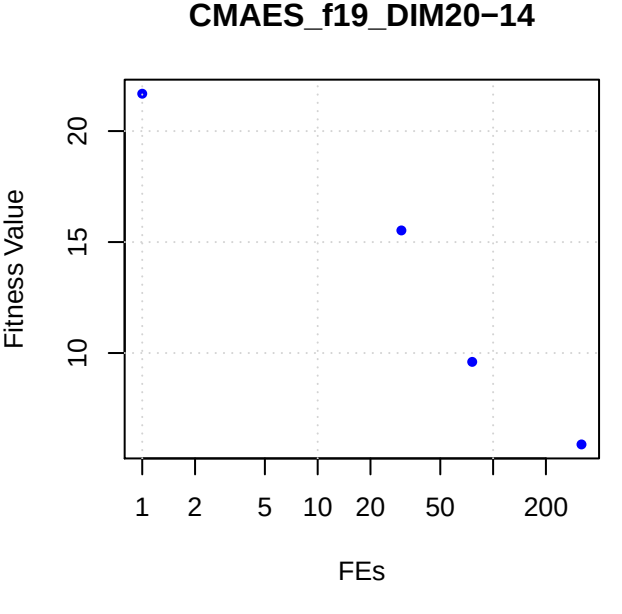
25
30
35
1
2
5
10
50
200
FEs


CMAES_f19_DIM20−13
Fitness Value
20
40
60
80
1
2
5
10
50
200
FEs


CMAES_f19_DIM20−14
Fitness Value
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15
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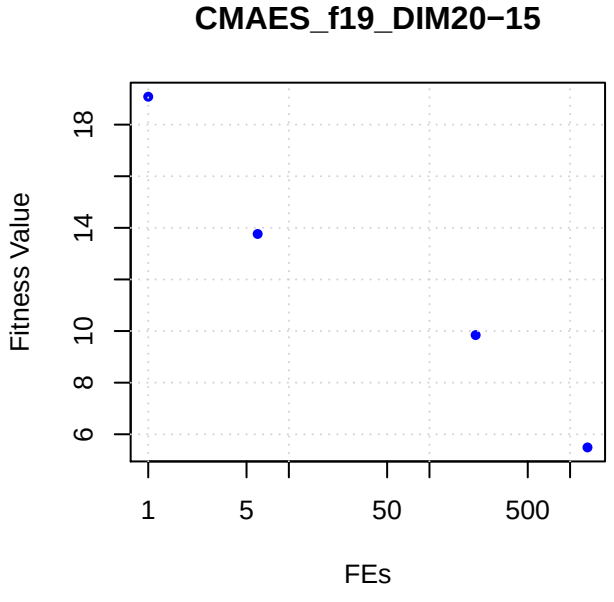
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM20−15
Fitness Value
6
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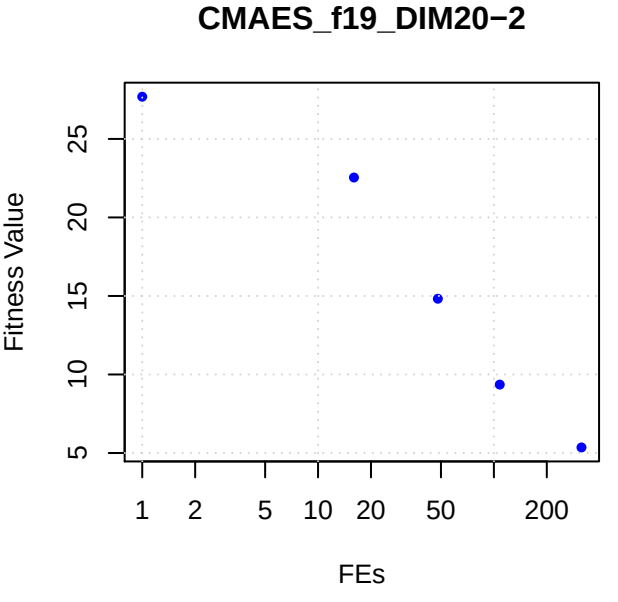
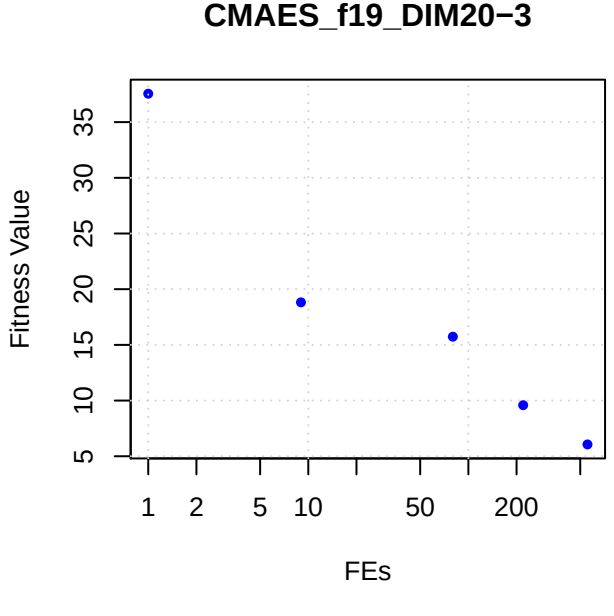
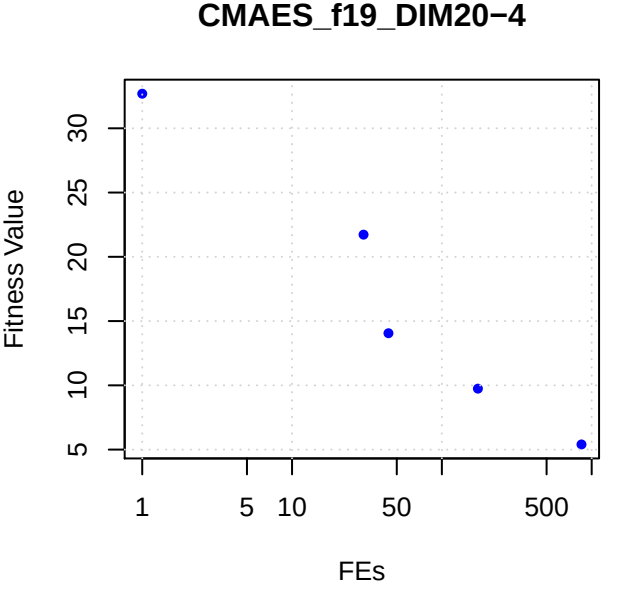
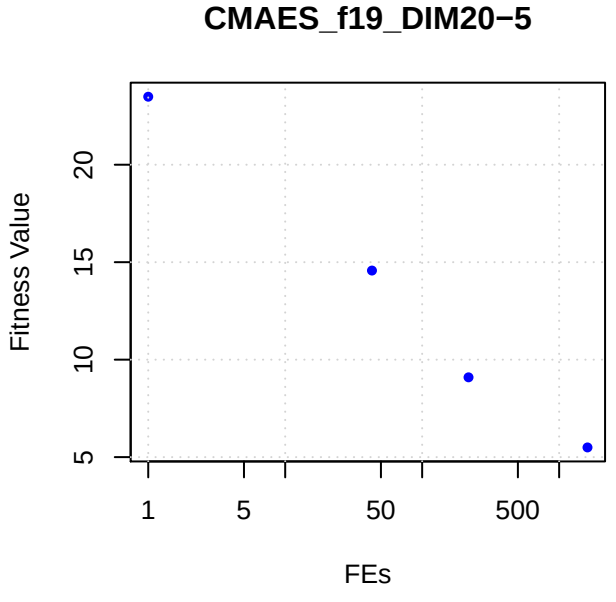
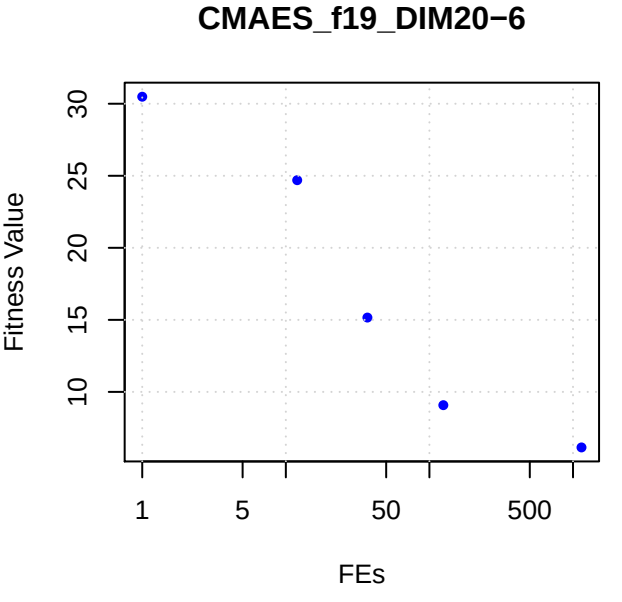
10
14
18
1
5
50
500
FEs


CMAES_f19_DIM20−2
Fitness Value
5
10
15
20
25
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM20−3
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
50
200
FEs


CMAES_f19_DIM20−4
Fitness Value
5
10
15
20
25
30
1
5
10
50
500
FEs


CMAES_f19_DIM20−5
Fitness Value
5
10
15
20
1
5
50
500
FEs


CMAES_f19_DIM20−6
Fitness Value
10
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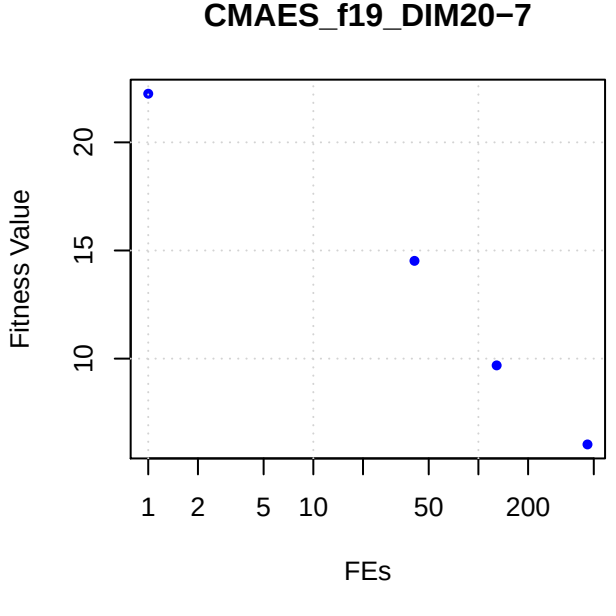
20
25
30
1
5
50
500
FEs


CMAES_f19_DIM20−7
Fitness Value
10
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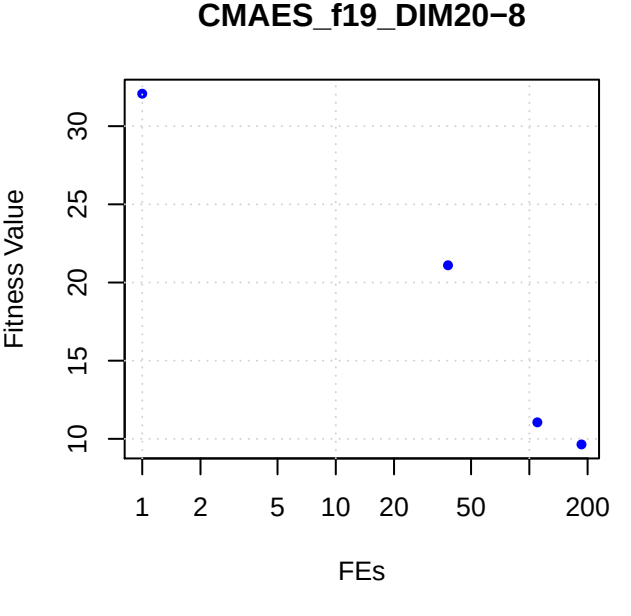
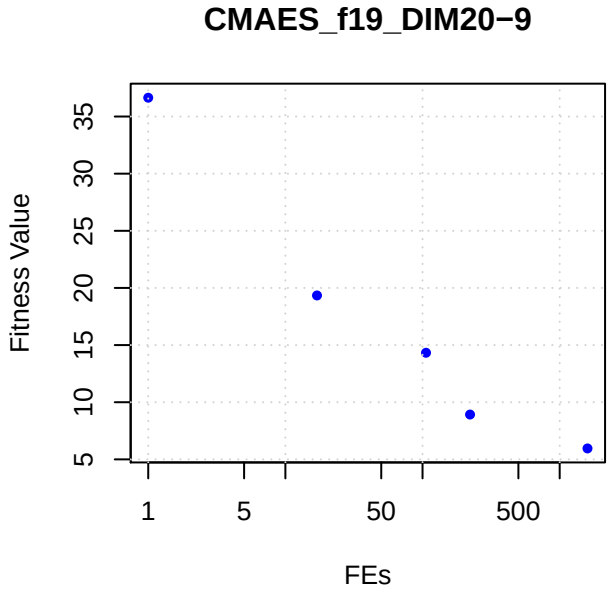
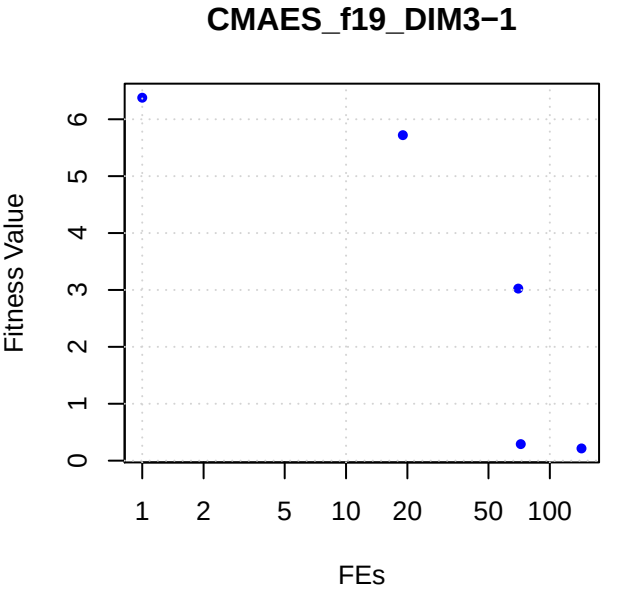
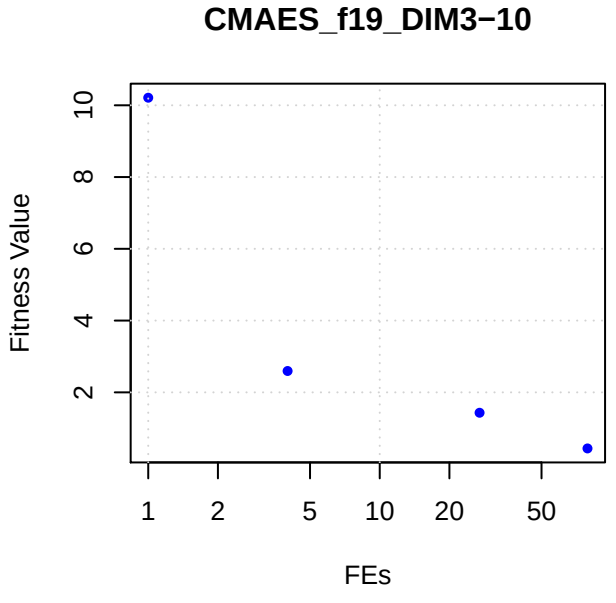
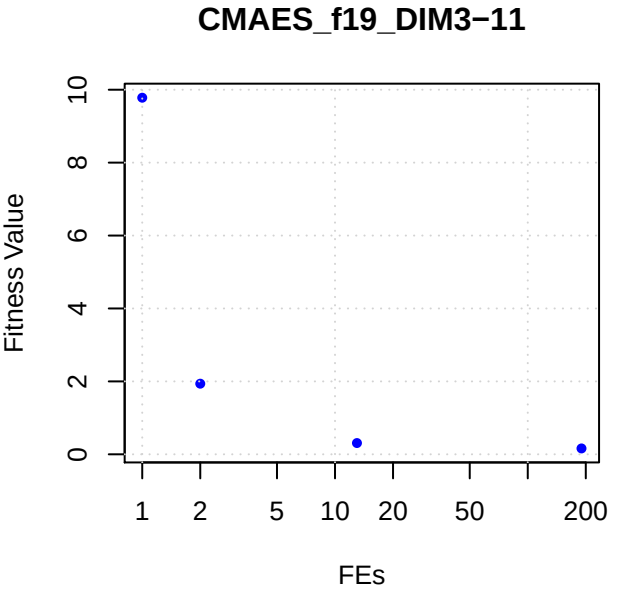
20
1
2
5
10
50
200
FEs

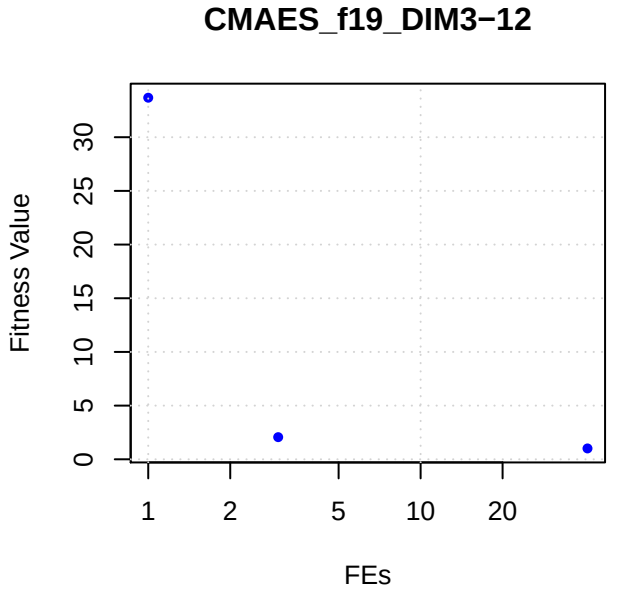

CMAES_f19_DIM20−8
Fitness Value
10
15
20
25
30
1
2
5
10
20
50
200
FEs

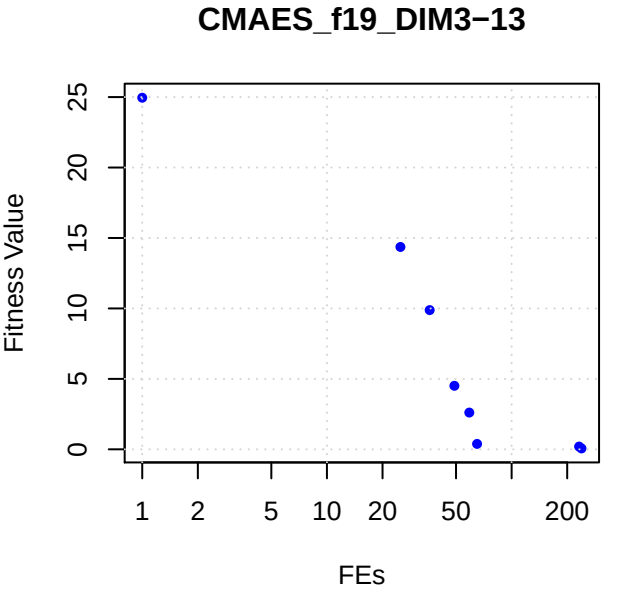

CMAES_f19_DIM20−9
Fitness Value
5
10
15
20
25
30
35
1
5
50
500
FEs

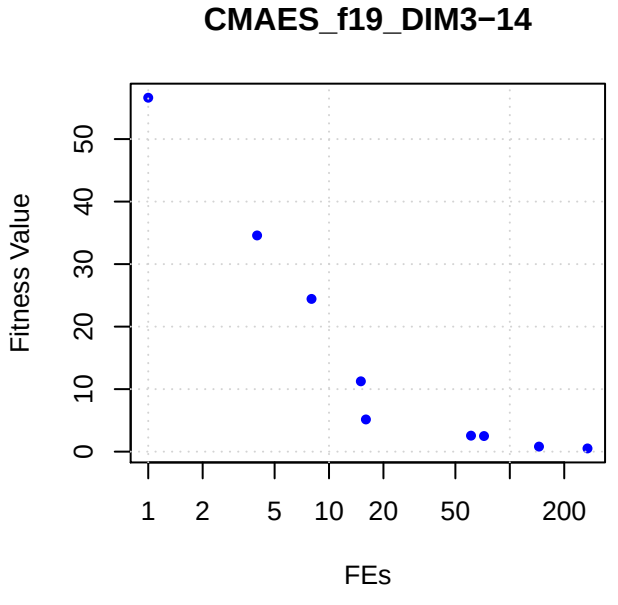

CMAES_f19_DIM3−1
Fitness Value
0
1
2
3
4
5
6
1
2
5
10
20
50
100
FEs

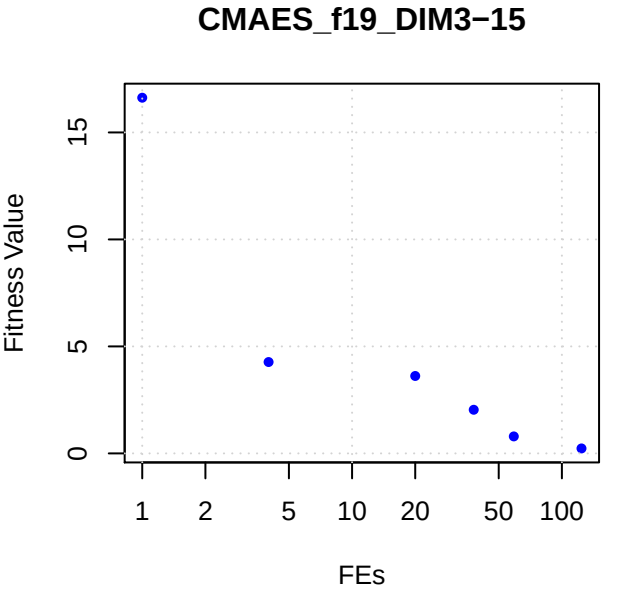

CMAES_f19_DIM3−10
Fitness Value
2
4
6
8
10
1
2
5
10
20
50
FEs

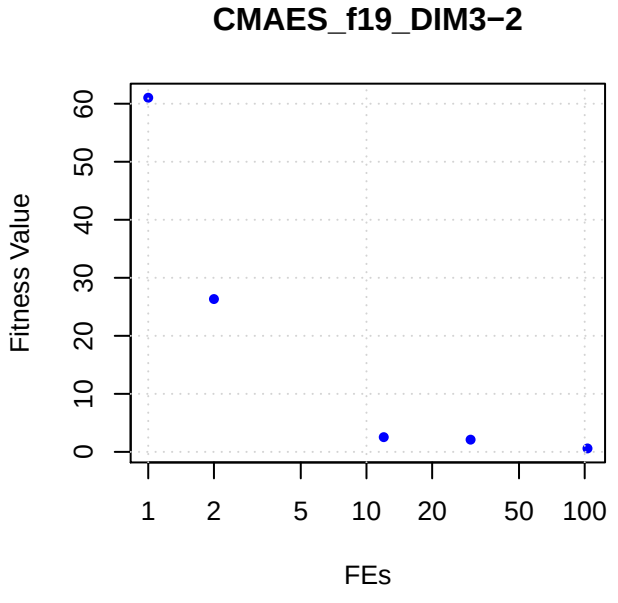

CMAES_f19_DIM3−11
Fitness Value
0
2
4
6
8
10
1
2
5
10
20
50
200
FEs

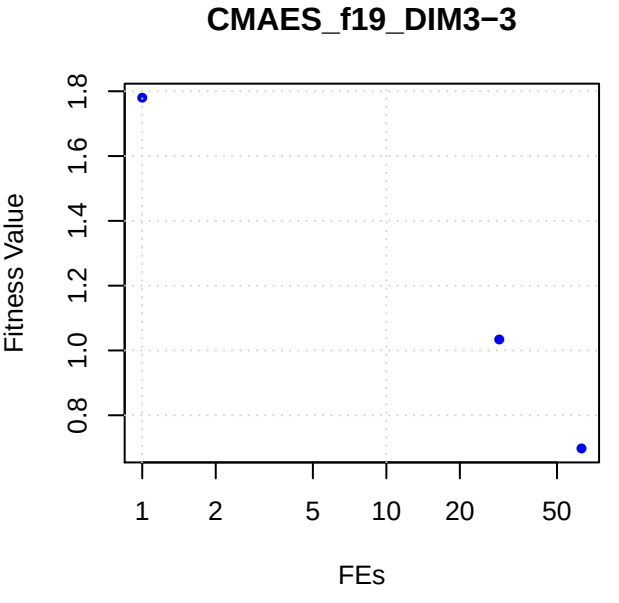

CMAES_f19_DIM3−12
Fitness Value
0
5
10
15
20
25
30
1
2
5
10
20
FEs

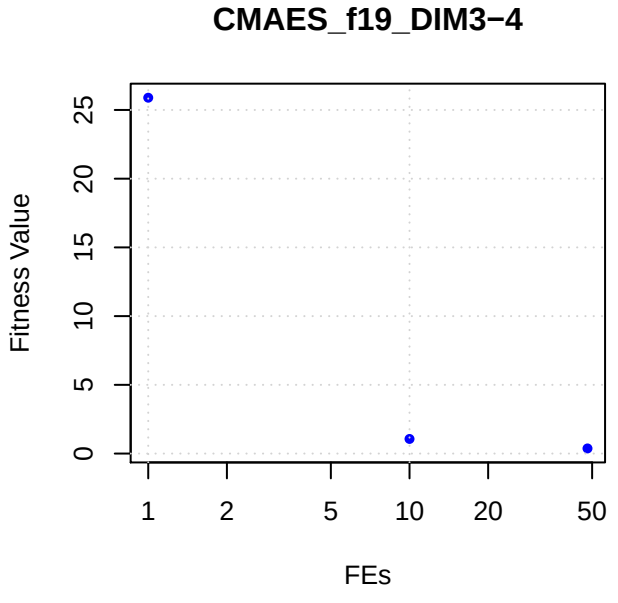

CMAES_f19_DIM3−13
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
200
FEs

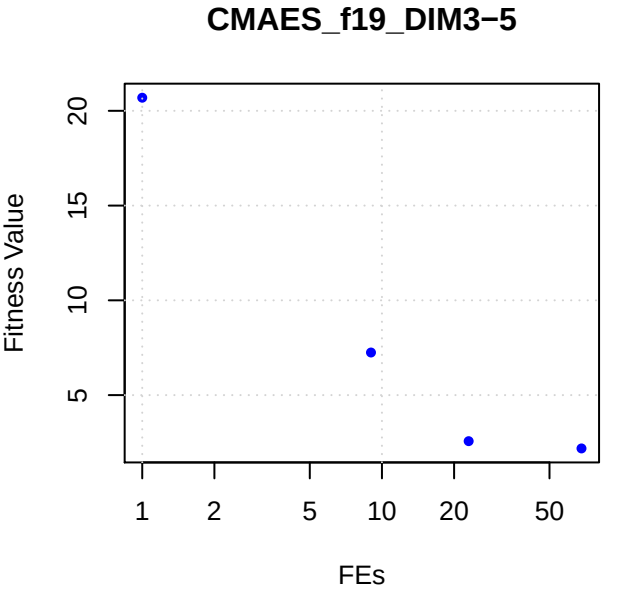

CMAES_f19_DIM3−14
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
200
FEs

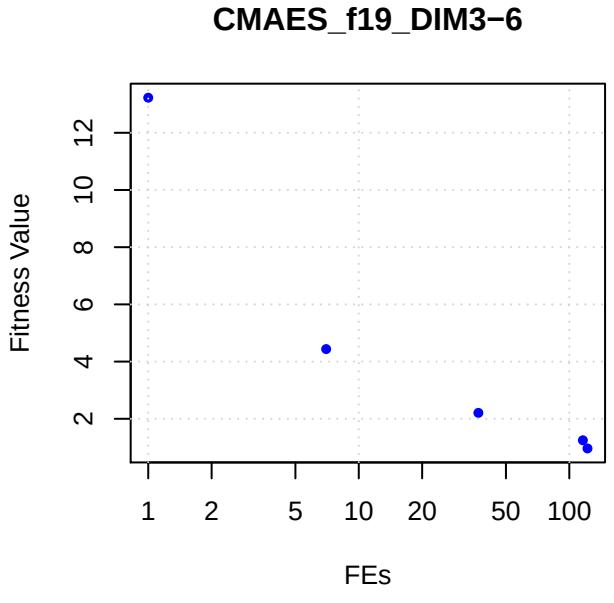

CMAES_f19_DIM3−15
Fitness Value
0
5
10
15
1
2
5
10
20
50
100
FEs

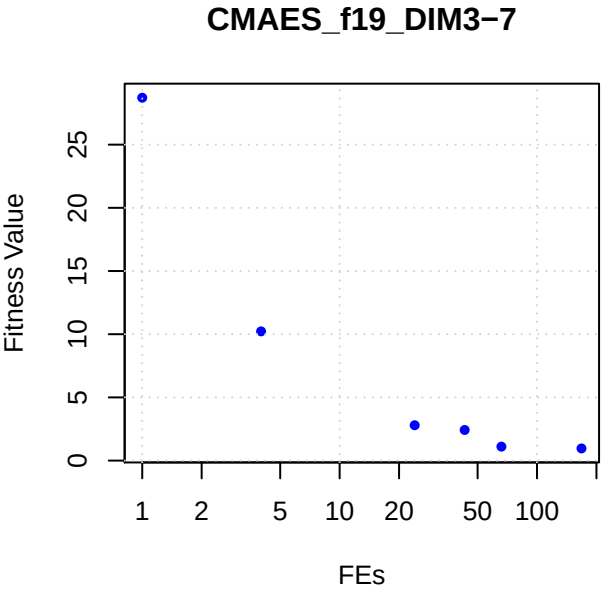

CMAES_f19_DIM3−2
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
20
50
100
FEs

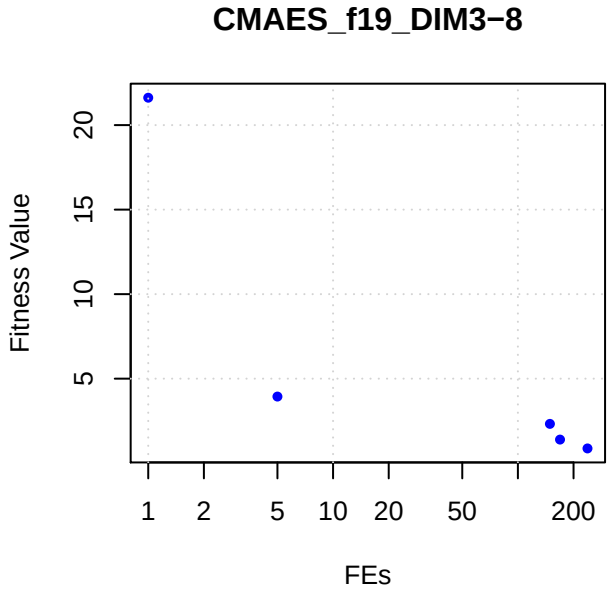

CMAES_f19_DIM3−3
Fitness Value
0.8
1.0
1.2
1.4
1.6
1.8
1
2
5
10
20
50
FEs

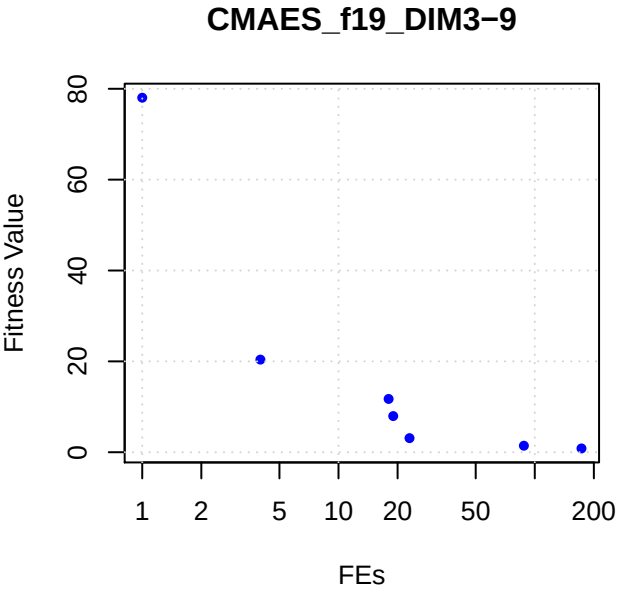

CMAES_f19_DIM3−4
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
FEs


CMAES_f19_DIM3−5
Fitness Value
5
10
15
20
1
2
5
10
20
50
FEs


CMAES_f19_DIM3−6
Fitness Value
2
4
6
8
10
12
1
2
5
10
20
50
100
FEs


CMAES_f19_DIM3−7
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
100
FEs


CMAES_f19_DIM3−8
Fitness Value
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM3−9
Fitness Value
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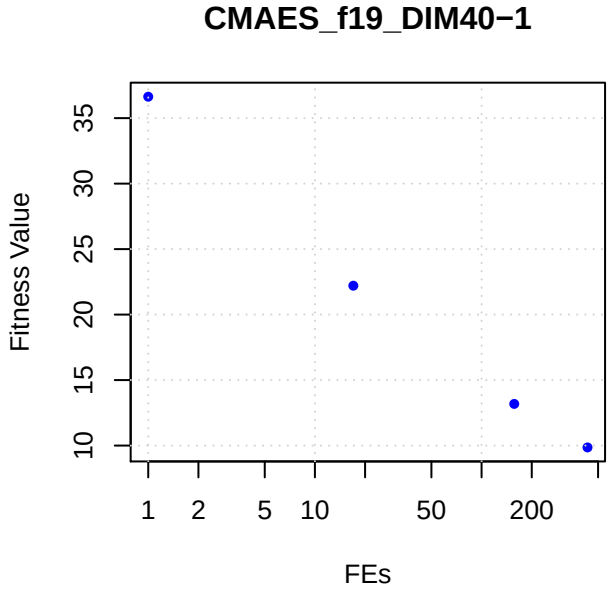
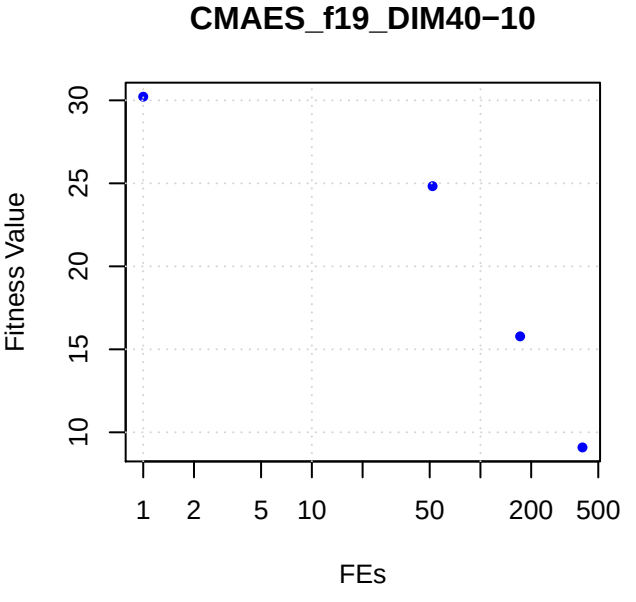
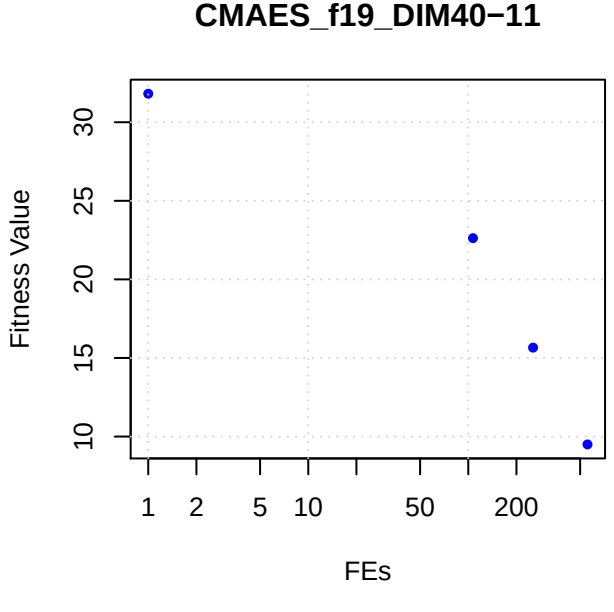
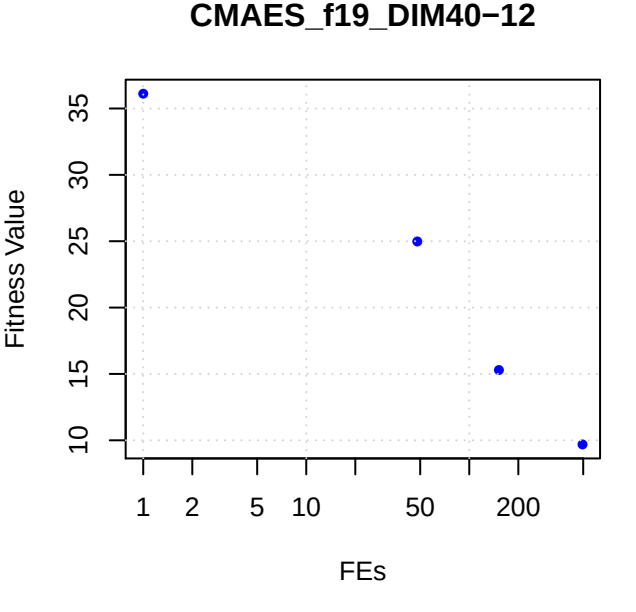
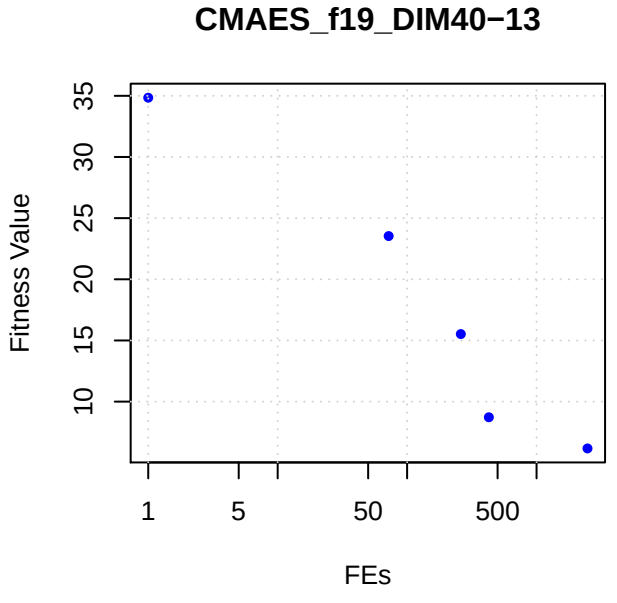
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f19_DIM40−1
Fitness Value
10
15
20
25
30
35
1
2
5
10
50
200
FEs


CMAES_f19_DIM40−10
Fitness Value
10
15
20
25
30
1
2
5
10
50
200
500
FEs


CMAES_f19_DIM40−11
Fitness Value
10
15
20
25
30
1
2
5
10
50
200
FEs


CMAES_f19_DIM40−12
Fitness Value
10
15
20
25
30
35
1
2
5
10
50
200
FEs


CMAES_f19_DIM40−13
Fitness Value
10
15
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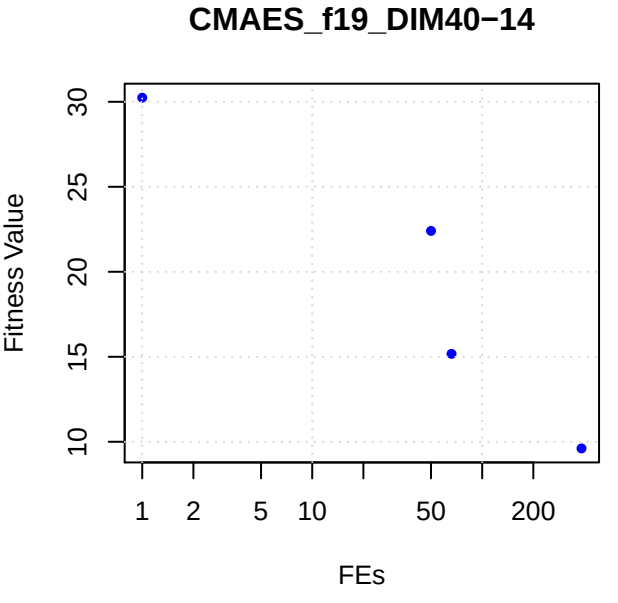
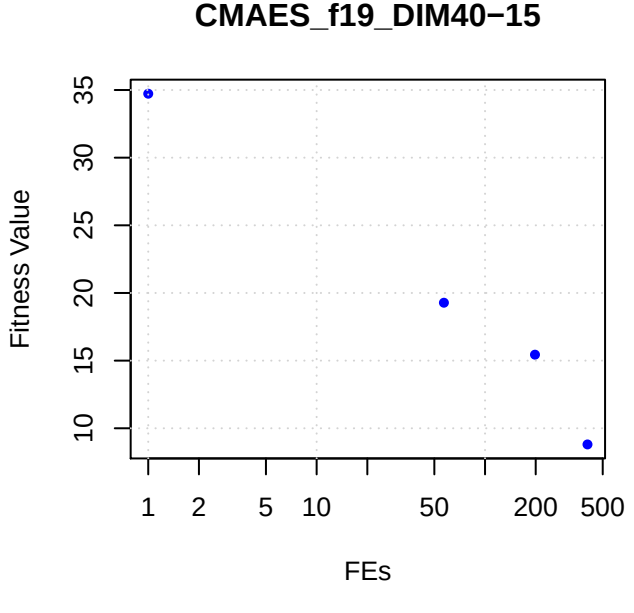
25
30
35
1
5
50
500
FEs


CMAES_f19_DIM40−14
Fitness Value
10
15
20
25
30
1
2
5
10
50
200
FEs


CMAES_f19_DIM40−15
Fitness Value
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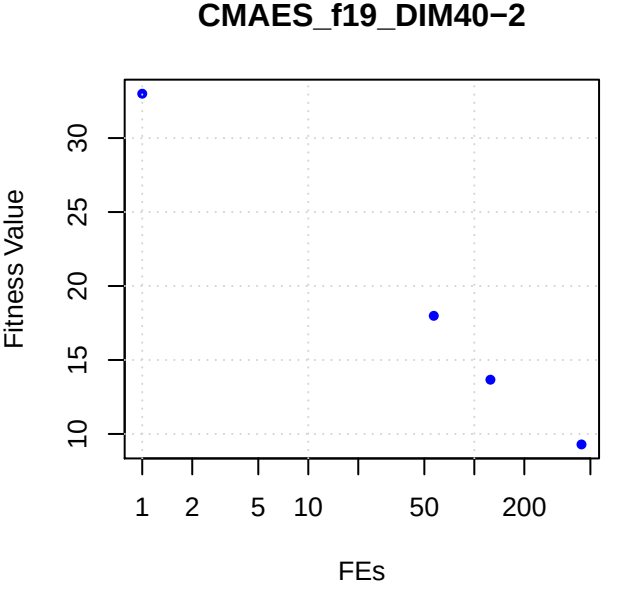
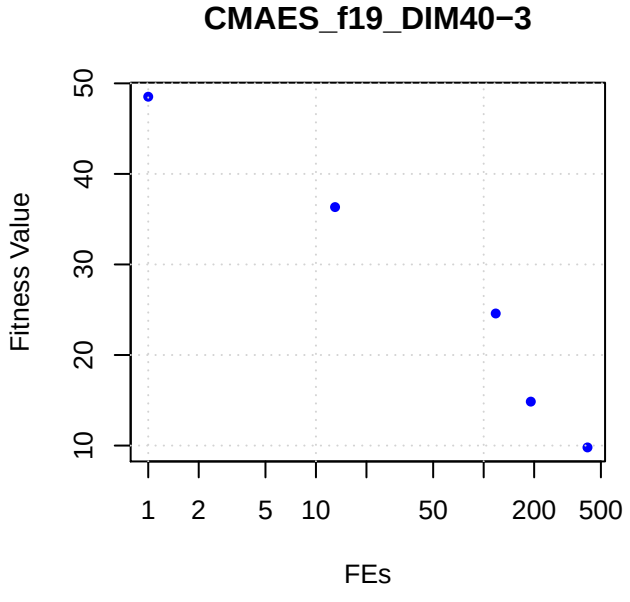
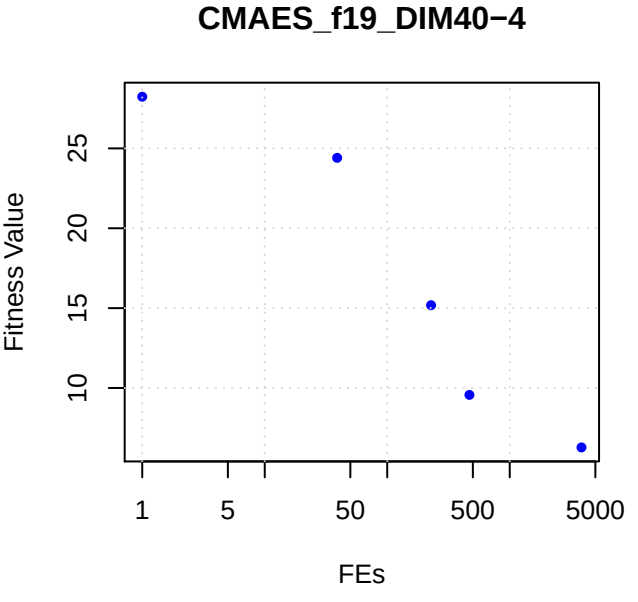
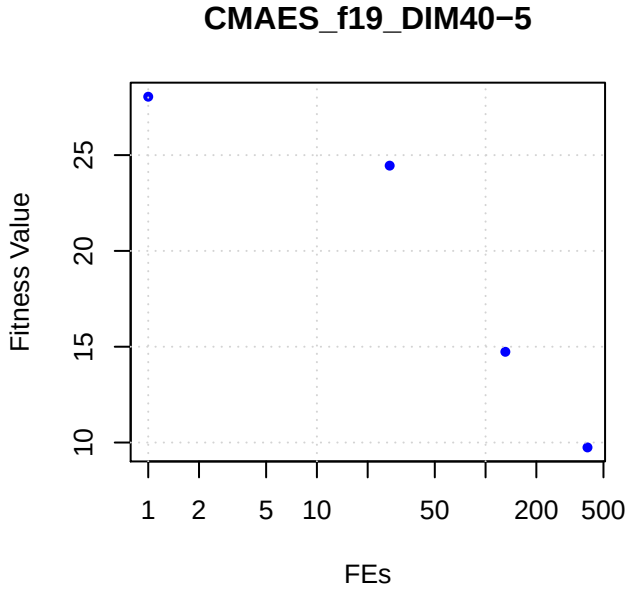
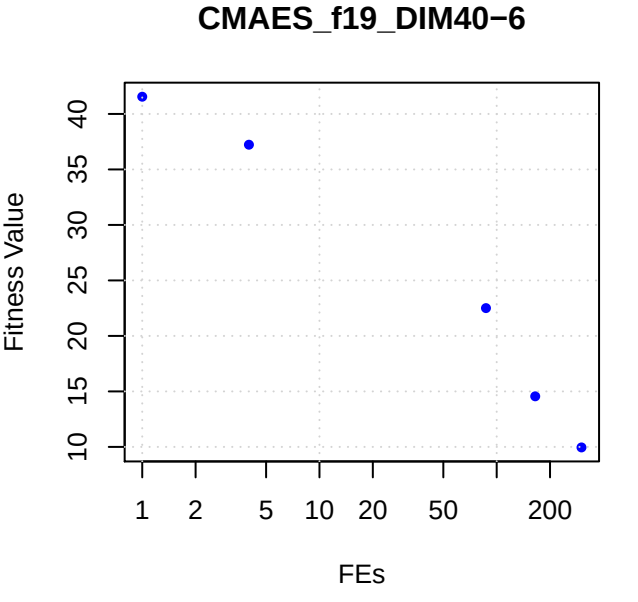
15
20
25
30
35
1
2
5
10
50
200
500
FEs


CMAES_f19_DIM40−2
Fitness Value
10
15
20
25
30
1
2
5
10
50
200
FEs


CMAES_f19_DIM40−3
Fitness Value
10
20
30
40
50
1
2
5
10
50
200
500
FEs


CMAES_f19_DIM40−4
Fitness Value
10
15
20
25
1
5
50
500
5000
FEs


CMAES_f19_DIM40−5
Fitness Value
10
15
20
25
1
2
5
10
50
200
500
FEs


CMAES_f19_DIM40−6
Fitness Value
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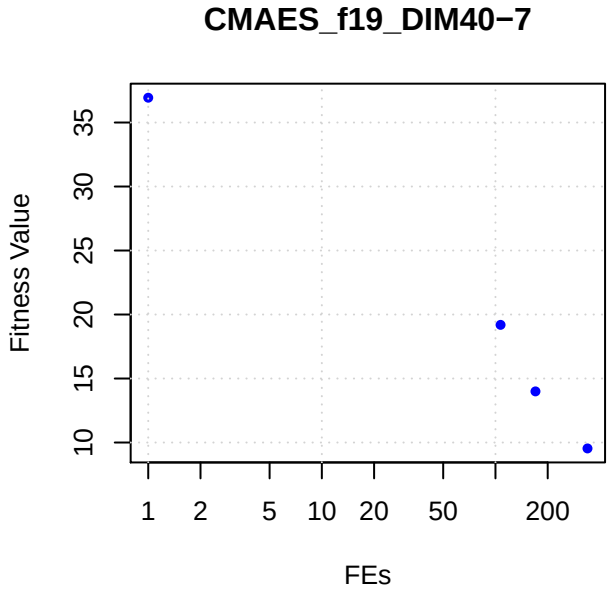
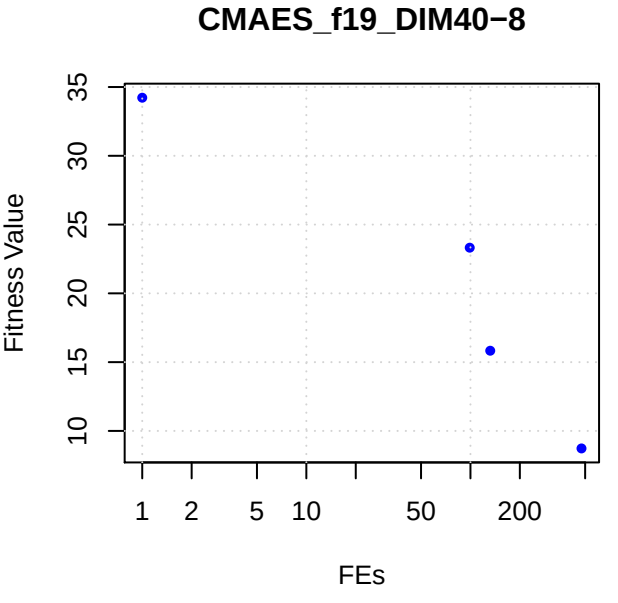
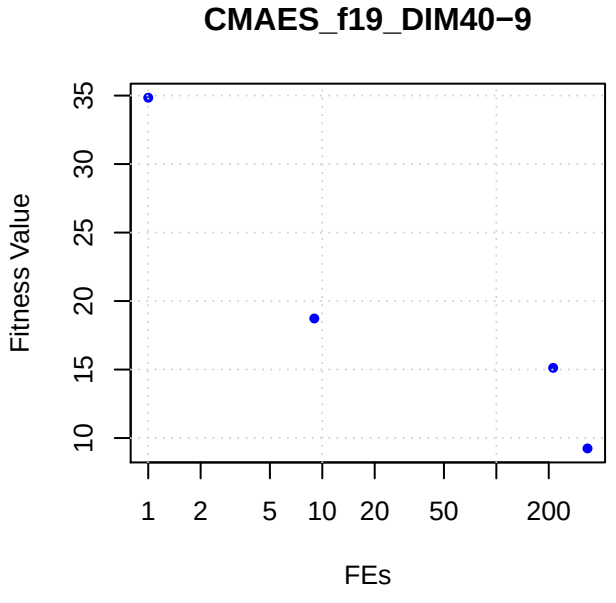
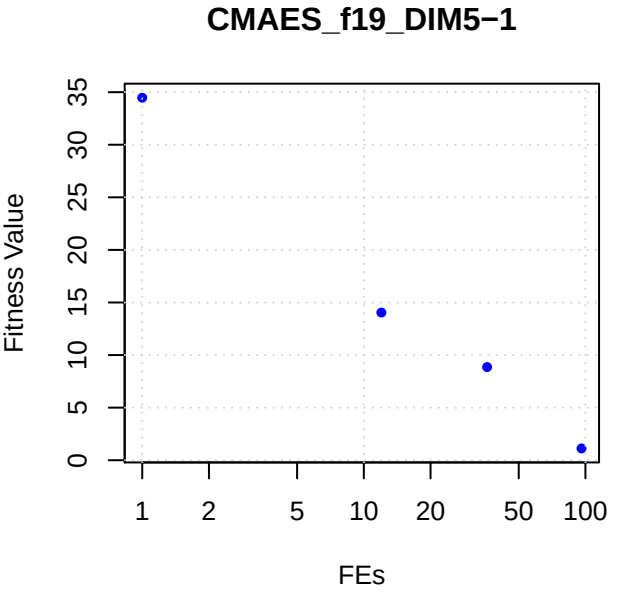
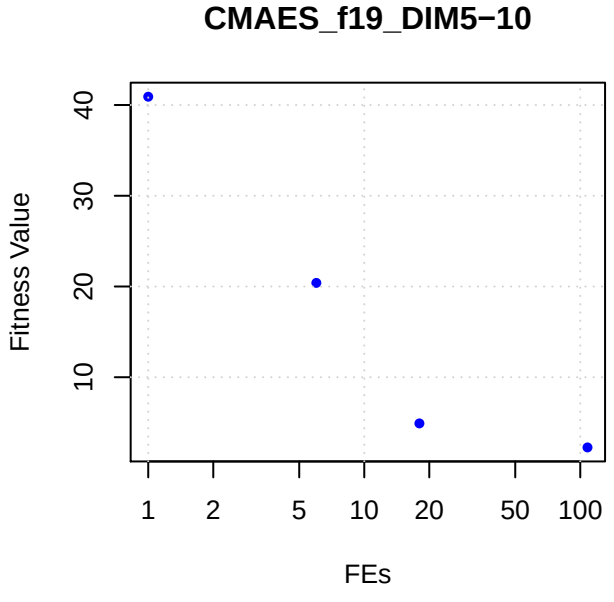
25
30
35
40
1
2
5
10
20
50
200
FEs

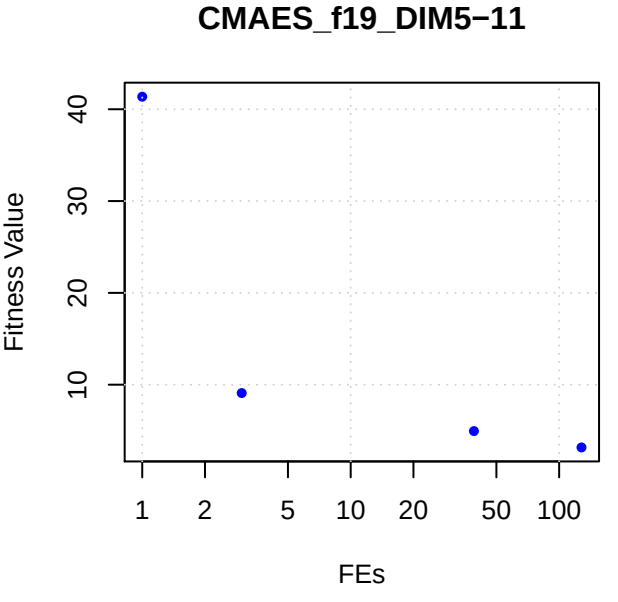

CMAES_f19_DIM40−7
Fitness Value
10
15
20
25
30
35
1
2
5
10
20
50
200
FEs

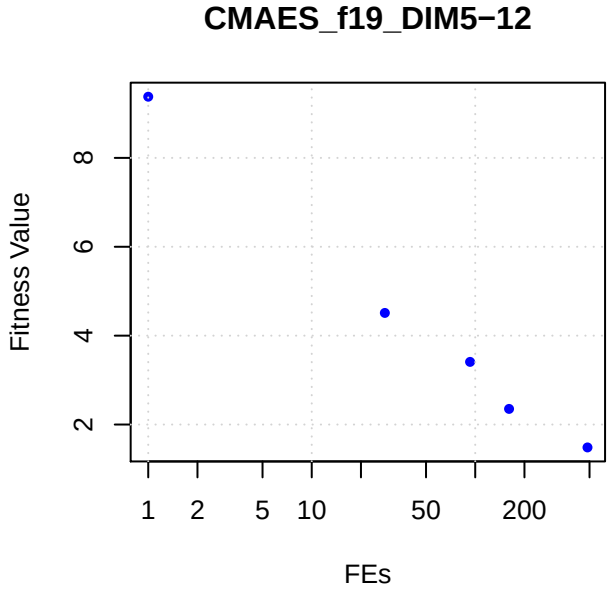

CMAES_f19_DIM40−8
Fitness Value
10
15
20
25
30
35
1
2
5
10
50
200
FEs

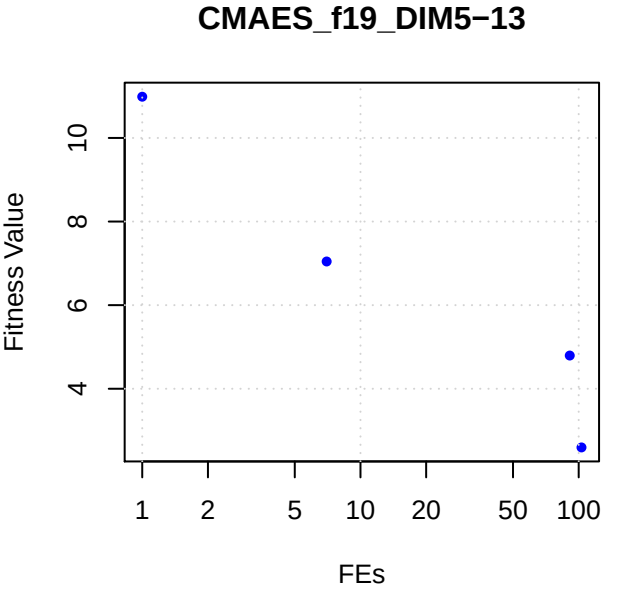

CMAES_f19_DIM40−9
Fitness Value
10
15
20
25
30
35
1
2
5
10
20
50
200
FEs

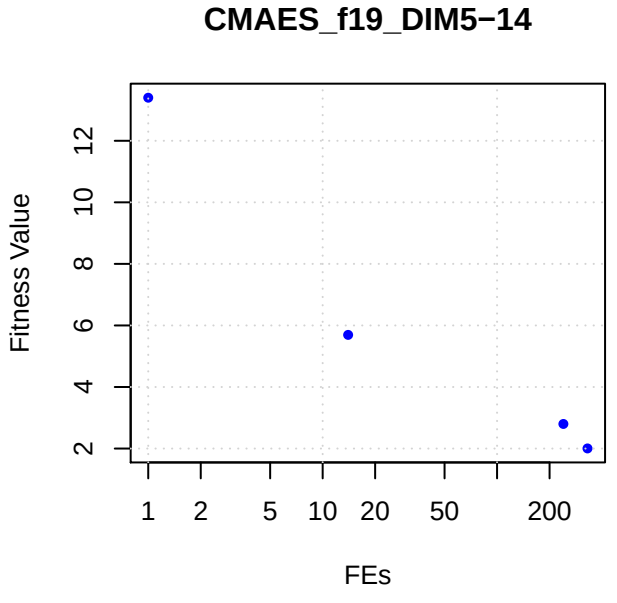

CMAES_f19_DIM5−1
Fitness Value
0
5
10
15
20
25
30
35
1
2
5
10
20
50
100
FEs

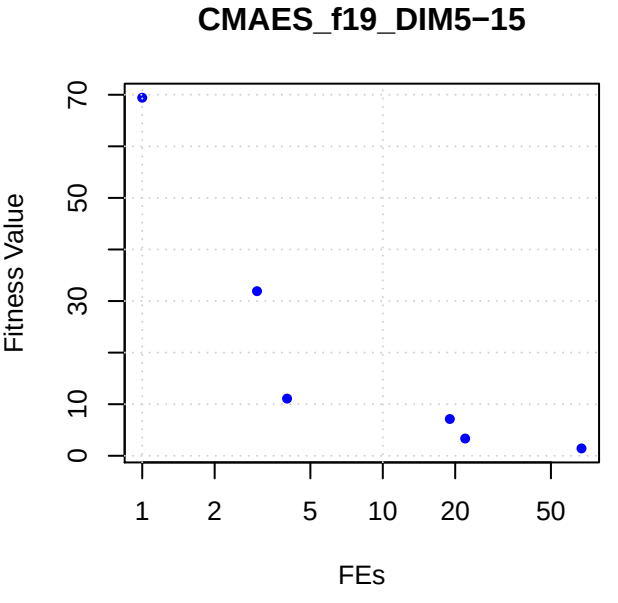

CMAES_f19_DIM5−10
Fitness Value
10
20
30
40
1
2
5
10
20
50
100
FEs

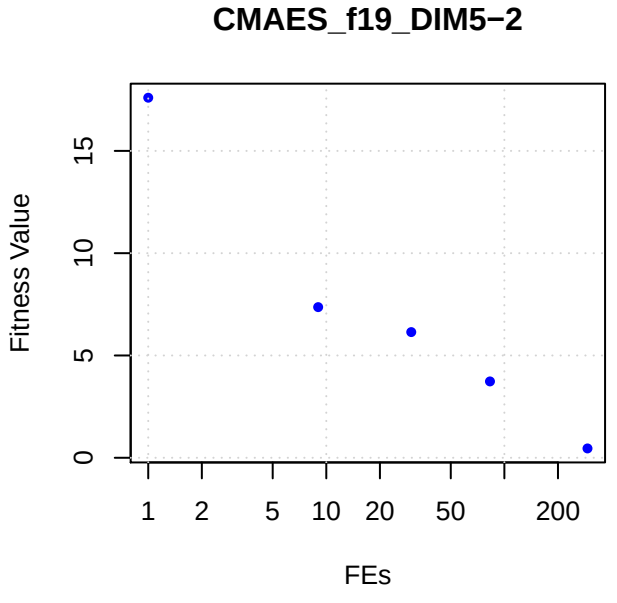

CMAES_f19_DIM5−11
Fitness Value
10
20
30
40
1
2
5
10
20
50
100
FEs

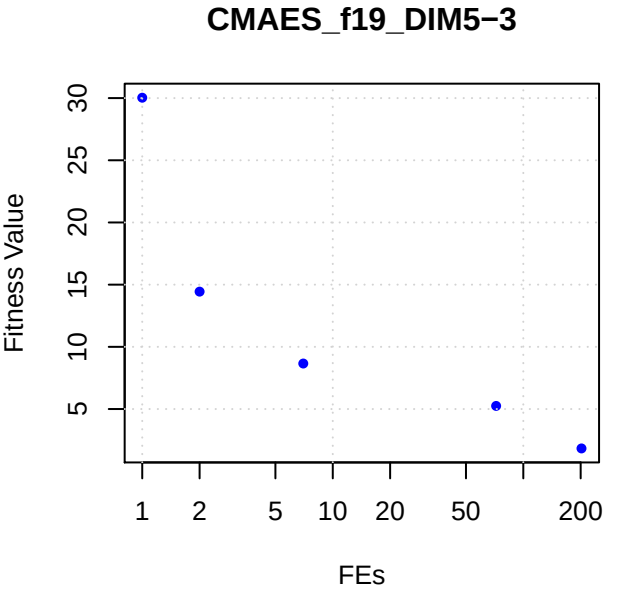

CMAES_f19_DIM5−12
Fitness Value
2
4
6
8
1
2
5
10
50
200
FEs

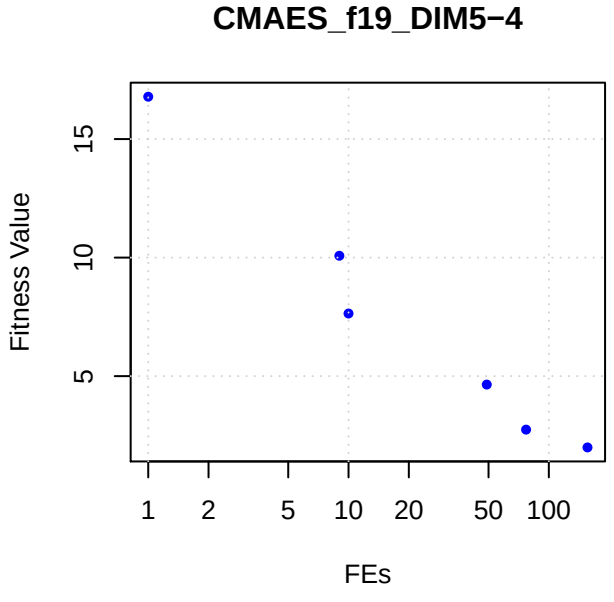

CMAES_f19_DIM5−13
Fitness Value
4
6
8
10
1
2
5
10
20
50
100
FEs

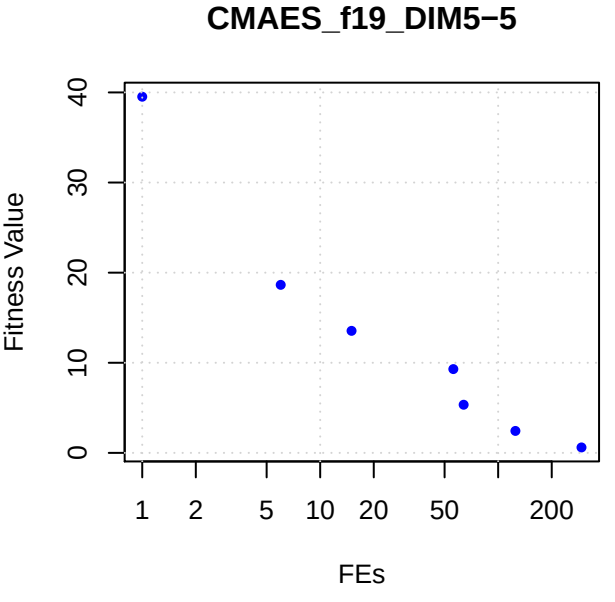

CMAES_f19_DIM5−14
Fitness Value
2
4
6
8
10
12
1
2
5
10
20
50
200
FEs

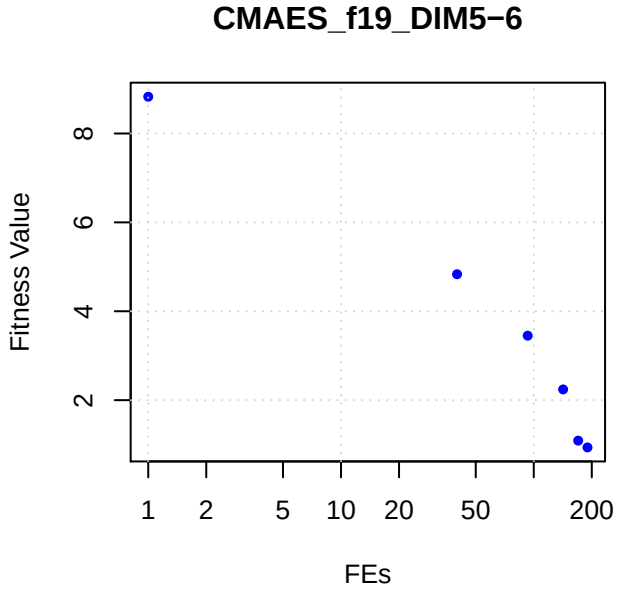

CMAES_f19_DIM5−15
Fitness Value
0
10
30
50
70
1
2
5
10
20
50
FEs

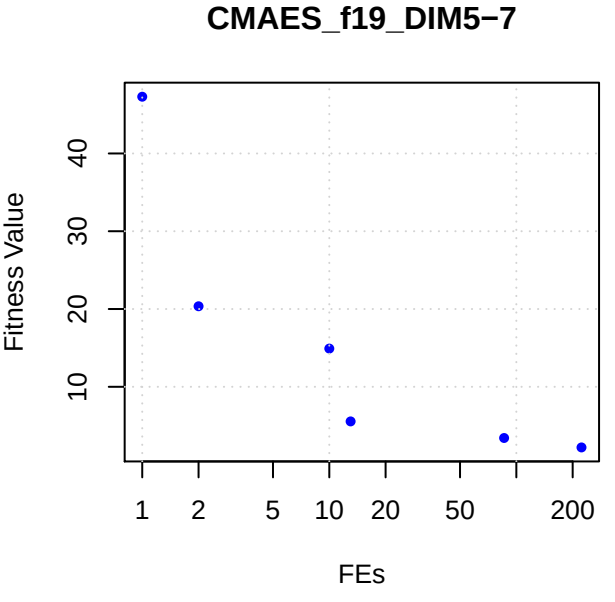

CMAES_f19_DIM5−2
Fitness Value
0
5
10
15
1
2
5
10
20
50
200
FEs

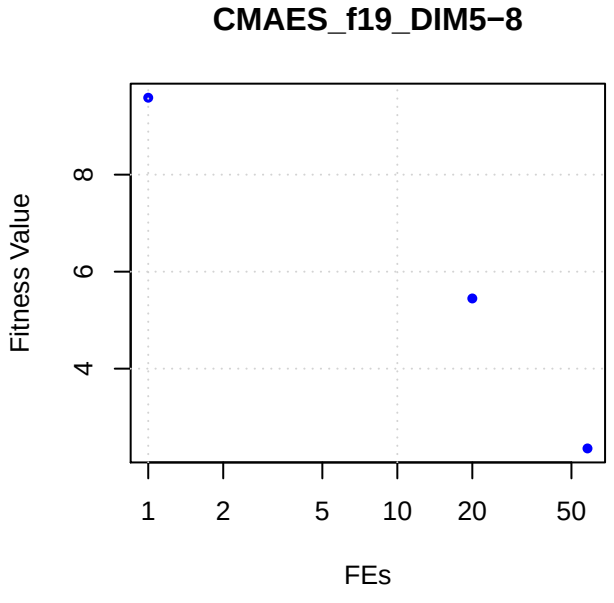

CMAES_f19_DIM5−3
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
200
FEs

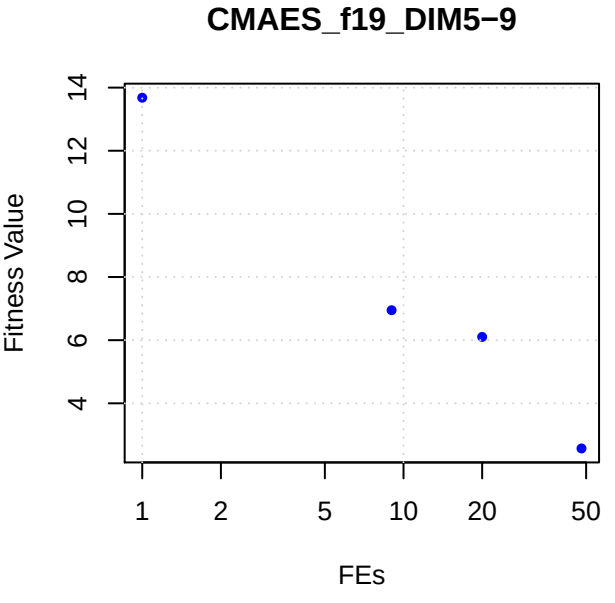

CMAES_f19_DIM5−4
Fitness Value
5
10
15
1
2
5
10
20
50
100
FEs

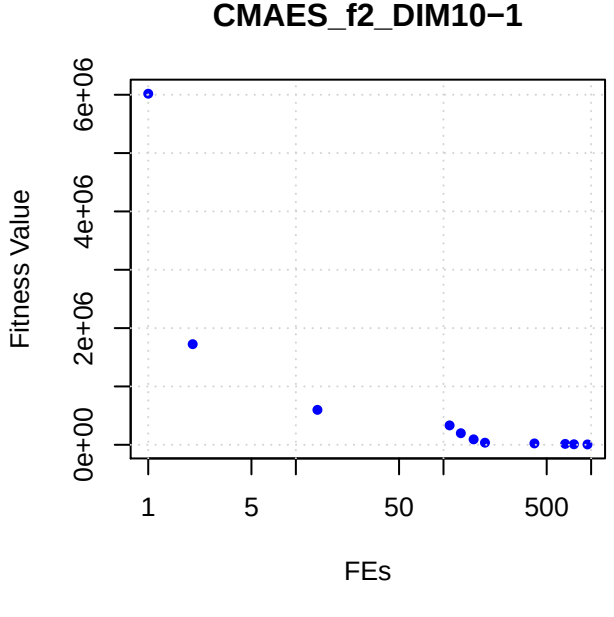

CMAES_f19_DIM5−5
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs

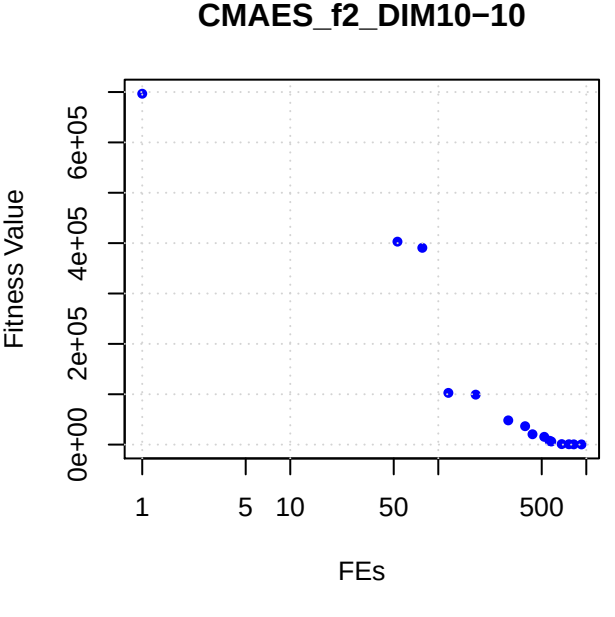

CMAES_f19_DIM5−6
Fitness Value
2
4
6
8
1
2
5
10
20
50
200
FEs

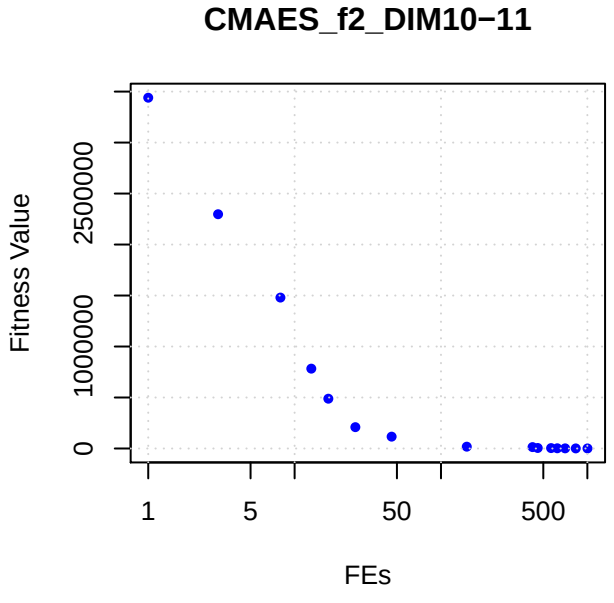

CMAES_f19_DIM5−7
Fitness Value
10
20
30
40
1
2
5
10
20
50
200
FEs

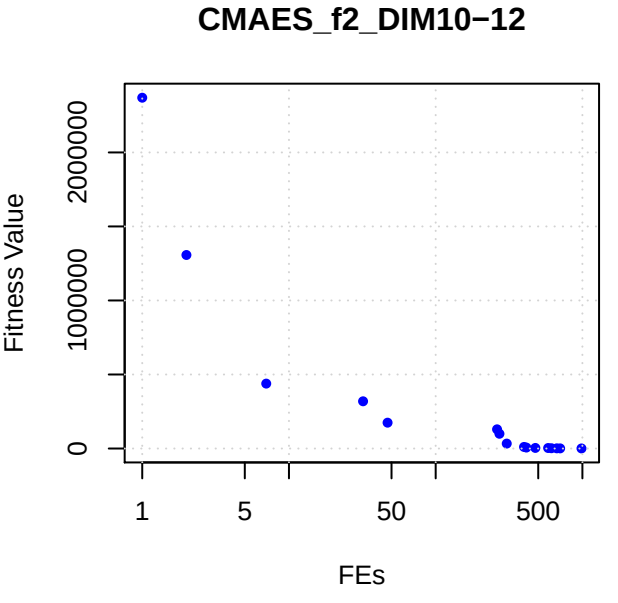

CMAES_f19_DIM5−8
Fitness Value
4
6
8
1
2
5
10
20
50
FEs

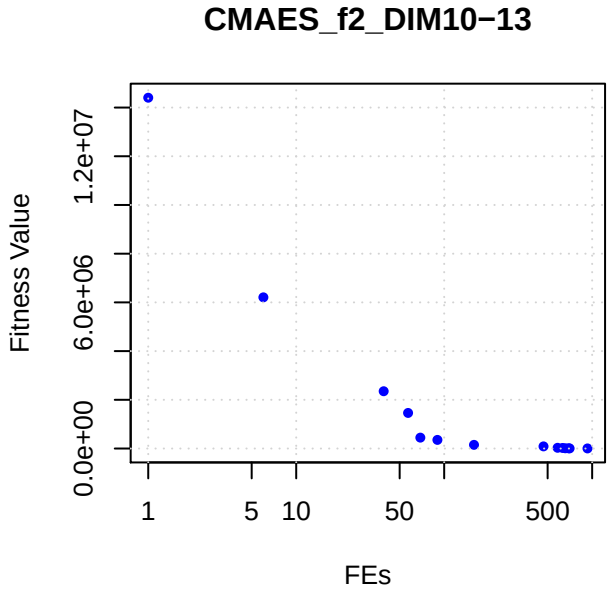

CMAES_f19_DIM5−9
Fitness Value
4
6
8
10
12
14
1
2
5
10
20
50
FEs

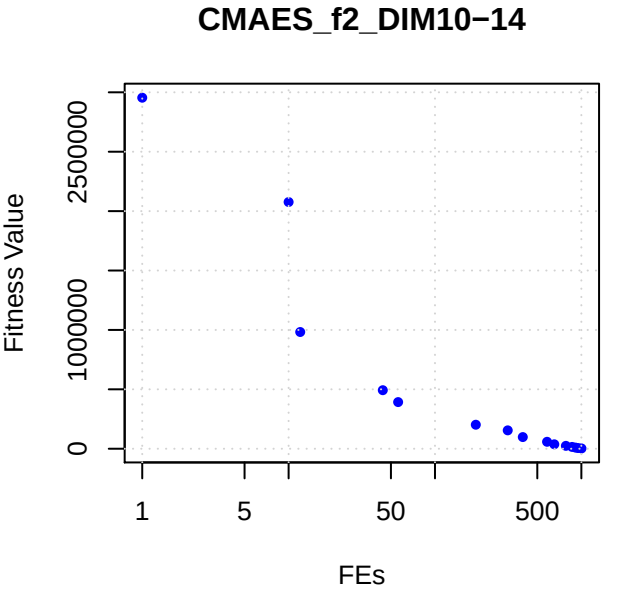

CMAES_f2_DIM10−1
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
5
50
500
FEs

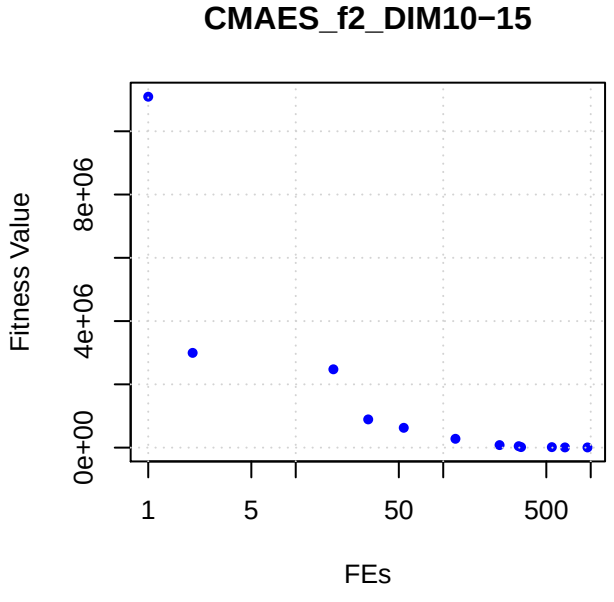

CMAES_f2_DIM10−10
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
5
10
50
500
FEs

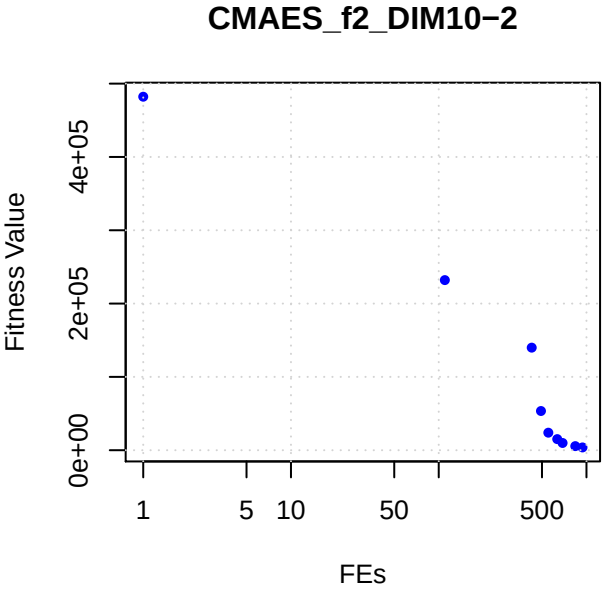

CMAES_f2_DIM10−11
Fitness Value
0
1000000
2500000
1
5
50
500
FEs

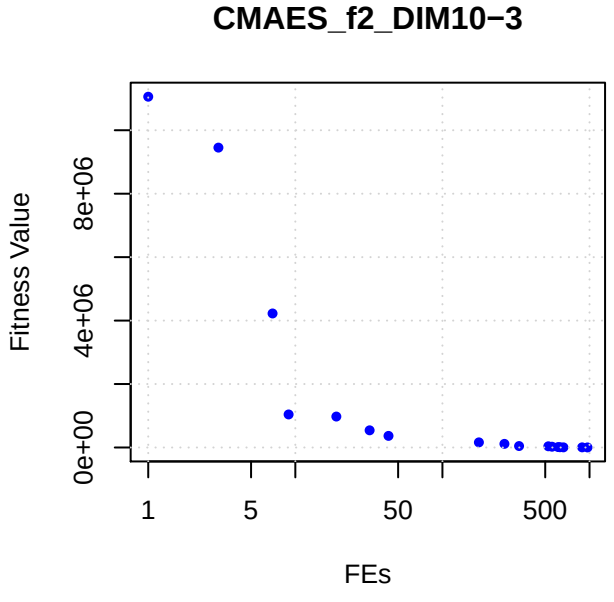

CMAES_f2_DIM10−12
Fitness Value
0
1000000
2000000
1
5
50
500
FEs

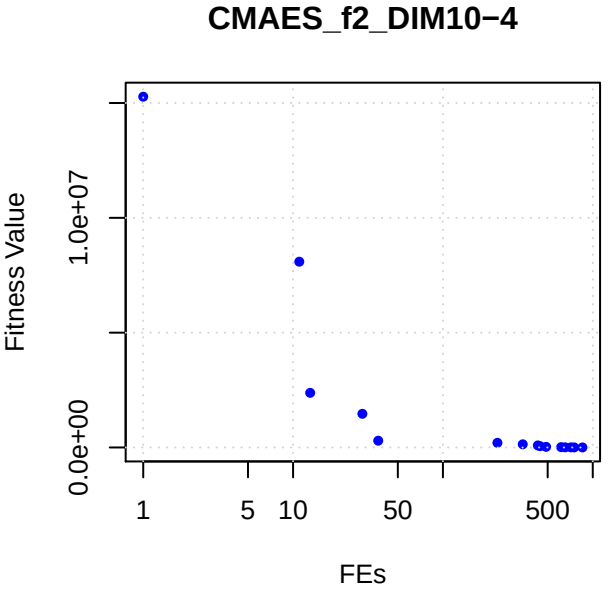

CMAES_f2_DIM10−13
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
5
10
50
500
FEs

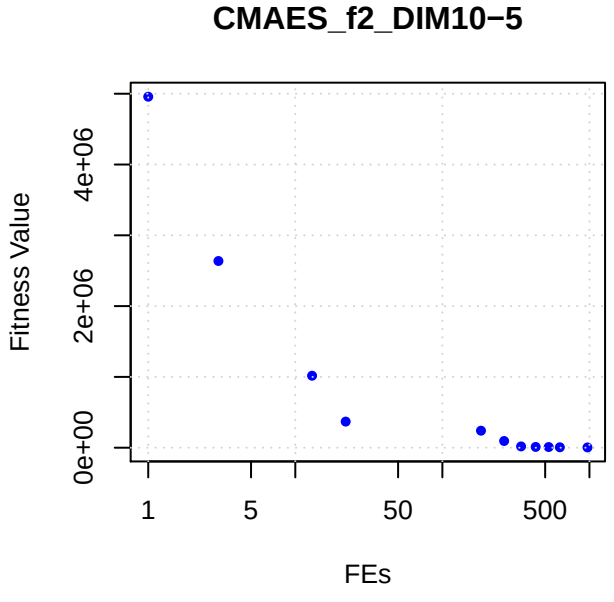

CMAES_f2_DIM10−14
Fitness Value
0
1000000
2500000
1
5
50
500
FEs

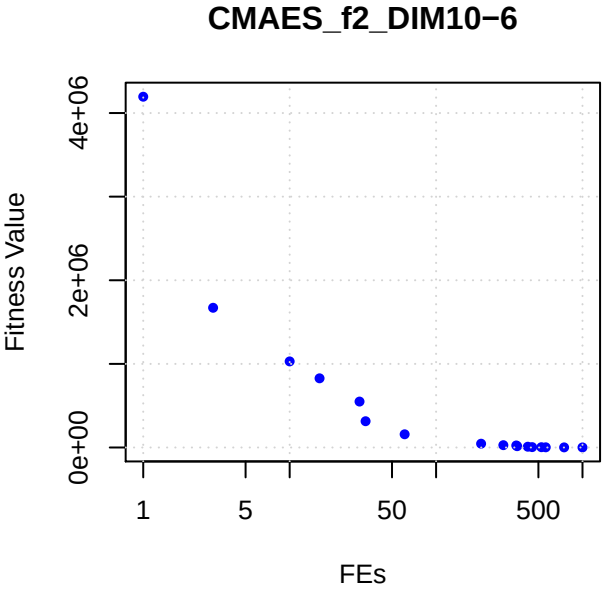

CMAES_f2_DIM10−15
Fitness Value
0e+00
4e+06
8e+06
1
5
50
500
FEs

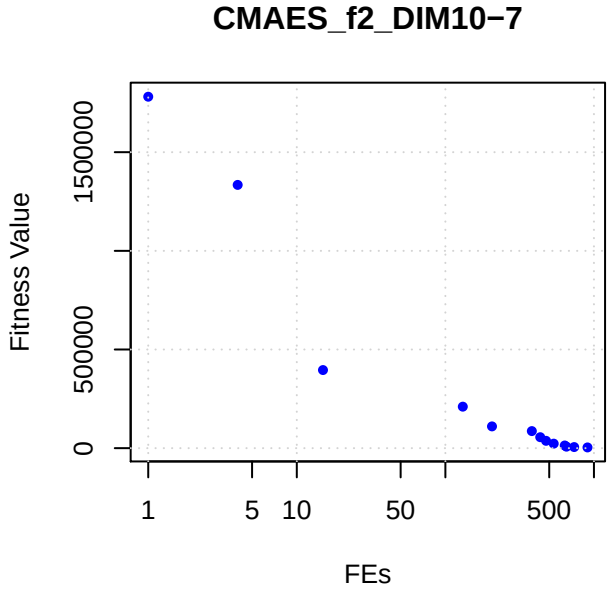

CMAES_f2_DIM10−2
Fitness Value
0e+00
2e+05
4e+05
1
5
10
50
500
FEs

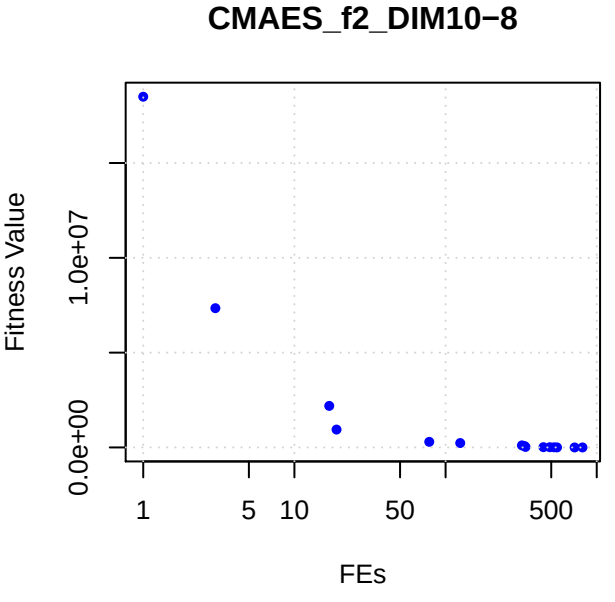

CMAES_f2_DIM10−3
Fitness Value
0e+00
4e+06
8e+06
1
5
50
500
FEs

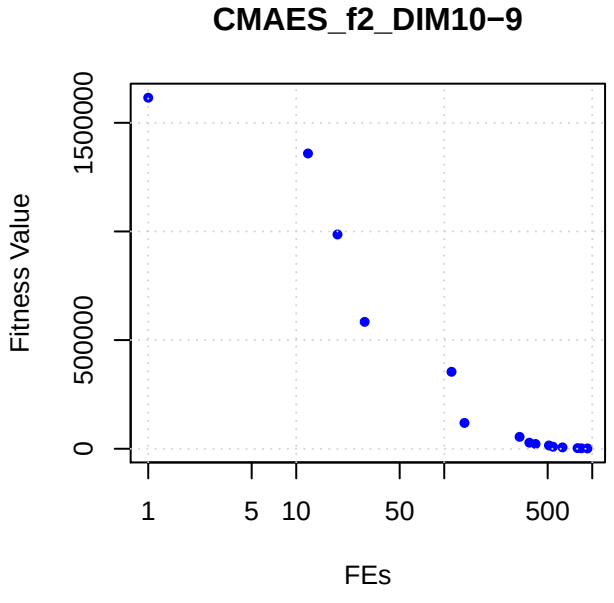

CMAES_f2_DIM10−4
Fitness Value
0.0e+00
1.0e+07
1
5
10
50
500
FEs

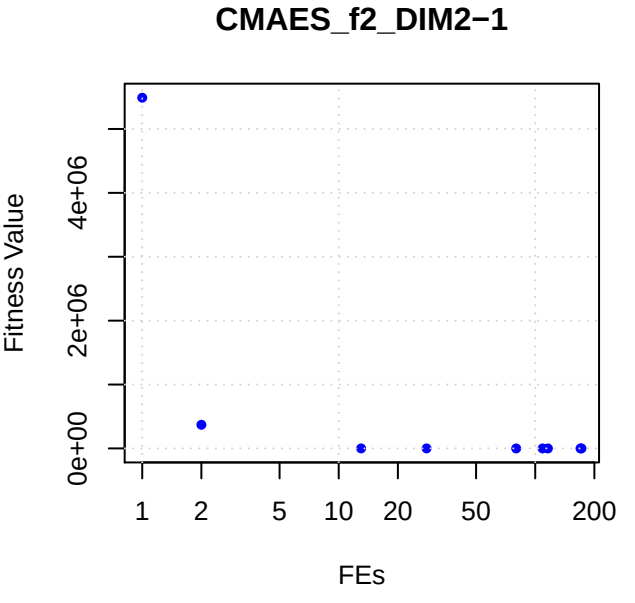

CMAES_f2_DIM10−5
Fitness Value
0e+00
2e+06
4e+06
1
5
50
500
FEs

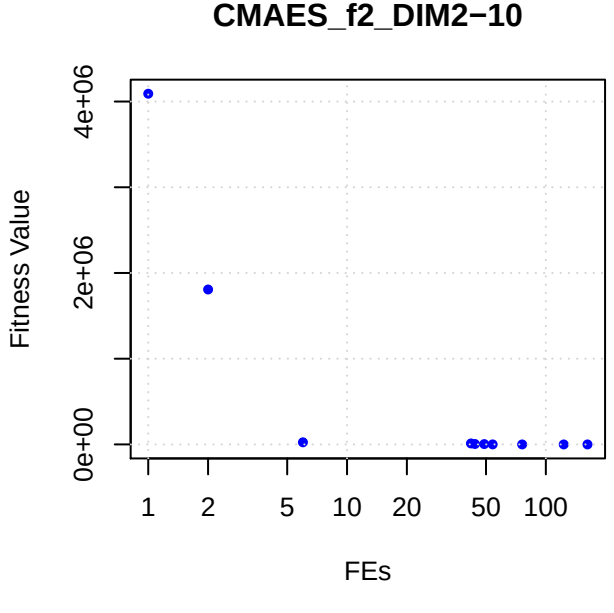

CMAES_f2_DIM10−6
Fitness Value
0e+00
2e+06
4e+06
1
5
50
500
FEs

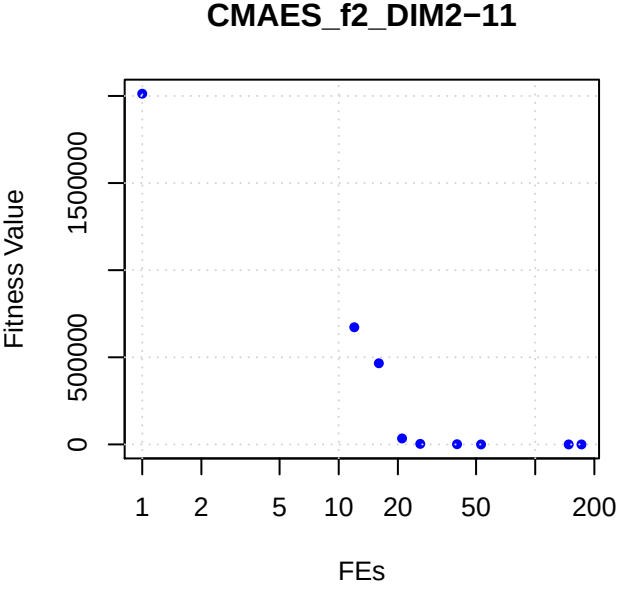

CMAES_f2_DIM10−7
Fitness Value
0
500000
1500000
1
5
10
50
500
FEs

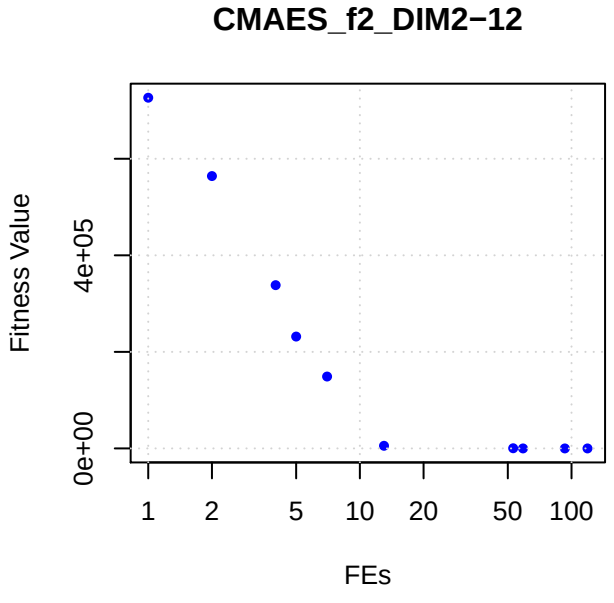

CMAES_f2_DIM10−8
Fitness Value
0.0e+00
1.0e+07
1
5
10
50
500
FEs

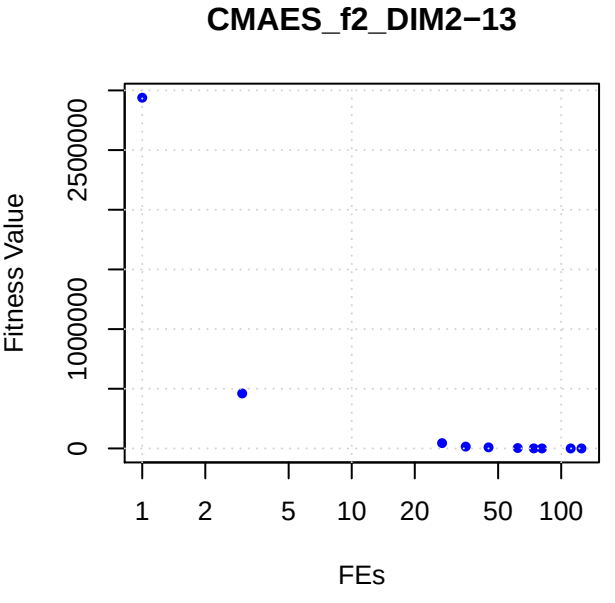

CMAES_f2_DIM10−9
Fitness Value
0
500000
1500000
1
5
10
50
500
FEs

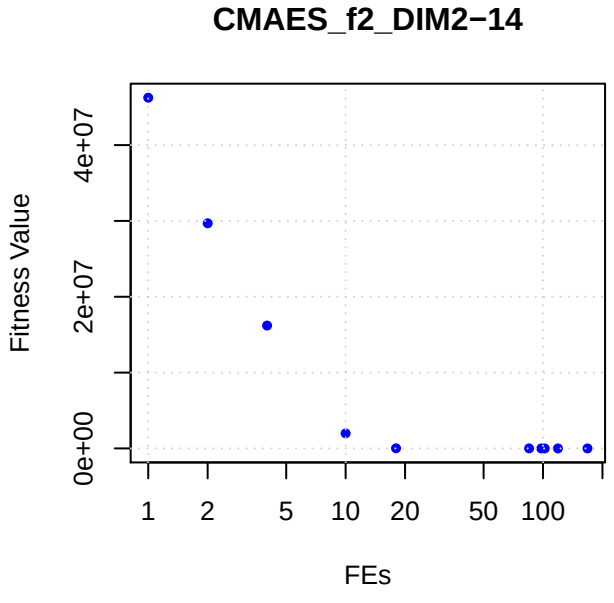

CMAES_f2_DIM2−1
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
200
FEs

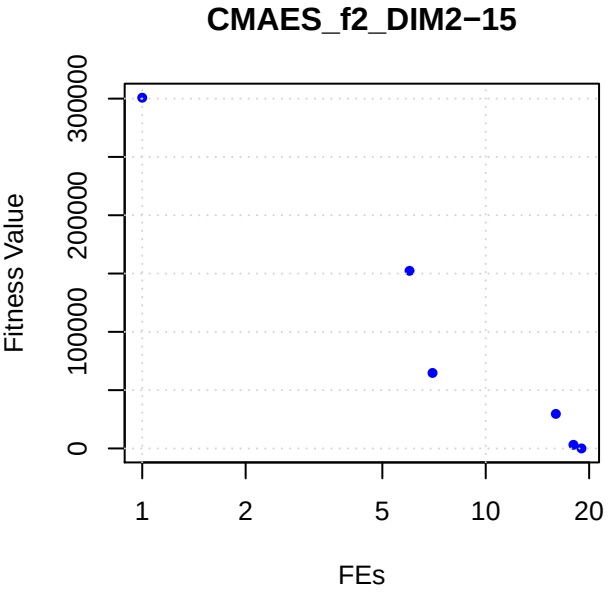

CMAES_f2_DIM2−10
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
100
FEs

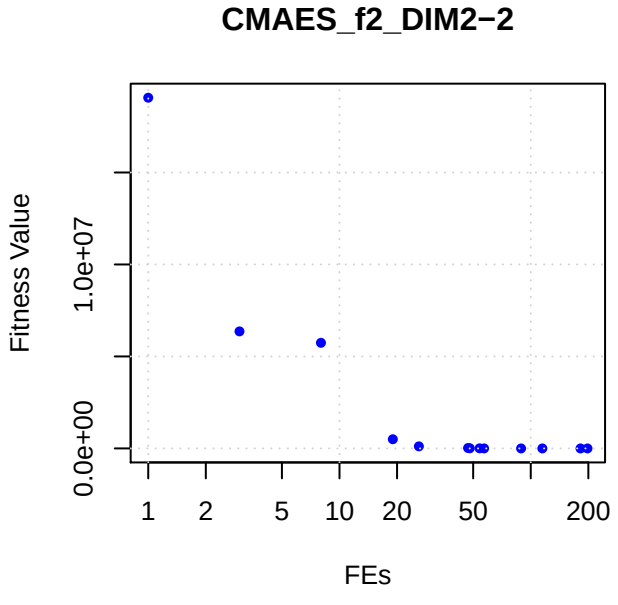

CMAES_f2_DIM2−11
Fitness Value
0
500000
1500000
1
2
5
10
20
50
200
FEs

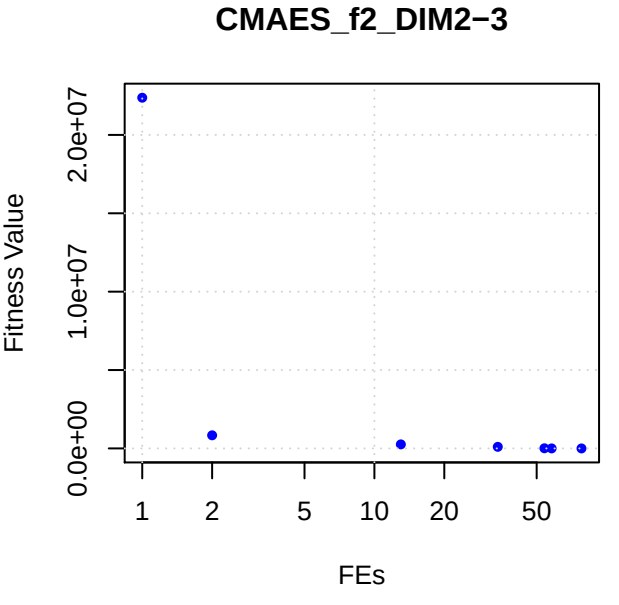

CMAES_f2_DIM2−12
Fitness Value
0e+00
4e+05
1
2
5
10
20
50
100
FEs

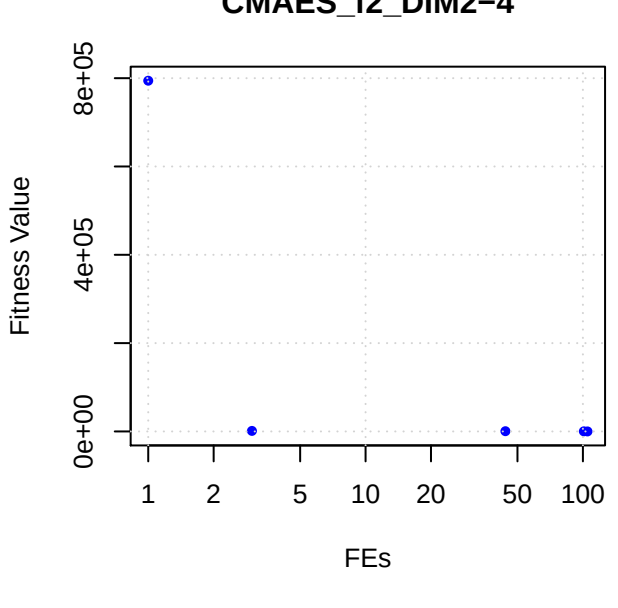

CMAES_f2_DIM2−13
Fitness Value
0
1000000
2500000
1
2
5
10
20
50
100
FEs

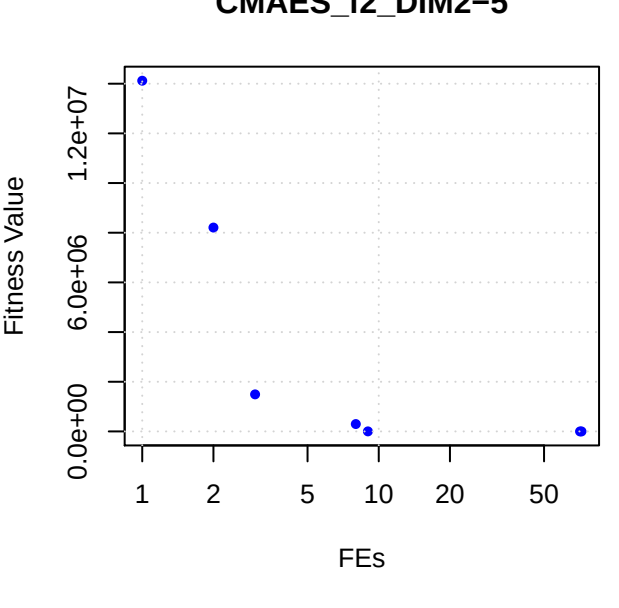

CMAES_f2_DIM2−14
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
20
50
100
FEs

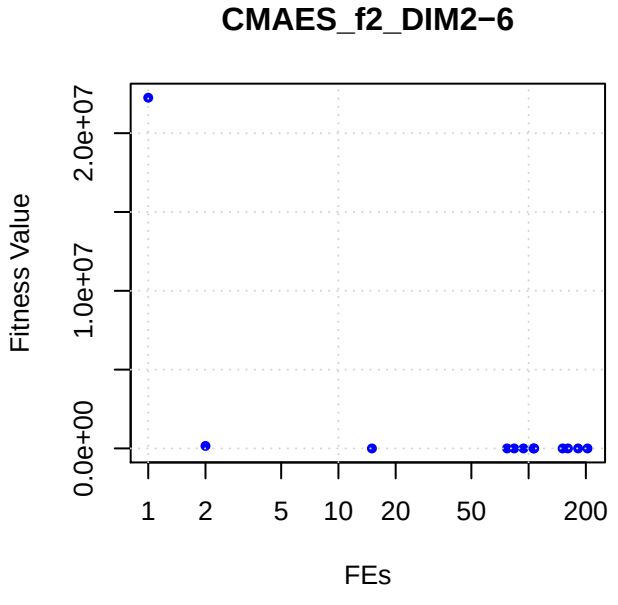

CMAES_f2_DIM2−15
Fitness Value
0
100000
200000
300000
1
2
5
10
20
FEs

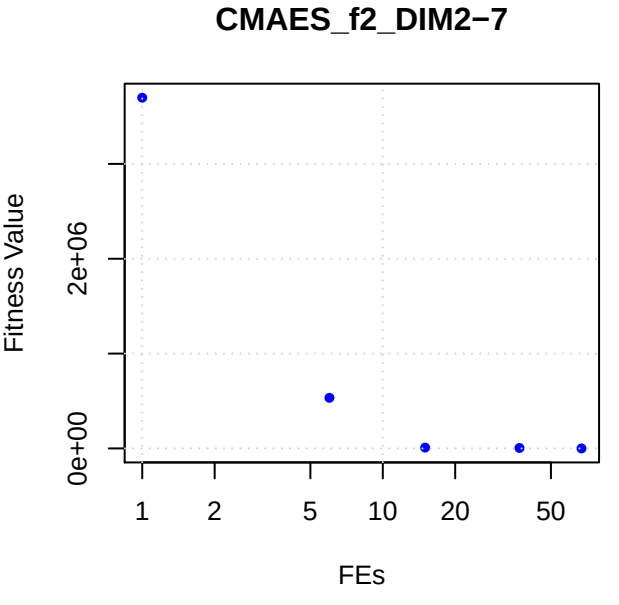

CMAES_f2_DIM2−2
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
200
FEs

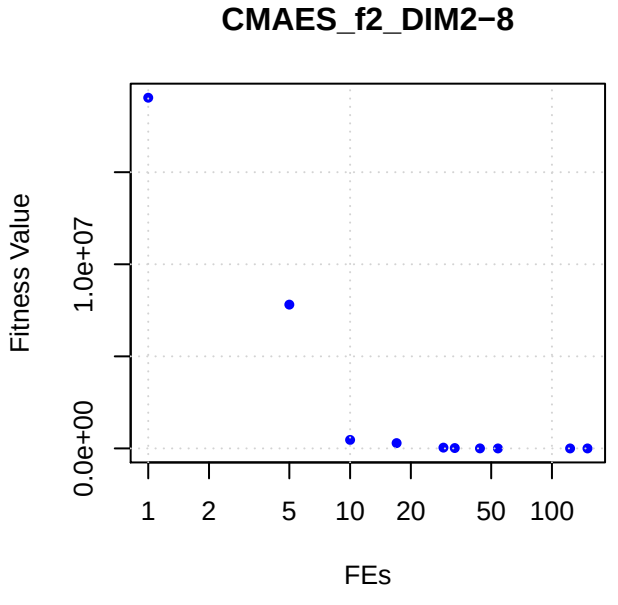

CMAES_f2_DIM2−3
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
FEs

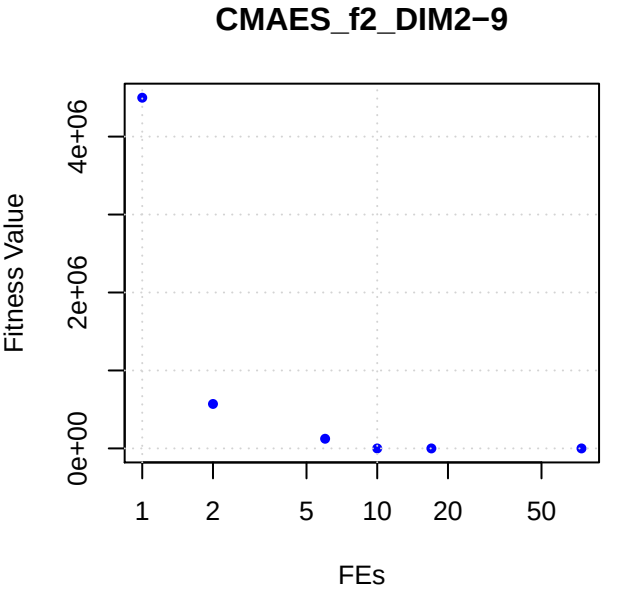

CMAES_f2_DIM2−4
Fitness Value
0e+00
4e+05
8e+05
1
2
5
10
20
50
100
FEs

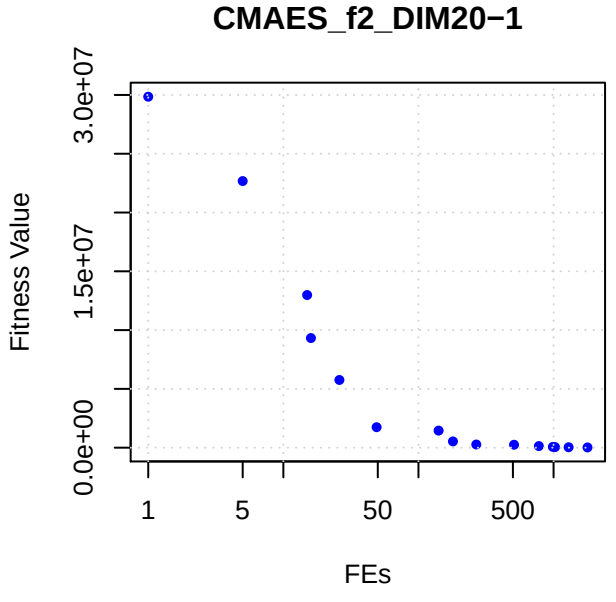

CMAES_f2_DIM2−5
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
2
5
10
20
50
FEs

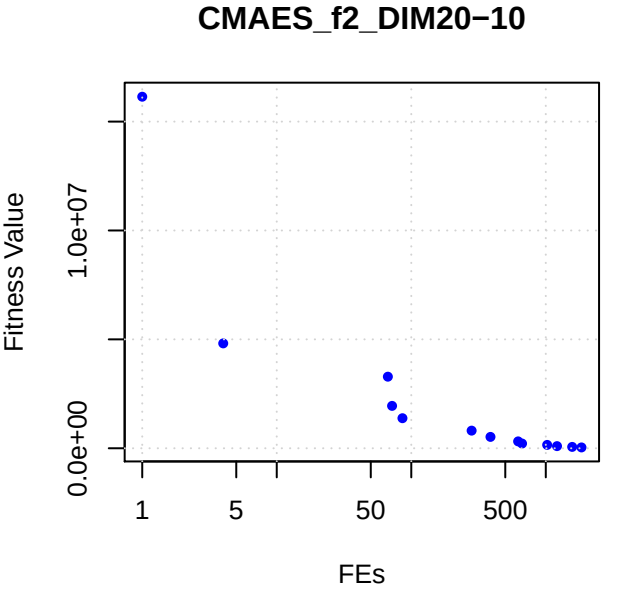

CMAES_f2_DIM2−6
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
2
5
10
20
50
200
FEs

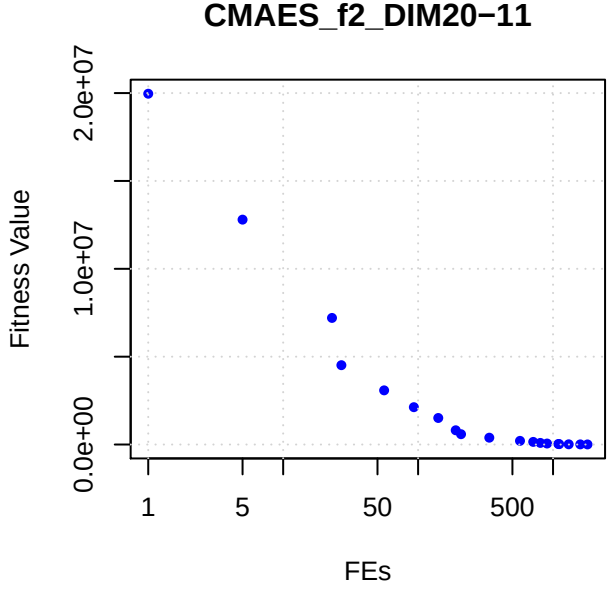

CMAES_f2_DIM2−7
Fitness Value
0e+00
2e+06
1
2
5
10
20
50
FEs

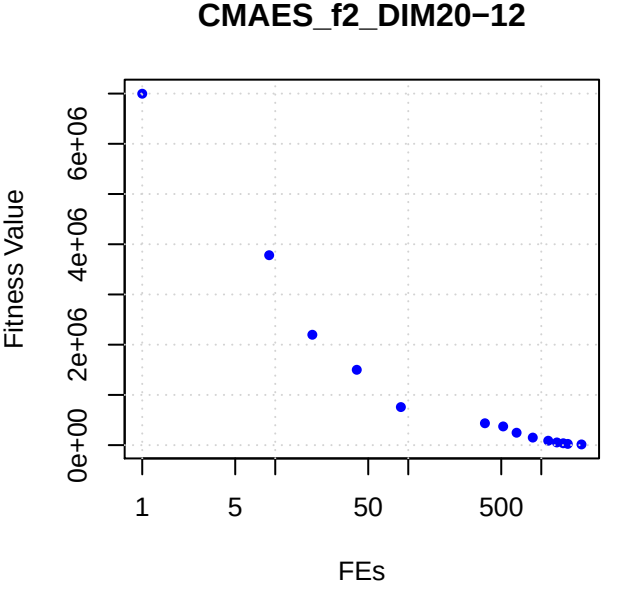

CMAES_f2_DIM2−8
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
100
FEs

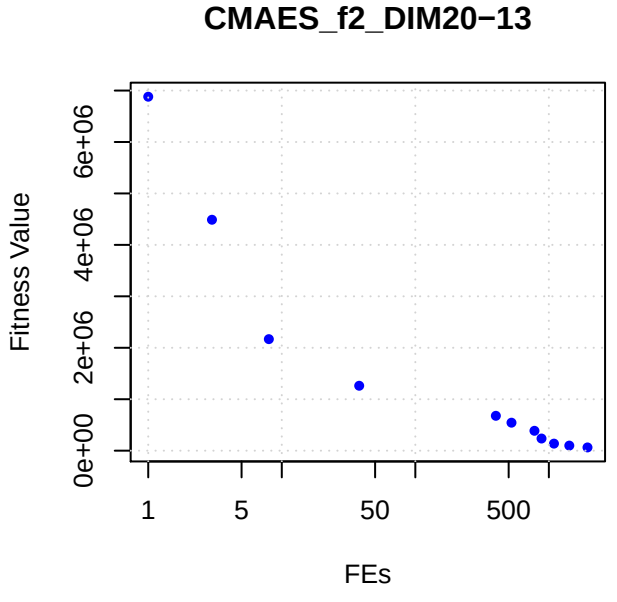

CMAES_f2_DIM2−9
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
FEs

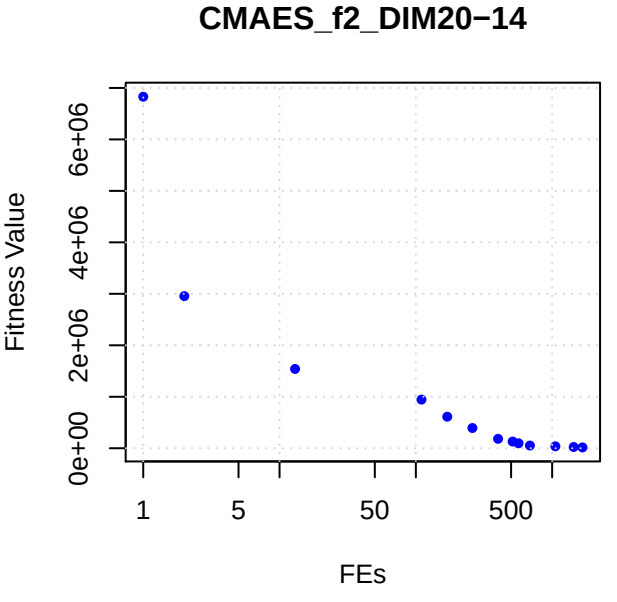

CMAES_f2_DIM20−1
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
5
50
500
FEs

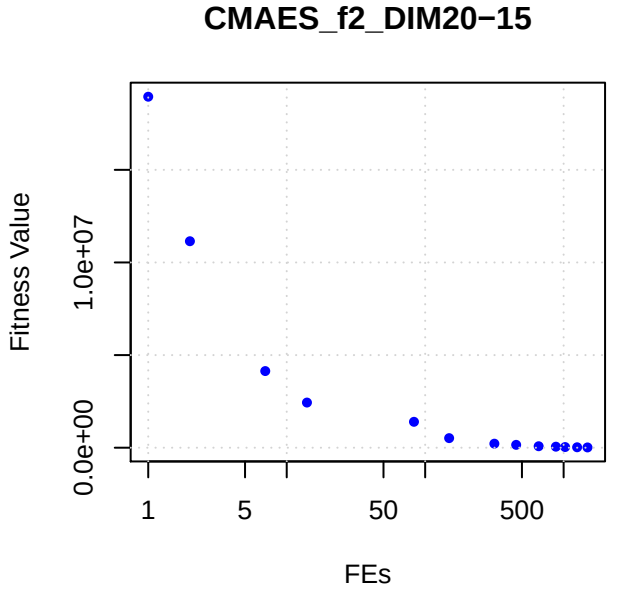

CMAES_f2_DIM20−10
Fitness Value
0.0e+00
1.0e+07
1
5
50
500
FEs

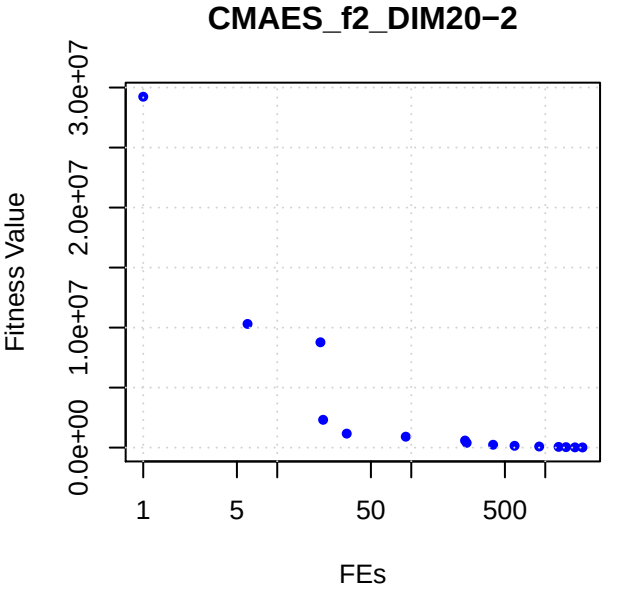

CMAES_f2_DIM20−11
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
FEs

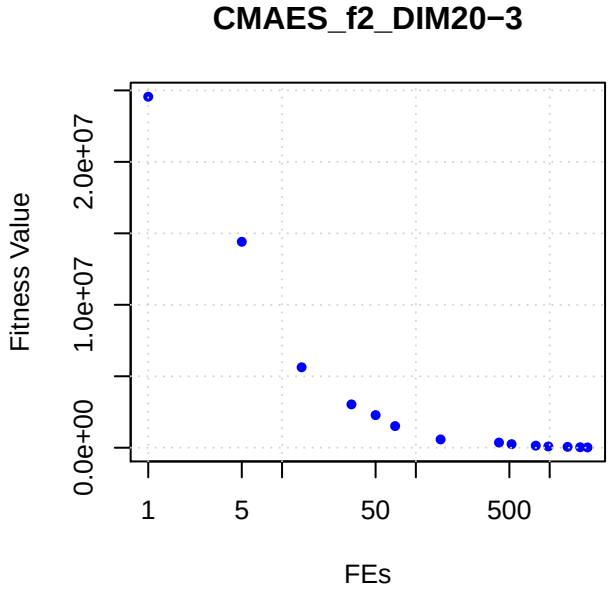

CMAES_f2_DIM20−12
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
5
50
500
FEs

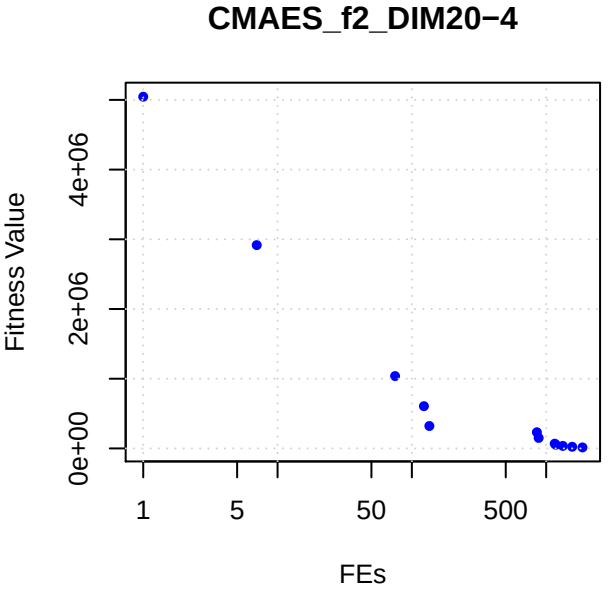

CMAES_f2_DIM20−13
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
5
50
500
FEs

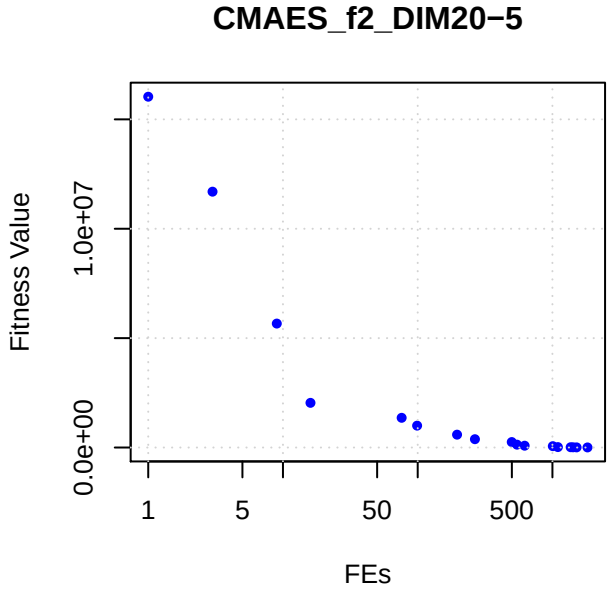

CMAES_f2_DIM20−14
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
5
50
500
FEs

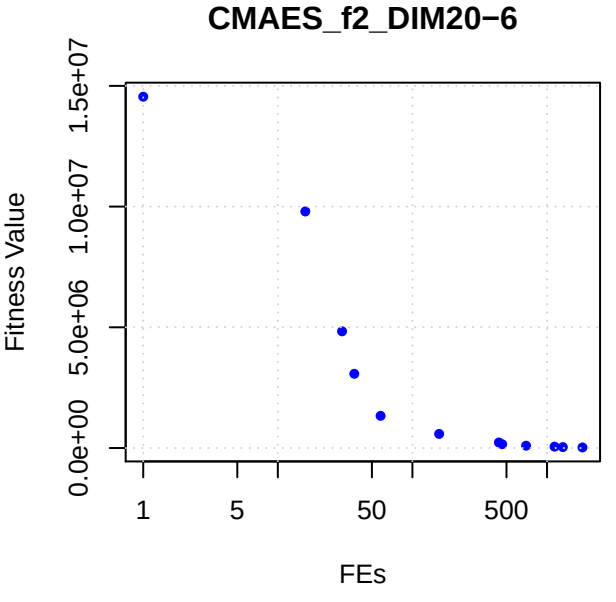

CMAES_f2_DIM20−15
Fitness Value
0.0e+00
1.0e+07
1
5
50
500
FEs

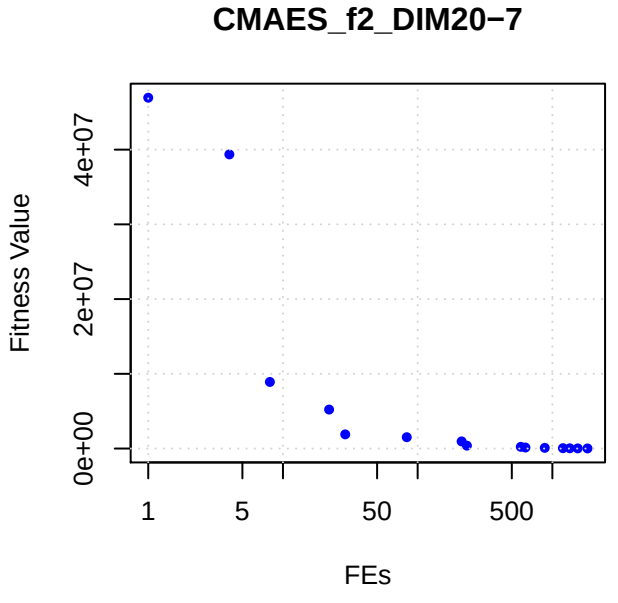

CMAES_f2_DIM20−2
Fitness Value
0.0e+00
1.0e+07
2.0e+07
3.0e+07
1
5
50
500
FEs

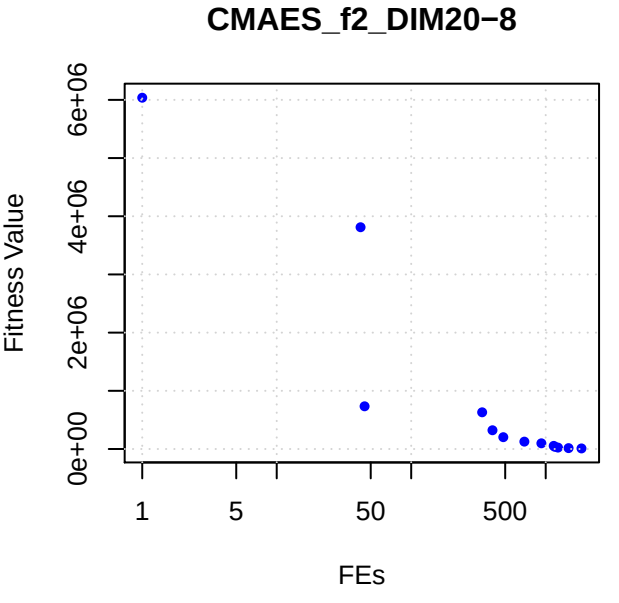

CMAES_f2_DIM20−3
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
FEs

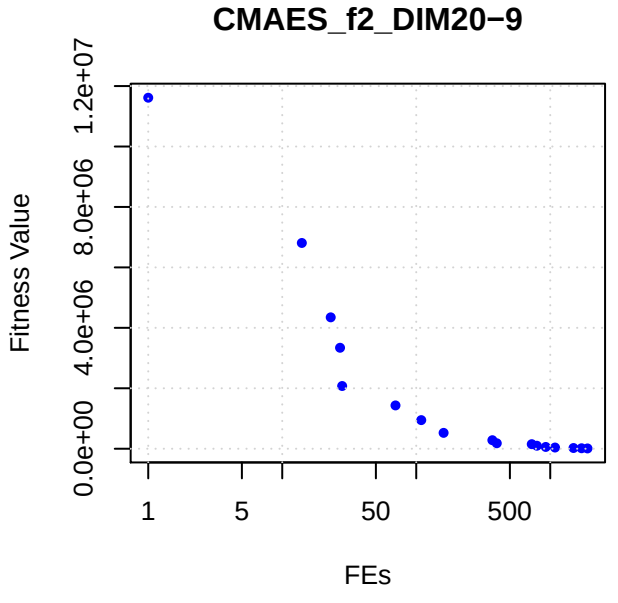

CMAES_f2_DIM20−4
Fitness Value
0e+00
2e+06
4e+06
1
5
50
500
FEs

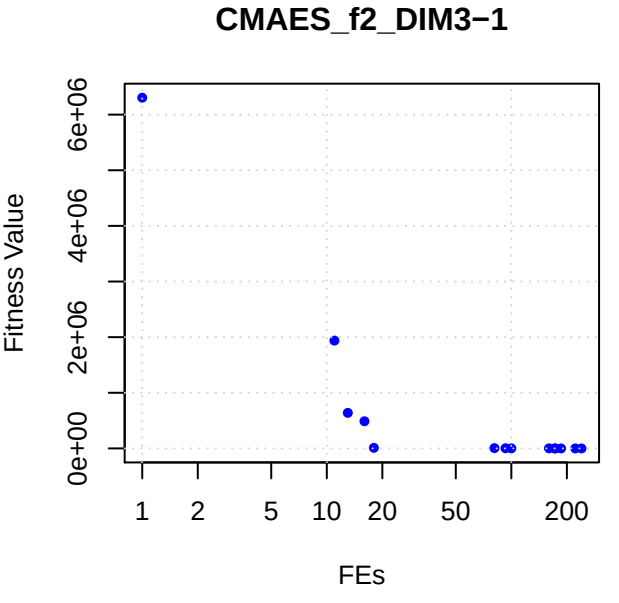

CMAES_f2_DIM20−5
Fitness Value
0.0e+00
1.0e+07
1
5
50
500
FEs

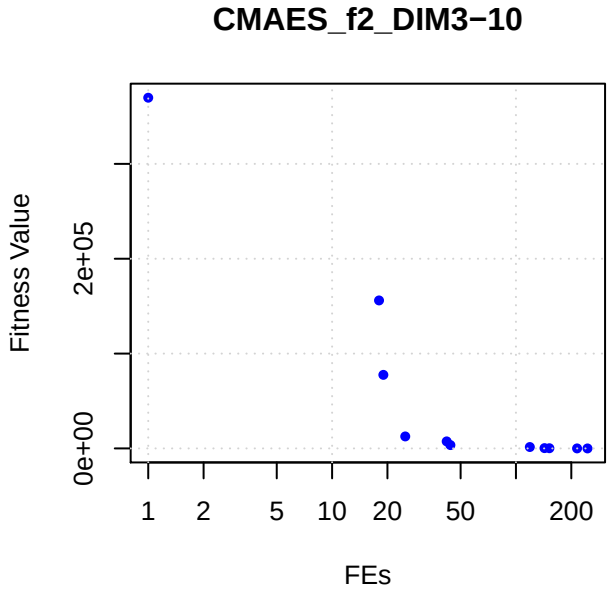

CMAES_f2_DIM20−6
Fitness Value
0.0e+00
5.0e+06
1.0e+07
1.5e+07
1
5
50
500
FEs

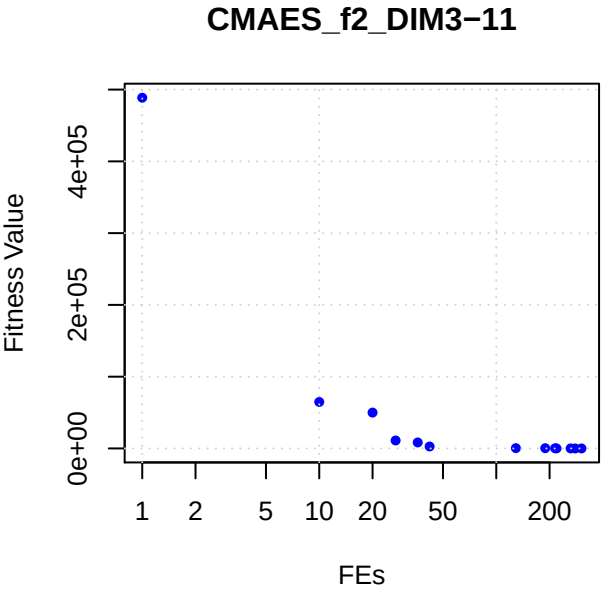

CMAES_f2_DIM20−7
Fitness Value
0e+00
2e+07
4e+07
1
5
50
500
FEs

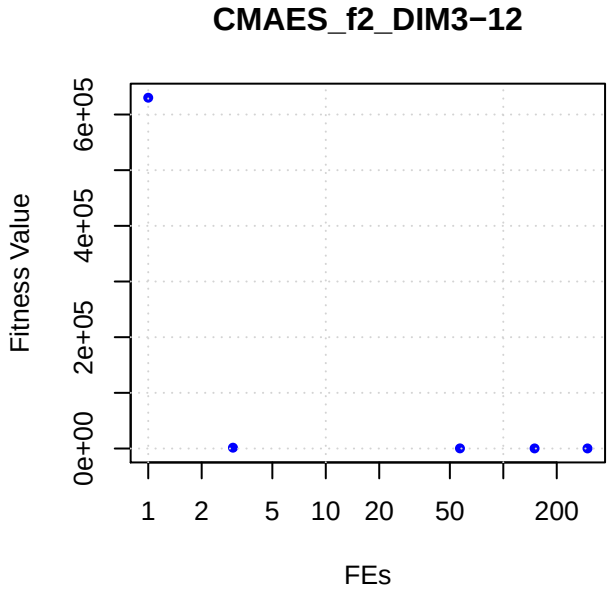

CMAES_f2_DIM20−8
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
5
50
500
FEs

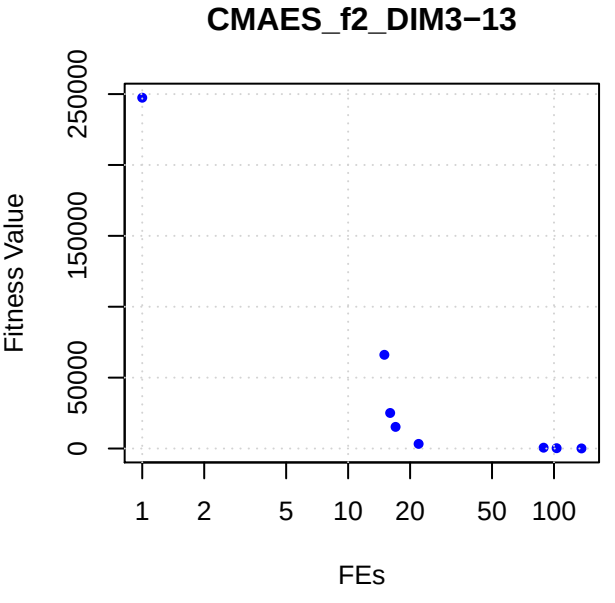

CMAES_f2_DIM20−9
Fitness Value
0.0e+00
4.0e+06
8.0e+06
1.2e+07
1
5
50
500
FEs

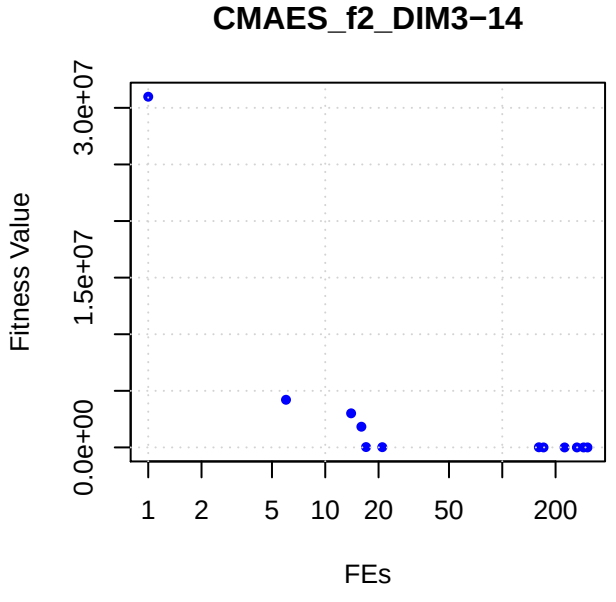

CMAES_f2_DIM3−1
Fitness Value
0e+00
2e+06
4e+06
6e+06
1
2
5
10
20
50
200
FEs

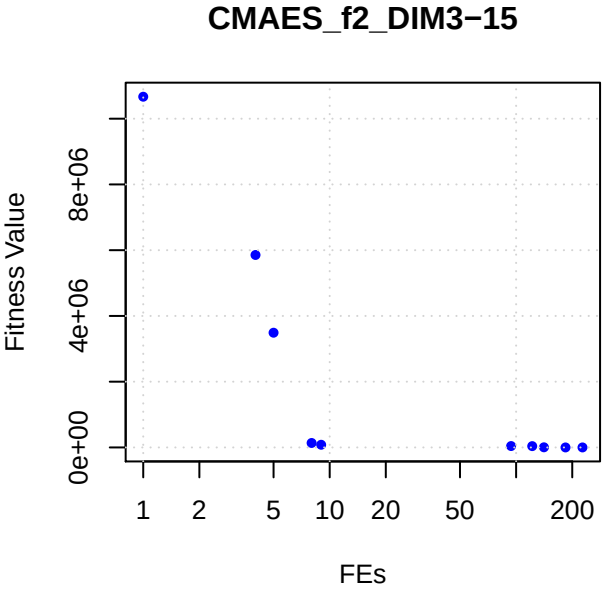

CMAES_f2_DIM3−10
Fitness Value
0e+00
2e+05
1
2
5
10
20
50
200
FEs

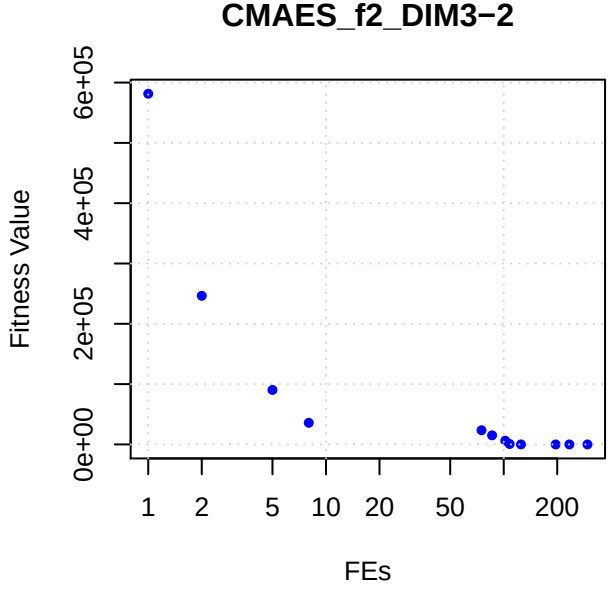

CMAES_f2_DIM3−11
Fitness Value
0e+00
2e+05
4e+05
1
2
5
10
20
50
200
FEs

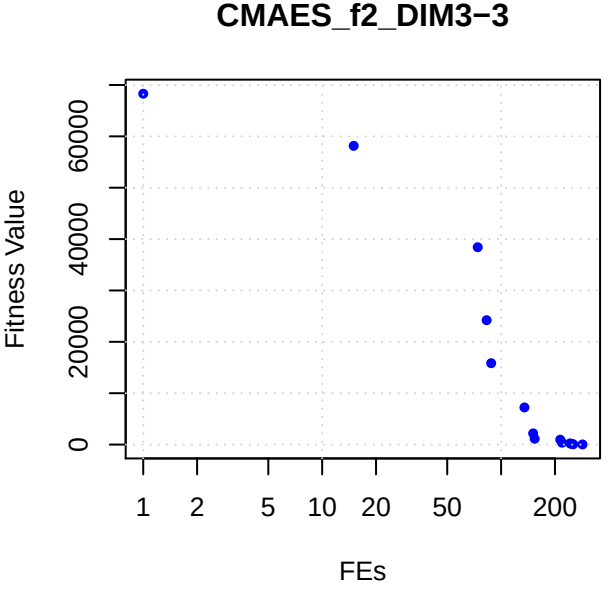

CMAES_f2_DIM3−12
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
50
200
FEs

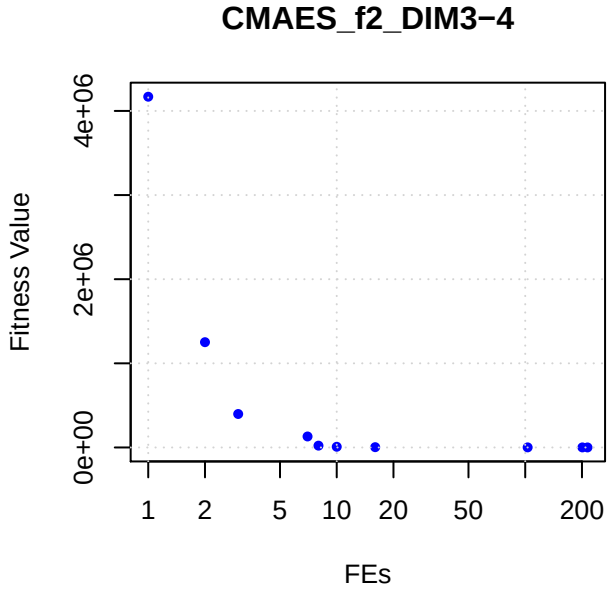

CMAES_f2_DIM3−13
Fitness Value
0
50000
150000
250000
1
2
5
10
20
50
100
FEs

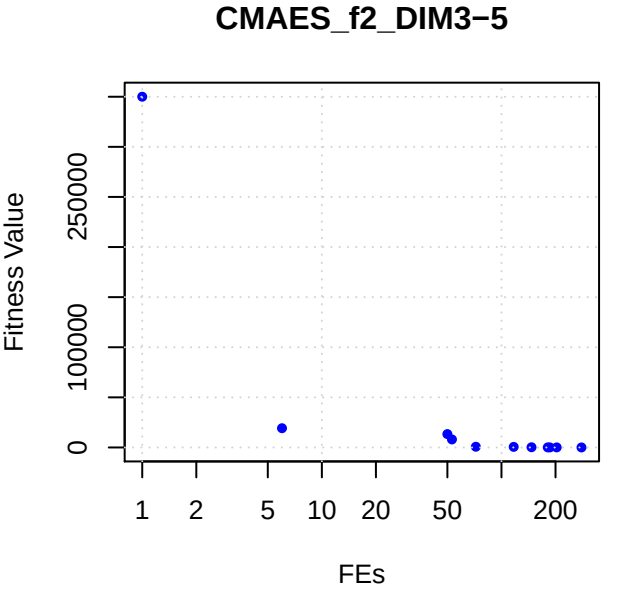

CMAES_f2_DIM3−14
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
2
5
10
20
50
200
FEs

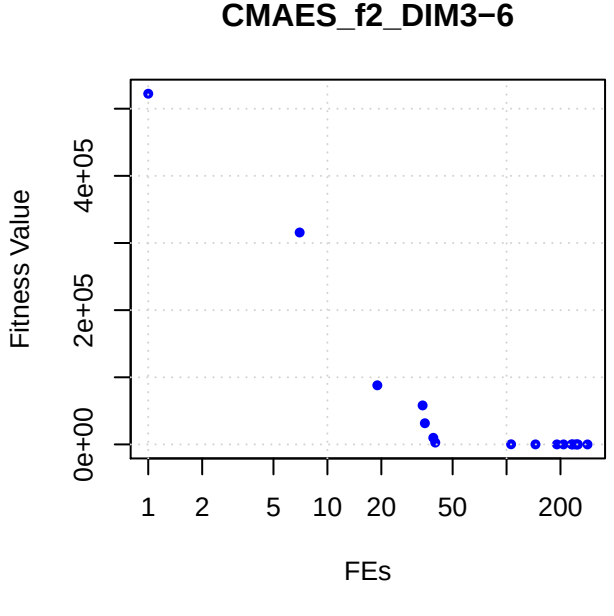

CMAES_f2_DIM3−15
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
200
FEs

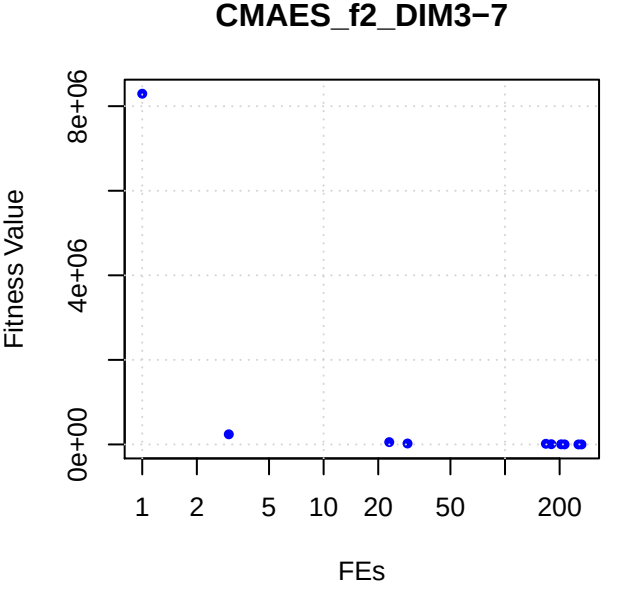

CMAES_f2_DIM3−2
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
50
200
FEs

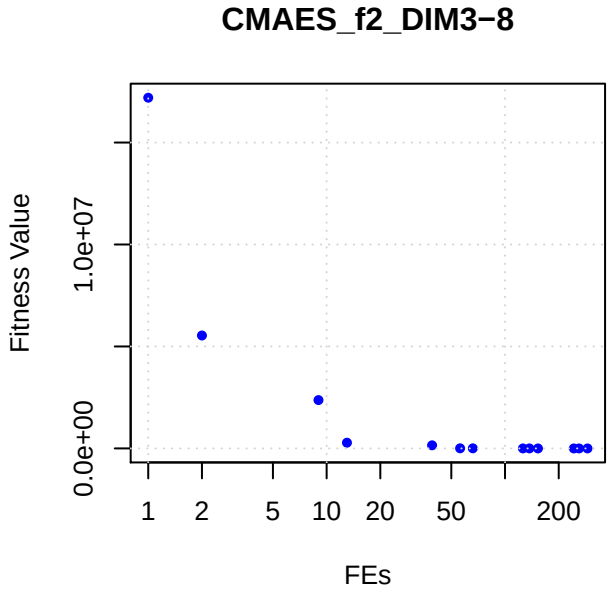

CMAES_f2_DIM3−3
Fitness Value
0
20000
40000
60000
1
2
5
10
20
50
200
FEs

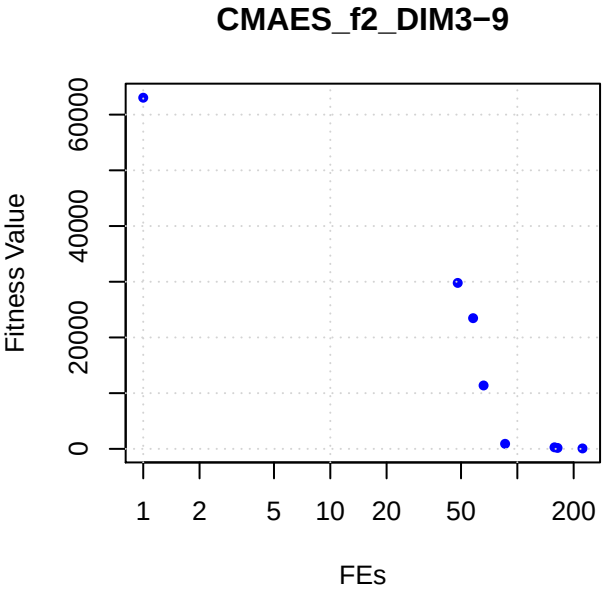

CMAES_f2_DIM3−4
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
20
50
200
FEs

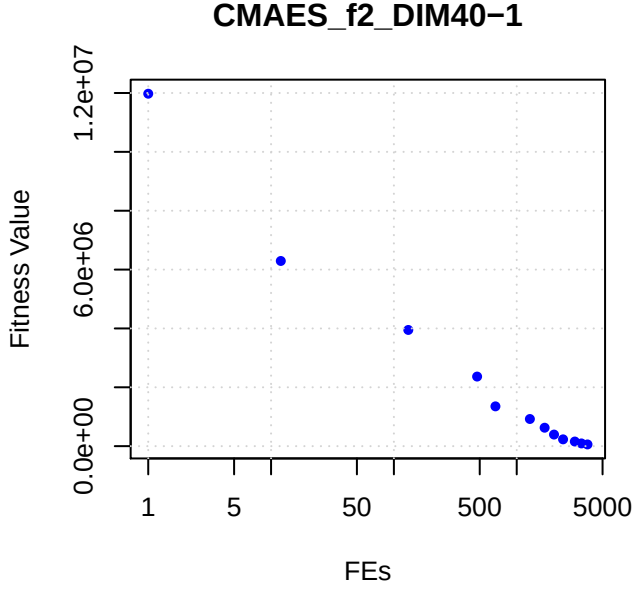

CMAES_f2_DIM3−5
Fitness Value
0
100000
250000
1
2
5
10
20
50
200
FEs

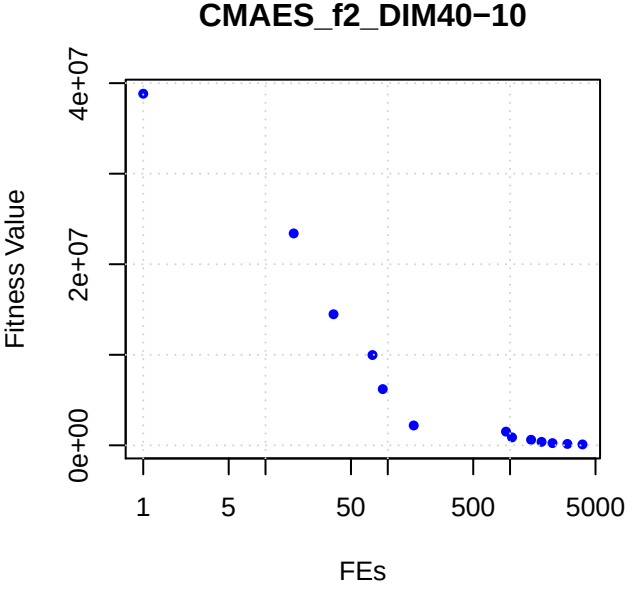

CMAES_f2_DIM3−6
Fitness Value
0e+00
2e+05
4e+05
1
2
5
10
20
50
200
FEs

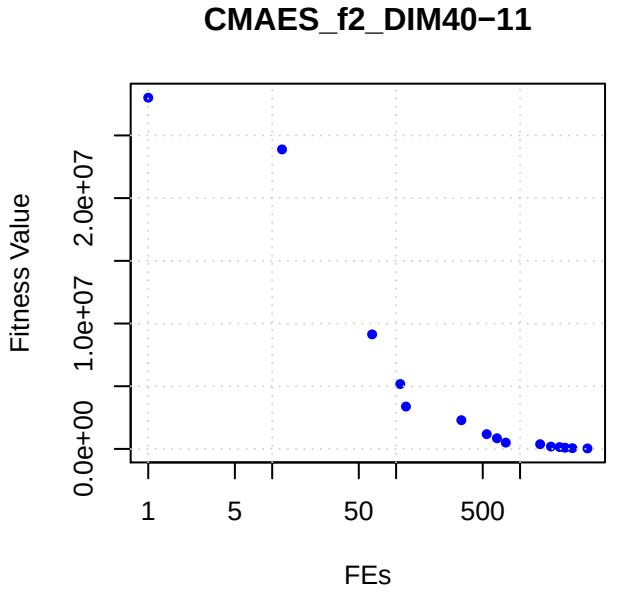

CMAES_f2_DIM3−7
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
20
50
200
FEs

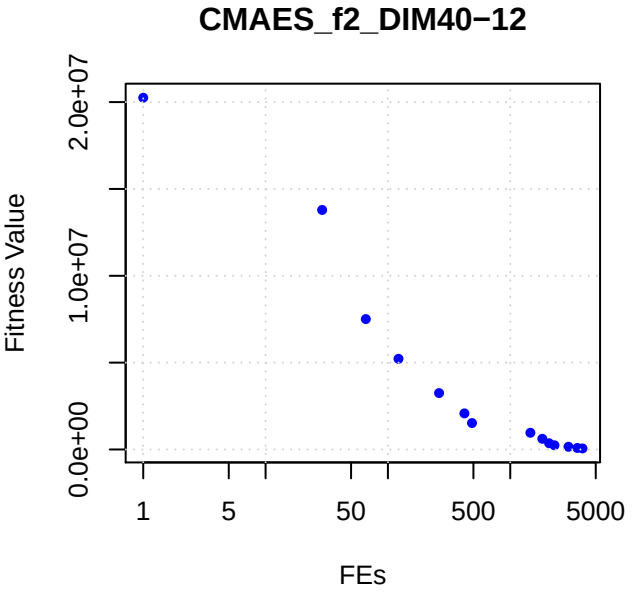

CMAES_f2_DIM3−8
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
20
50
200
FEs

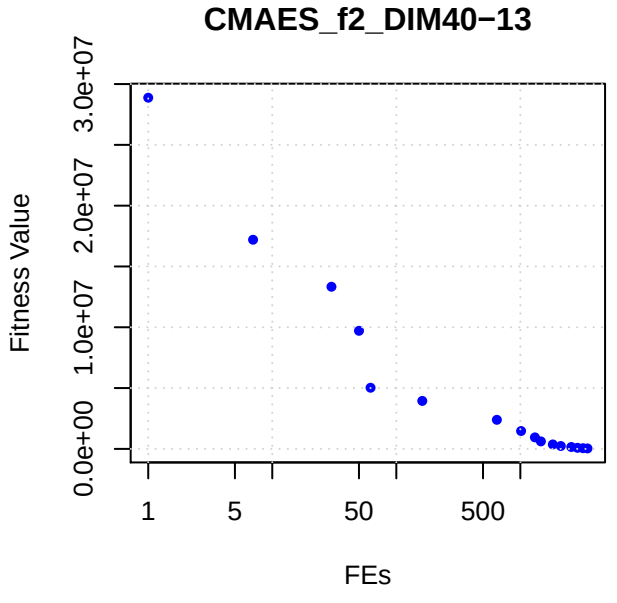

CMAES_f2_DIM3−9
Fitness Value
0
20000
40000
60000
1
2
5
10
20
50
200
FEs

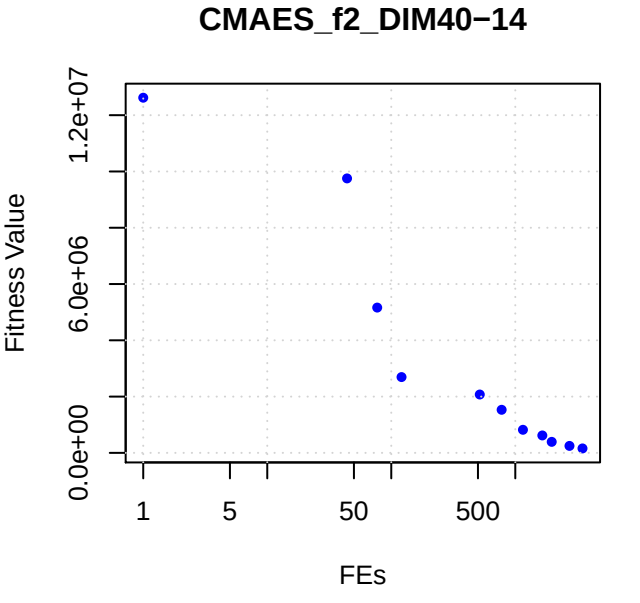

CMAES_f2_DIM40−1
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
5
50
500
5000
FEs

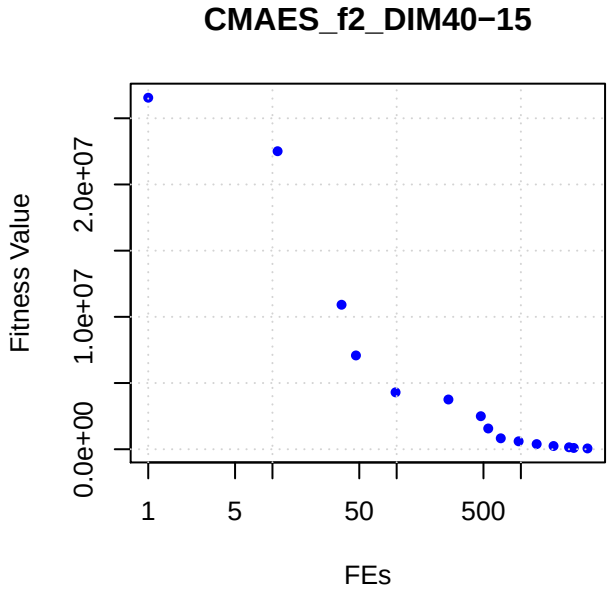

CMAES_f2_DIM40−10
Fitness Value
0e+00
2e+07
4e+07
1
5
50
500
5000
FEs

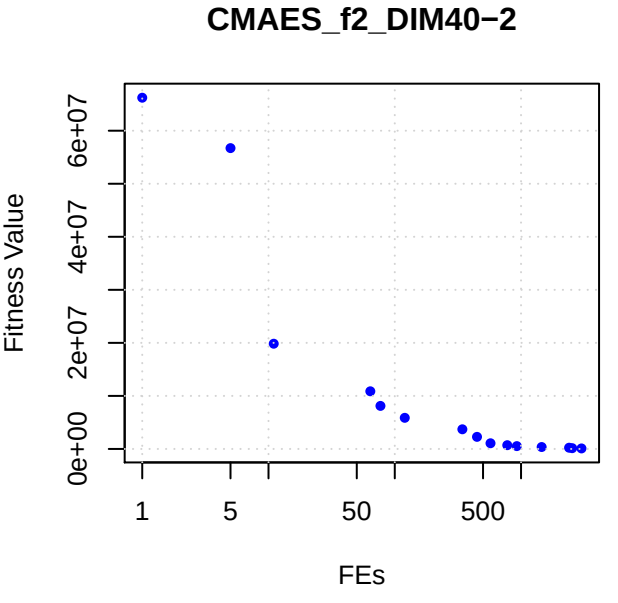

CMAES_f2_DIM40−11
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
FEs

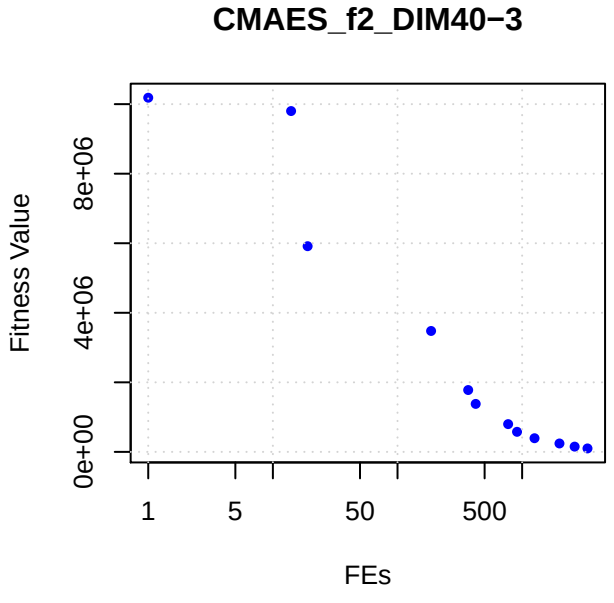

CMAES_f2_DIM40−12
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
5000
FEs

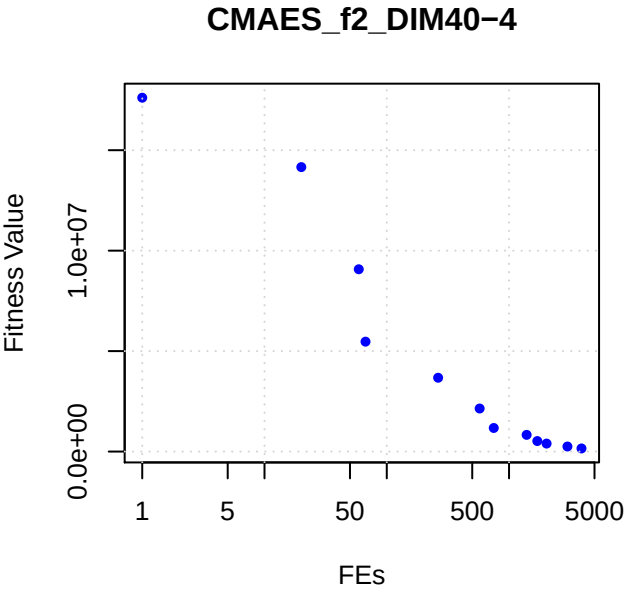

CMAES_f2_DIM40−13
Fitness Value
0.0e+00
1.0e+07
2.0e+07
3.0e+07
1
5
50
500
FEs

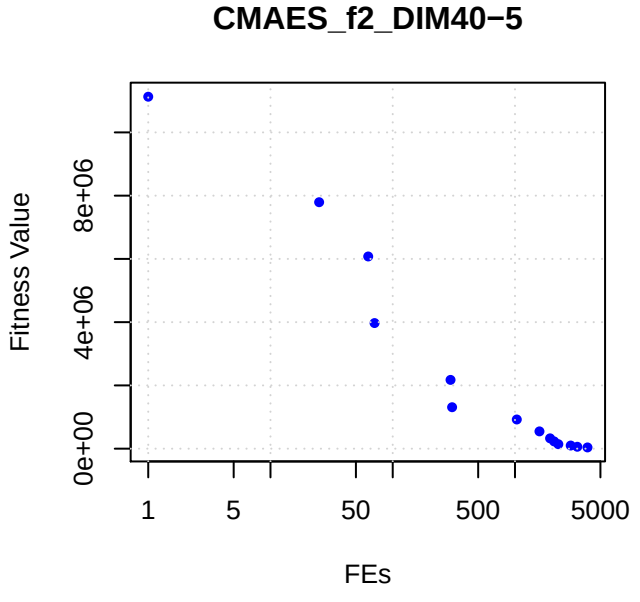

CMAES_f2_DIM40−14
Fitness Value
0.0e+00
6.0e+06
1.2e+07
1
5
50
500
FEs


CMAES_f2_DIM40−15
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
FEs


CMAES_f2_DIM40−2
Fitness Value
0e+00
2e+07
4e+07
6e+07
1
5
50
500
FEs


CMAES_f2_DIM40−3
Fitness Value
0e+00
4e+06
8e+06
1
5
50
500
FEs


CMAES_f2_DIM40−4
Fitness Value
0.0e+00
1.0e+07
1
5
50
500
5000
FEs


CMAES_f2_DIM40−5
Fitness Value
0e+00
4e+06
8e+06
1
5
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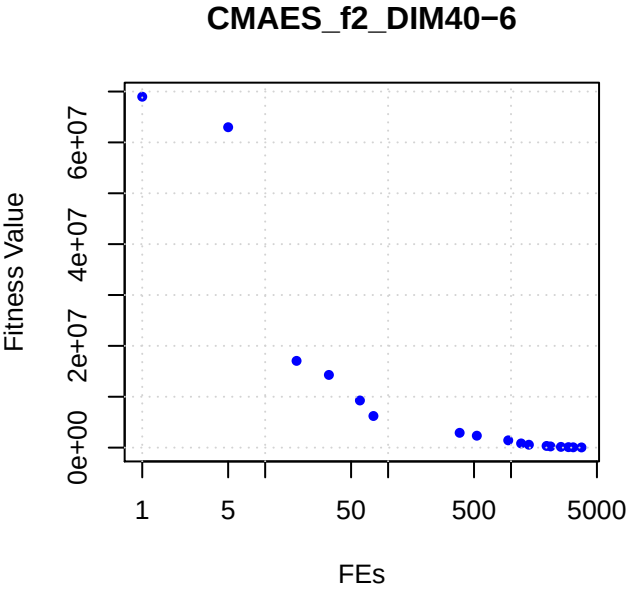
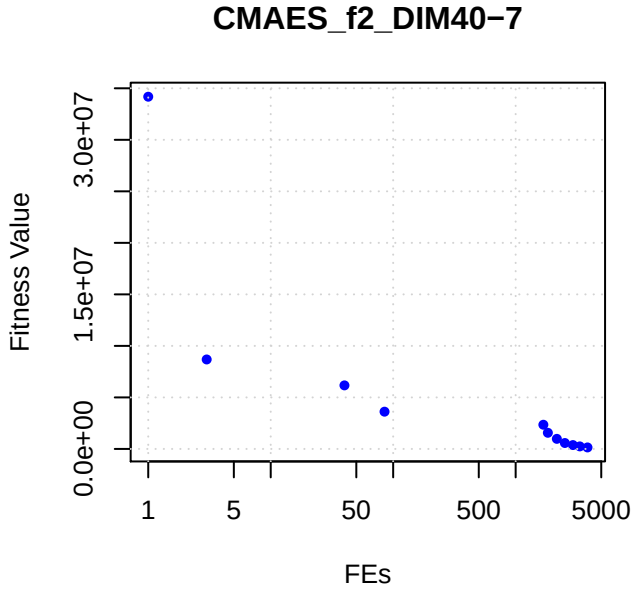
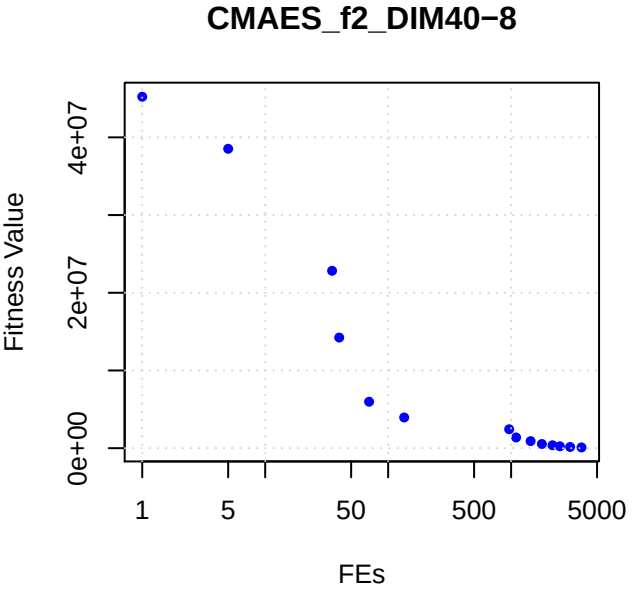
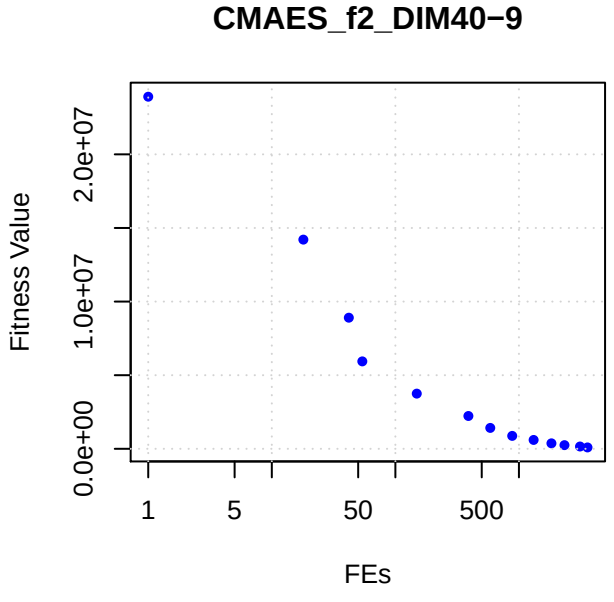
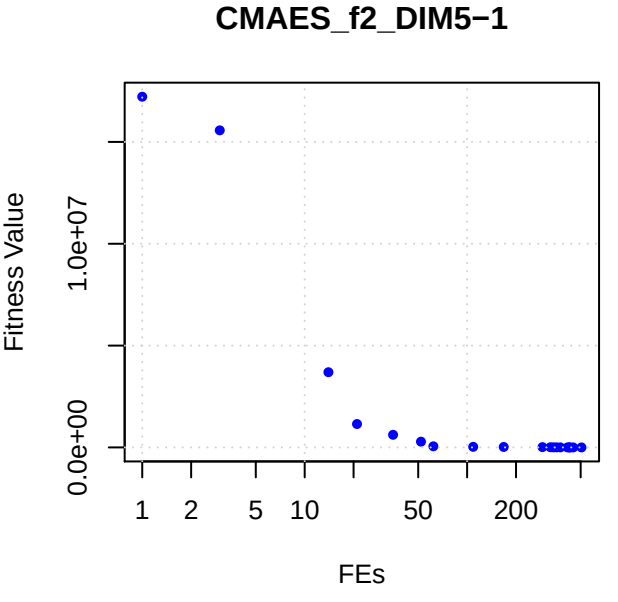
500
5000
FEs

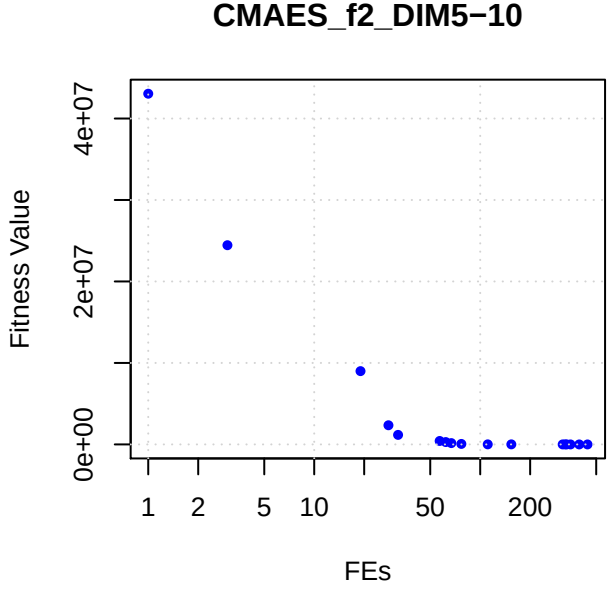

CMAES_f2_DIM40−6
Fitness Value
0e+00
2e+07
4e+07
6e+07
1
5
50
500
5000
FEs

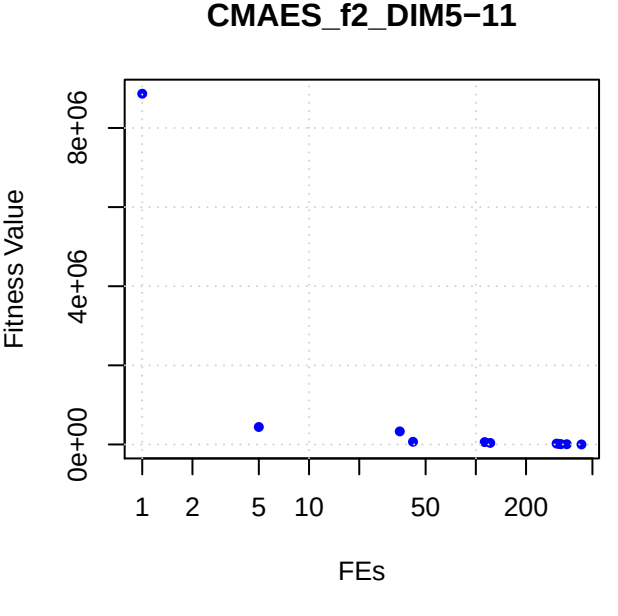

CMAES_f2_DIM40−7
Fitness Value
0.0e+00
1.5e+07
3.0e+07
1
5
50
500
5000
FEs

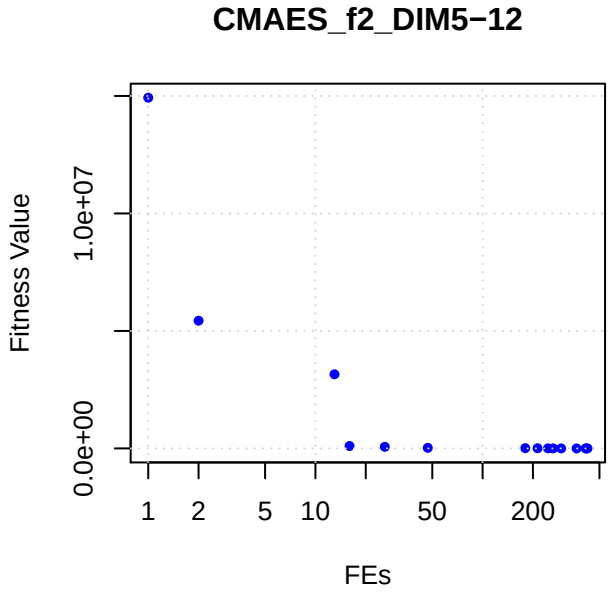

CMAES_f2_DIM40−8
Fitness Value
0e+00
2e+07
4e+07
1
5
50
500
5000
FEs

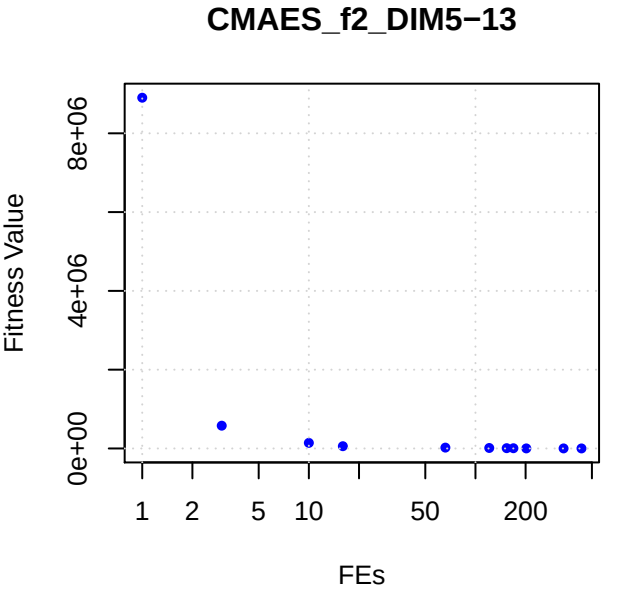

CMAES_f2_DIM40−9
Fitness Value
0.0e+00
1.0e+07
2.0e+07
1
5
50
500
FEs

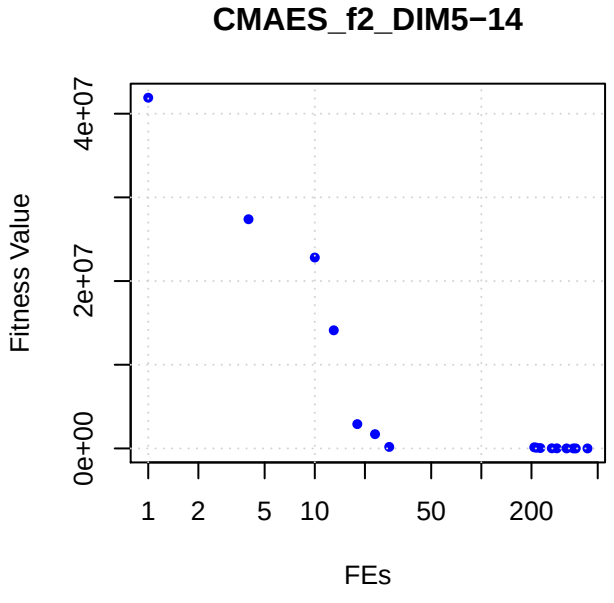

CMAES_f2_DIM5−1
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
50
200
FEs

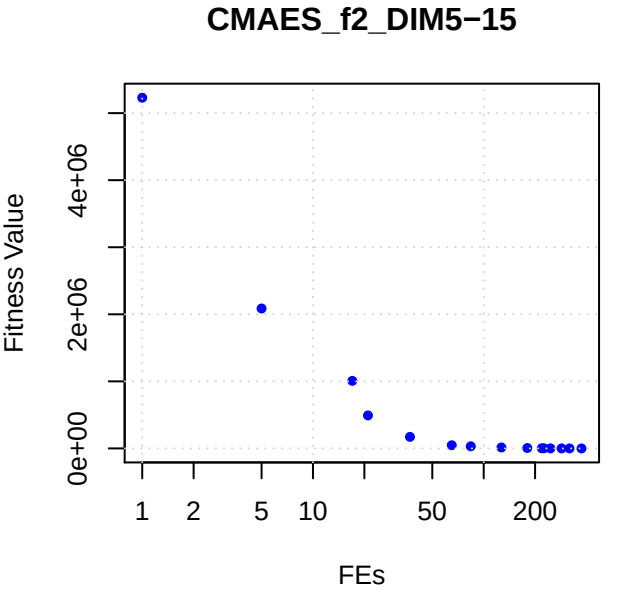

CMAES_f2_DIM5−10
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
50
200
FEs

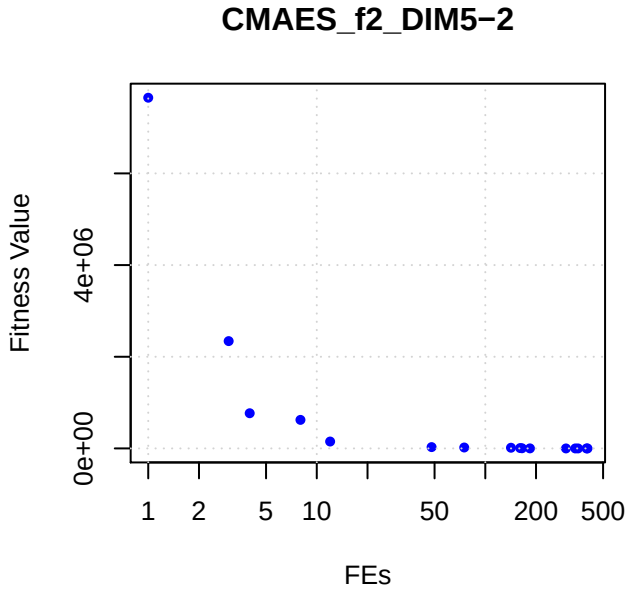

CMAES_f2_DIM5−11
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
50
200
FEs

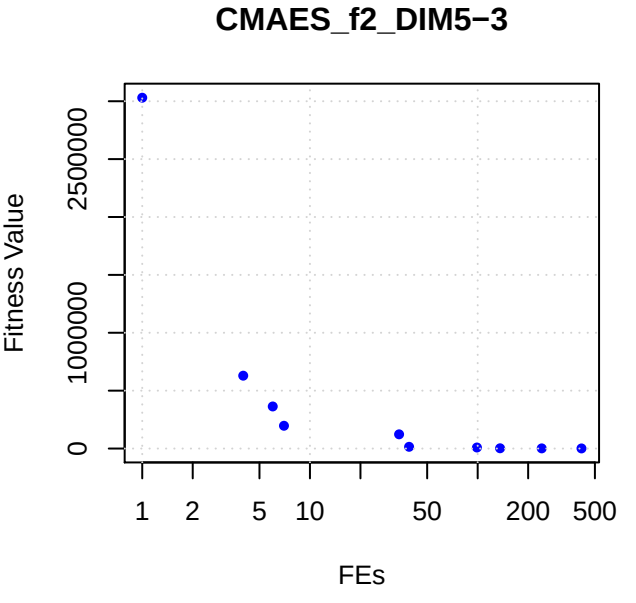

CMAES_f2_DIM5−12
Fitness Value
0.0e+00
1.0e+07
1
2
5
10
50
200
FEs

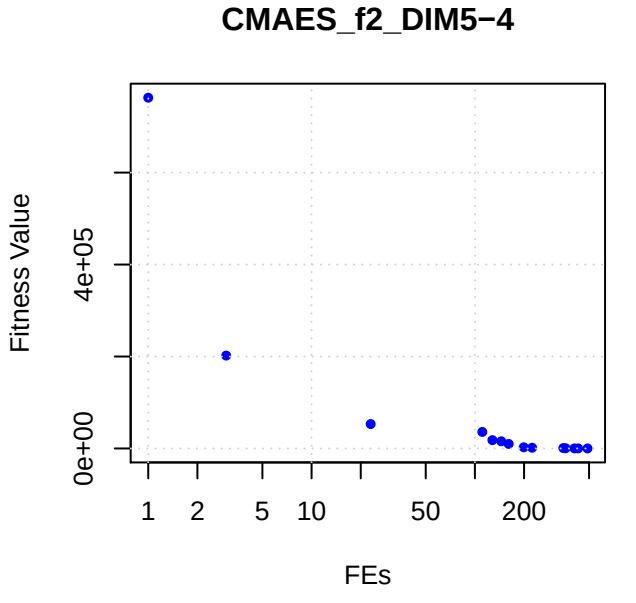

CMAES_f2_DIM5−13
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
50
200
FEs

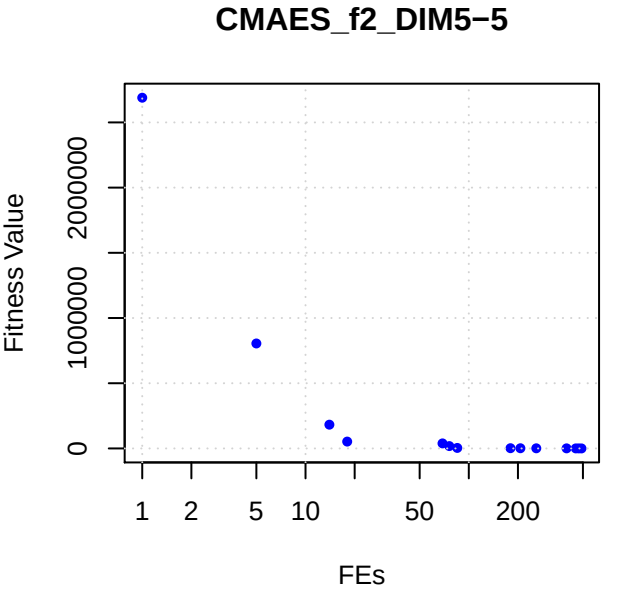

CMAES_f2_DIM5−14
Fitness Value
0e+00
2e+07
4e+07
1
2
5
10
50
200
FEs

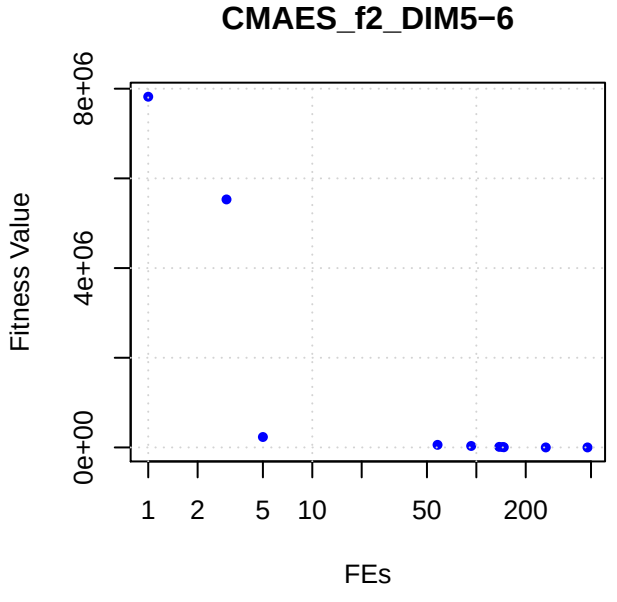

CMAES_f2_DIM5−15
Fitness Value
0e+00
2e+06
4e+06
1
2
5
10
50
200
FEs

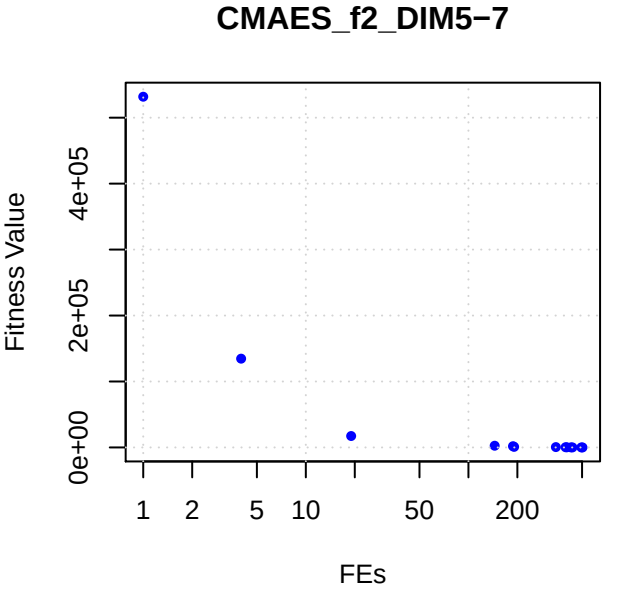

CMAES_f2_DIM5−2
Fitness Value
0e+00
4e+06
1
2
5
10
50
200
500
FEs

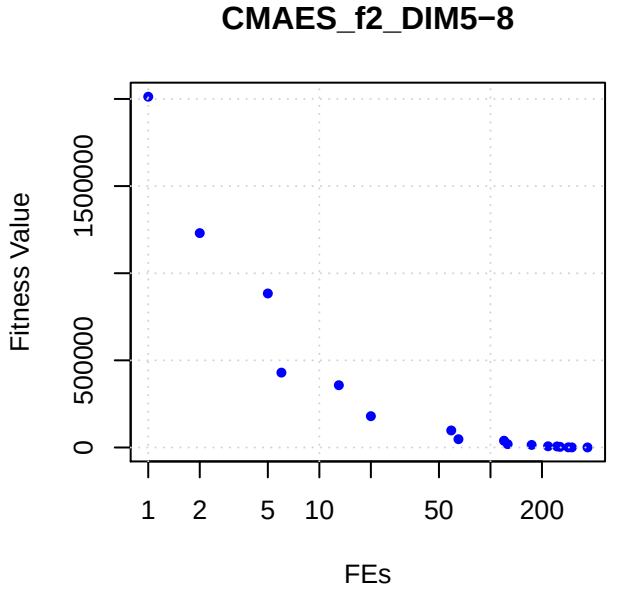

CMAES_f2_DIM5−3
Fitness Value
0
1000000
2500000
1
2
5
10
50
200
500
FEs


CMAES_f2_DIM5−4
Fitness Value
0e+00
4e+05
1
2
5
10
50
200
FEs


CMAES_f2_DIM5−5
Fitness Value
0
1000000
2000000
1
2
5
10
50
200
FEs


CMAES_f2_DIM5−6
Fitness Value
0e+00
4e+06
8e+06
1
2
5
10
50
200
FEs


CMAES_f2_DIM5−7
Fitness Value
0e+00
2e+05
4e+05
1
2
5
10
50
200
FEs


CMAES_f2_DIM5−8
Fitness Value
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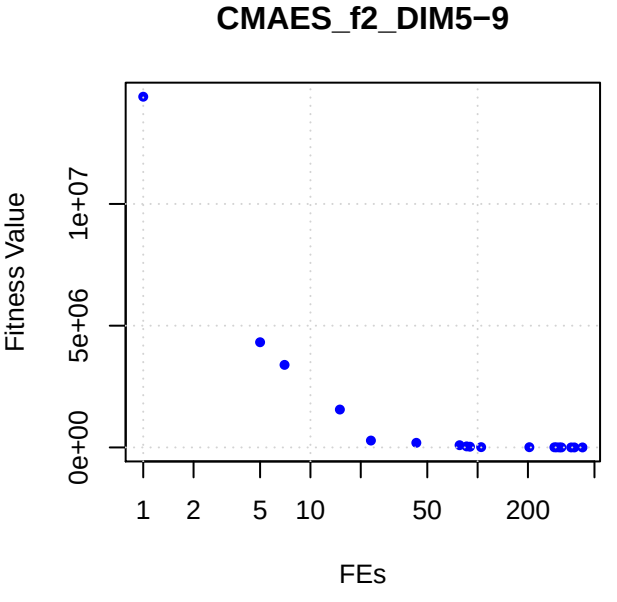
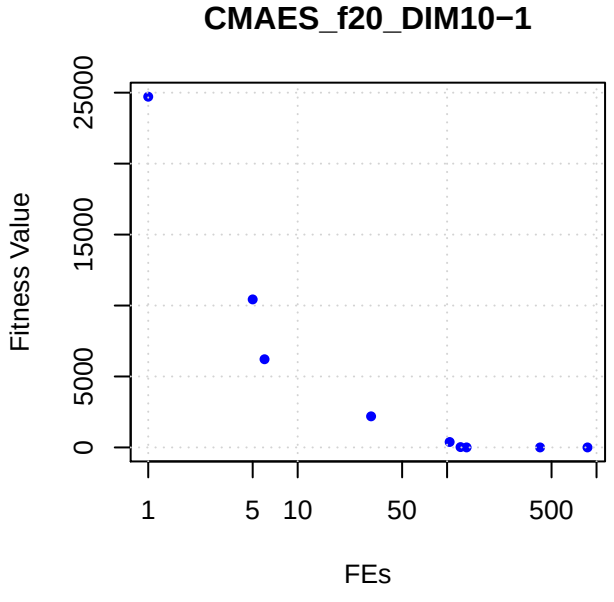
500000
1500000
1
2
5
10
50
200
FEs


CMAES_f2_DIM5−9
Fitness Value
0e+00
5e+06
1e+07
1
2
5
10
50
200
FEs


CMAES_f20_DIM10−1
Fitness Value
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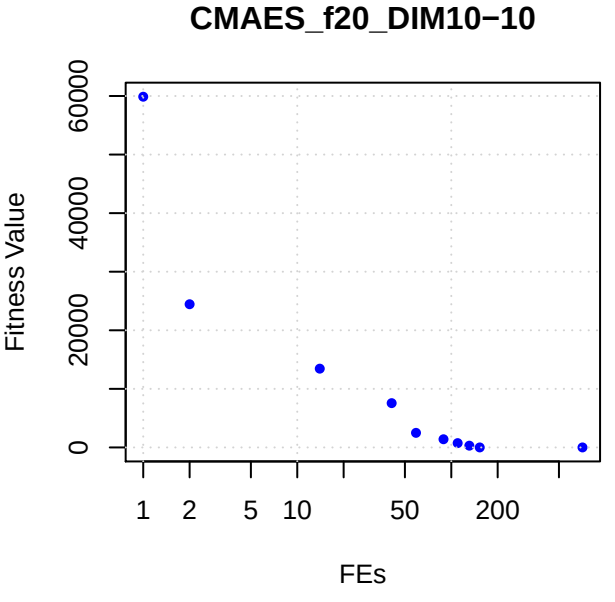
5000
15000
25000
1
5
10
50
500
FEs


CMAES_f20_DIM10−10
Fitness Value
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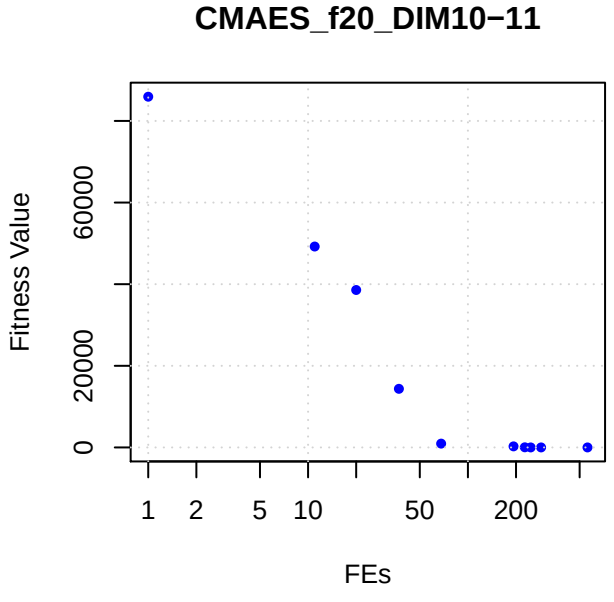
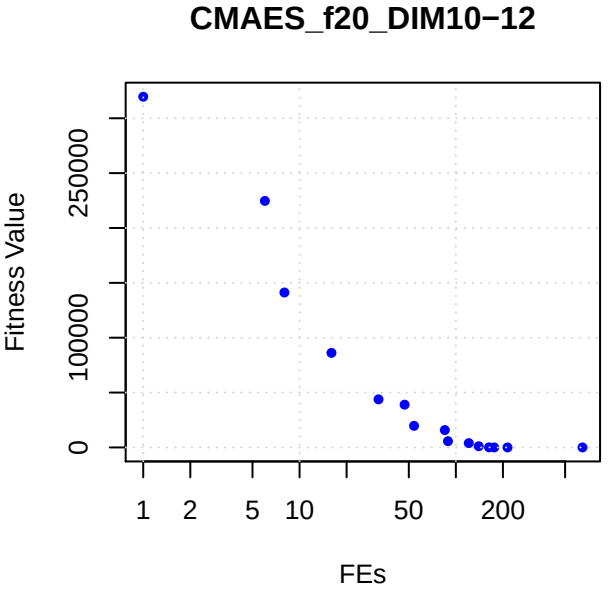
20000
40000
60000
1
2
5
10
50
200
FEs


CMAES_f20_DIM10−11
Fitness Value
0
20000
60000
1
2
5
10
50
200
FEs


CMAES_f20_DIM10−12
Fitness Value
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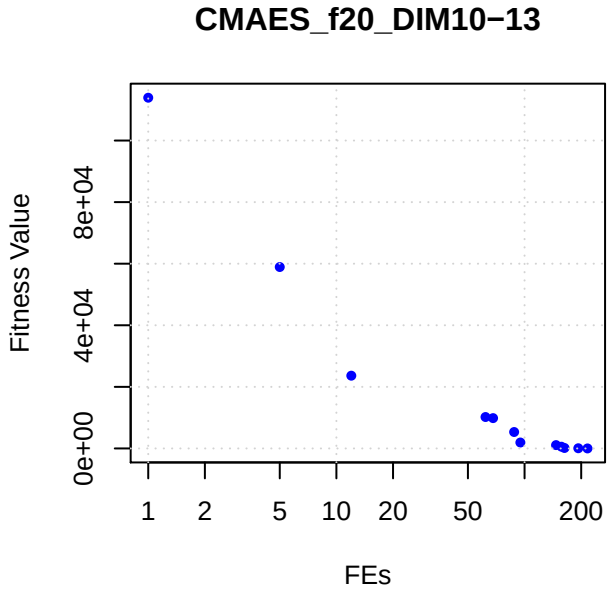
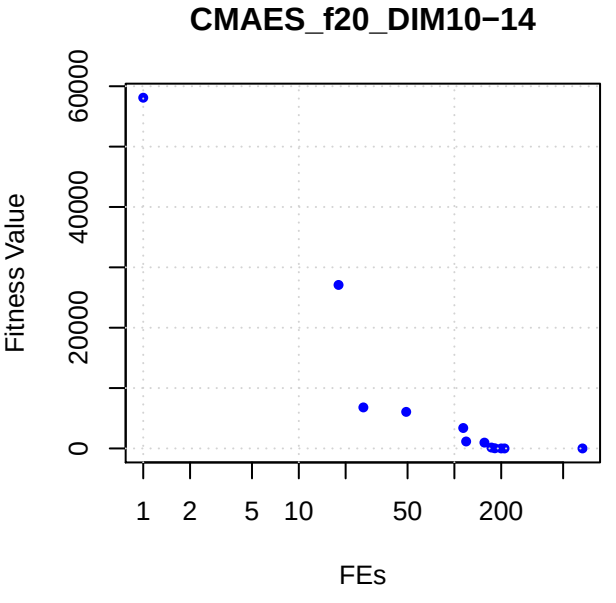
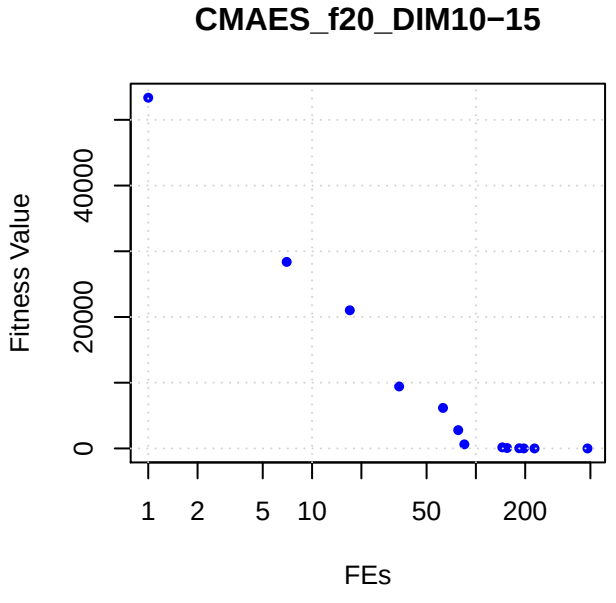
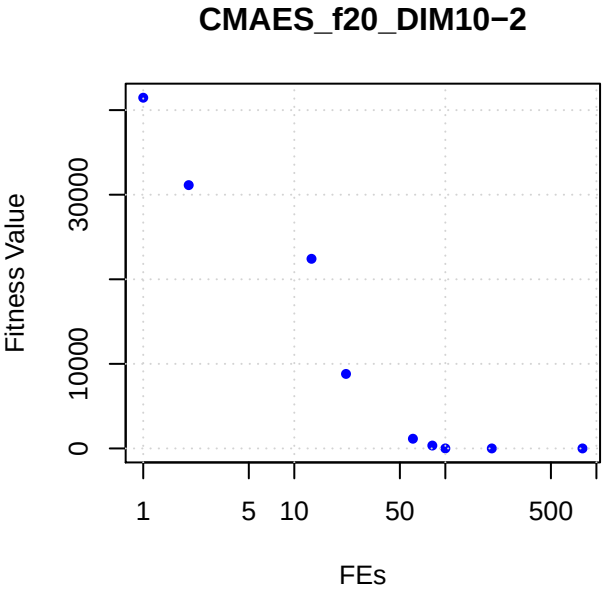
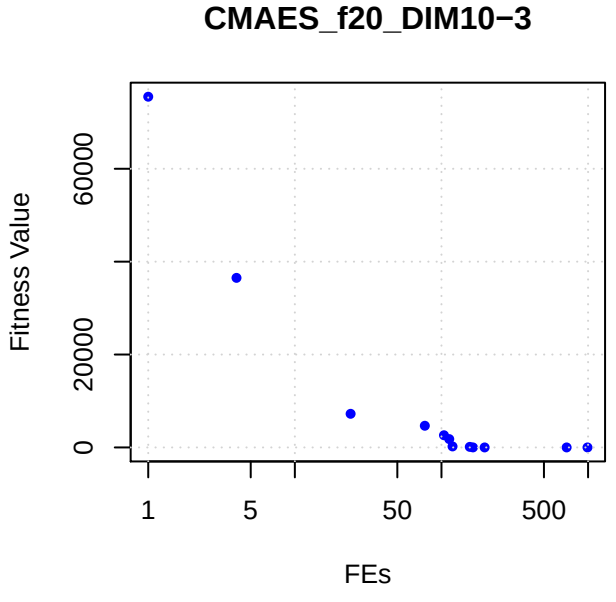
100000
250000
1
2
5
10
50
200
FEs

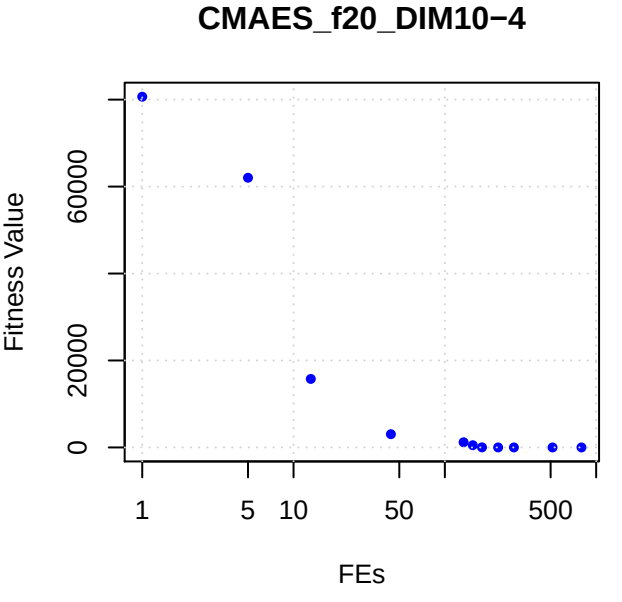

CMAES_f20_DIM10−13
Fitness Value
0e+00
4e+04
8e+04
1
2
5
10
20
50
200
FEs

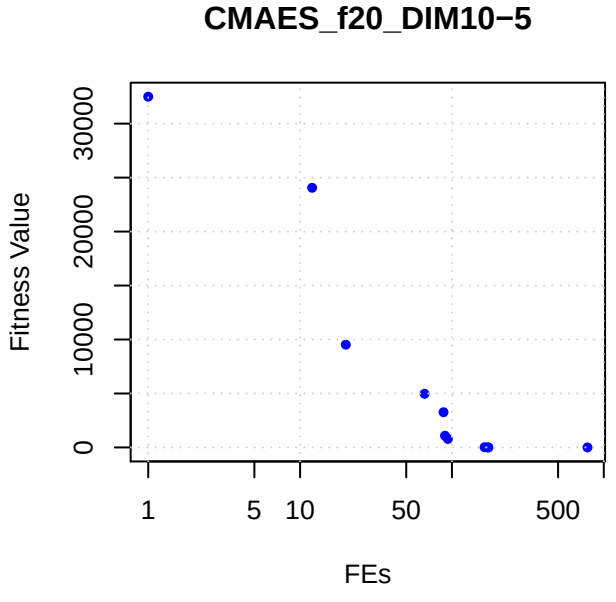

CMAES_f20_DIM10−14
Fitness Value
0
20000
40000
60000
1
2
5
10
50
200
FEs

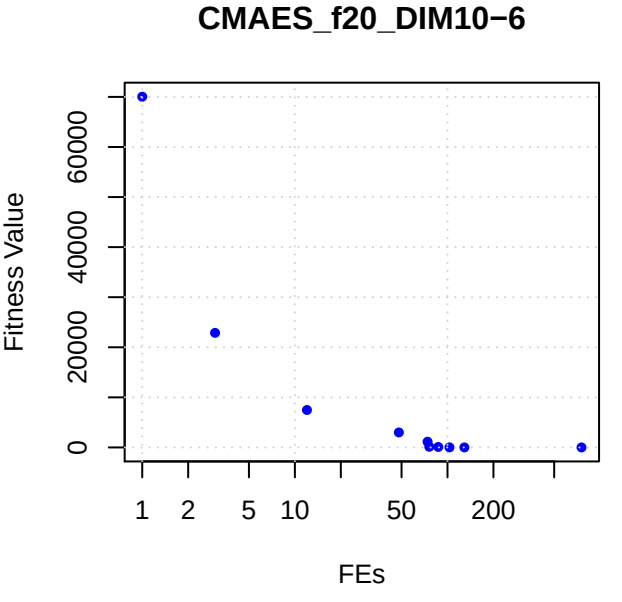

CMAES_f20_DIM10−15
Fitness Value
0
20000
40000
1
2
5
10
50
200
FEs

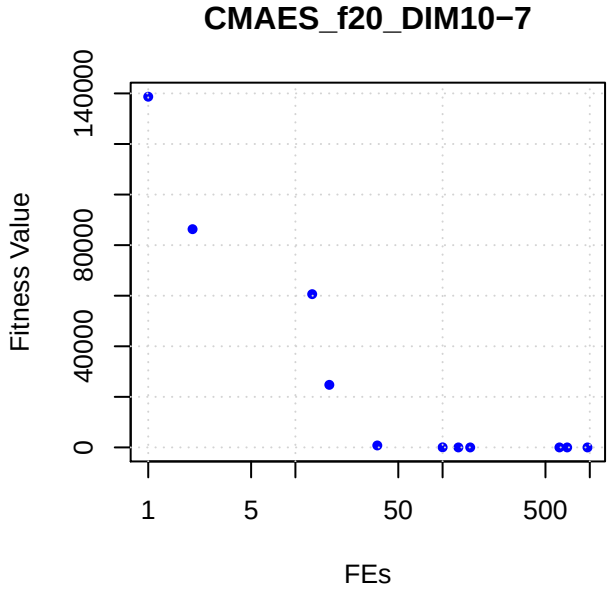

CMAES_f20_DIM10−2
Fitness Value
0
10000
30000
1
5
10
50
500
FEs


CMAES_f20_DIM10−3
Fitness Value
0
20000
60000
1
5
50
500
FEs


CMAES_f20_DIM10−4
Fitness Value
0
20000
60000
1
5
10
50
500
FEs


CMAES_f20_DIM10−5
Fitness Value
0
10000
20000
30000
1
5
10
50
500
FEs


CMAES_f20_DIM10−6
Fitness Value
0
20000
40000
60000
1
2
5
10
50
200
FEs


CMAES_f20_DIM10−7
Fitness Value
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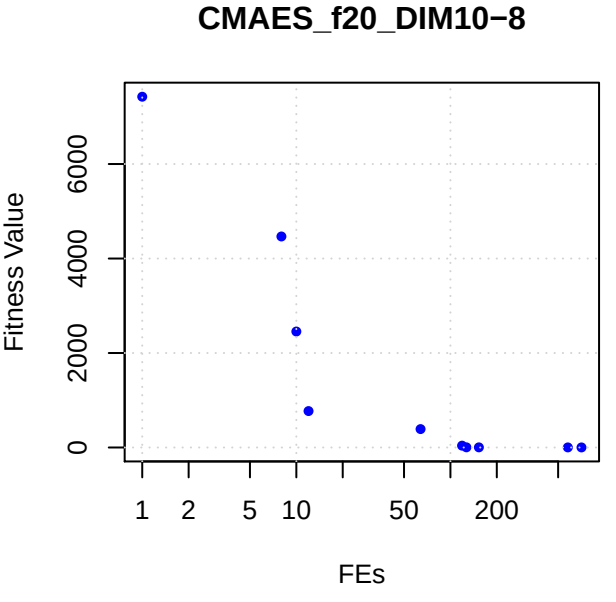
80000
140000
1
5
50
500
FEs


CMAES_f20_DIM10−8
Fitness Value
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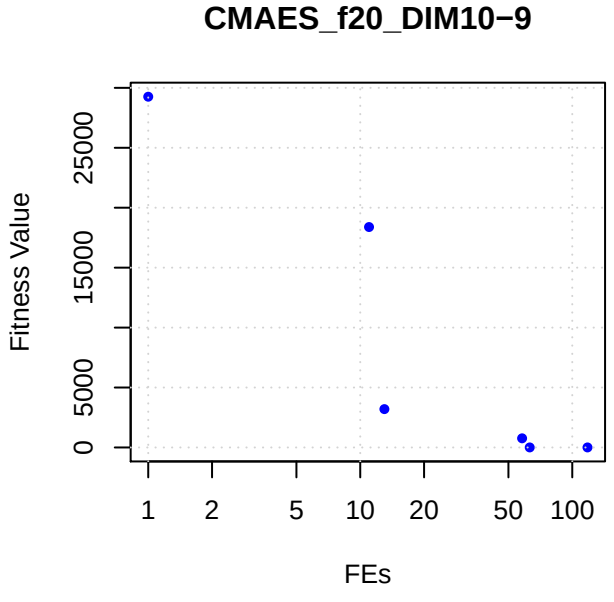
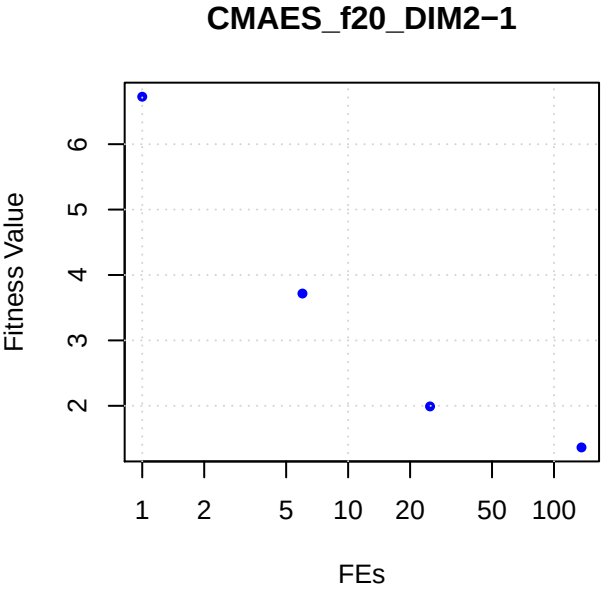
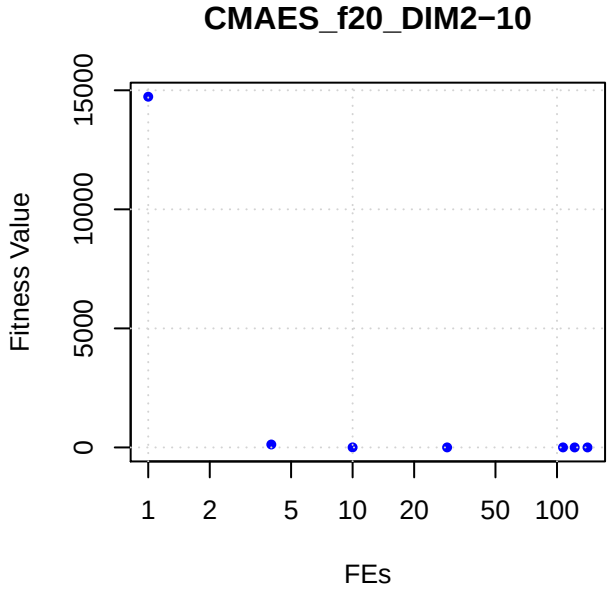
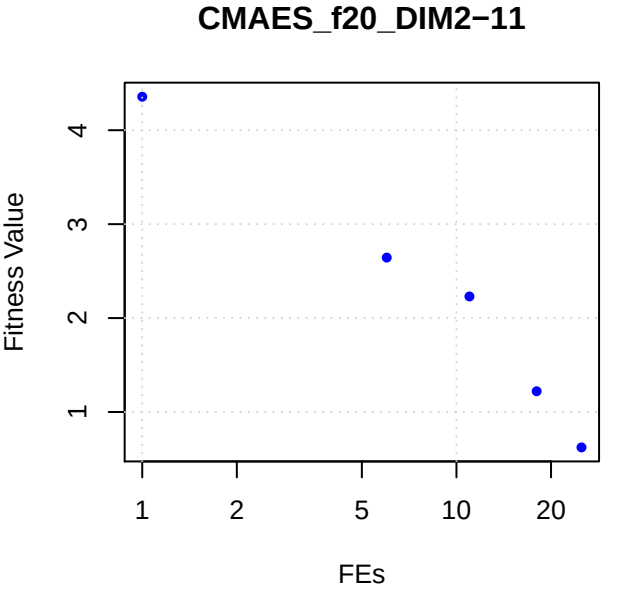
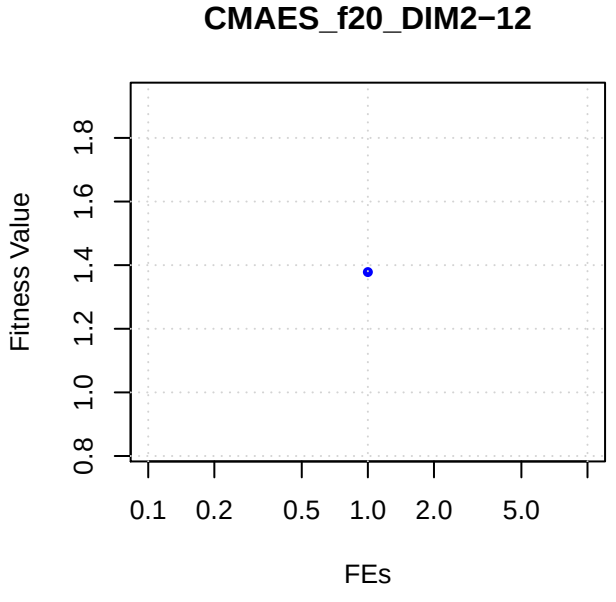
2000
4000
6000
1
2
5
10
50
200
FEs

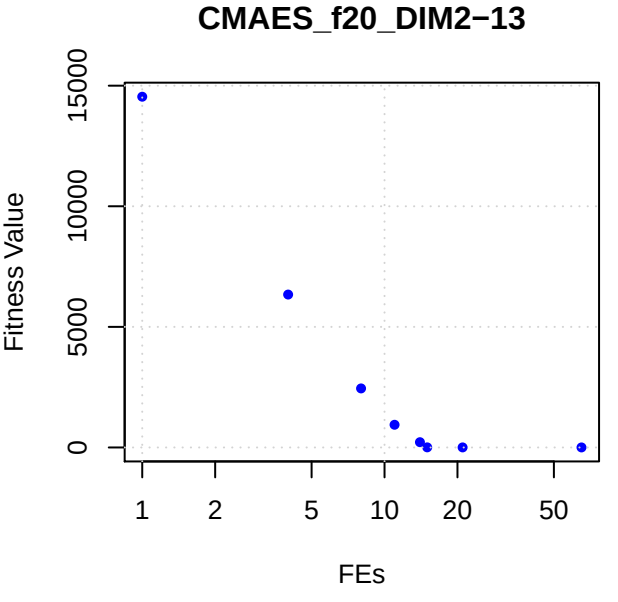

CMAES_f20_DIM10−9
Fitness Value
0
5000
15000
25000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM2−1
Fitness Value
2
3
4
5
6
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM2−10
Fitness Value
0
5000
10000
15000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM2−11
Fitness Value
1
2
3
4
1
2
5
10
20
FEs


CMAES_f20_DIM2−12
Fitness Value
0.8
1.0
1.2
1.4
1.6
1.8
0.1
0.2
0.5
1.0
2.0
5.0
FEs


CMAES_f20_DIM2−13
Fitness Value
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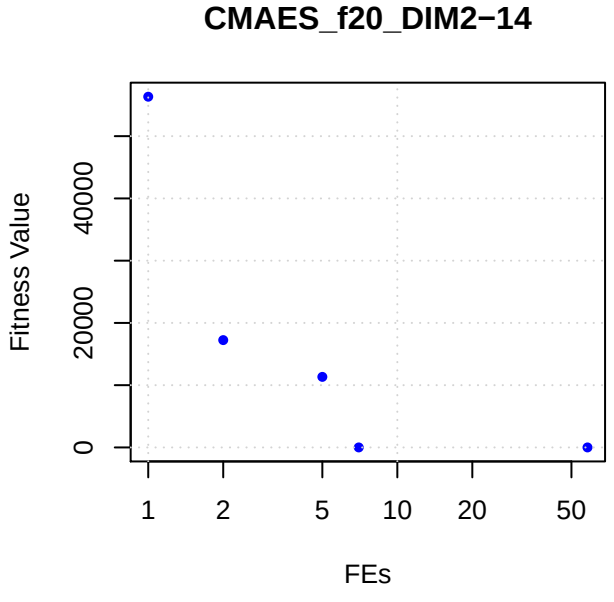
5000
10000
15000
1
2
5
10
20
50
FEs


CMAES_f20_DIM2−14
Fitness Value
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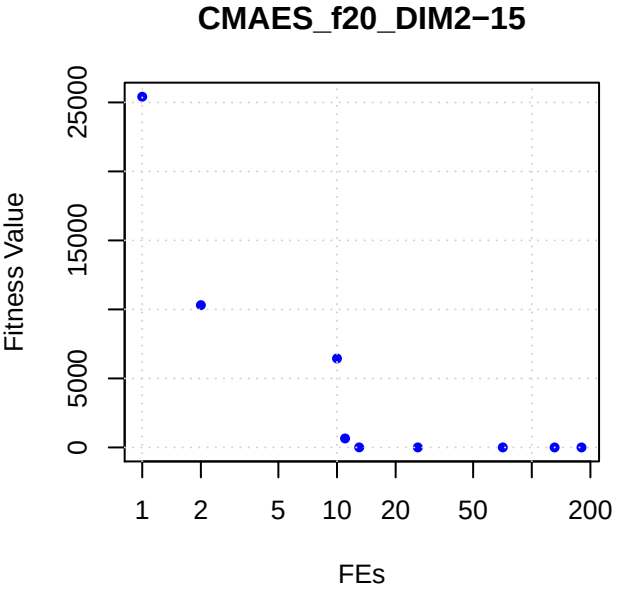
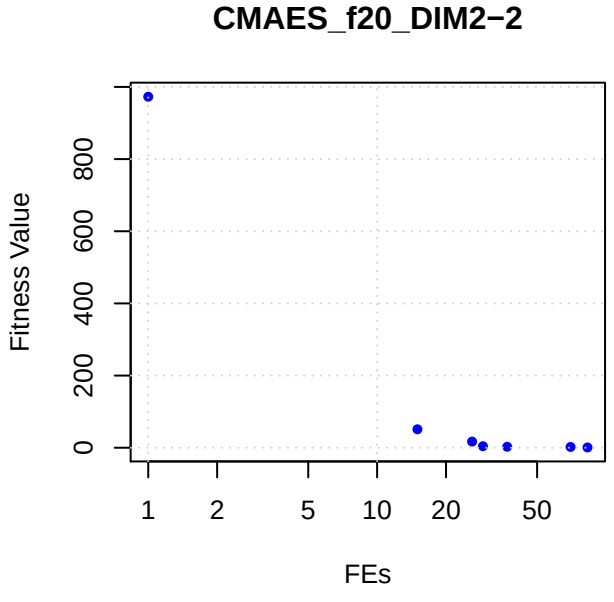
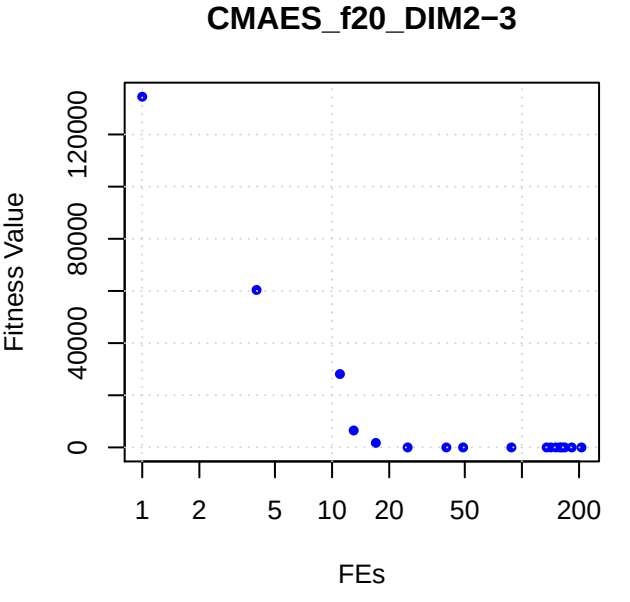
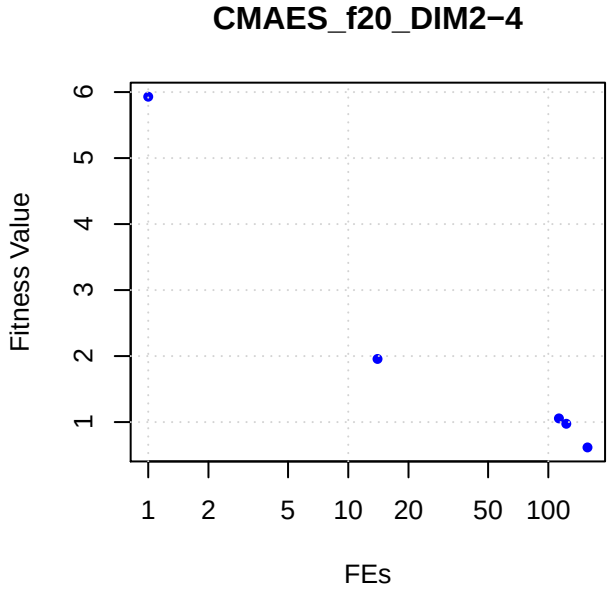
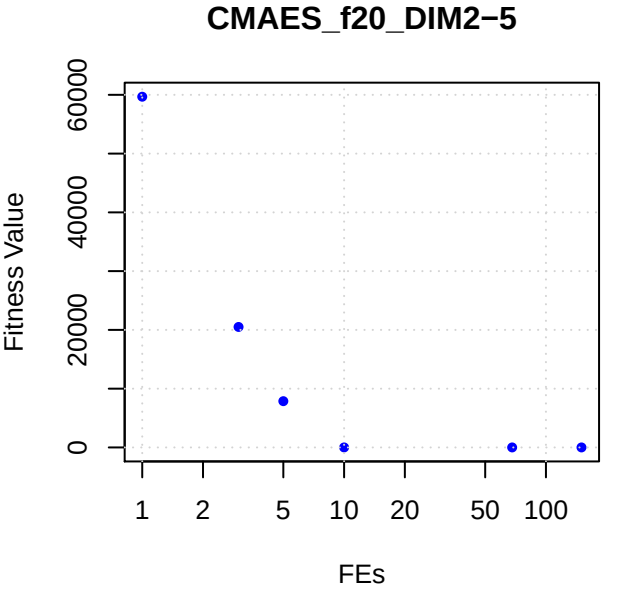
20000
40000
1
2
5
10
20
50
FEs

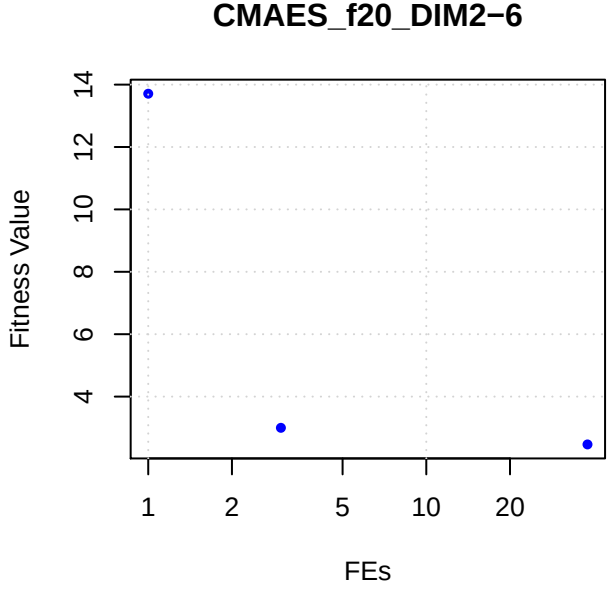

CMAES_f20_DIM2−15
Fitness Value
0
5000
15000
25000
1
2
5
10
20
50
200
FEs

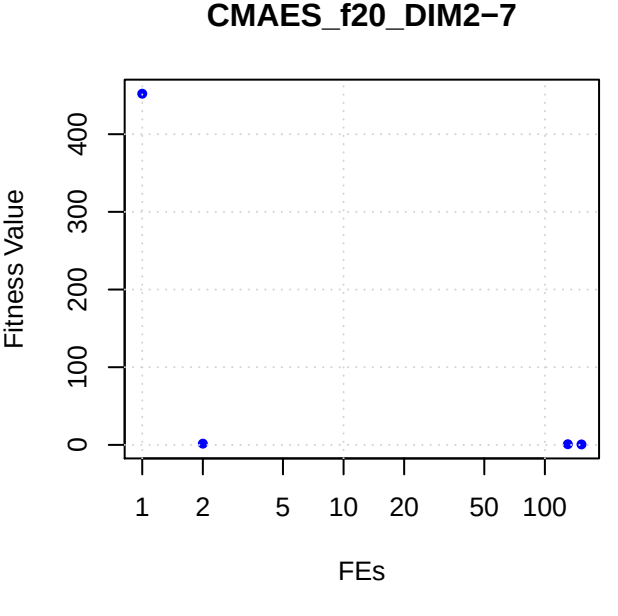

CMAES_f20_DIM2−2
Fitness Value
0
200
400
600
800
1
2
5
10
20
50
FEs

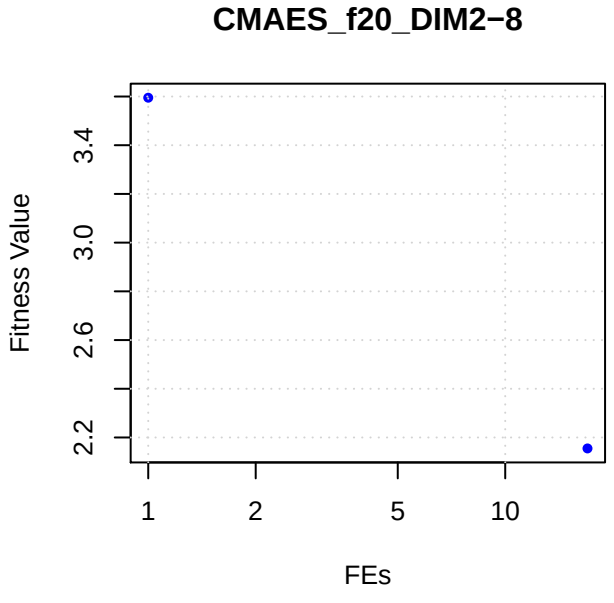

CMAES_f20_DIM2−3
Fitness Value
0
40000
80000
120000
1
2
5
10
20
50
200
FEs

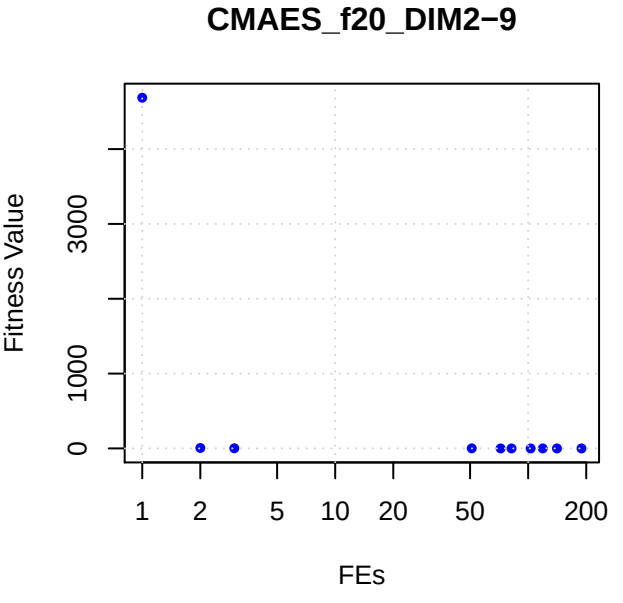

CMAES_f20_DIM2−4
Fitness Value
1
2
3
4
5
6
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM2−5
Fitness Value
0
20000
40000
60000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM2−6
Fitness Value
4
6
8
10
12
14
1
2
5
10
20
FEs


CMAES_f20_DIM2−7
Fitness Value
0
100
200
300
400
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM2−8
Fitness Value
2.2
2.6
3.0
3.4
1
2
5
10
FEs


CMAES_f20_DIM2−9
Fitness Value
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1000
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1
2
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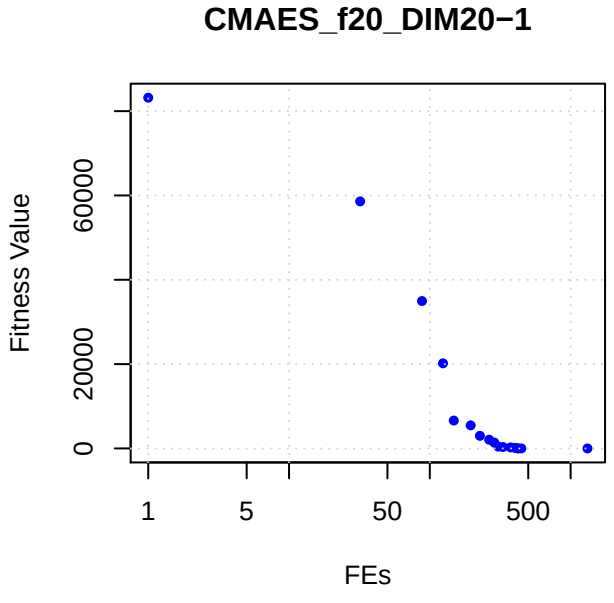
20
50
200
FEs


CMAES_f20_DIM20−1
Fitness Value
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20000
60000
1
5
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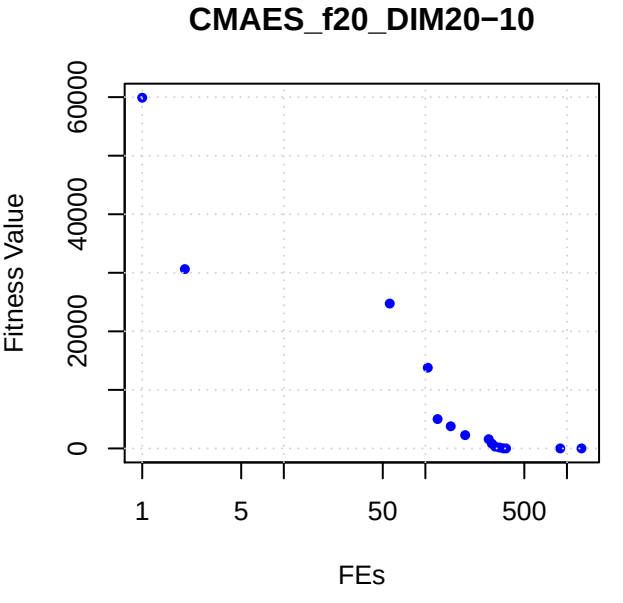
500
FEs


CMAES_f20_DIM20−10
Fitness Value
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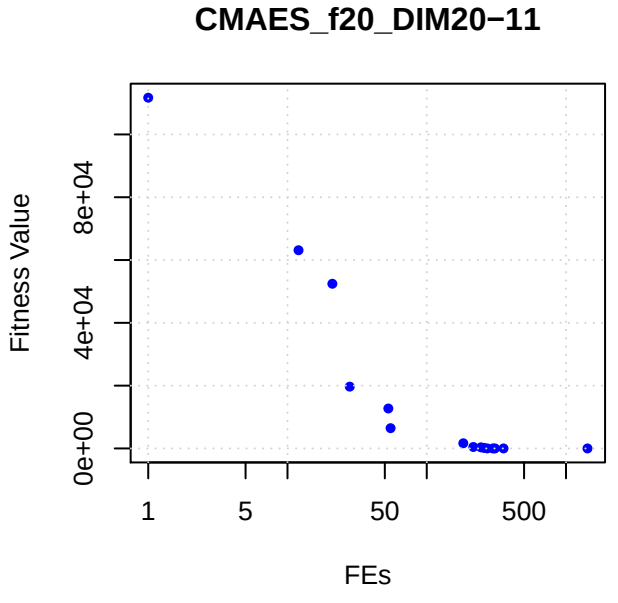
20000
40000
60000
1
5
50
500
FEs


CMAES_f20_DIM20−11
Fitness Value
0e+00
4e+04
8e+04
1
5
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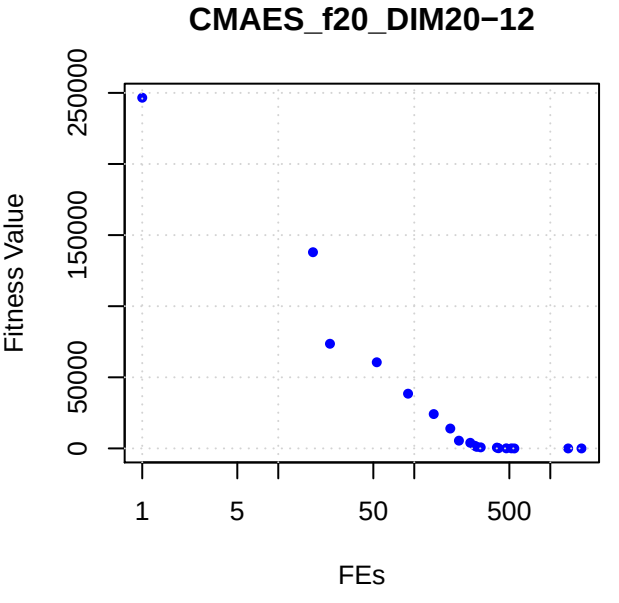
500
FEs


CMAES_f20_DIM20−12
Fitness Value
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150000
250000
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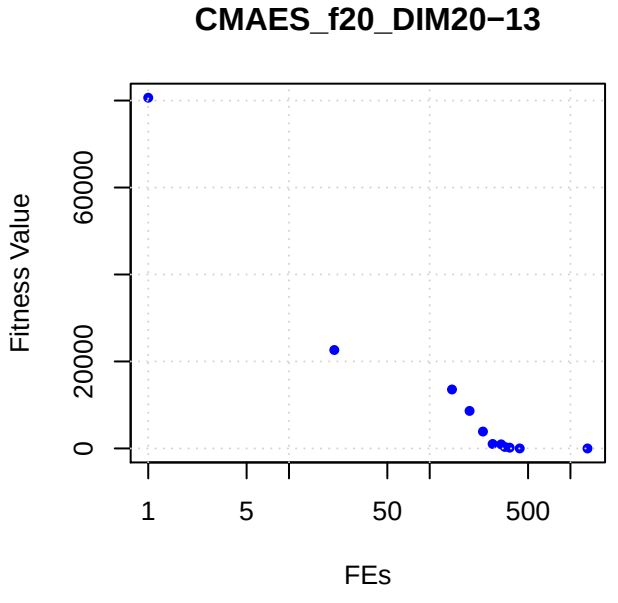
500
FEs


CMAES_f20_DIM20−13
Fitness Value
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1
5
50
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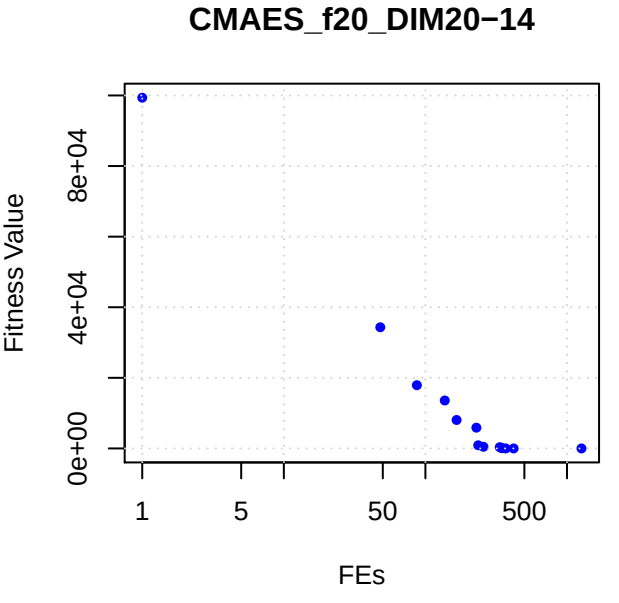
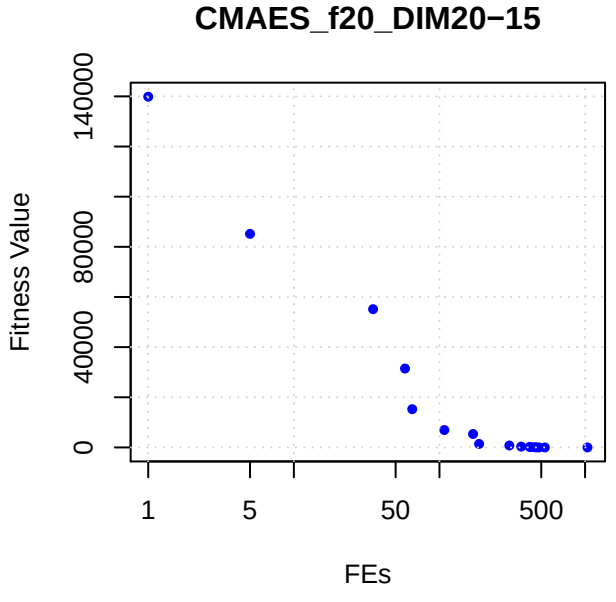
FEs


CMAES_f20_DIM20−14
Fitness Value
0e+00
4e+04
8e+04
1
5
50
500
FEs


CMAES_f20_DIM20−15
Fitness Value
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140000
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5
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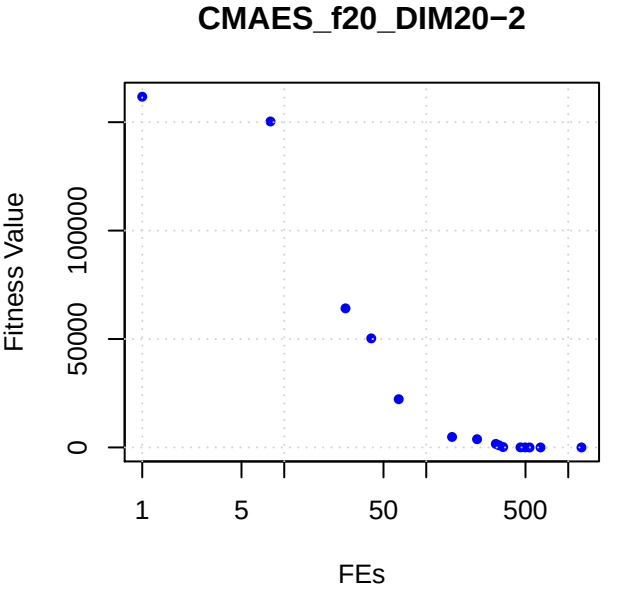
500
FEs


CMAES_f20_DIM20−2
Fitness Value
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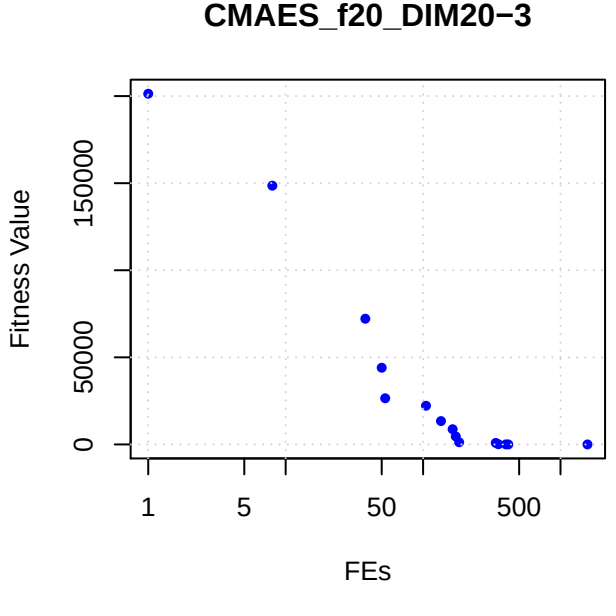
100000
1
5
50
500
FEs


CMAES_f20_DIM20−3
Fitness Value
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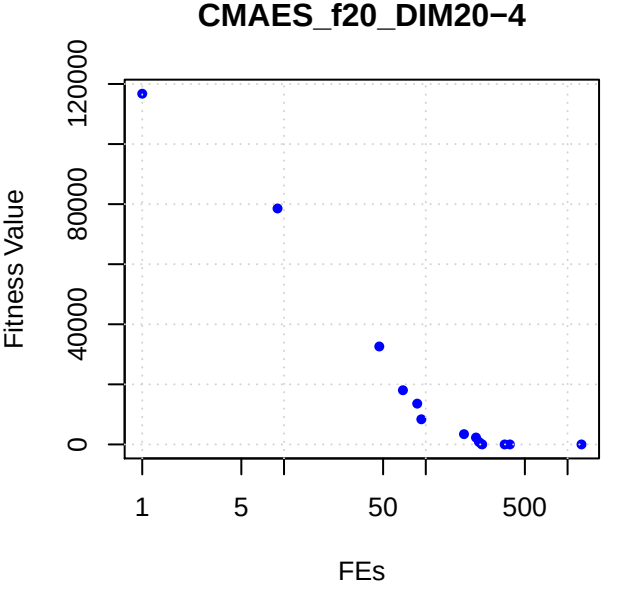
150000
1
5
50
500
FEs


CMAES_f20_DIM20−4
Fitness Value
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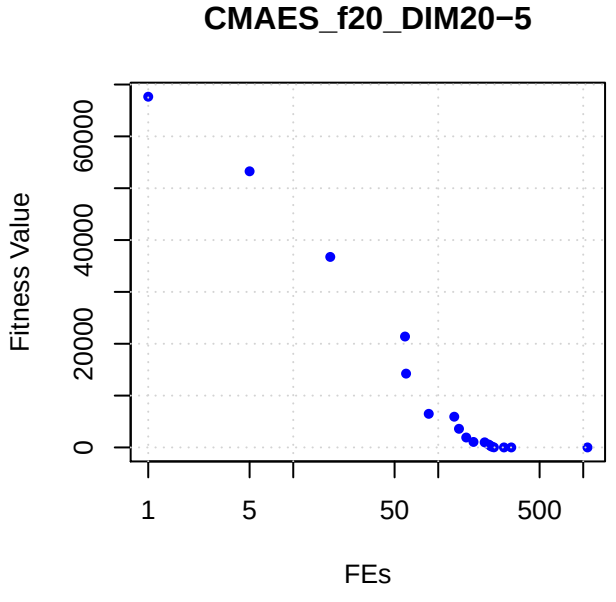
80000
120000
1
5
50
500
FEs


CMAES_f20_DIM20−5
Fitness Value
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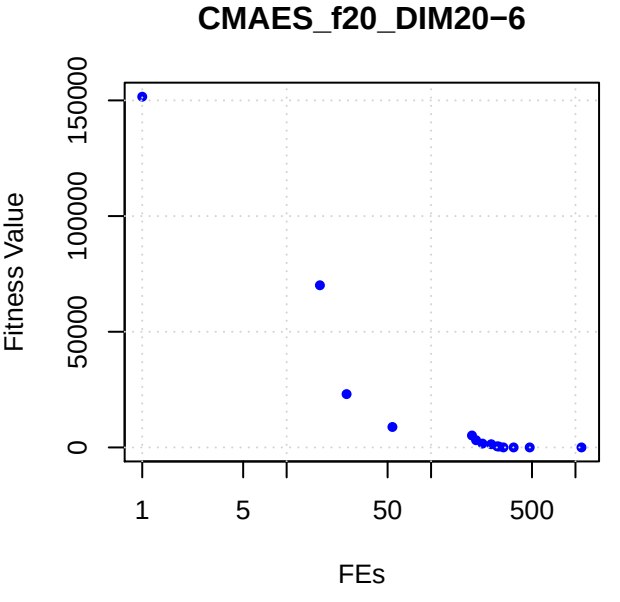
40000
60000
1
5
50
500
FEs


CMAES_f20_DIM20−6
Fitness Value
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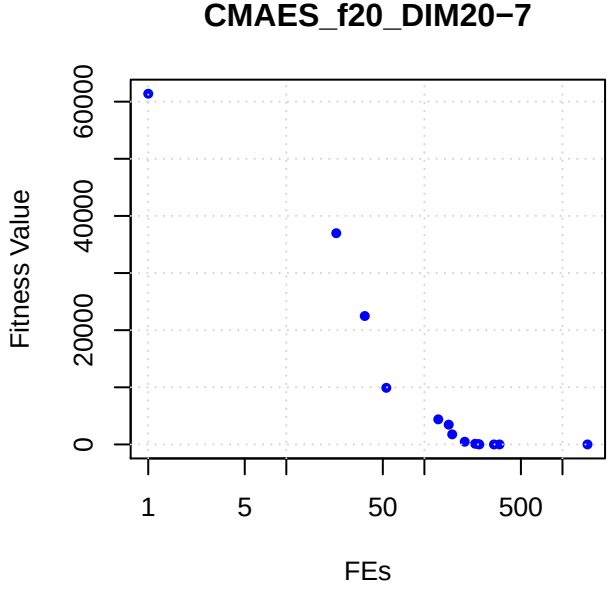
100000
150000
1
5
50
500
FEs


CMAES_f20_DIM20−7
Fitness Value
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40000
60000
1
5
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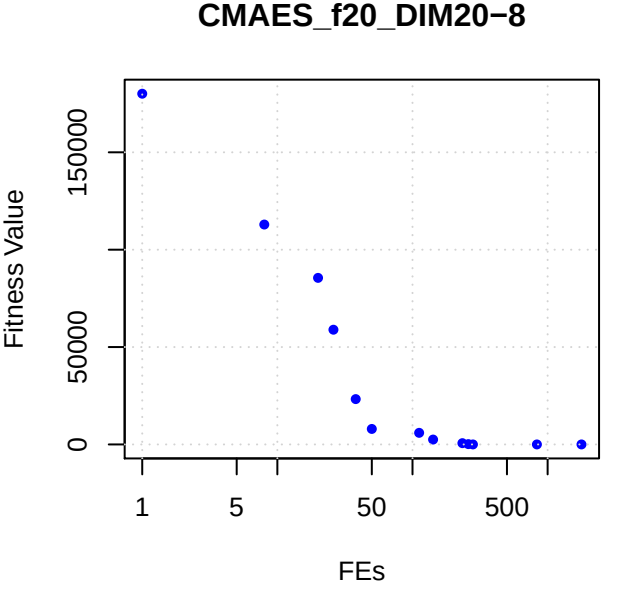
500
FEs


CMAES_f20_DIM20−8
Fitness Value
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1
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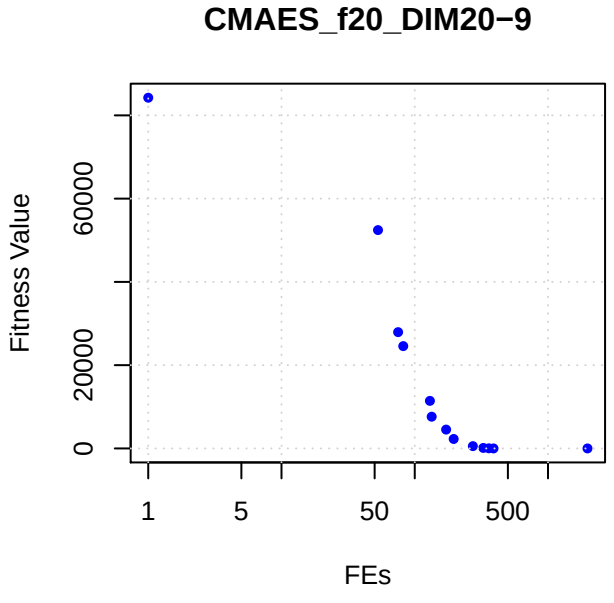
FEs


CMAES_f20_DIM20−9
Fitness Value
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20000
60000
1
5
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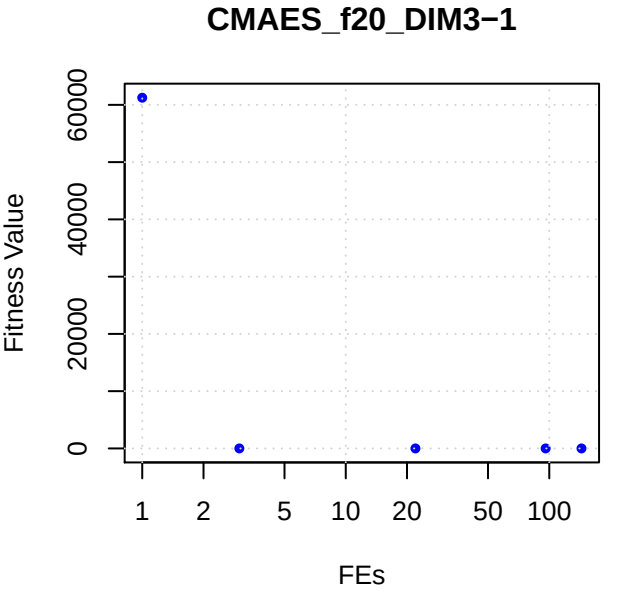
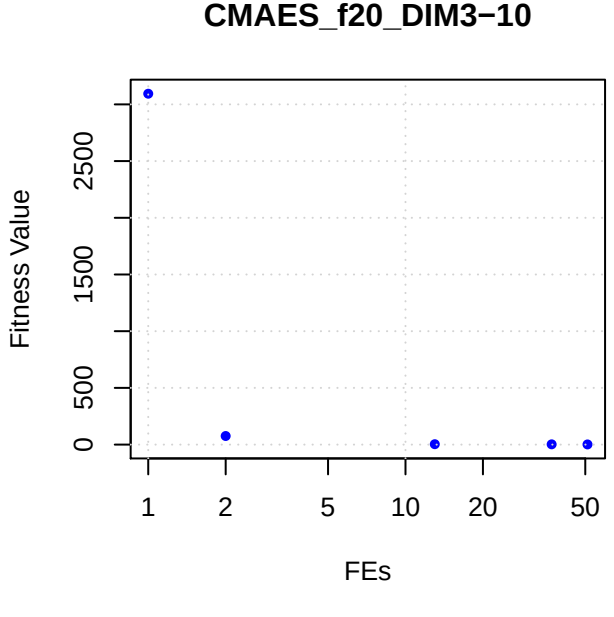
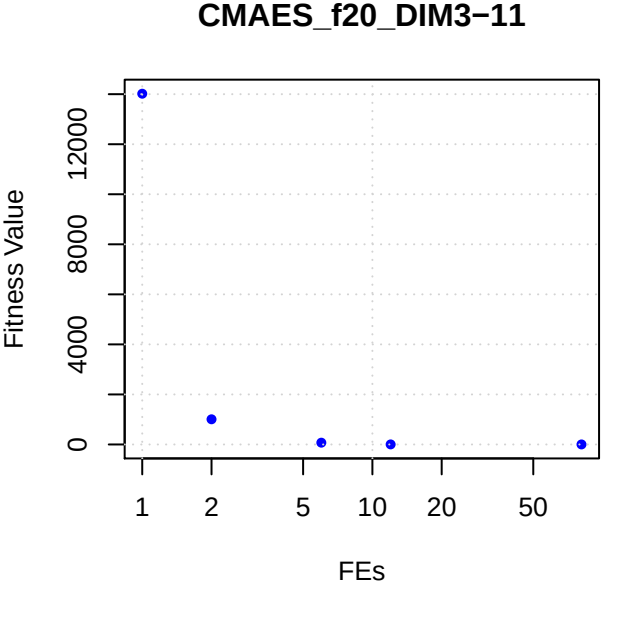
500
FEs


CMAES_f20_DIM3−1
Fitness Value
0
20000
40000
60000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM3−10
Fitness Value
0
500
1500
2500
1
2
5
10
20
50
FEs


CMAES_f20_DIM3−11
Fitness Value
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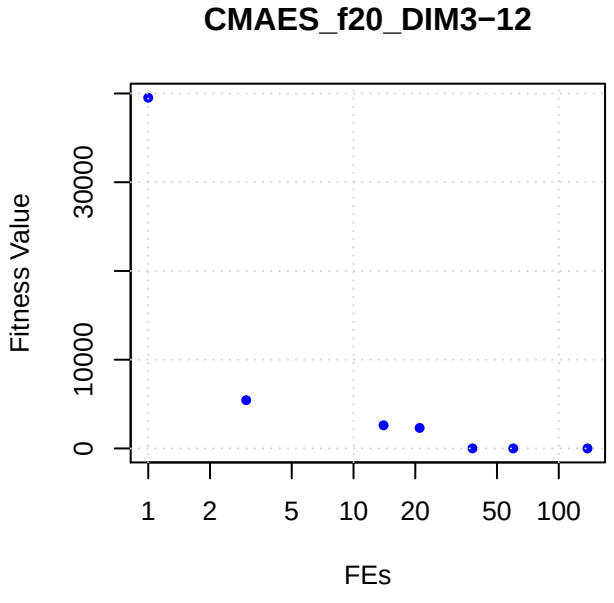
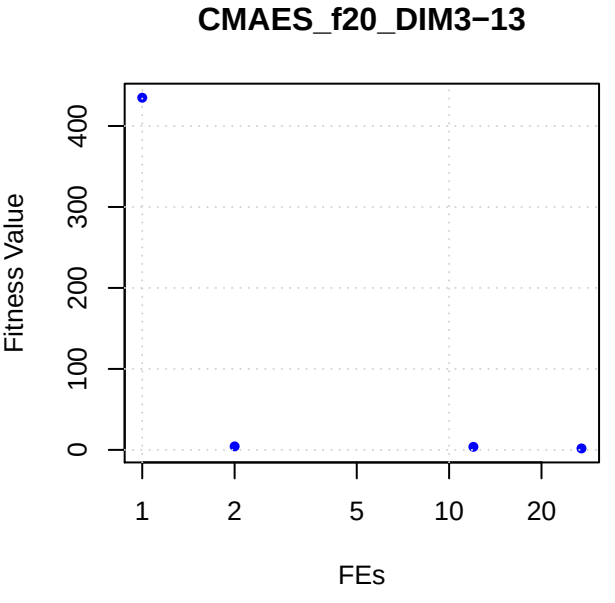
12000
1
2
5
10
20
50
FEs


CMAES_f20_DIM3−12
Fitness Value
0
10000
30000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM3−13
Fitness Value
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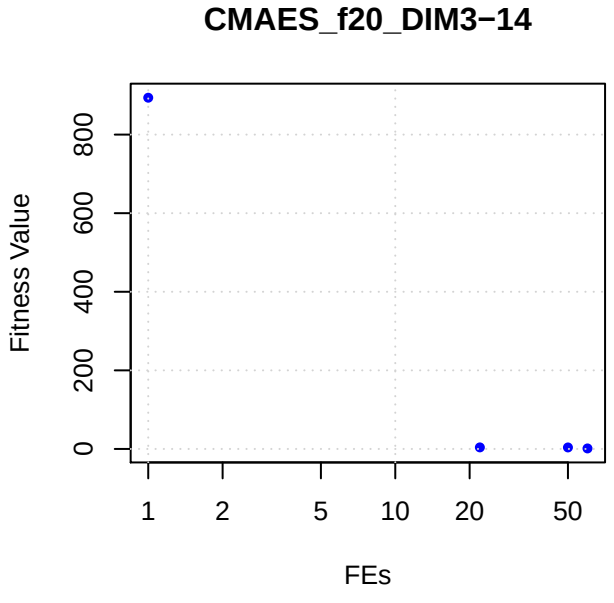
100
200
300
400
1
2
5
10
20
FEs


CMAES_f20_DIM3−14
Fitness Value
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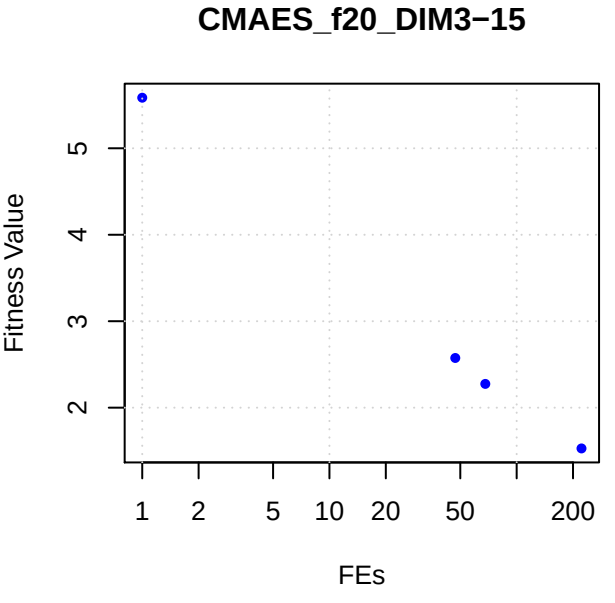
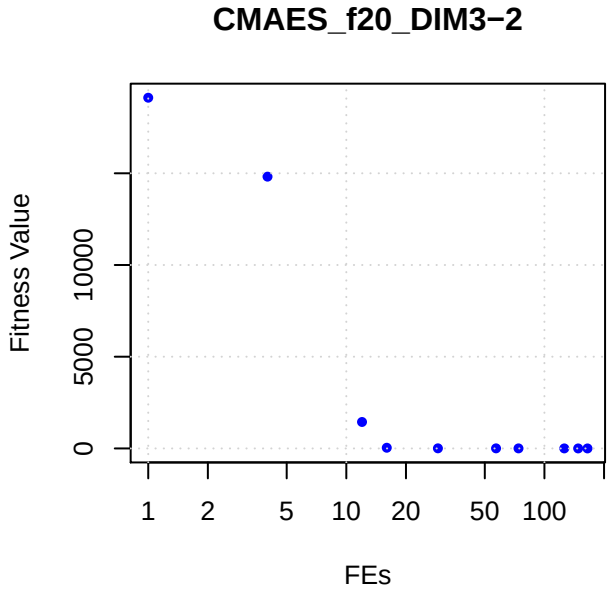
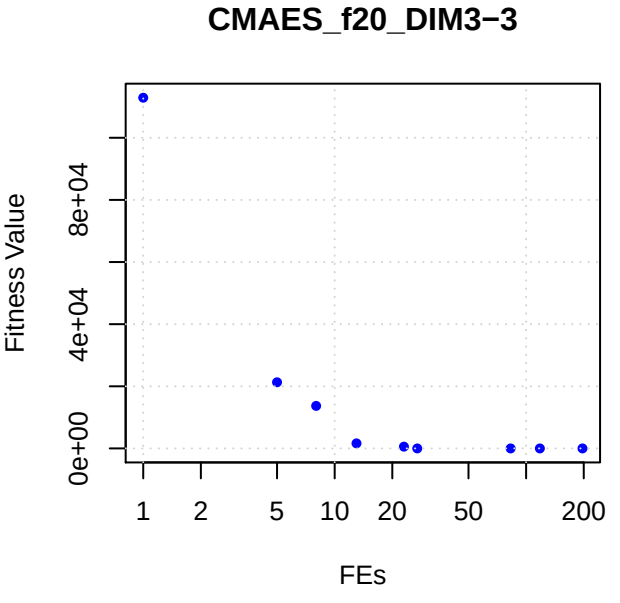
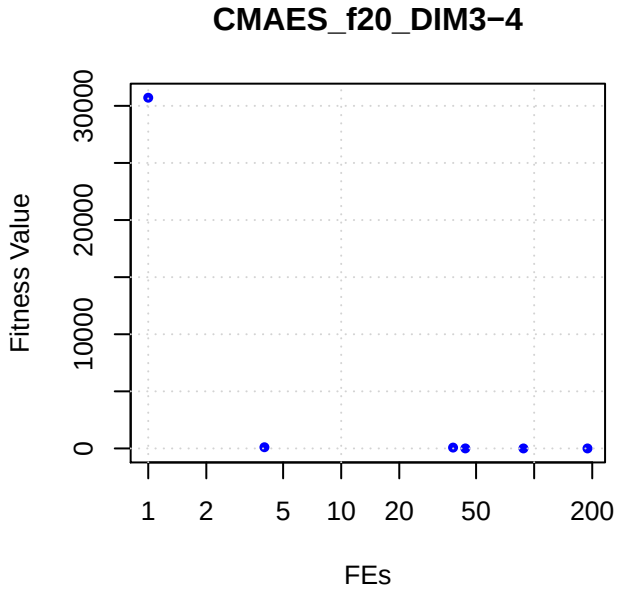
200
400
600
800
1
2
5
10
20
50
FEs


CMAES_f20_DIM3−15
Fitness Value
2
3
4
5
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM3−2
Fitness Value
0
5000
10000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM3−3
Fitness Value
0e+00
4e+04
8e+04
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM3−4
Fitness Value
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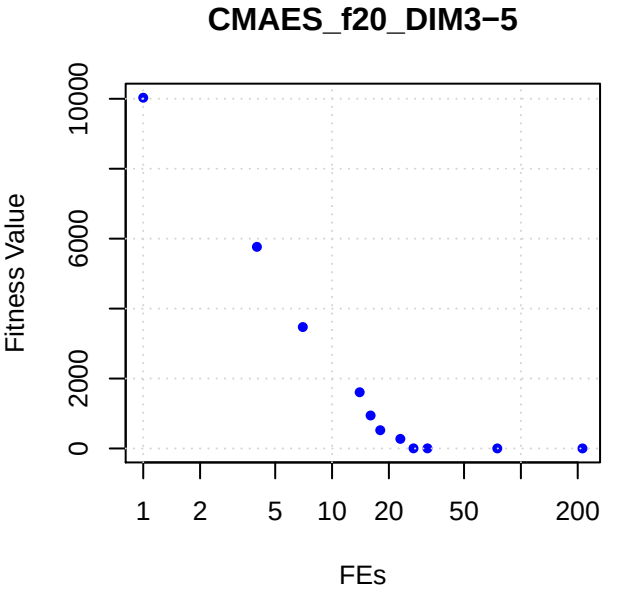
10000
20000
30000
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM3−5
Fitness Value
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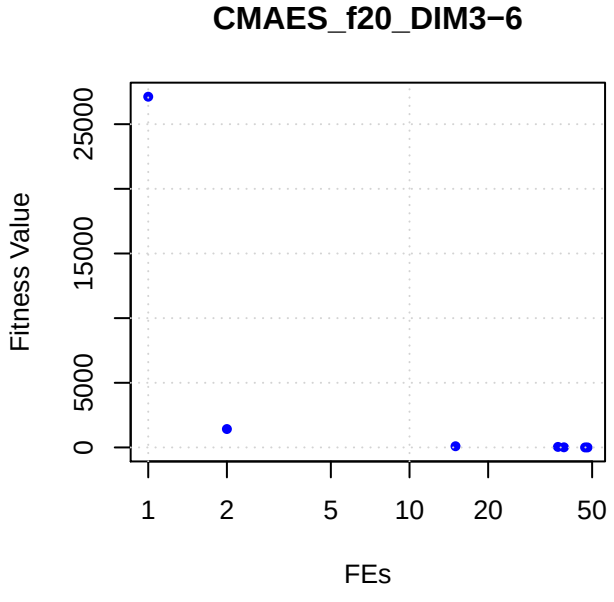
2000
6000
10000
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM3−6
Fitness Value
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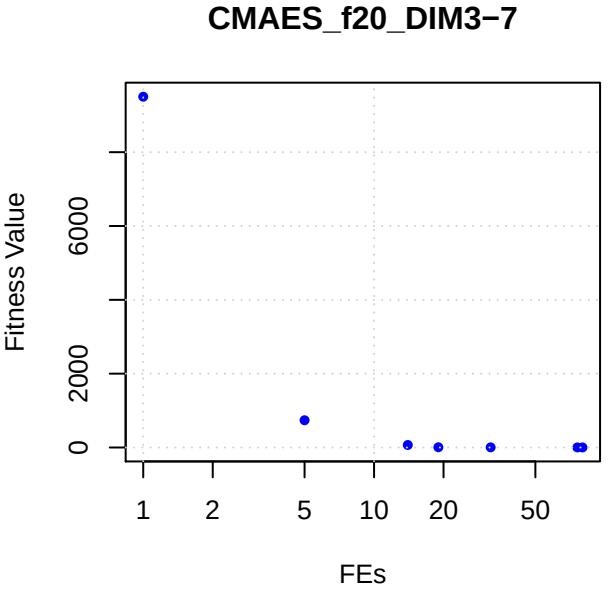
5000
15000
25000
1
2
5
10
20
50
FEs


CMAES_f20_DIM3−7
Fitness Value
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6000
1
2
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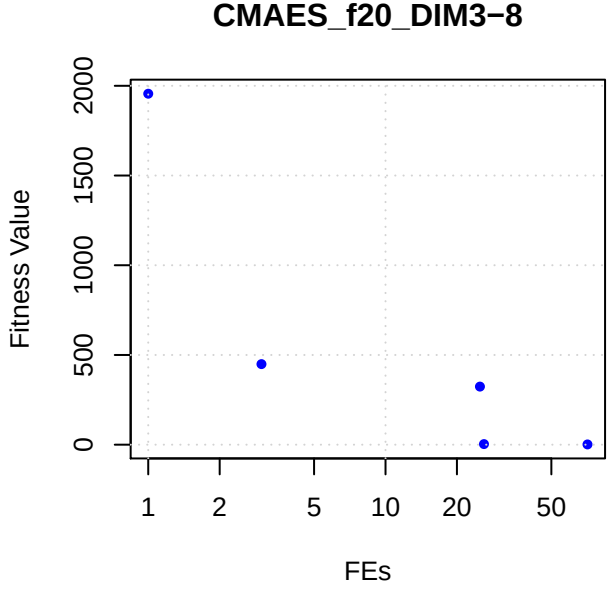
10
20
50
FEs


CMAES_f20_DIM3−8
Fitness Value
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1000
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2000
1
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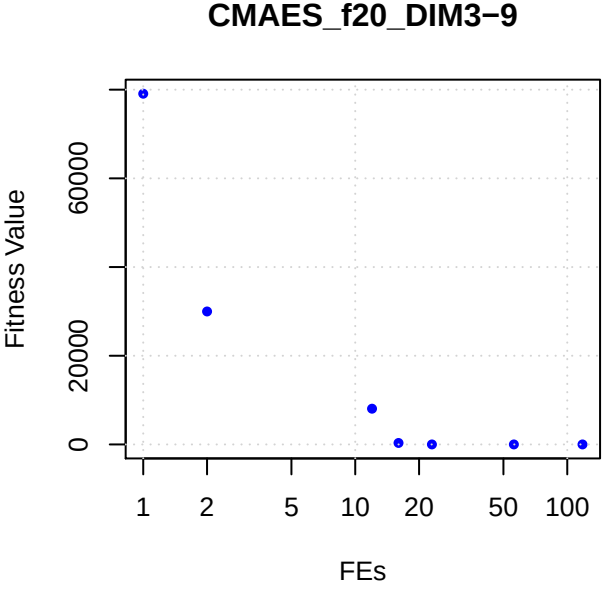
FEs


CMAES_f20_DIM3−9
Fitness Value
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60000
1
2
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10
20
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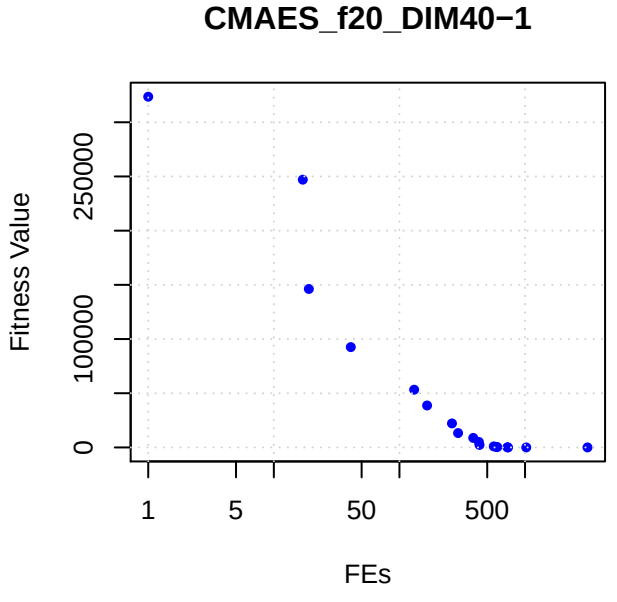
100
FEs


CMAES_f20_DIM40−1
Fitness Value
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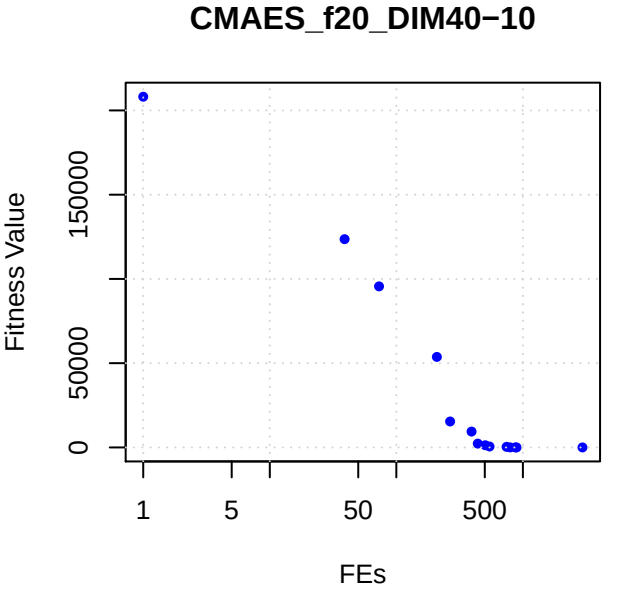
100000
250000
1
5
50
500
FEs


CMAES_f20_DIM40−10
Fitness Value
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150000
1
5
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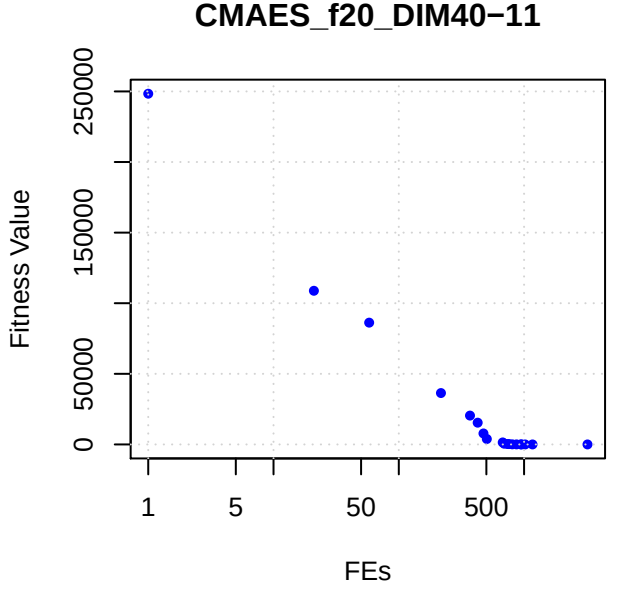
500
FEs


CMAES_f20_DIM40−11
Fitness Value
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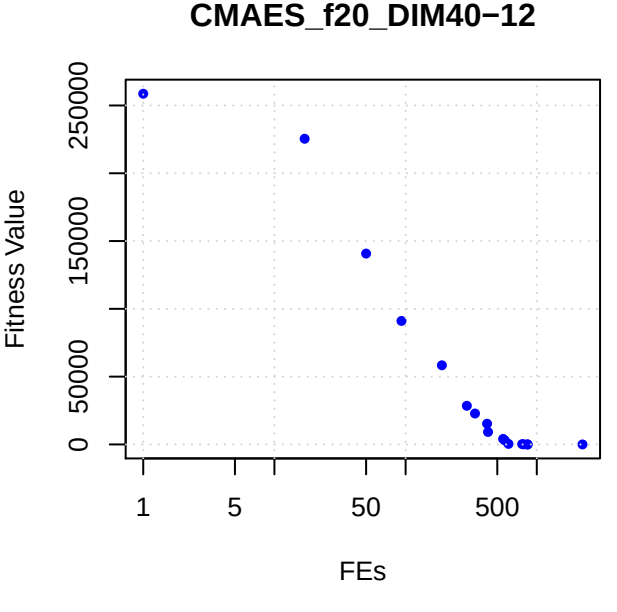
FEs


CMAES_f20_DIM40−12
Fitness Value
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250000
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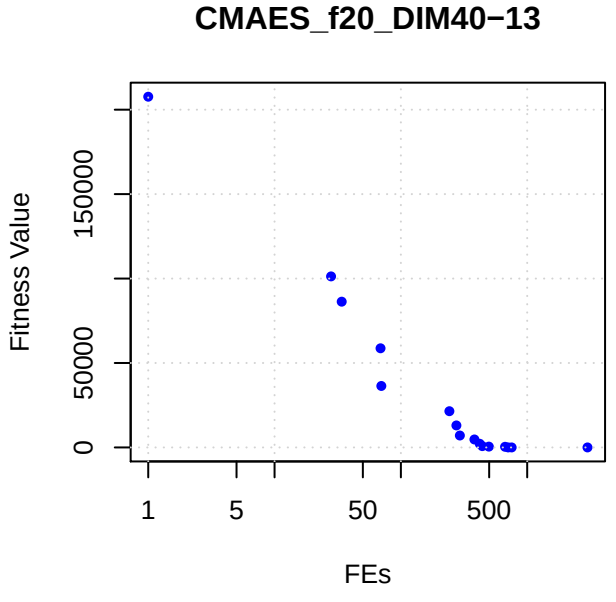
500
FEs


CMAES_f20_DIM40−13
Fitness Value
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50000
150000
1
5
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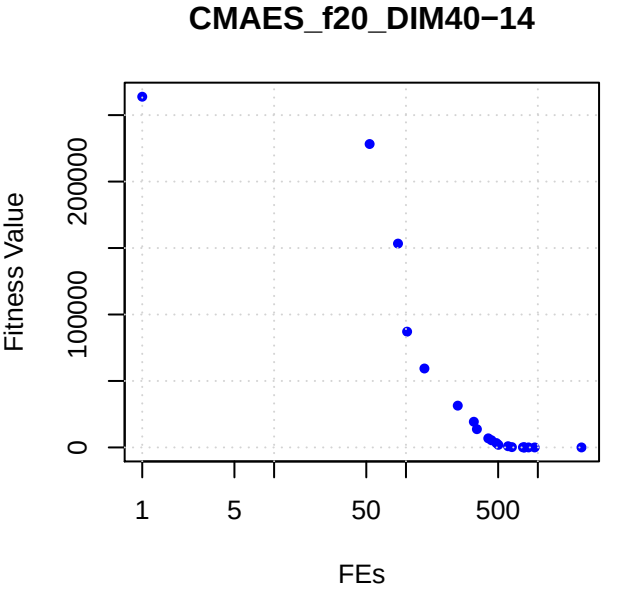
500
FEs


CMAES_f20_DIM40−14
Fitness Value
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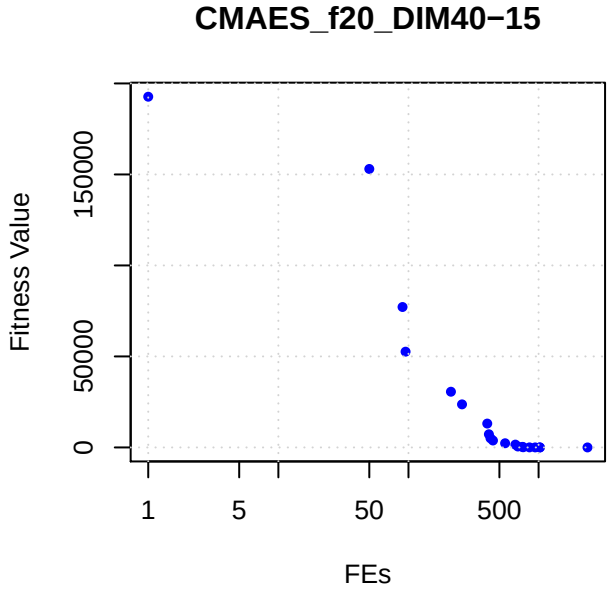
100000
200000
1
5
50
500
FEs


CMAES_f20_DIM40−15
Fitness Value
0
50000
150000
1
5
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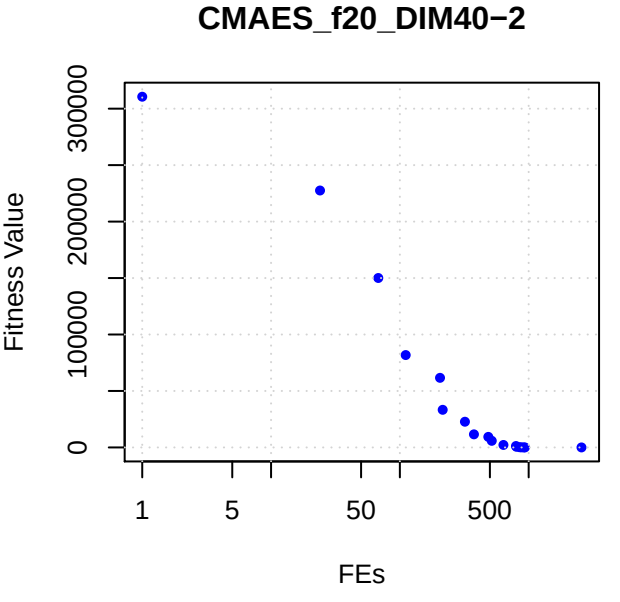
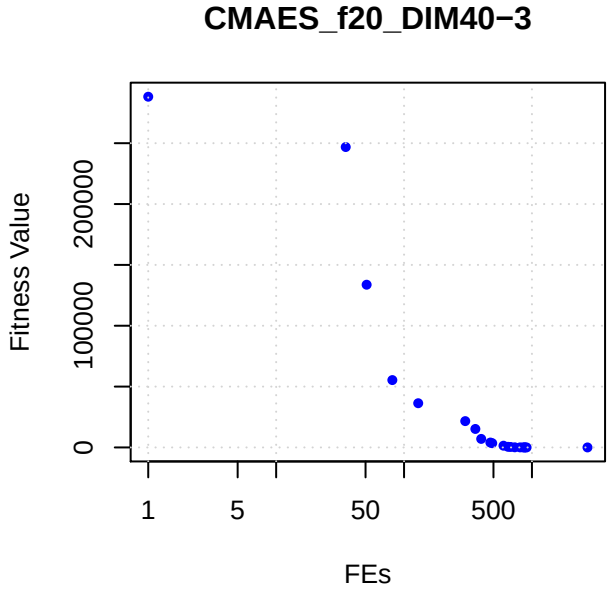
500
FEs


CMAES_f20_DIM40−2
Fitness Value
0
100000
200000
300000
1
5
50
500
FEs


CMAES_f20_DIM40−3
Fitness Value
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200000
1
5
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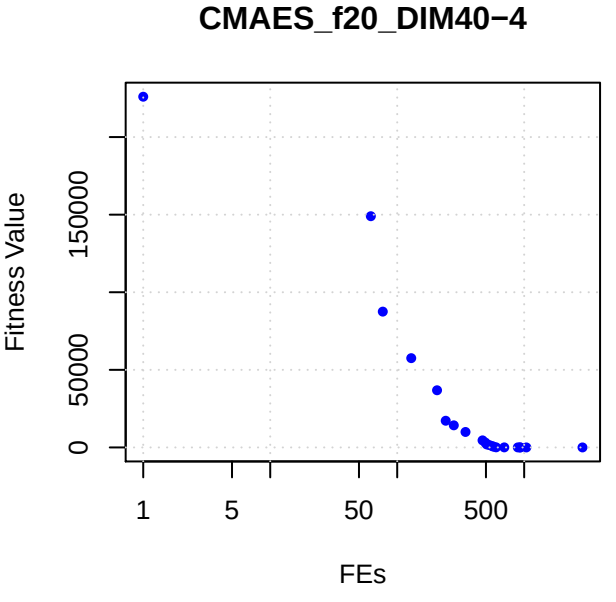
500
FEs


CMAES_f20_DIM40−4
Fitness Value
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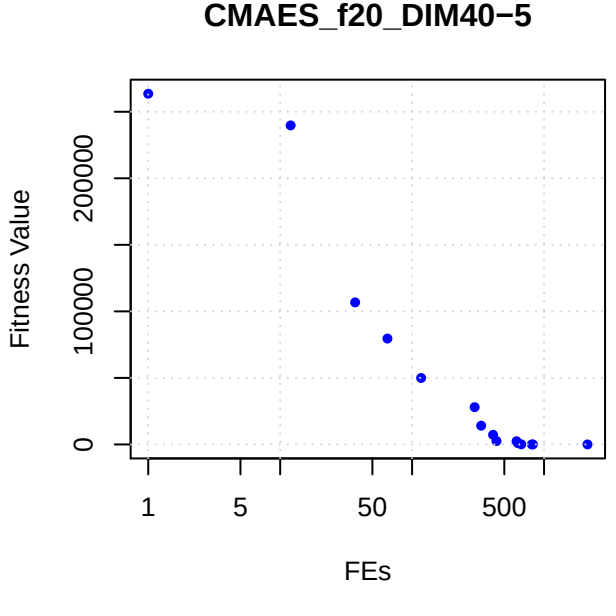
50000
150000
1
5
50
500
FEs


CMAES_f20_DIM40−5
Fitness Value
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100000
200000
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5
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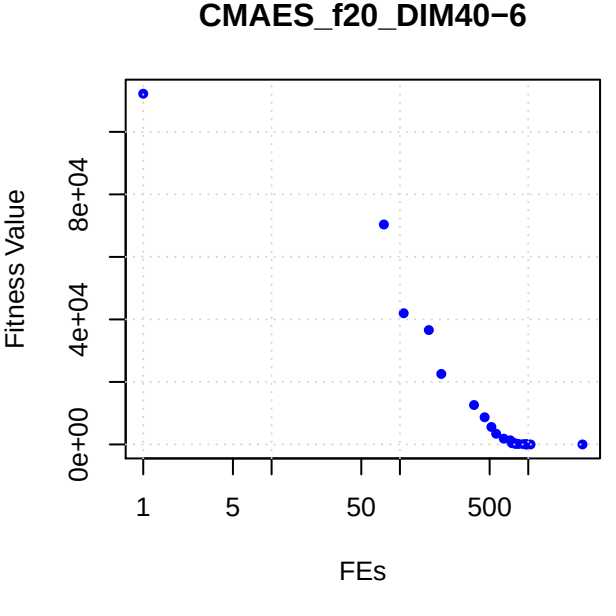
500
FEs


CMAES_f20_DIM40−6
Fitness Value
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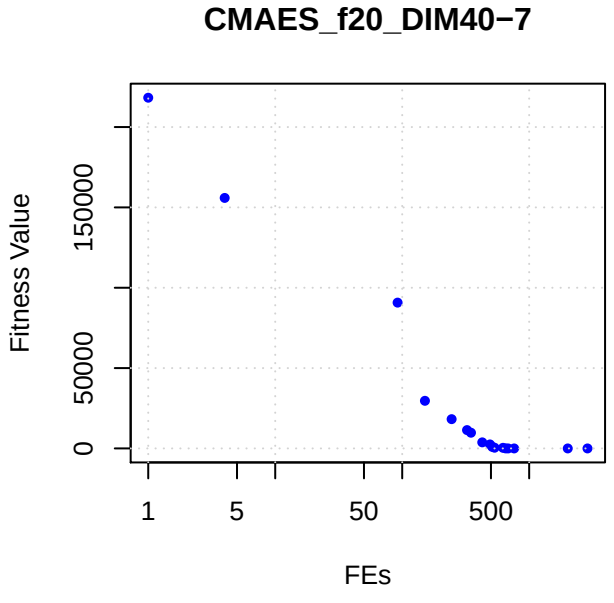
4e+04
8e+04
1
5
50
500
FEs


CMAES_f20_DIM40−7
Fitness Value
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50000
150000
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5
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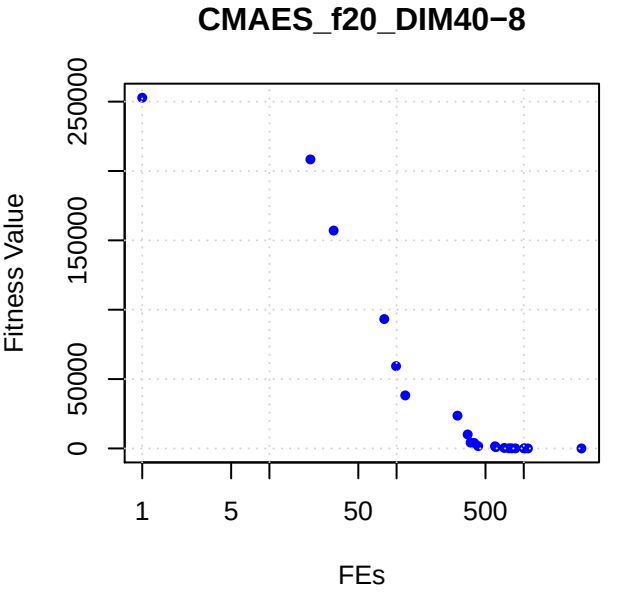
500
FEs


CMAES_f20_DIM40−8
Fitness Value
0
50000
150000
250000
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5
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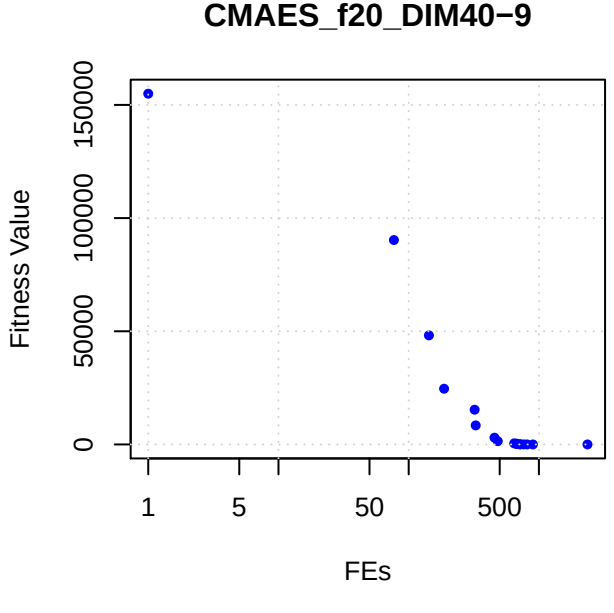
500
FEs


CMAES_f20_DIM40−9
Fitness Value
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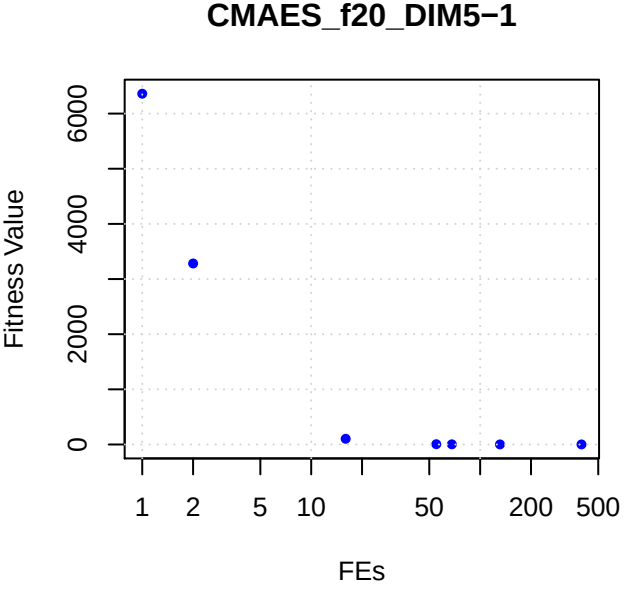
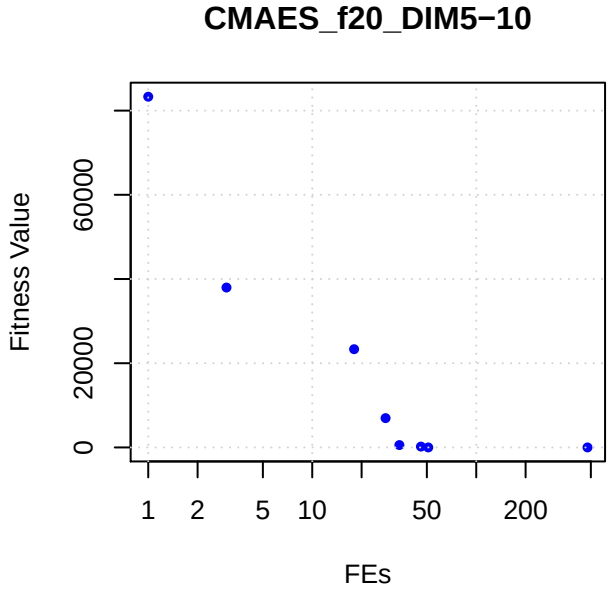
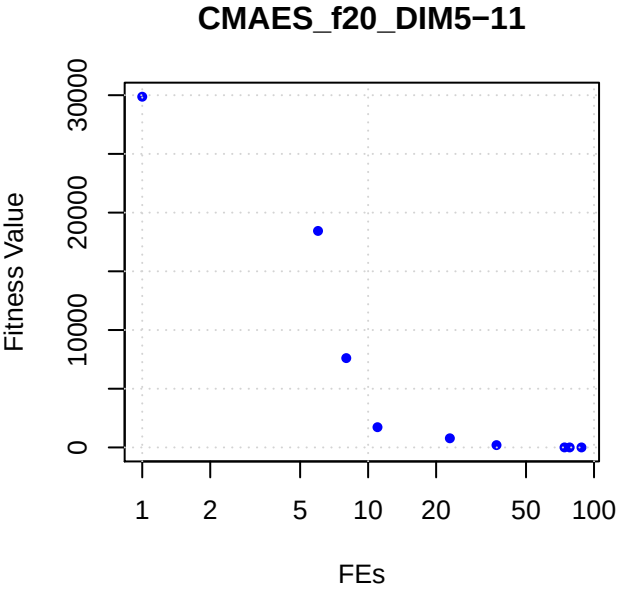
FEs


CMAES_f20_DIM5−1
Fitness Value
0
2000
4000
6000
1
2
5
10
50
200
500
FEs


CMAES_f20_DIM5−10
Fitness Value
0
20000
60000
1
2
5
10
50
200
FEs


CMAES_f20_DIM5−11
Fitness Value
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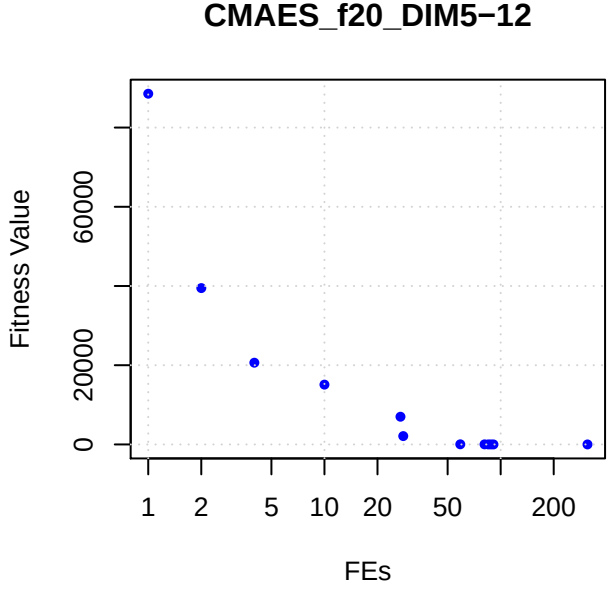
10000
20000
30000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM5−12
Fitness Value
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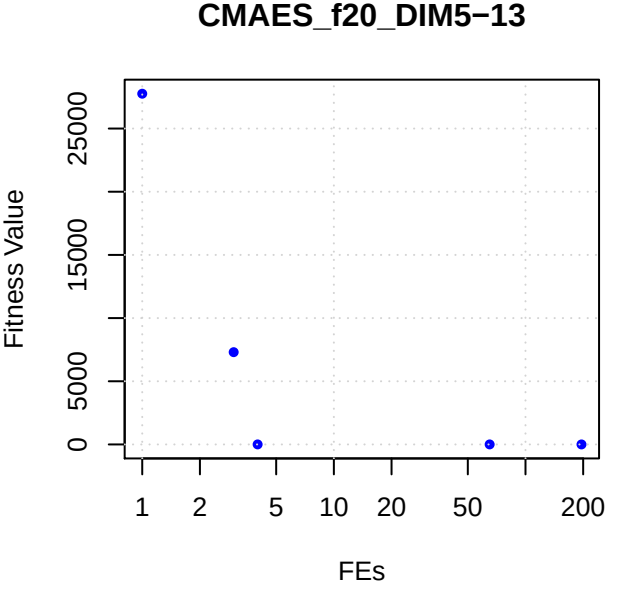
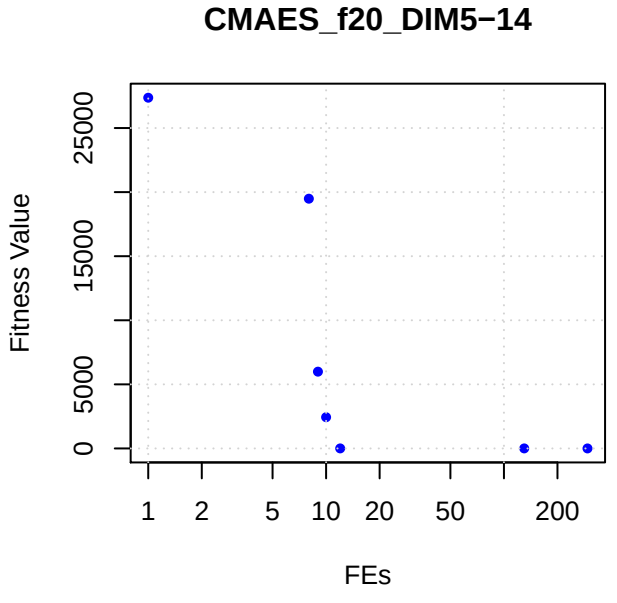
20000
60000
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM5−13
Fitness Value
0
5000
15000
25000
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM5−14
Fitness Value
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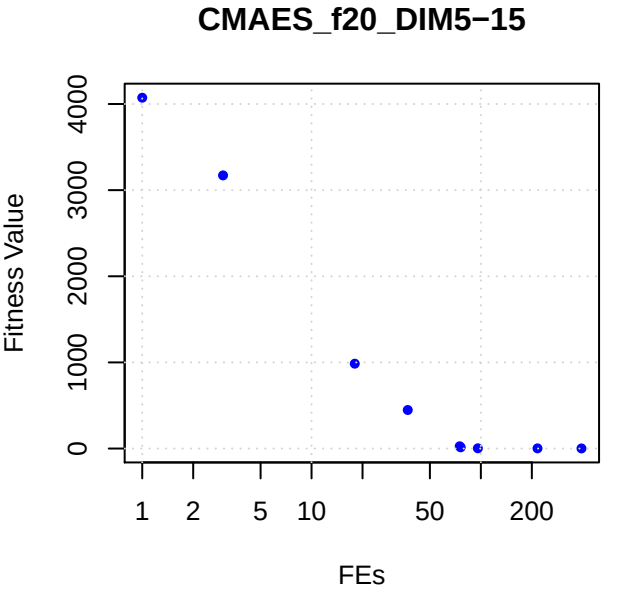
15000
25000
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM5−15
Fitness Value
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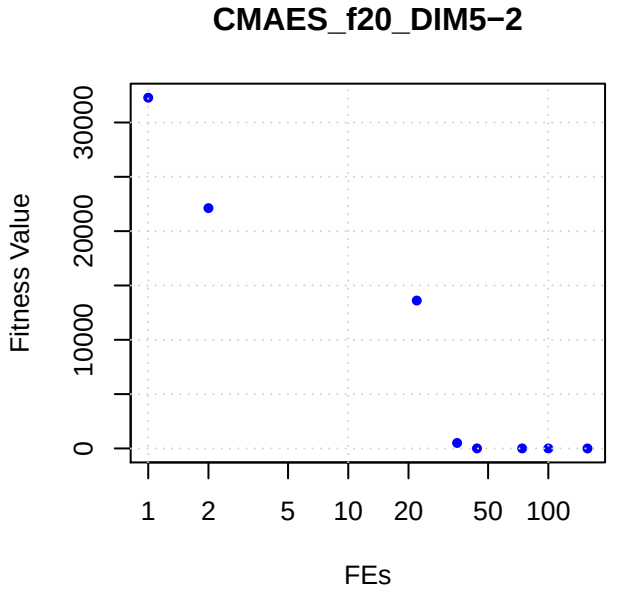
1000
2000
3000
4000
1
2
5
10
50
200
FEs


CMAES_f20_DIM5−2
Fitness Value
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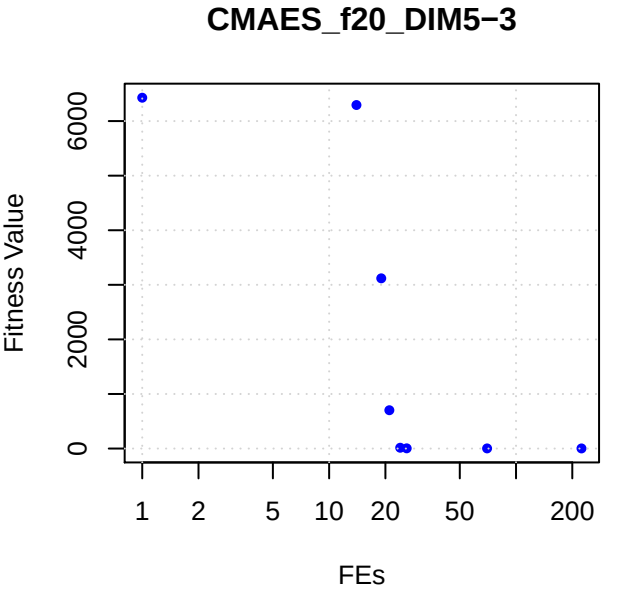
10000
20000
30000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM5−3
Fitness Value
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4000
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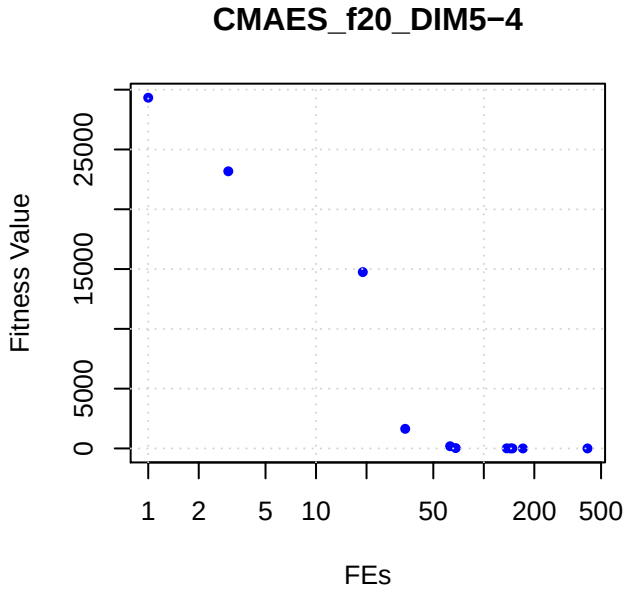
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM5−4
Fitness Value
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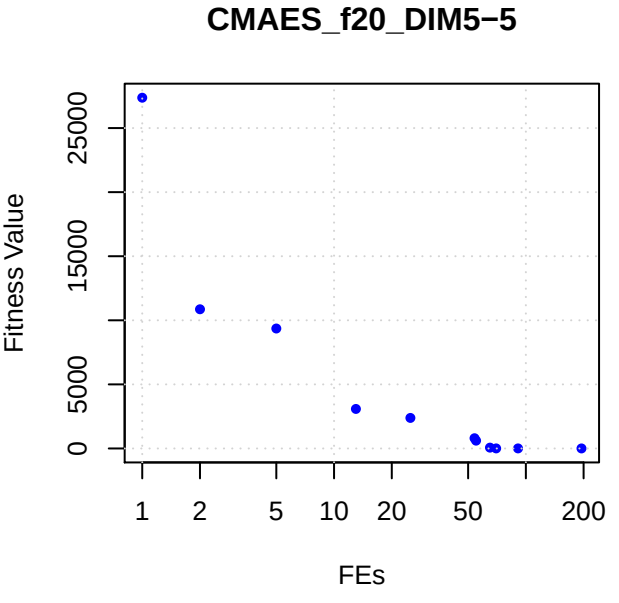
5000
15000
25000
1
2
5
10
50
200
500
FEs


CMAES_f20_DIM5−5
Fitness Value
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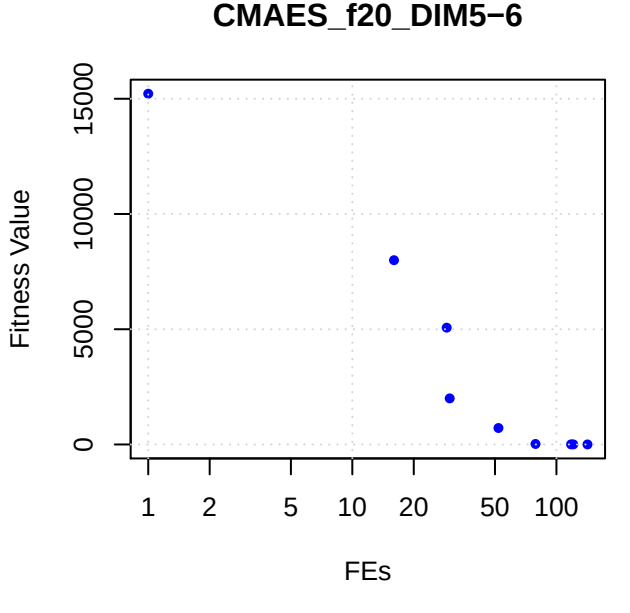
5000
15000
25000
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM5−6
Fitness Value
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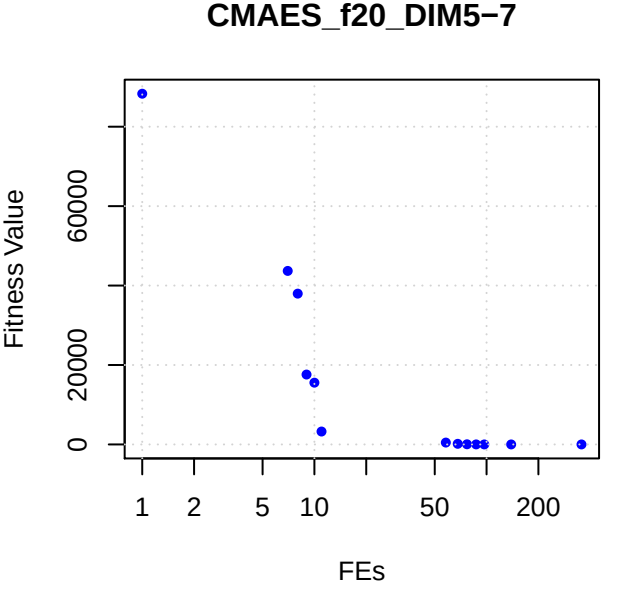
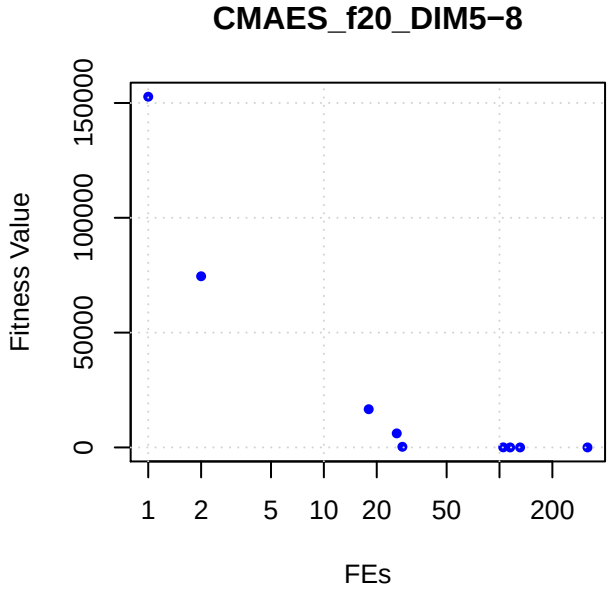
5000
10000
15000
1
2
5
10
20
50
100
FEs


CMAES_f20_DIM5−7
Fitness Value
0
20000
60000
1
2
5
10
50
200
FEs


CMAES_f20_DIM5−8
Fitness Value
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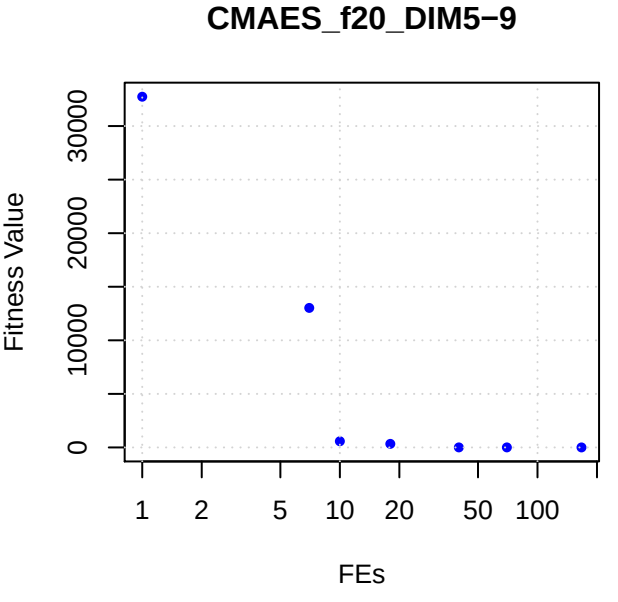
50000
100000
150000
1
2
5
10
20
50
200
FEs


CMAES_f20_DIM5−9
Fitness Value
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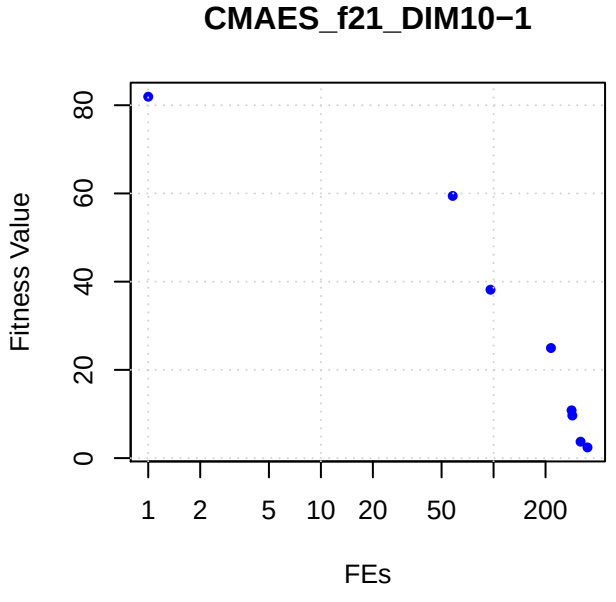
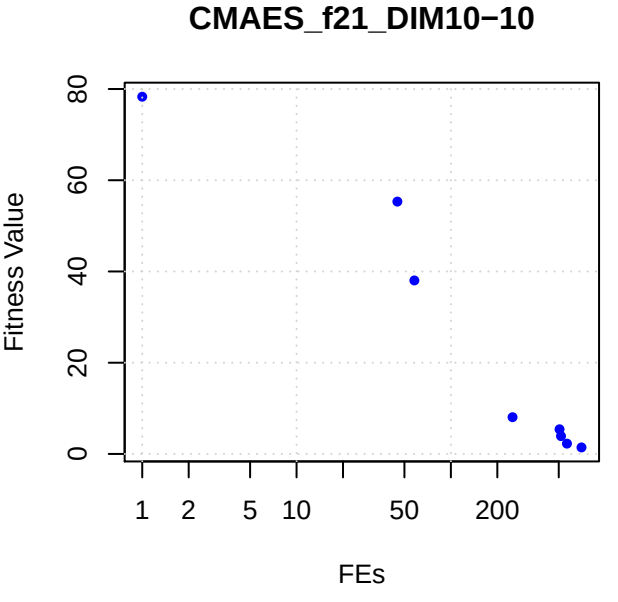
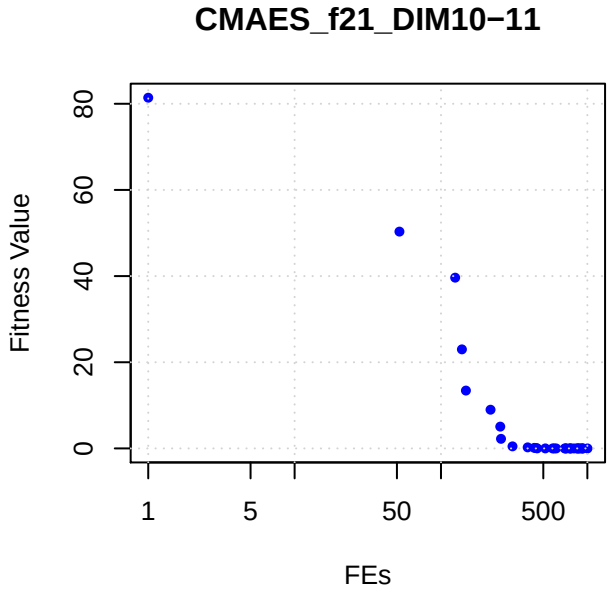
10000
20000
30000
1
2
5
10
20
50
100
FEs


CMAES_f21_DIM10−1
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f21_DIM10−10
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs


CMAES_f21_DIM10−11
Fitness Value
0
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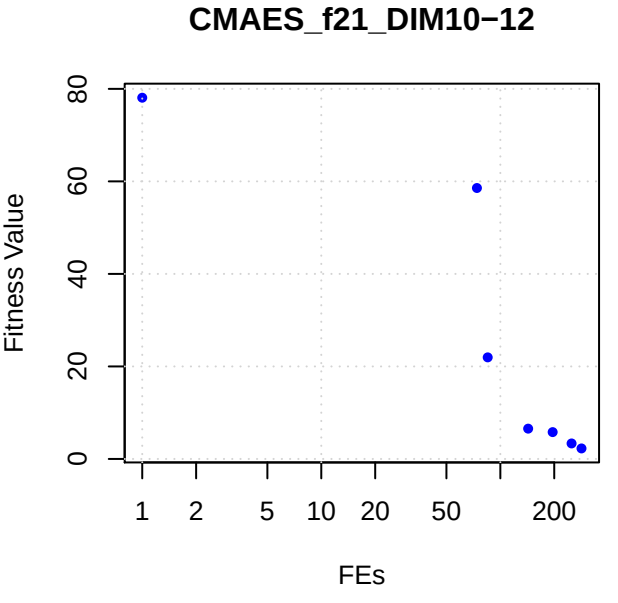
40
60
80
1
5
50
500
FEs


CMAES_f21_DIM10−12
Fitness Value
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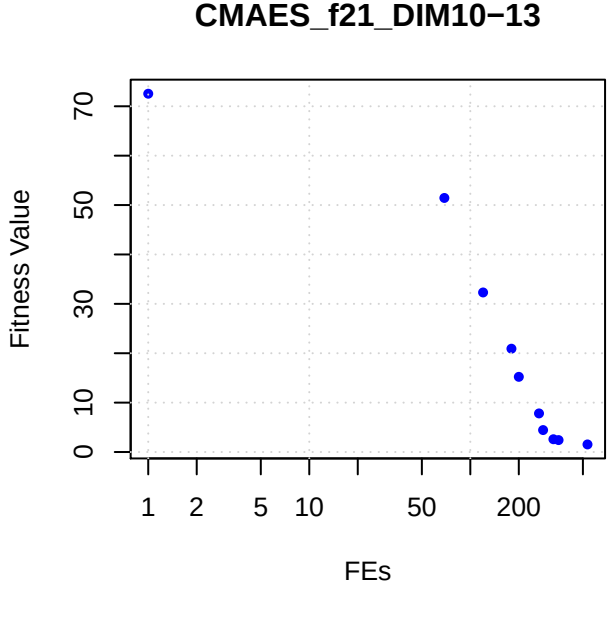
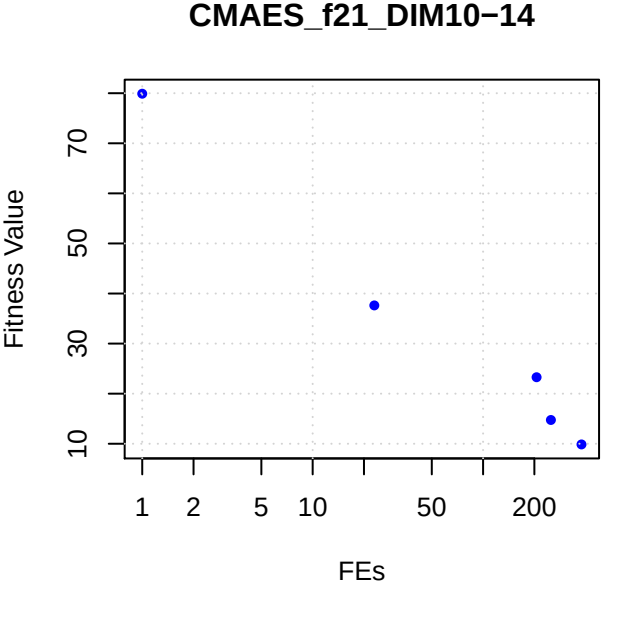
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f21_DIM10−13
Fitness Value
0
10
30
50
70
1
2
5
10
50
200
FEs


CMAES_f21_DIM10−14
Fitness Value
10
30
50
70
1
2
5
10
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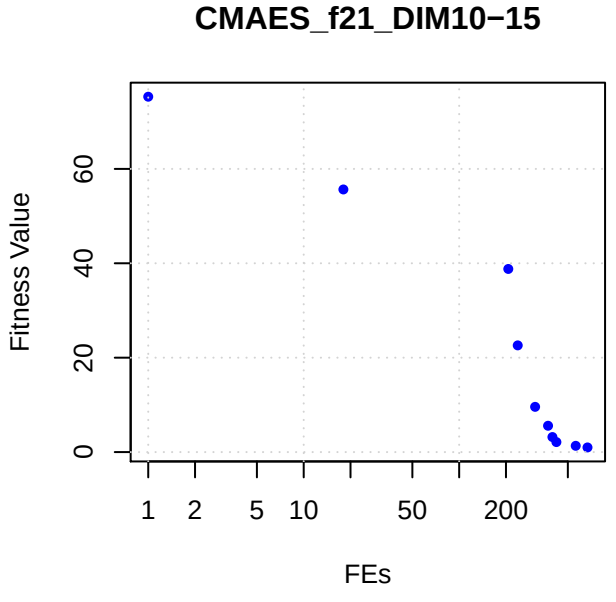
200
FEs


CMAES_f21_DIM10−15
Fitness Value
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20
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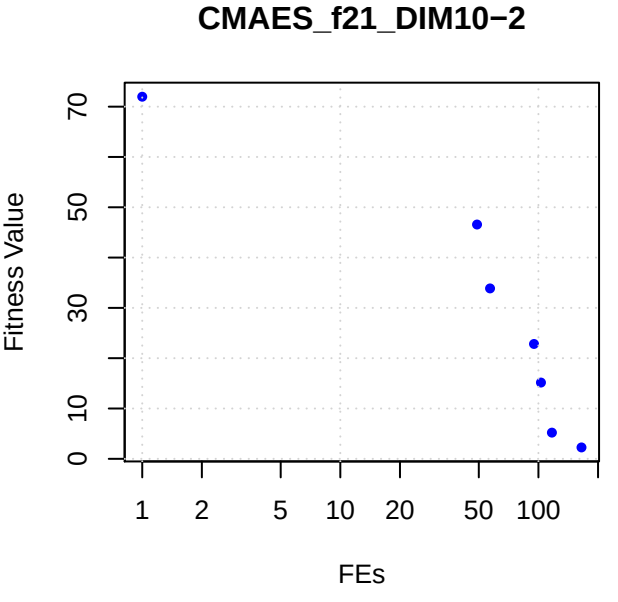
60
1
2
5
10
50
200
FEs


CMAES_f21_DIM10−2
Fitness Value
0
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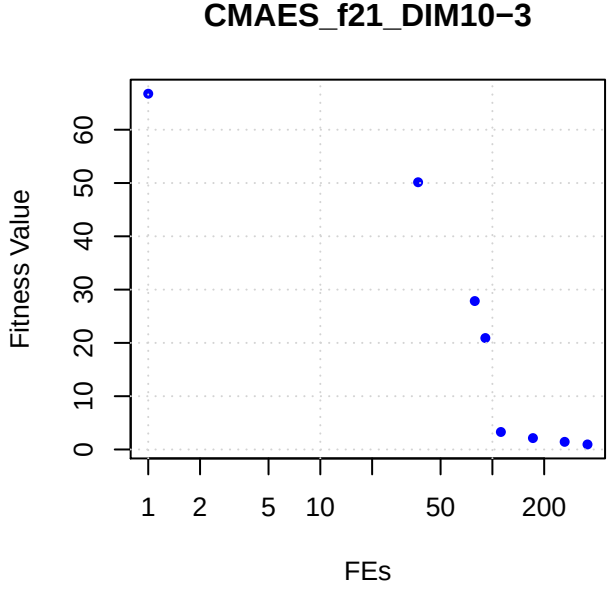
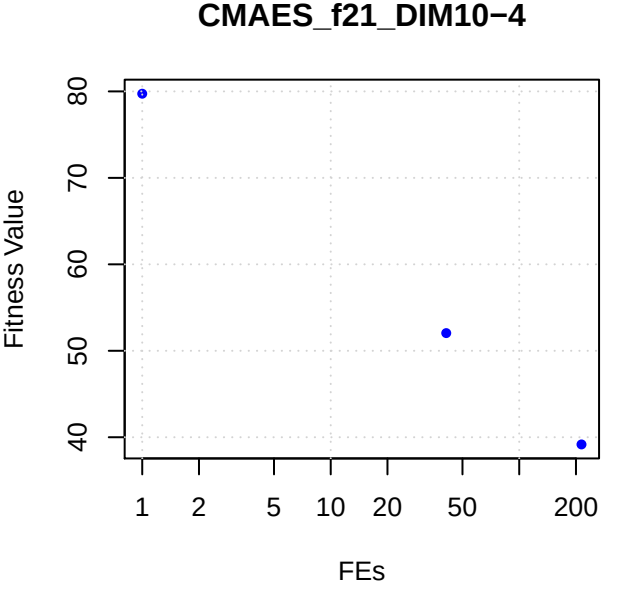
30
50
70
1
2
5
10
20
50
100
FEs


CMAES_f21_DIM10−3
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
50
200
FEs


CMAES_f21_DIM10−4
Fitness Value
40
50
60
70
80
1
2
5
10
20
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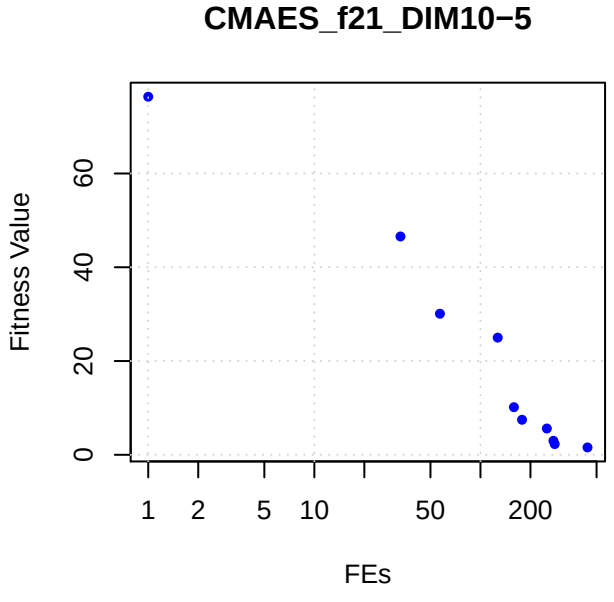
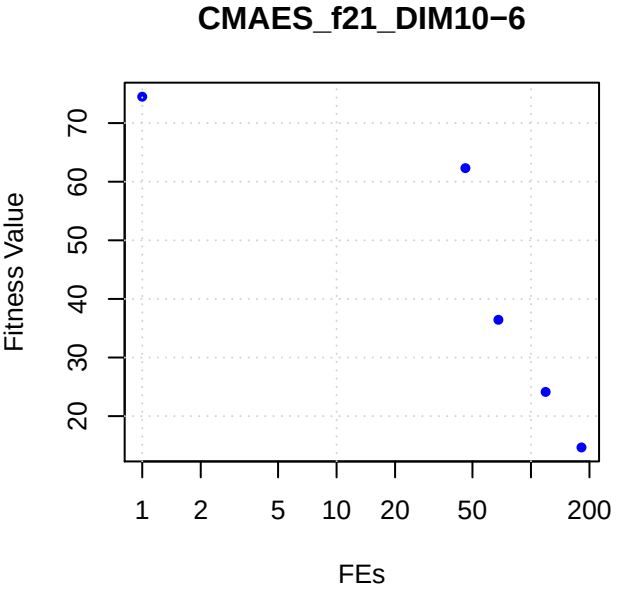
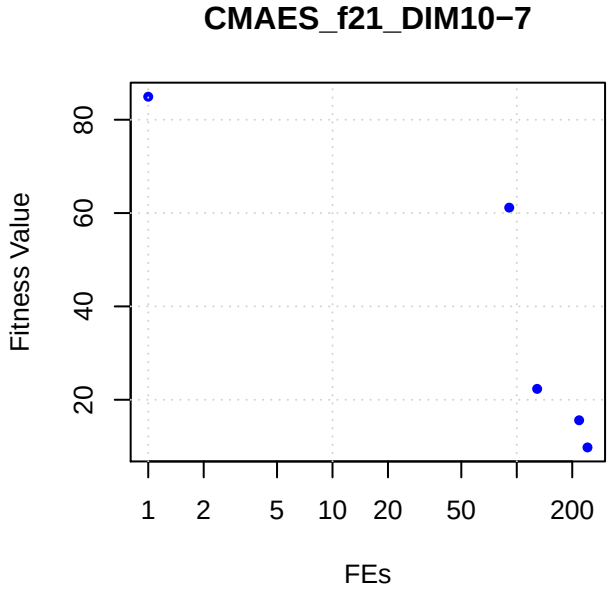
200
FEs


CMAES_f21_DIM10−5
Fitness Value
0
20
40
60
1
2
5
10
50
200
FEs


CMAES_f21_DIM10−6
Fitness Value
20
30
40
50
60
70
1
2
5
10
20
50
200
FEs


CMAES_f21_DIM10−7
Fitness Value
20
40
60
80
1
2
5
10
20
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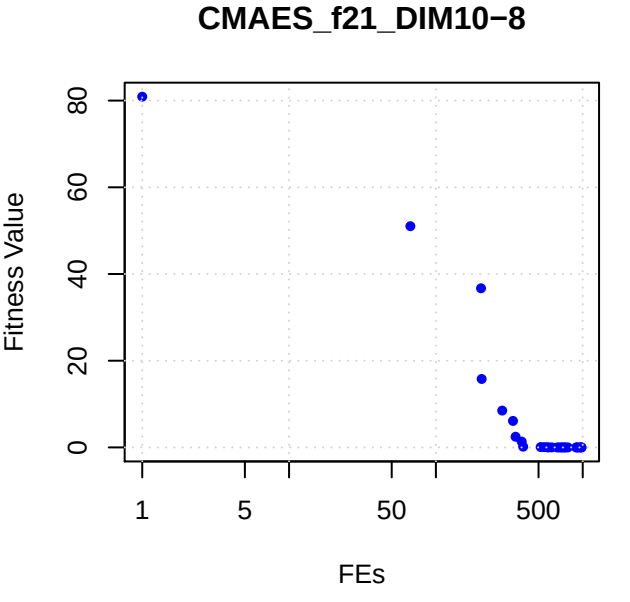
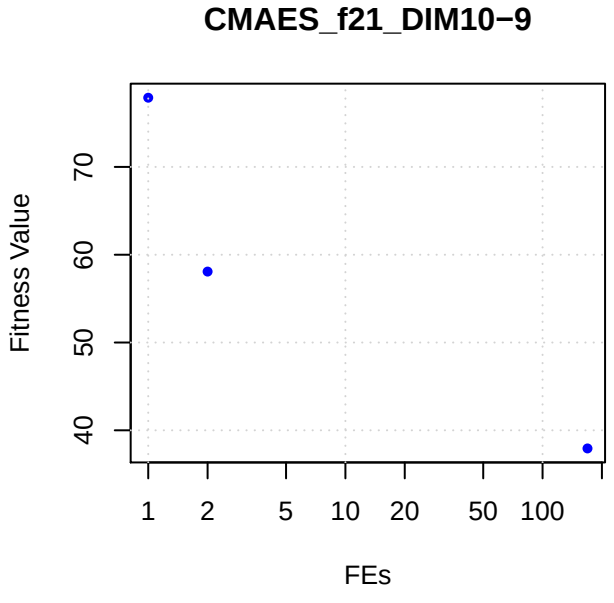
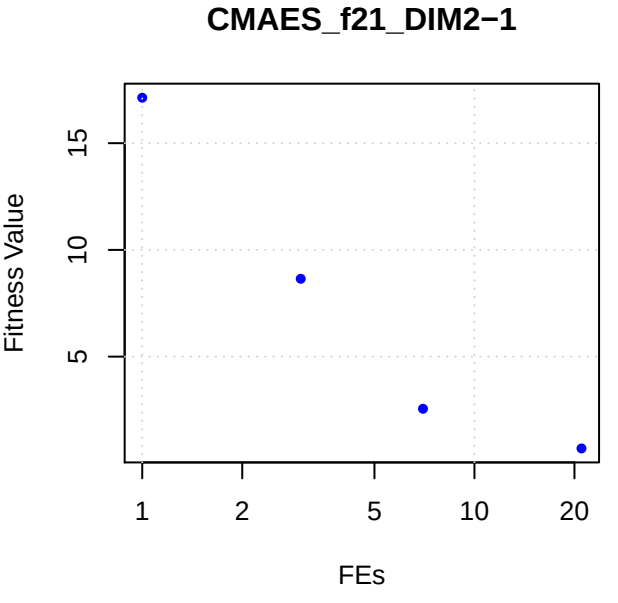
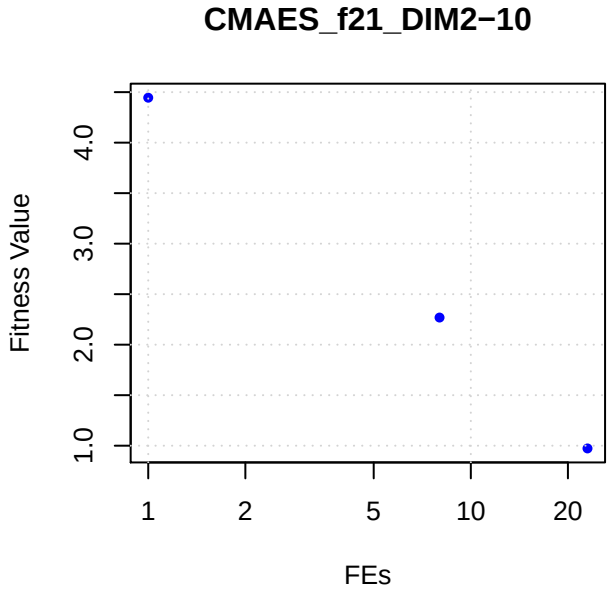
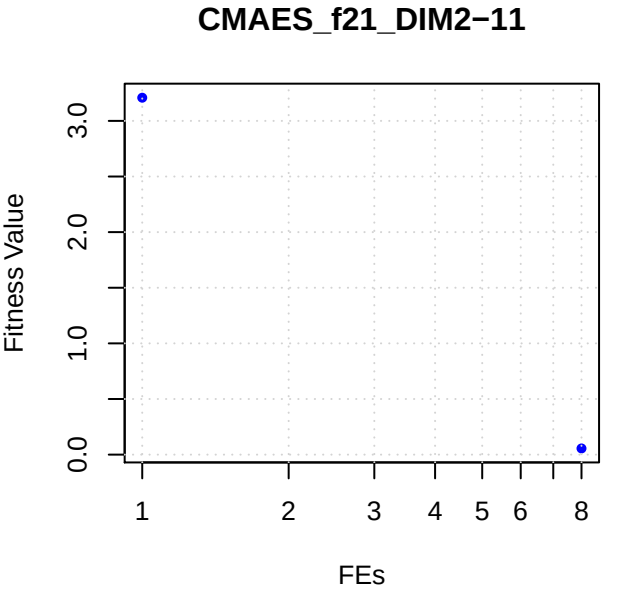
200
FEs

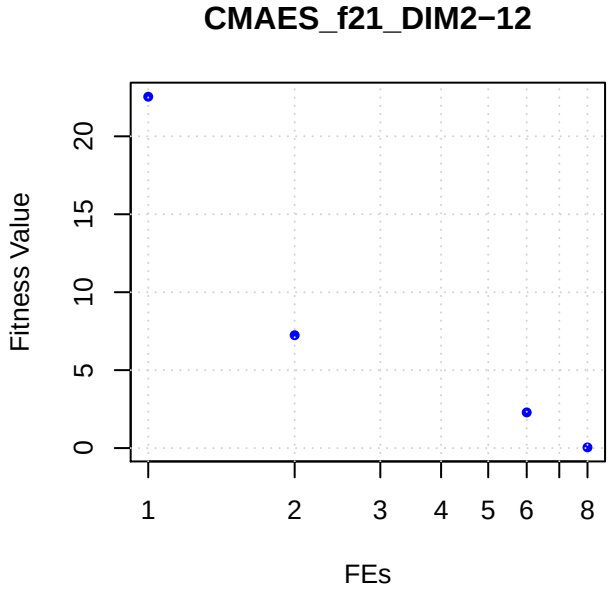

CMAES_f21_DIM10−8
Fitness Value
0
20
40
60
80
1
5
50
500
FEs

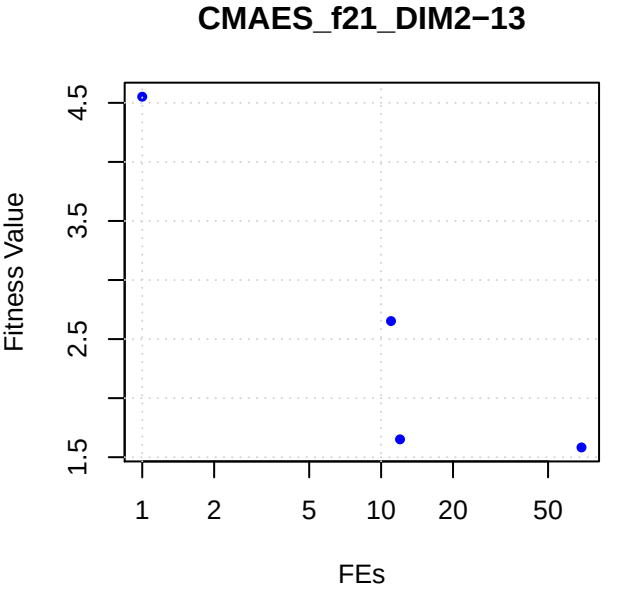

CMAES_f21_DIM10−9
Fitness Value
40
50
60
70
1
2
5
10
20
50
100
FEs

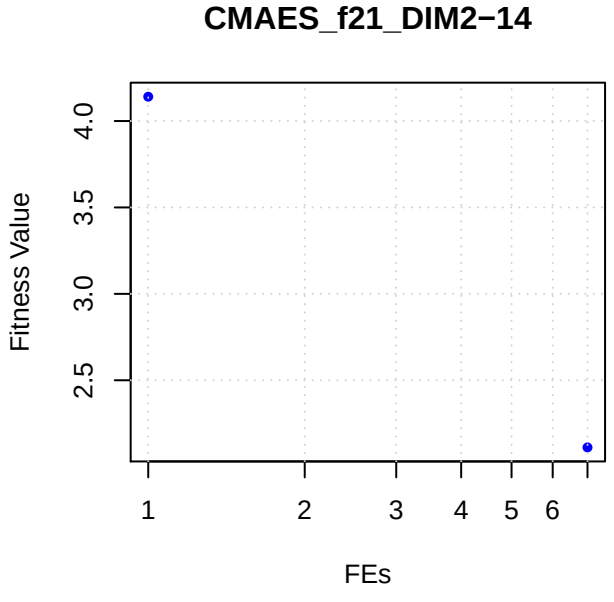

CMAES_f21_DIM2−1
Fitness Value
5
10
15
1
2
5
10
20
FEs

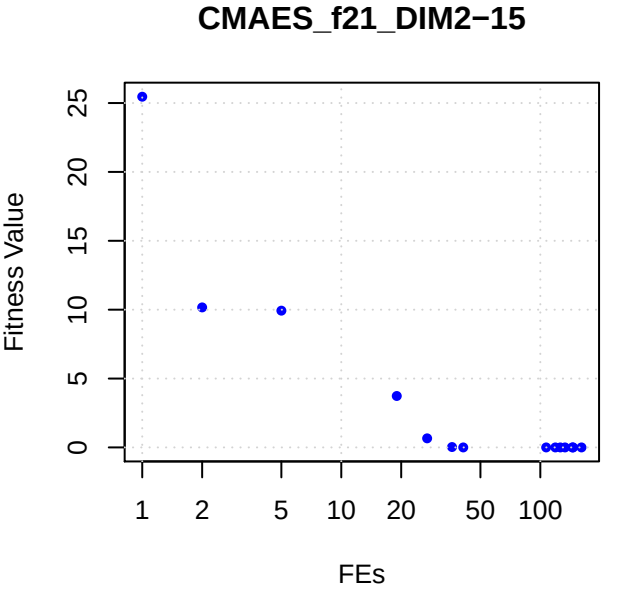

CMAES_f21_DIM2−10
Fitness Value
1.0
2.0
3.0
4.0
1
2
5
10
20
FEs

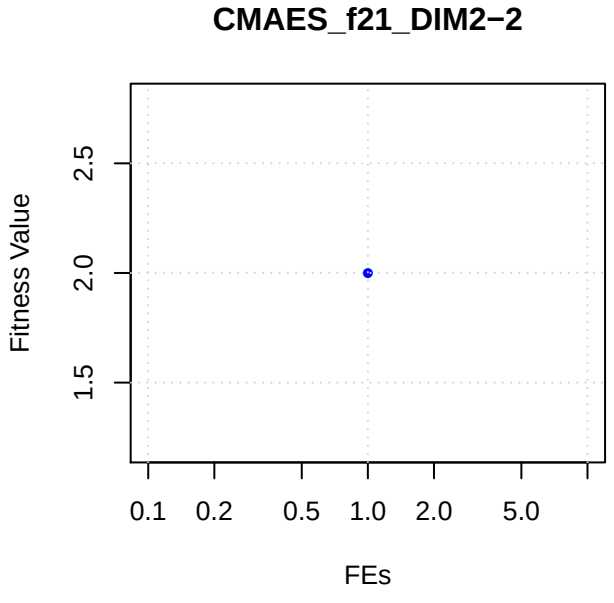

CMAES_f21_DIM2−11
Fitness Value
0.0
1.0
2.0
3.0
1
2
3
4
5
6
8
FEs

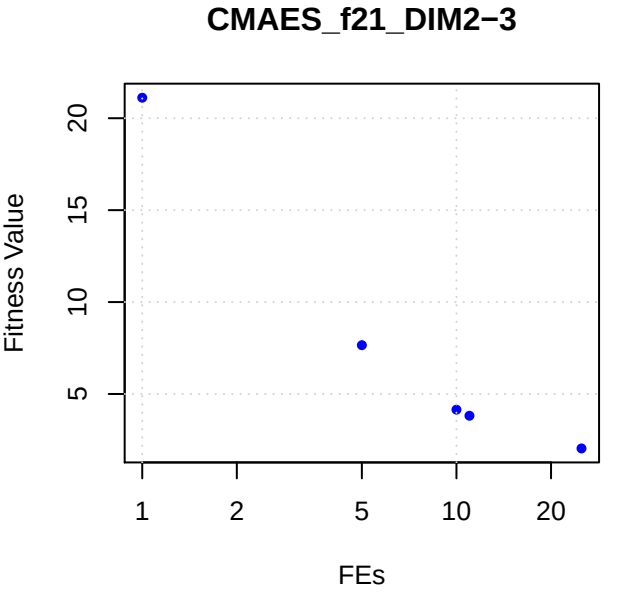

CMAES_f21_DIM2−12
Fitness Value
0
5
10
15
20
1
2
3
4
5
6
8
FEs

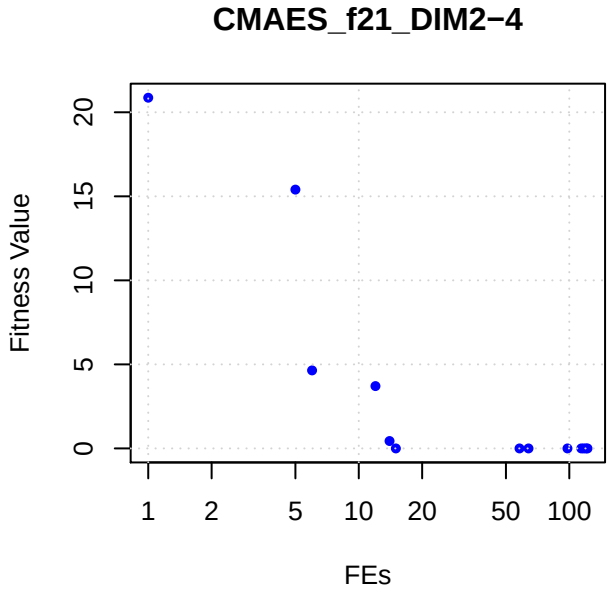

CMAES_f21_DIM2−13
Fitness Value
1.5
2.5
3.5
4.5
1
2
5
10
20
50
FEs

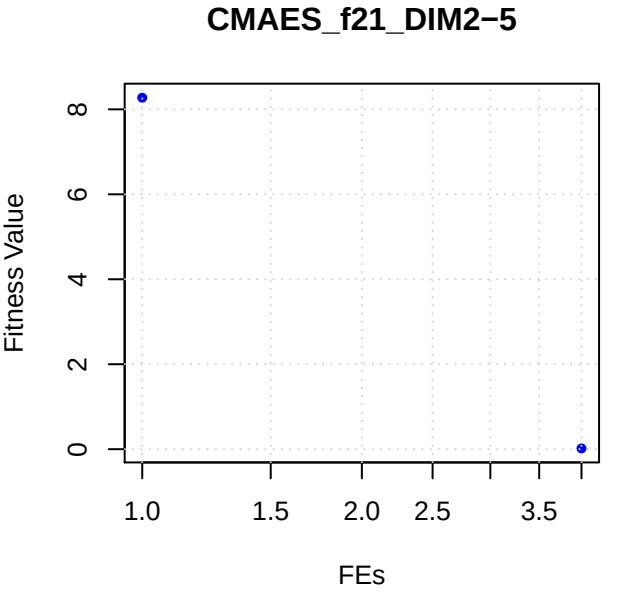

CMAES_f21_DIM2−14
Fitness Value
2.5
3.0
3.5
4.0
1
2
3
4
5
6
FEs

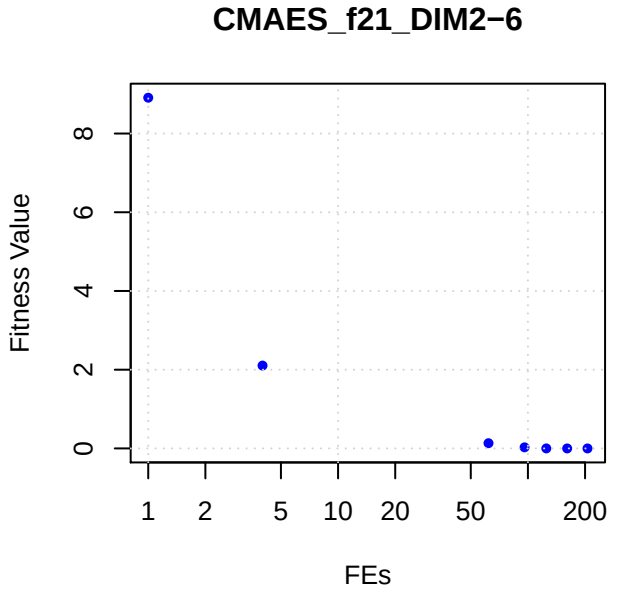

CMAES_f21_DIM2−15
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
100
FEs

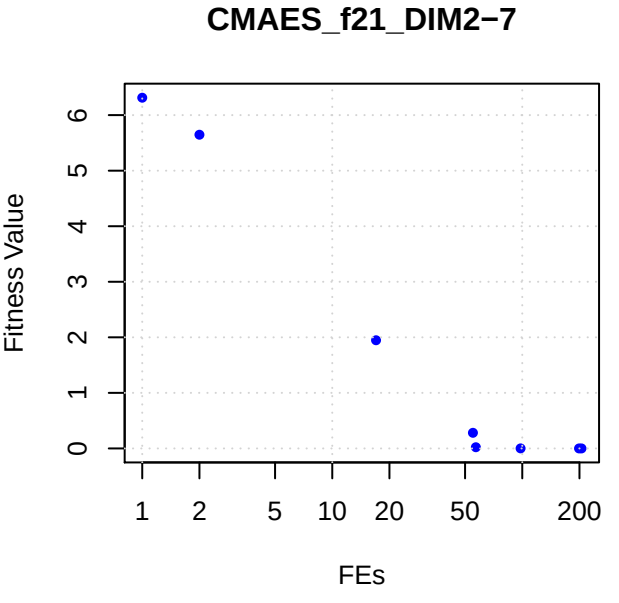

CMAES_f21_DIM2−2
Fitness Value
1.5
2.0
2.5
0.1
0.2
0.5
1.0
2.0
5.0
FEs

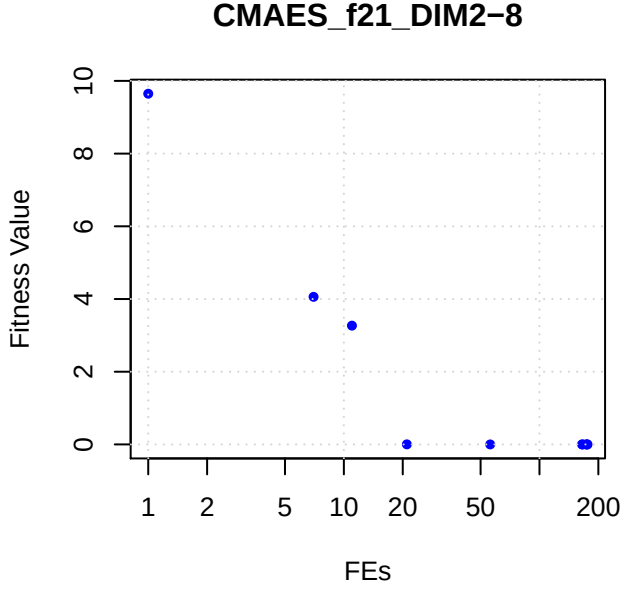

CMAES_f21_DIM2−3
Fitness Value
5
10
15
20
1
2
5
10
20
FEs

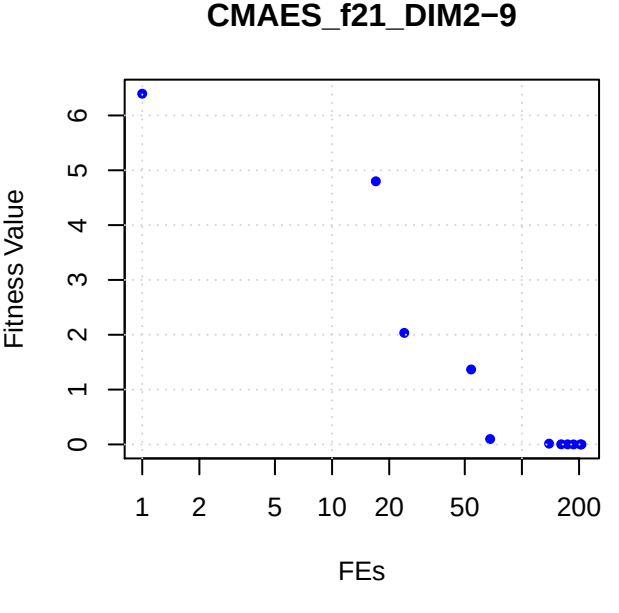

CMAES_f21_DIM2−4
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
100
FEs

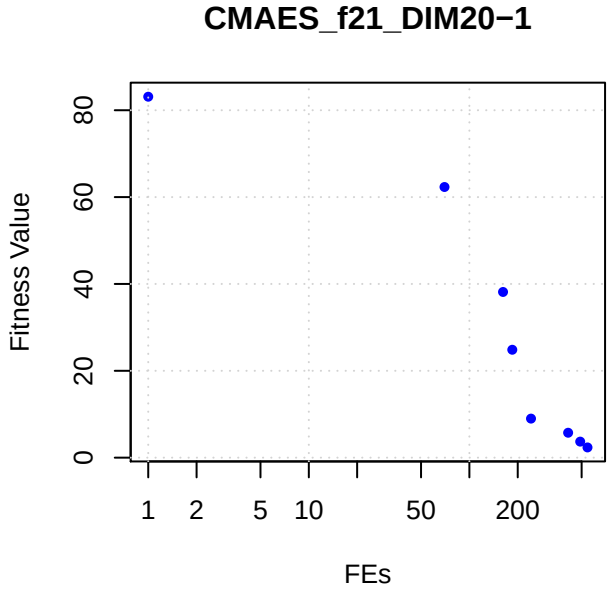

CMAES_f21_DIM2−5
Fitness Value
0
2
4
6
8
1.0
1.5
2.0
2.5
3.5
FEs

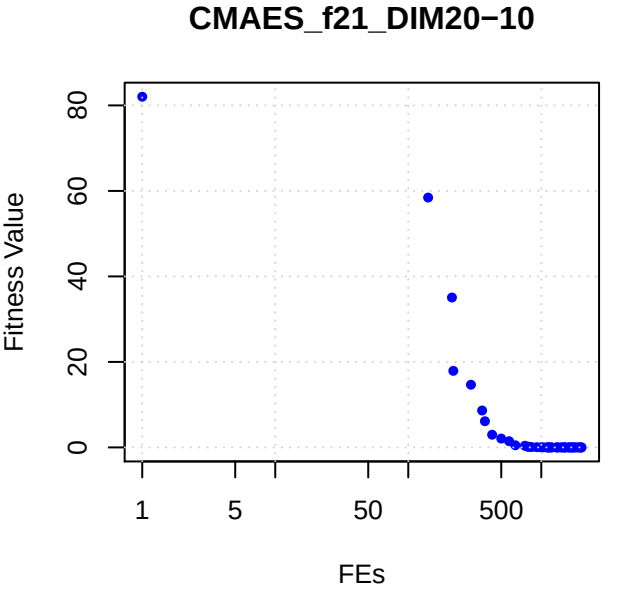

CMAES_f21_DIM2−6
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
200
FEs

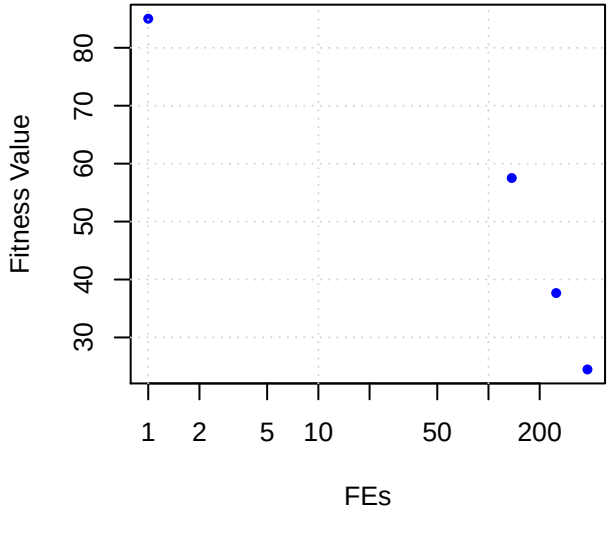

CMAES_f21_DIM2−7
Fitness Value
0
1
2
3
4
5
6
1
2
5
10
20
50
200
FEs

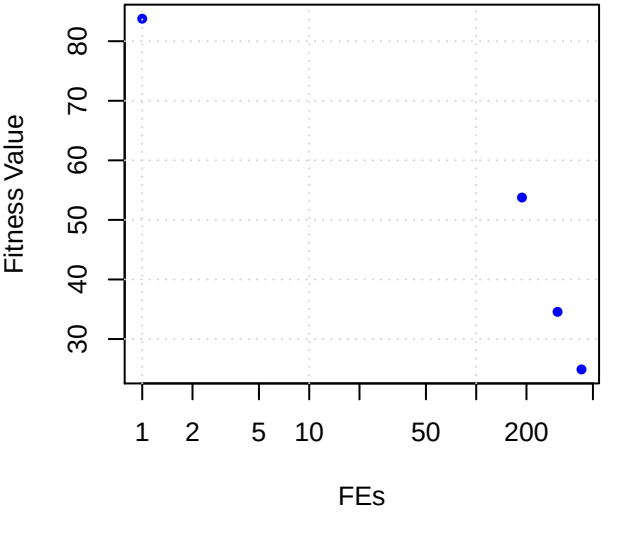

CMAES_f21_DIM2−8
Fitness Value
0
2
4
6
8
10
1
2
5
10
20
50
200
FEs

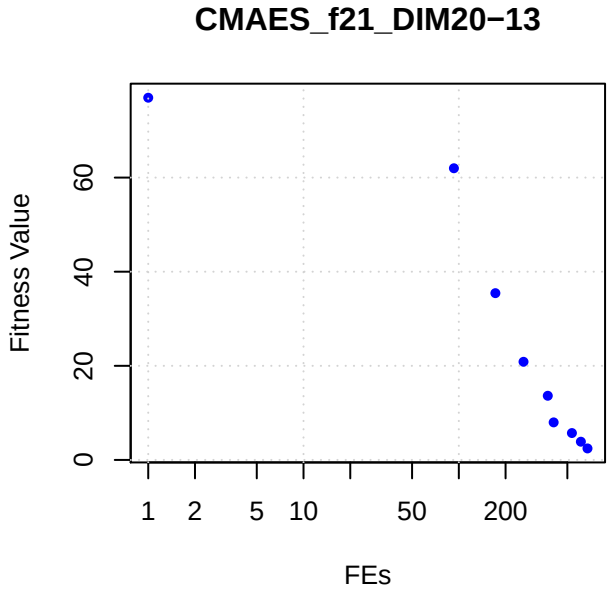

CMAES_f21_DIM2−9
Fitness Value
0
1
2
3
4
5
6
1
2
5
10
20
50
200
FEs

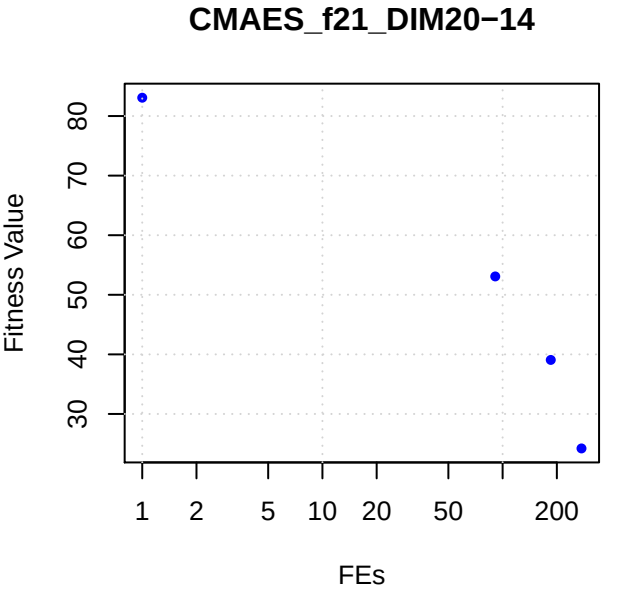

CMAES_f21_DIM20−1
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

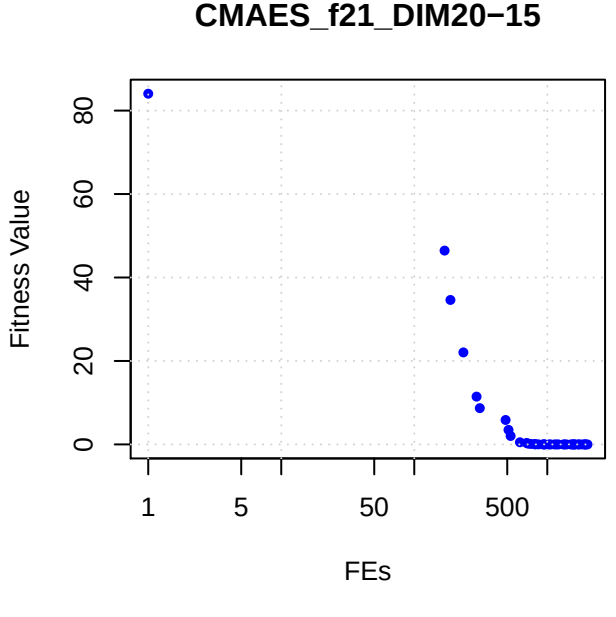

CMAES_f21_DIM20−10
Fitness Value
0
20
40
60
80
1
5
50
500
FEs

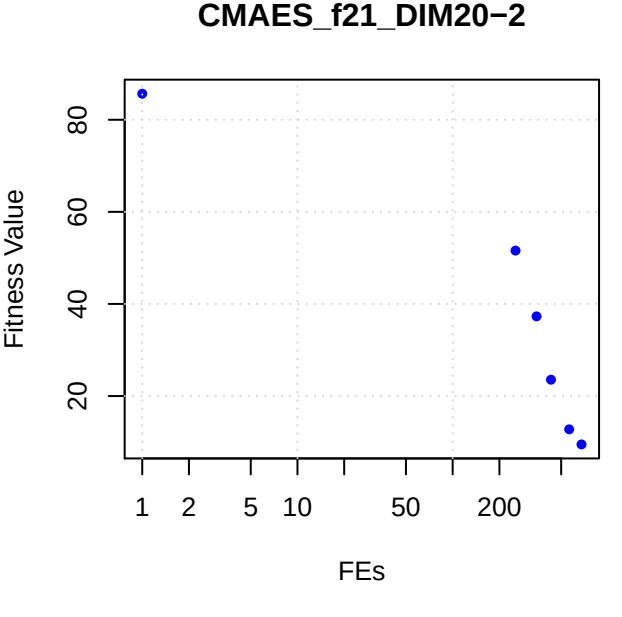

CMAES_f21_DIM20−11
Fitness Value
30
40
50
60
70
80
1
2
5
10
50
200
FEs

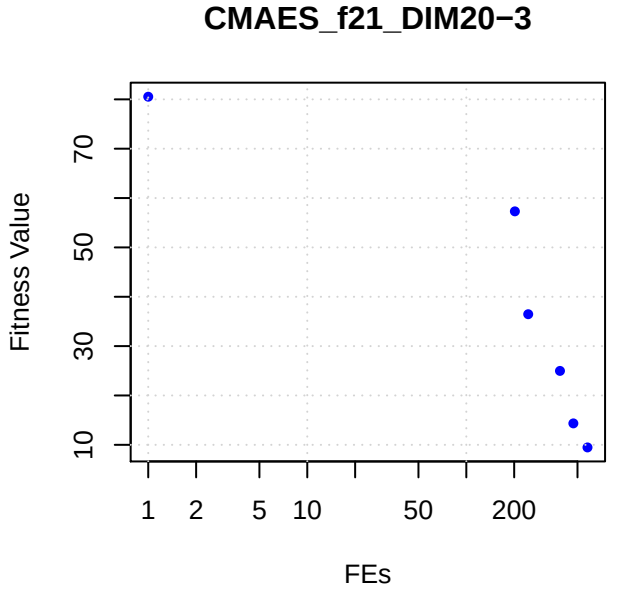

CMAES_f21_DIM20−12
Fitness Value
30
40
50
60
70
80
1
2
5
10
50
200
FEs

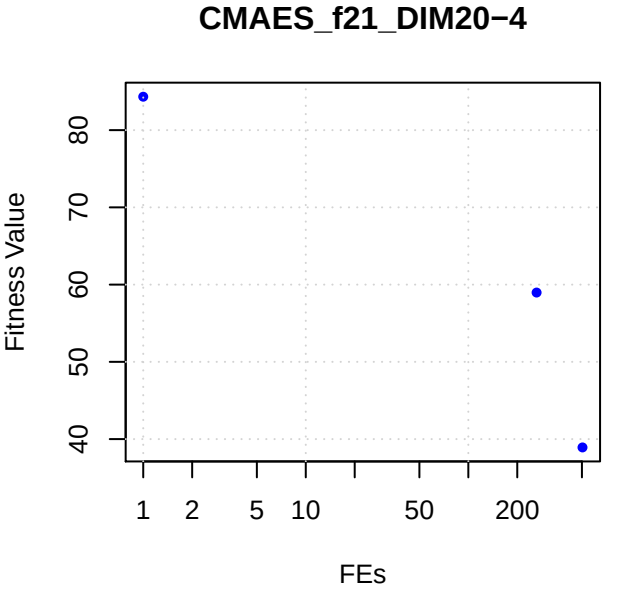

CMAES_f21_DIM20−13
Fitness Value
0
20
40
60
1
2
5
10
50
200
FEs

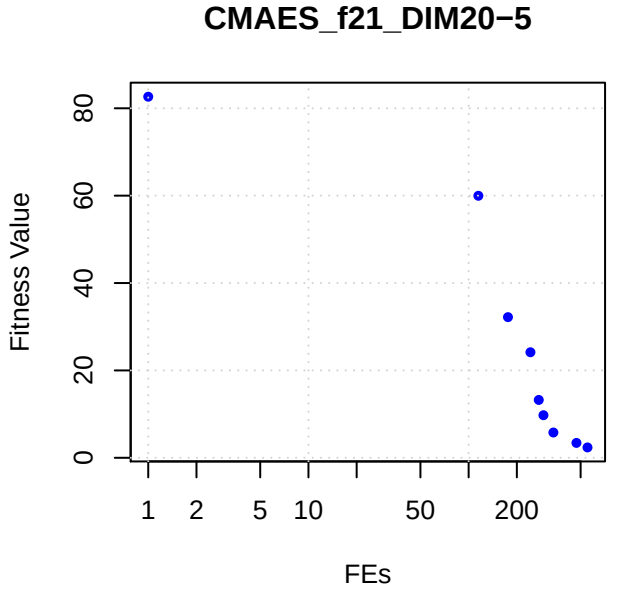

CMAES_f21_DIM20−14
Fitness Value
30
40
50
60
70
80
1
2
5
10
20
50
200
FEs

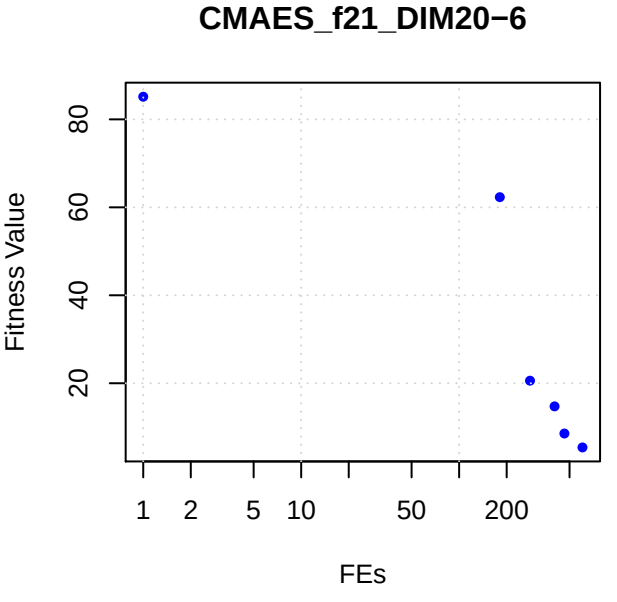

CMAES_f21_DIM20−15
Fitness Value
0
20
40
60
80
1
5
50
500
FEs

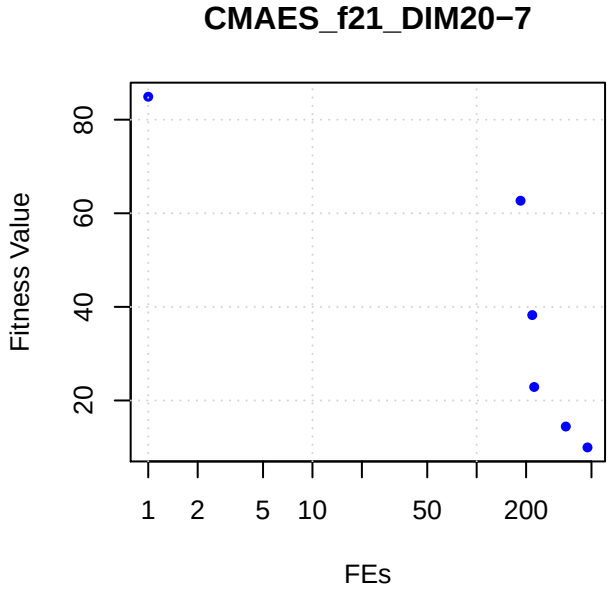

CMAES_f21_DIM20−2
Fitness Value
20
40
60
80
1
2
5
10
50
200
FEs

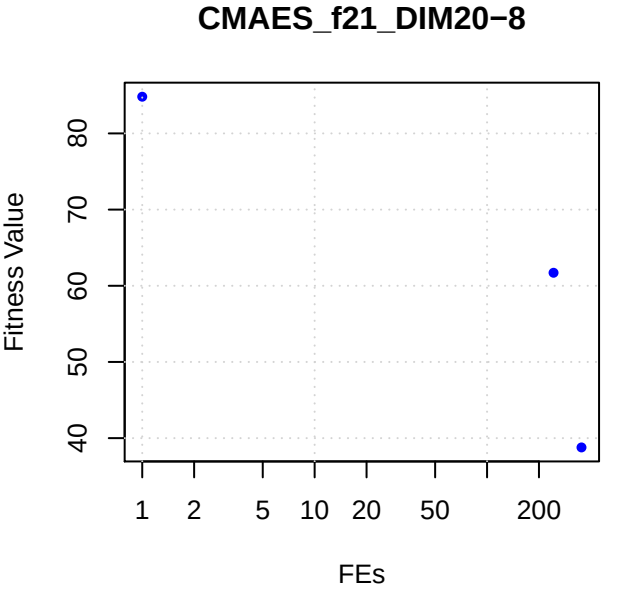

CMAES_f21_DIM20−3
Fitness Value
10
30
50
70
1
2
5
10
50
200
FEs

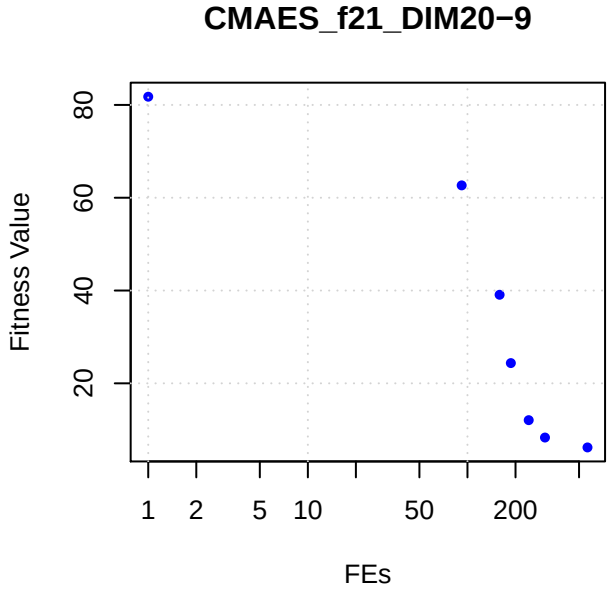

CMAES_f21_DIM20−4
Fitness Value
40
50
60
70
80
1
2
5
10
50
200
FEs

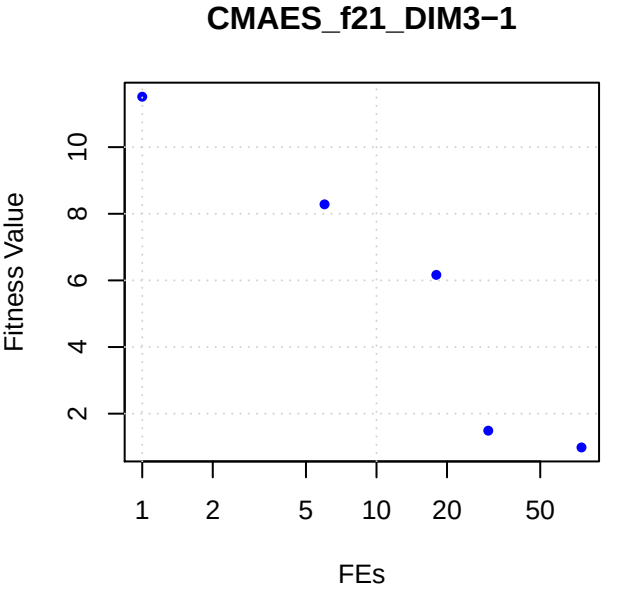

CMAES_f21_DIM20−5
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

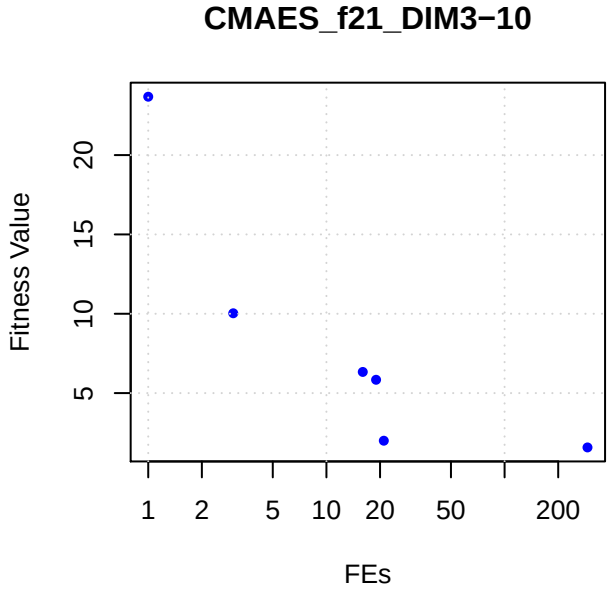

CMAES_f21_DIM20−6
Fitness Value
20
40
60
80
1
2
5
10
50
200
FEs

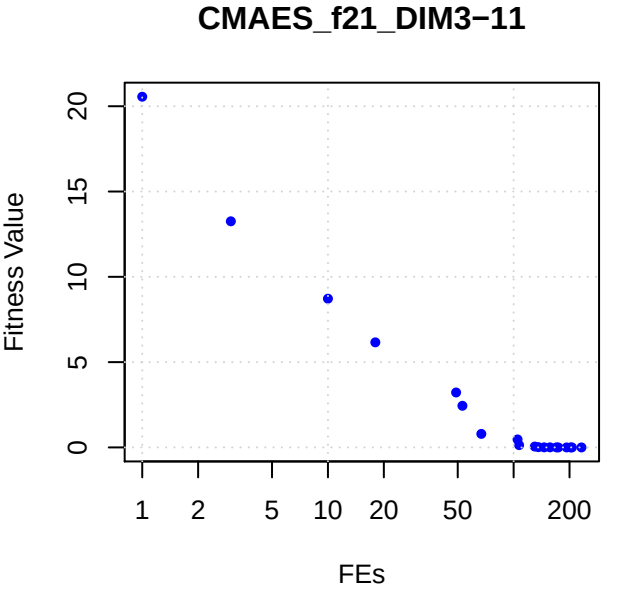

CMAES_f21_DIM20−7
Fitness Value
20
40
60
80
1
2
5
10
50
200
FEs

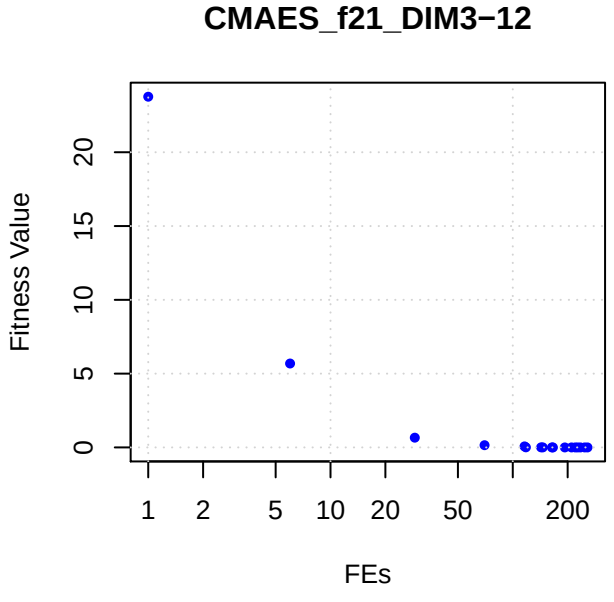

CMAES_f21_DIM20−8
Fitness Value
40
50
60
70
80
1
2
5
10
20
50
200
FEs

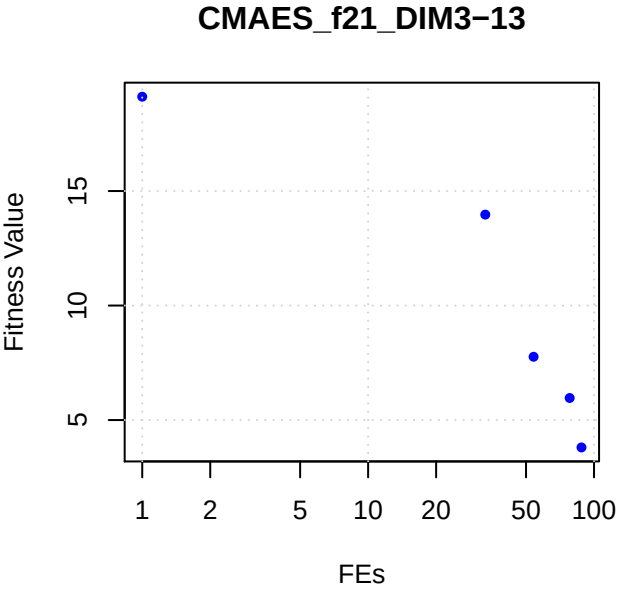

CMAES_f21_DIM20−9
Fitness Value
20
40
60
80
1
2
5
10
50
200
FEs


CMAES_f21_DIM3−1
Fitness Value
2
4
6
8
10
1
2
5
10
20
50
FEs


CMAES_f21_DIM3−10
Fitness Value
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f21_DIM3−11
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f21_DIM3−12
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
200
FEs


CMAES_f21_DIM3−13
Fitness Value
5
10
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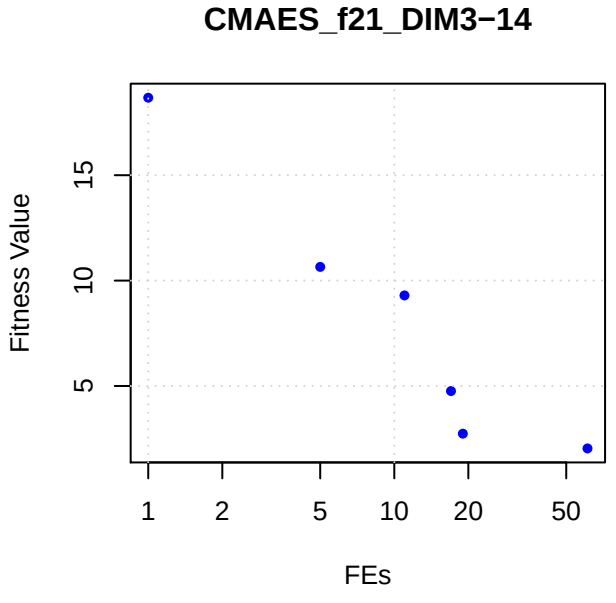
1
2
5
10
20
50
100
FEs


CMAES_f21_DIM3−14
Fitness Value
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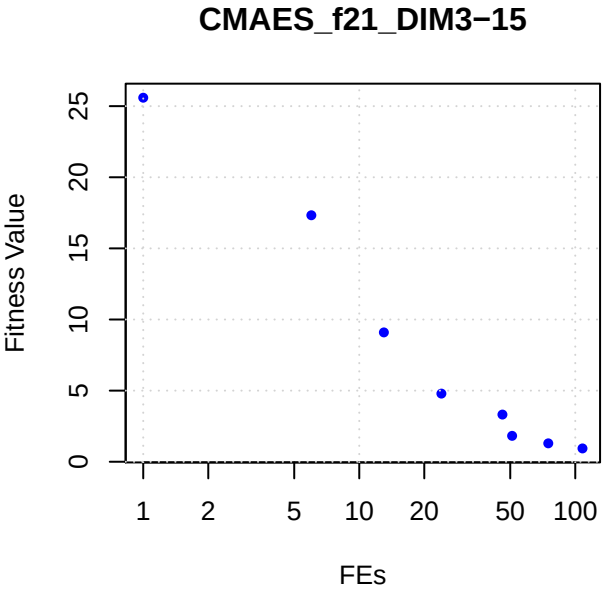
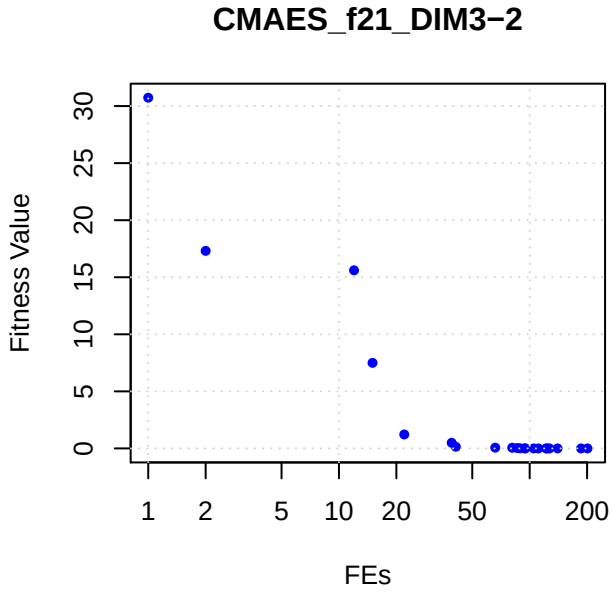
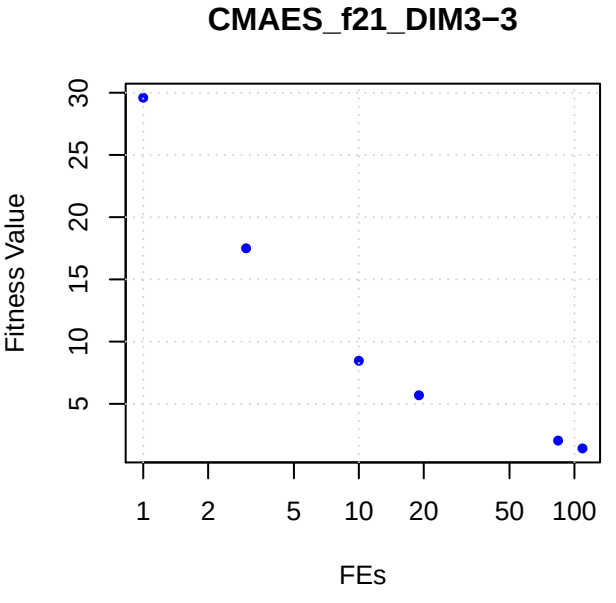
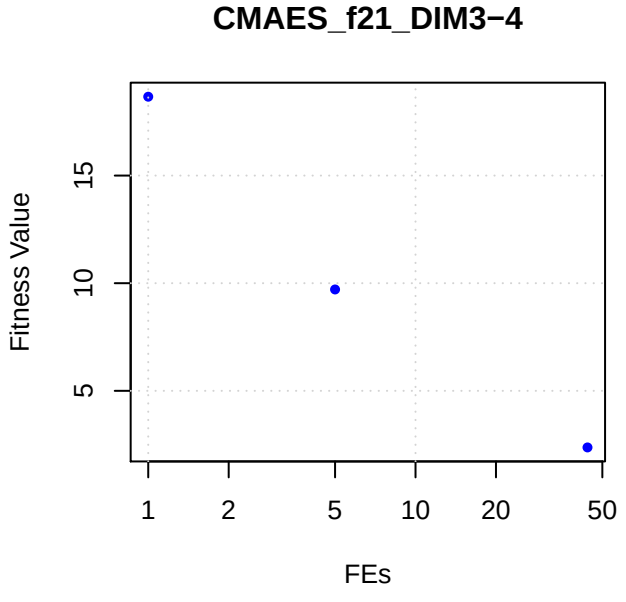
15
1
2
5
10
20
50
FEs


CMAES_f21_DIM3−15
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
100
FEs


CMAES_f21_DIM3−2
Fitness Value
0
5
10
15
20
25
30
1
2
5
10
20
50
200
FEs


CMAES_f21_DIM3−3
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
100
FEs


CMAES_f21_DIM3−4
Fitness Value
5
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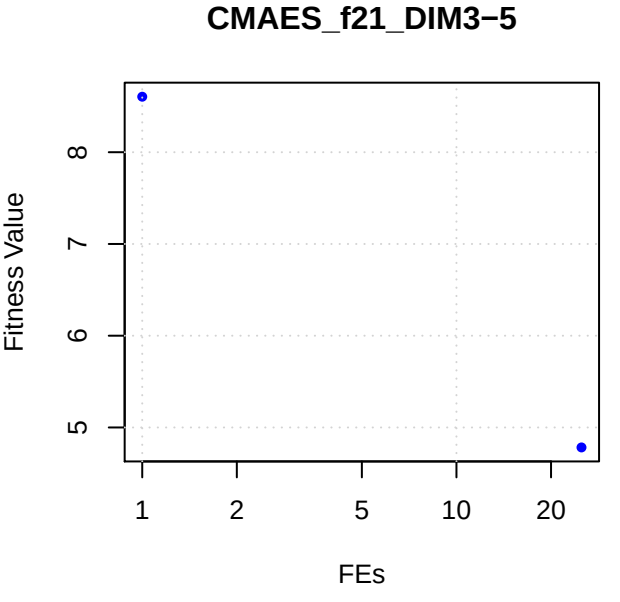
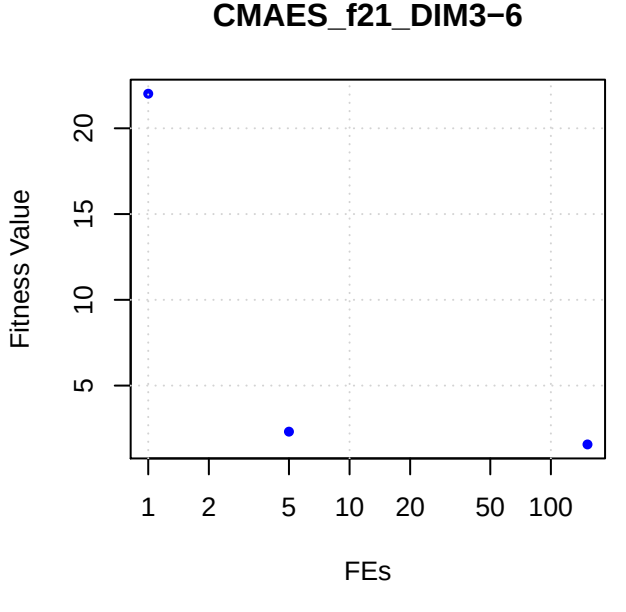
15
1
2
5
10
20
50
FEs


CMAES_f21_DIM3−5
Fitness Value
5
6
7
8
1
2
5
10
20
FEs


CMAES_f21_DIM3−6
Fitness Value
5
10
15
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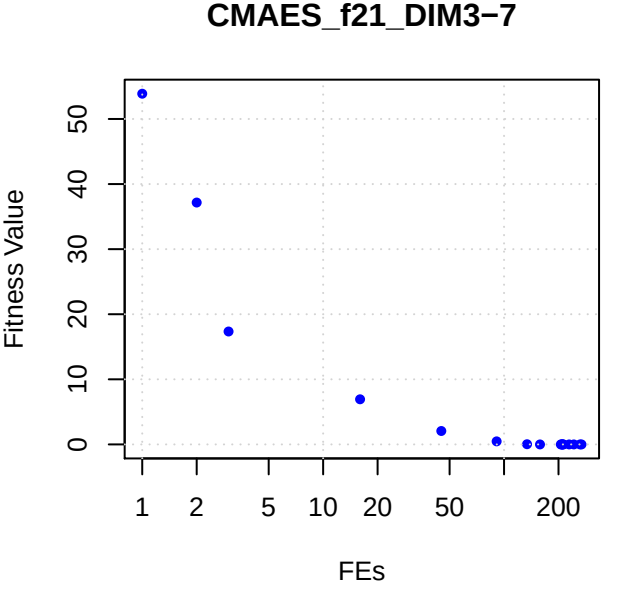
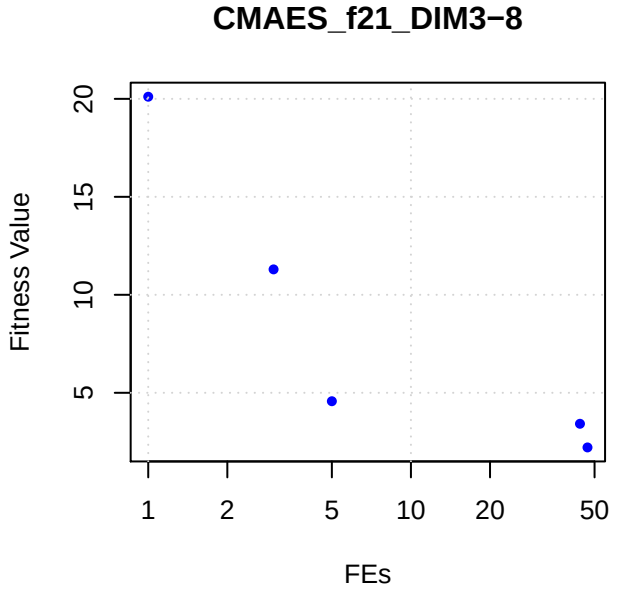
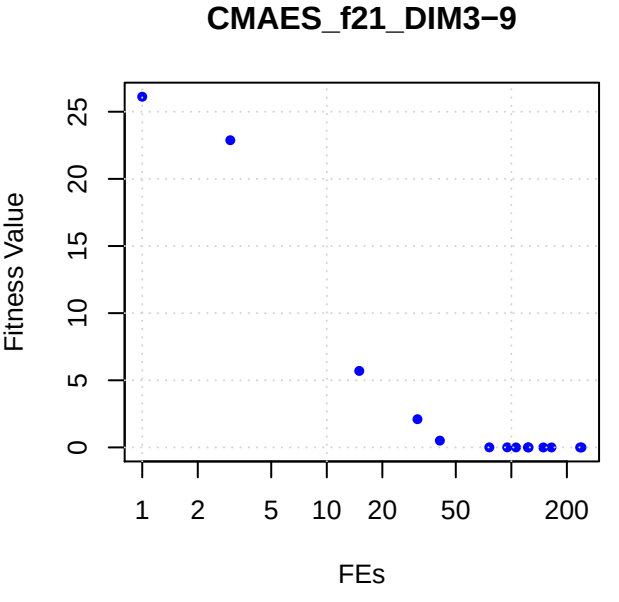
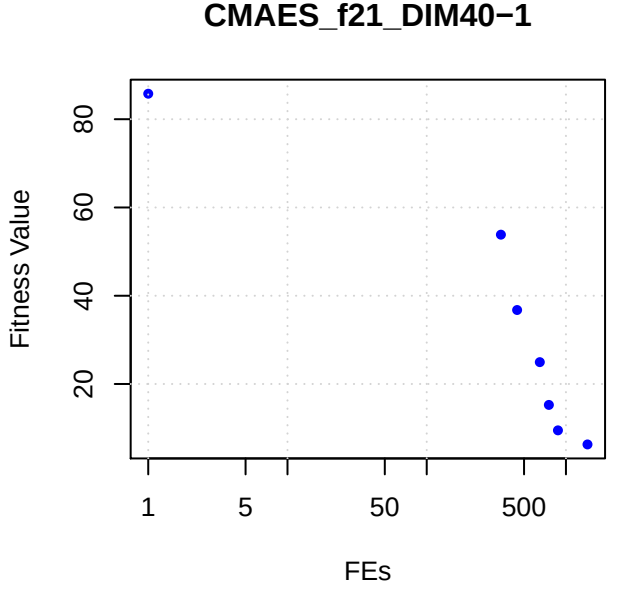
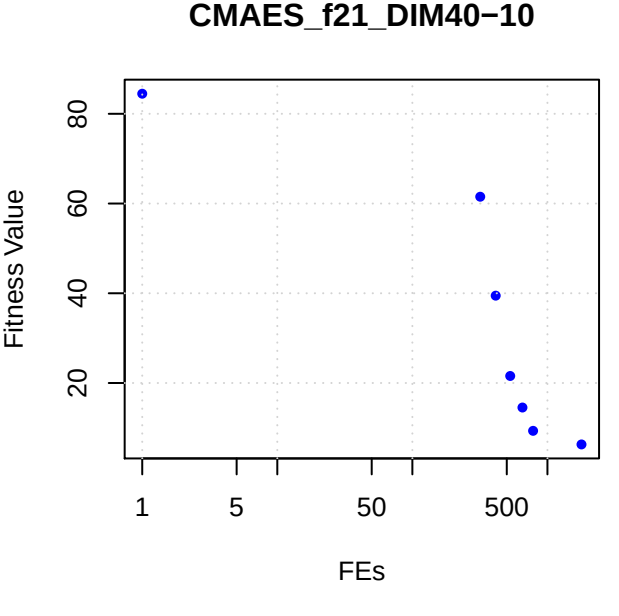
1
2
5
10
20
50
100
FEs

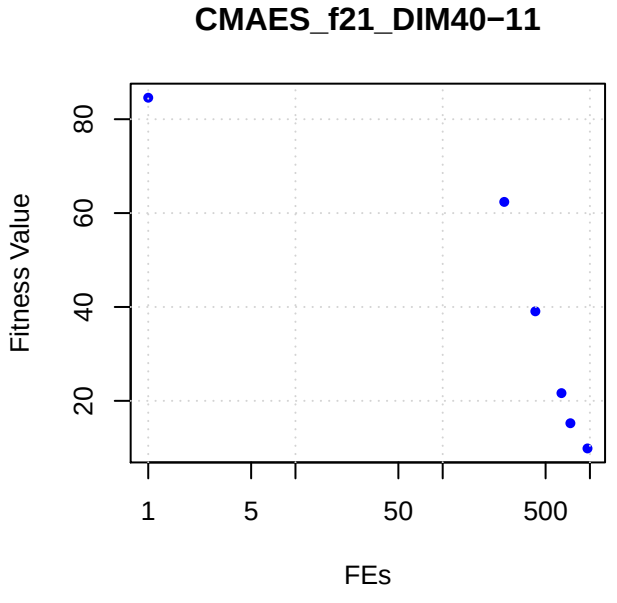

CMAES_f21_DIM3−7
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
200
FEs

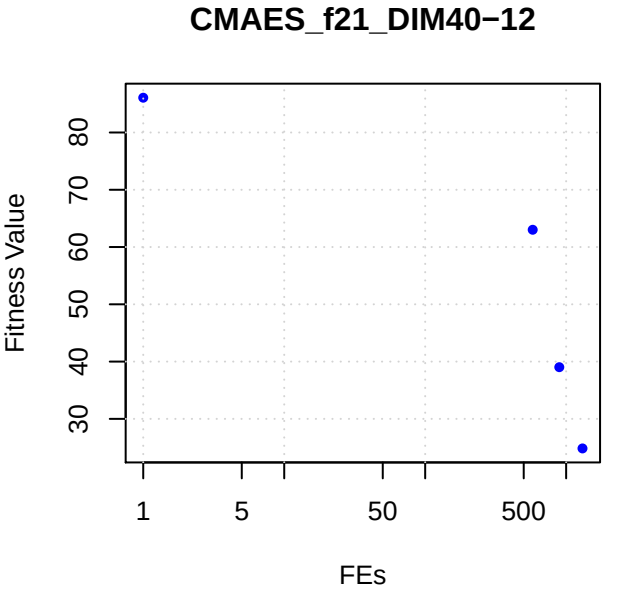

CMAES_f21_DIM3−8
Fitness Value
5
10
15
20
1
2
5
10
20
50
FEs

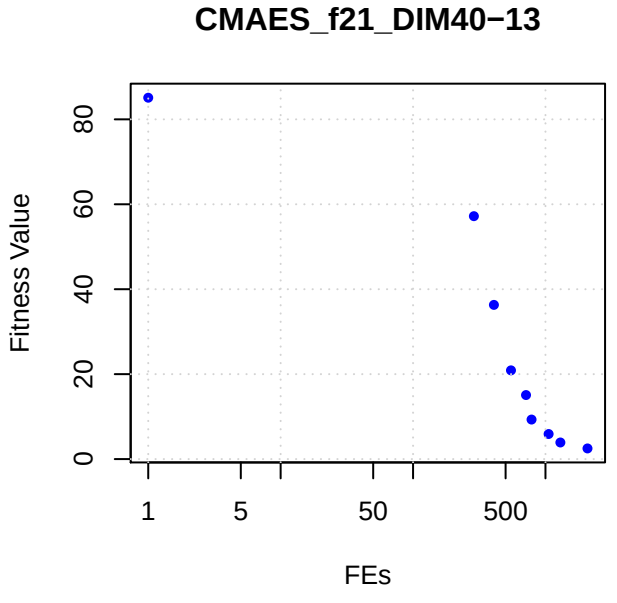

CMAES_f21_DIM3−9
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
200
FEs

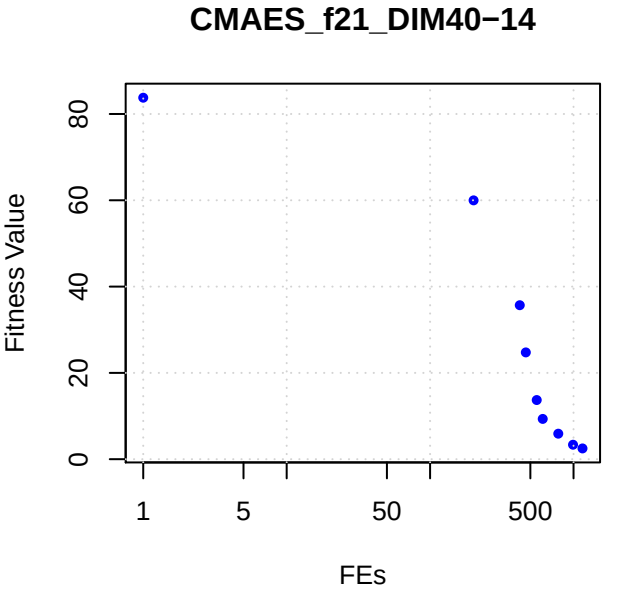

CMAES_f21_DIM40−1
Fitness Value
20
40
60
80
1
5
50
500
FEs

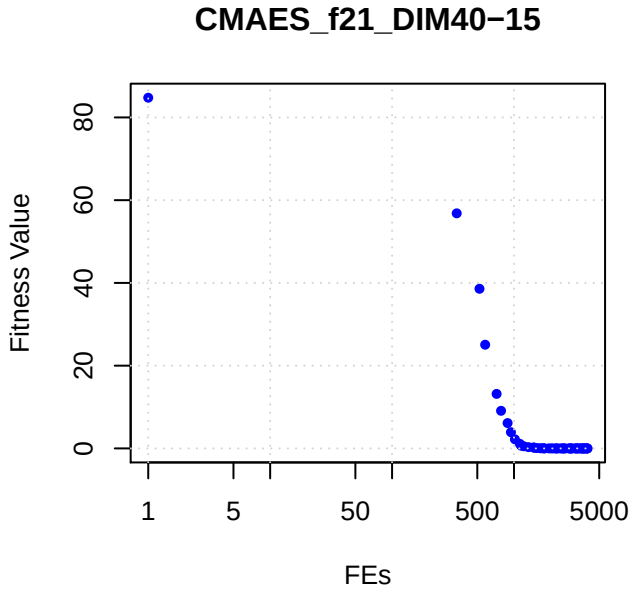

CMAES_f21_DIM40−10
Fitness Value
20
40
60
80
1
5
50
500
FEs

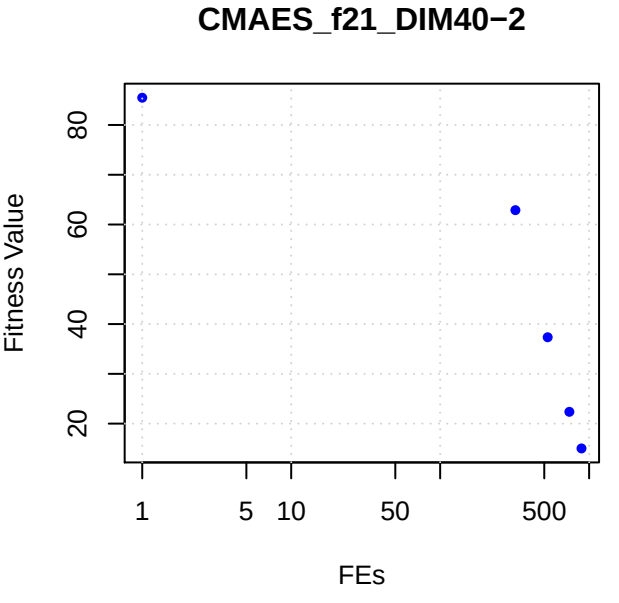

CMAES_f21_DIM40−11
Fitness Value
80
60
40
20
1
5
50
500
FEs

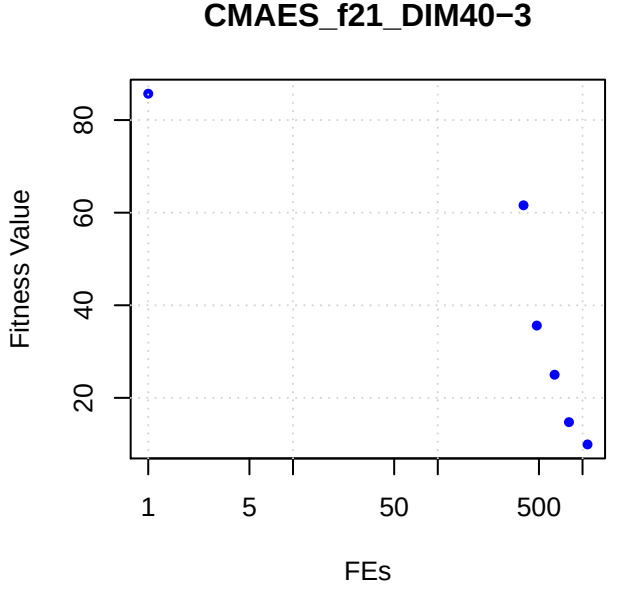

CMAES_f21_DIM40−12
Fitness Value
80
70
60
50
40
30
1
5
50
500
FEs

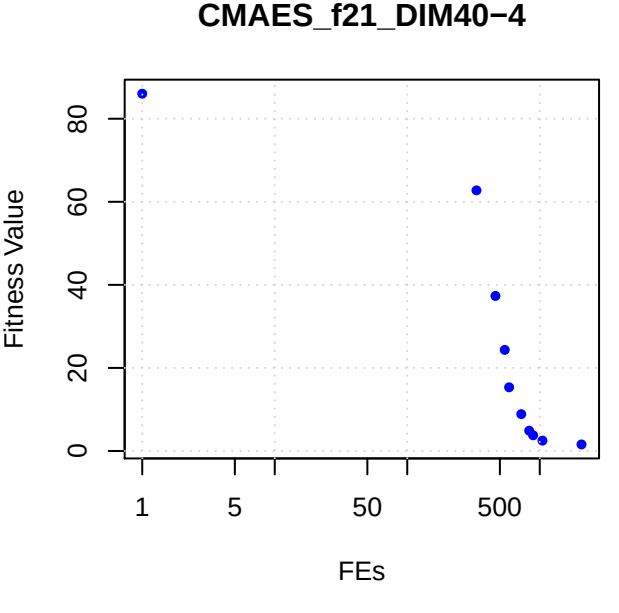

CMAES_f21_DIM40−13
Fitness Value
80
60
40
20
0
1
5
50
500
FEs

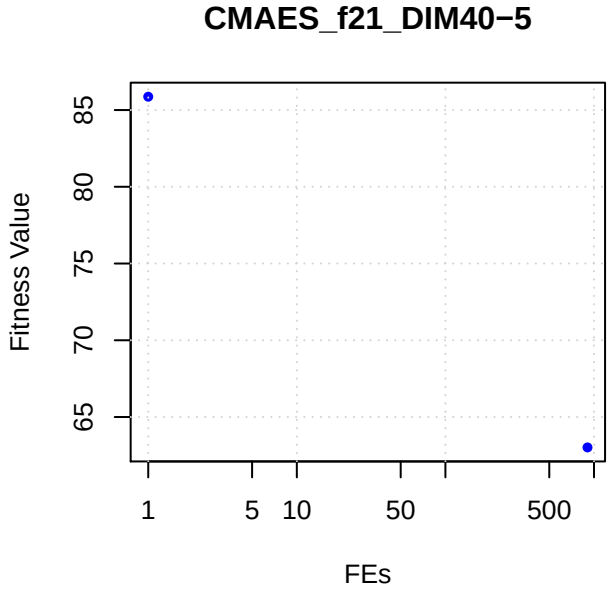

CMAES_f21_DIM40−14
Fitness Value
80
60
40
20
0
1
5
50
500
FEs

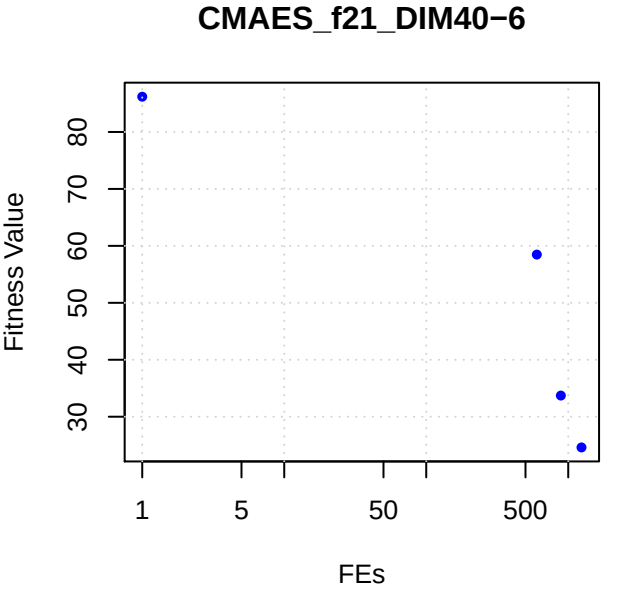

CMAES_f21_DIM40−15
Fitness Value
0
20
40
60
80
1
5
50
500
5000
FEs

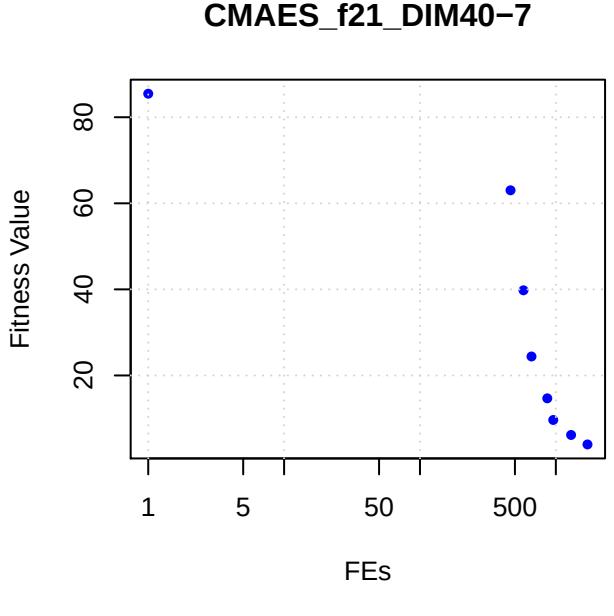

CMAES_f21_DIM40−2
Fitness Value
20
40
60
80
1
5
10
50
500
FEs

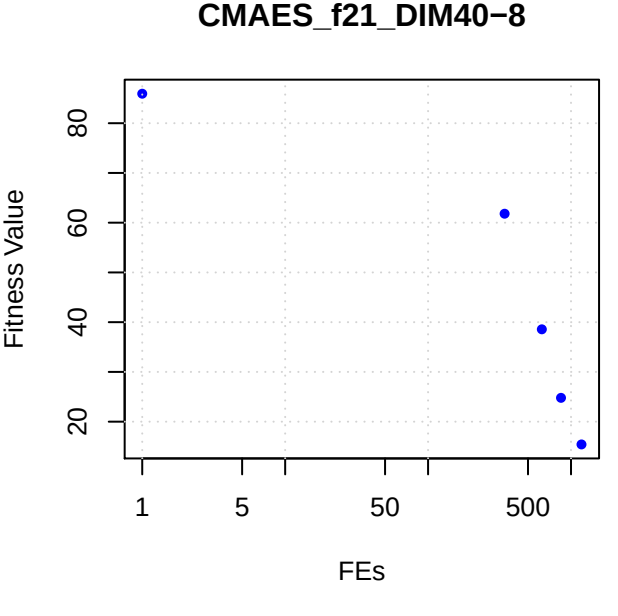

CMAES_f21_DIM40−3
Fitness Value
20
40
60
80
1
5
50
500
FEs

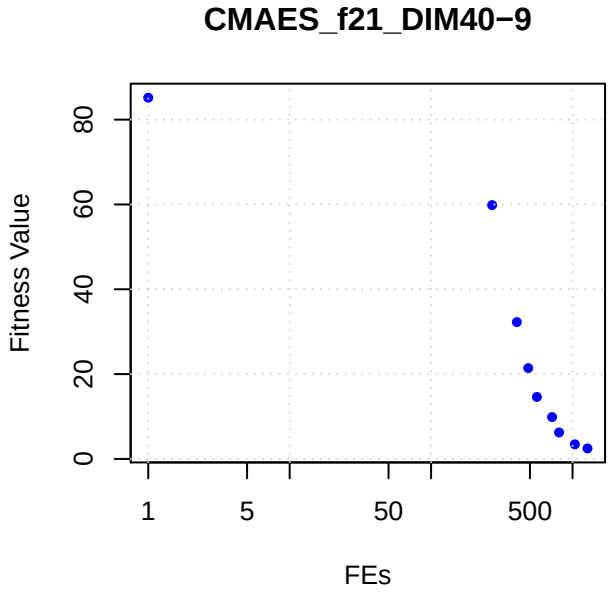

CMAES_f21_DIM40−4
Fitness Value
0
20
40
60
80
1
5
50
500
FEs

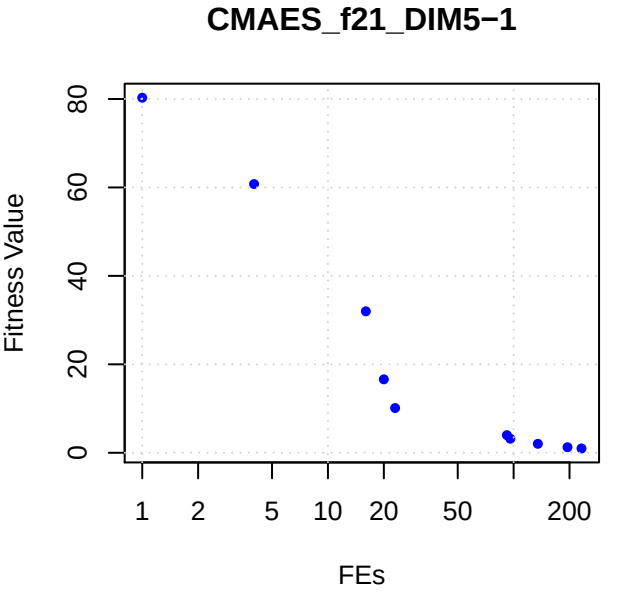

CMAES_f21_DIM40−5
Fitness Value
85
80
75
70
65
1
5
10
50
500
FEs

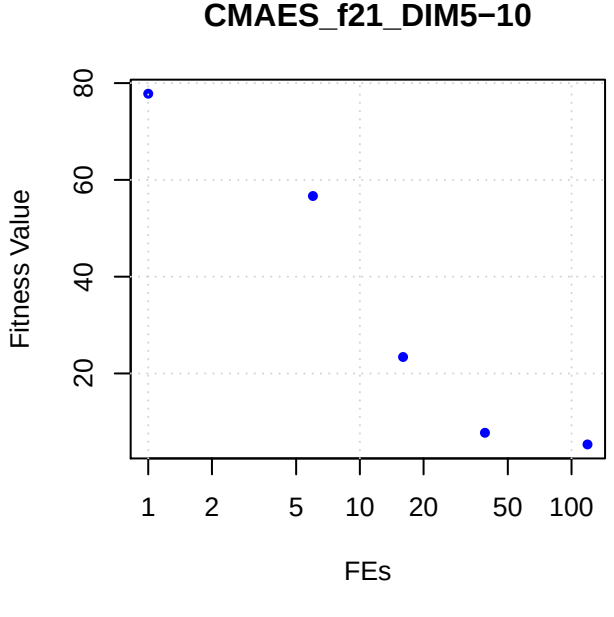

CMAES_f21_DIM40−6
Fitness Value
80
70
60
50
40
30
1
5
50
500
FEs

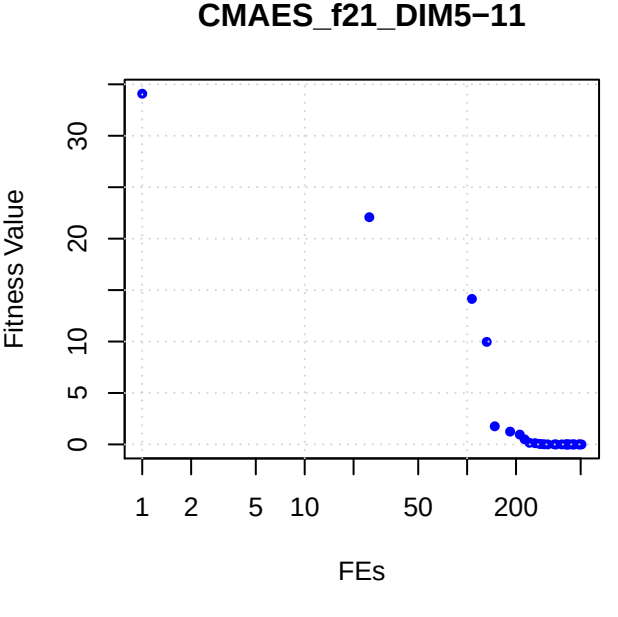

CMAES_f21_DIM40−7
Fitness Value
80
60
40
20
1
5
50
500
FEs

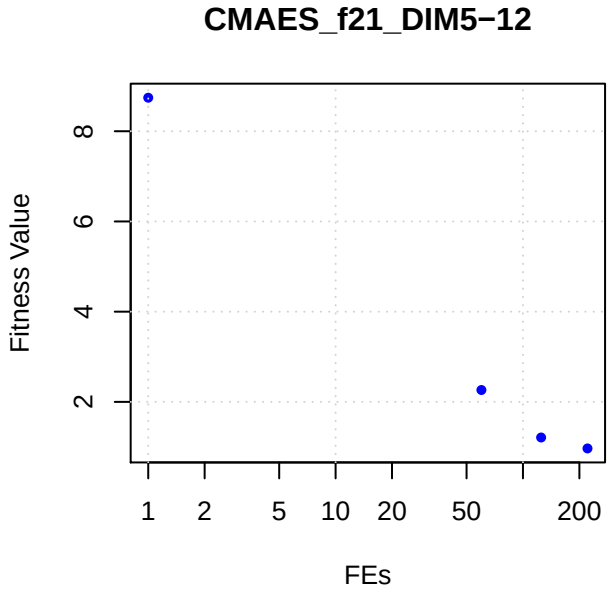

CMAES_f21_DIM40−8
Fitness Value
80
60
40
20
1
5
50
500
FEs

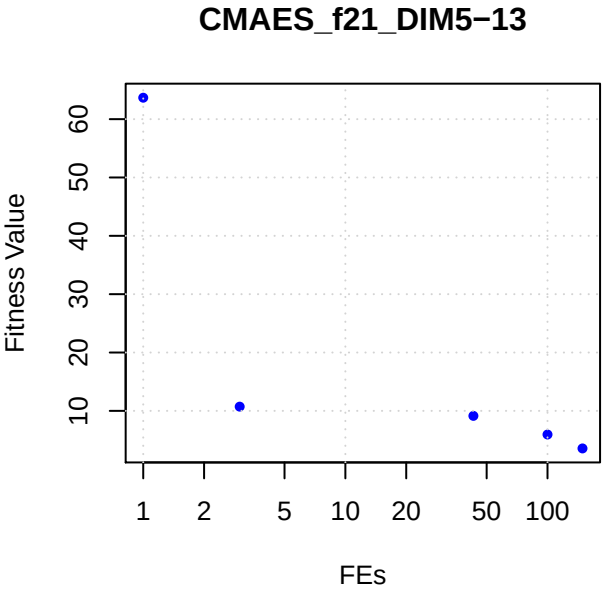

CMAES_f21_DIM40−9
Fitness Value
0
20
40
60
80
1
5
50
500
FEs

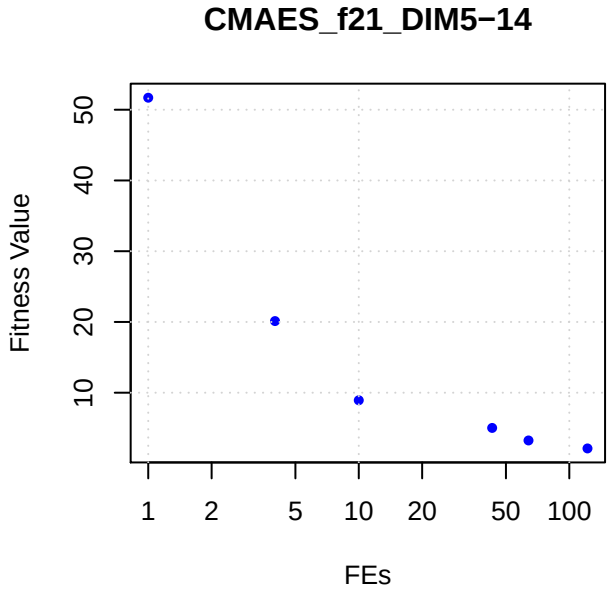

CMAES_f21_DIM5−1
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs

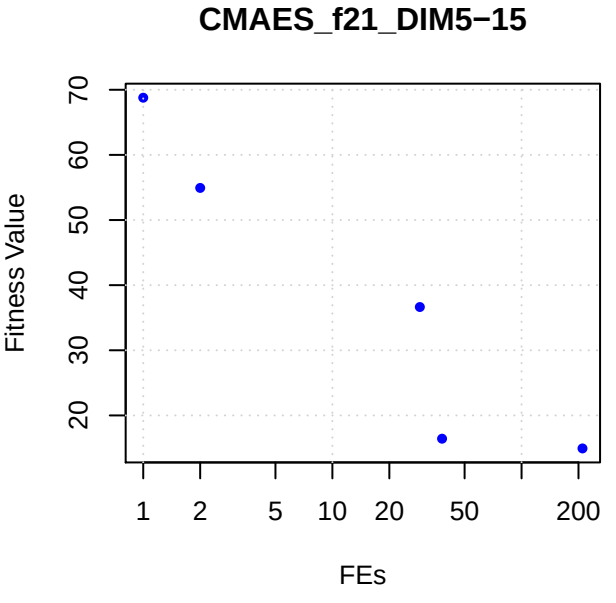

CMAES_f21_DIM5−10
Fitness Value
20
40
60
80
1
2
5
10
20
50
100
FEs

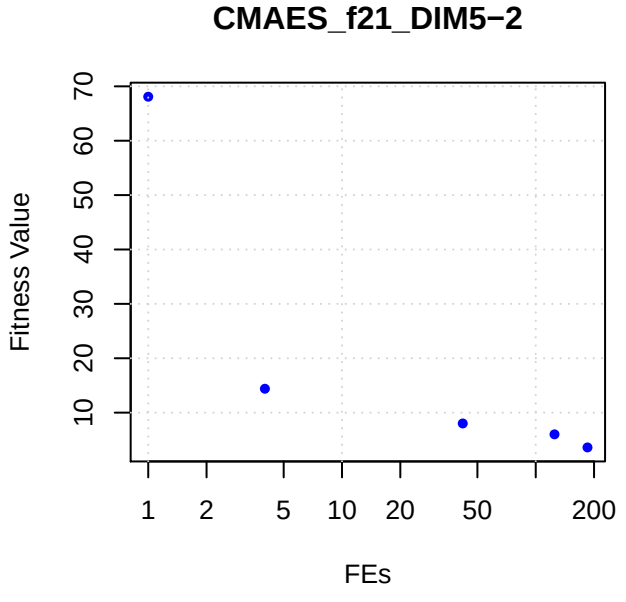

CMAES_f21_DIM5−11
Fitness Value
0
5
10
20
30
1
2
5
10
50
200
FEs

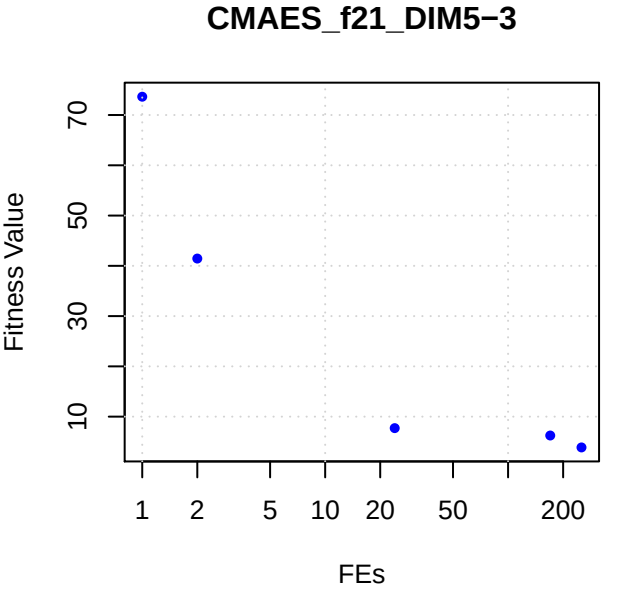

CMAES_f21_DIM5−12
Fitness Value
2
4
6
8
1
2
5
10
20
50
200
FEs

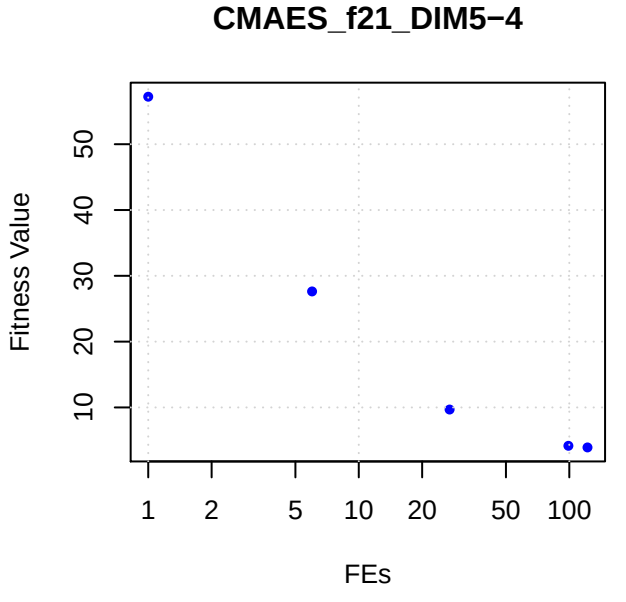

CMAES_f21_DIM5−13
Fitness Value
10
20
30
40
50
60
1
2
5
10
20
50
100
FEs

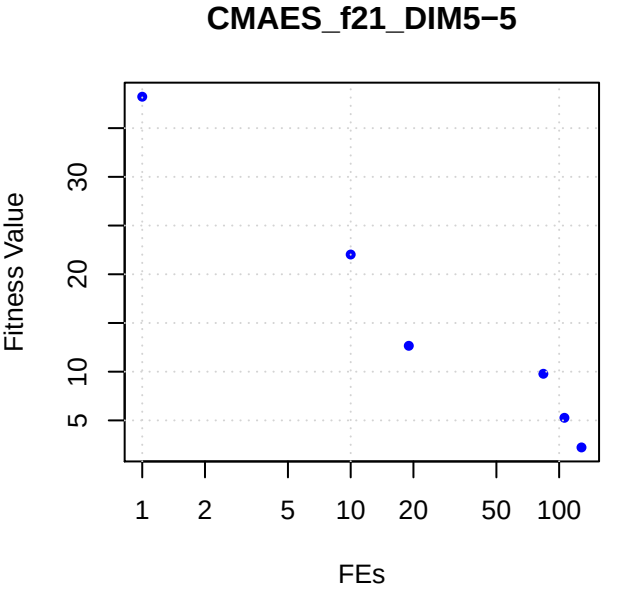

CMAES_f21_DIM5−14
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
100
FEs

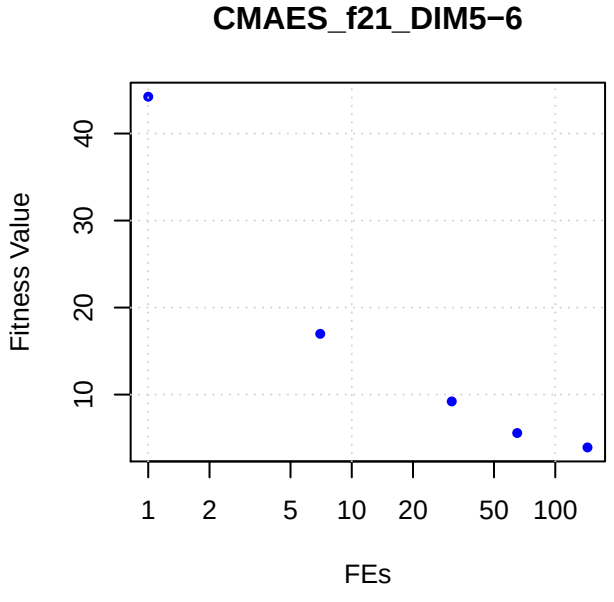

CMAES_f21_DIM5−15
Fitness Value
20
30
40
50
60
70
1
2
5
10
20
50
200
FEs

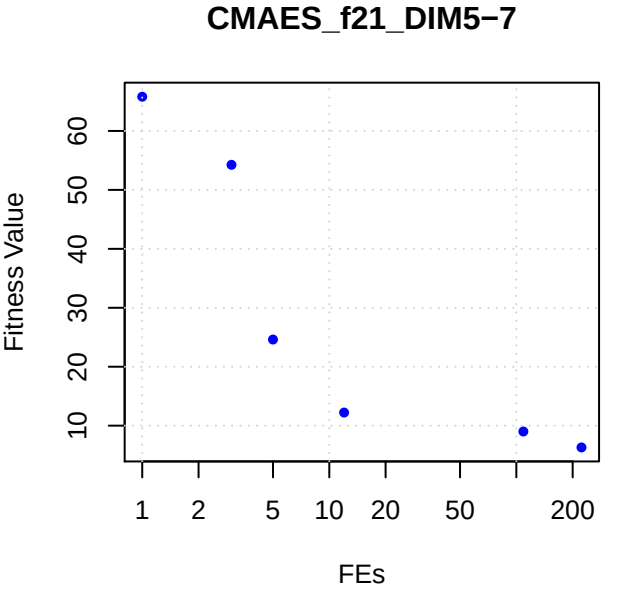

CMAES_f21_DIM5−2
Fitness Value
10
20
30
40
50
60
70
1
2
5
10
20
50
200
FEs

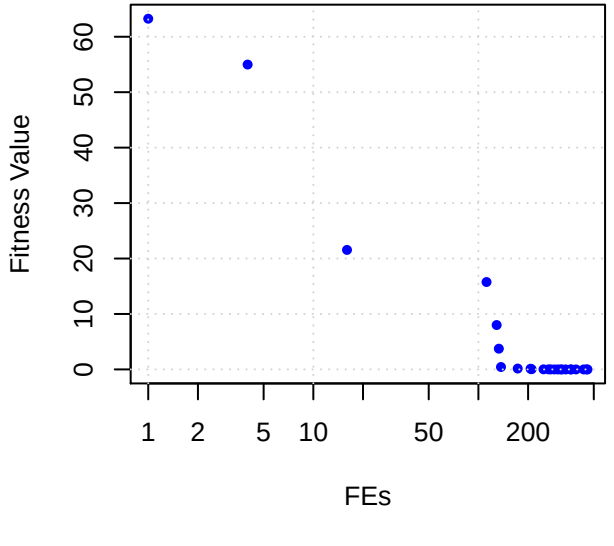

CMAES_f21_DIM5−3
Fitness Value
10
30
50
70
1
2
5
10
20
50
200
FEs

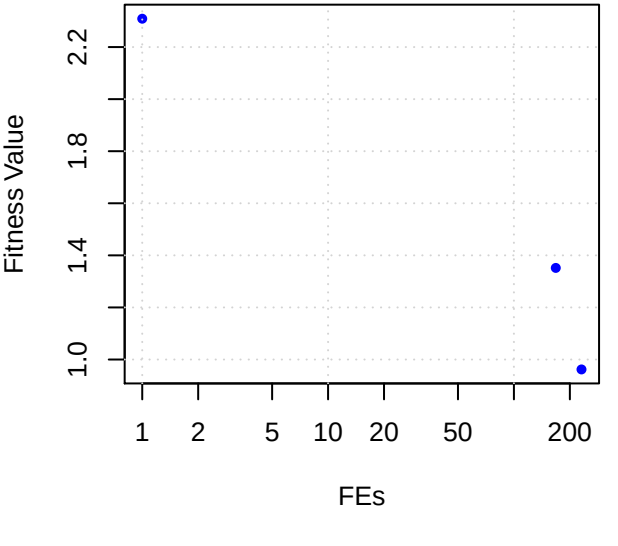

CMAES_f21_DIM5−4
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
100
FEs

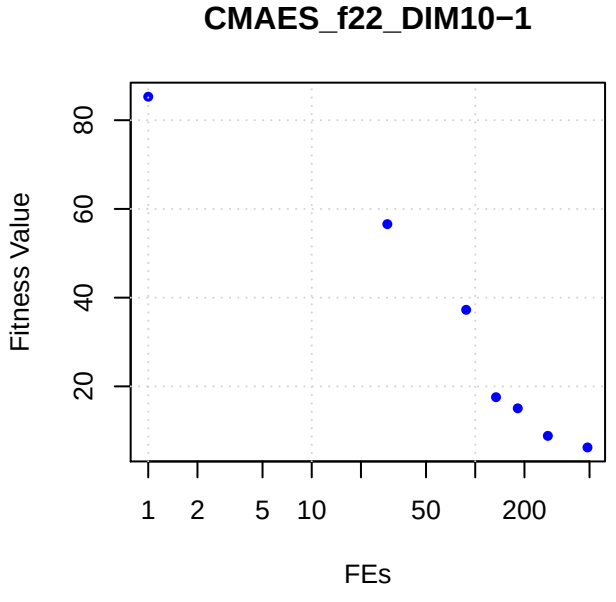

CMAES_f21_DIM5−5
Fitness Value
5
10
20
30
1
2
5
10
20
50
100
FEs

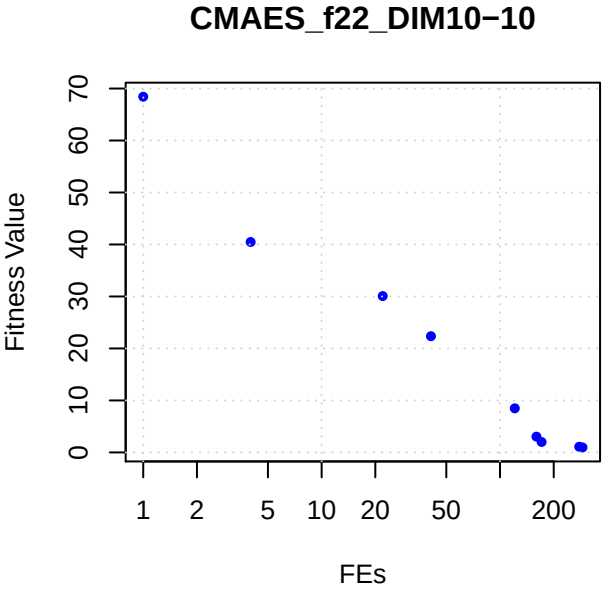

CMAES_f21_DIM5−6
Fitness Value
10
20
30
40
1
2
5
10
20
50
100
FEs

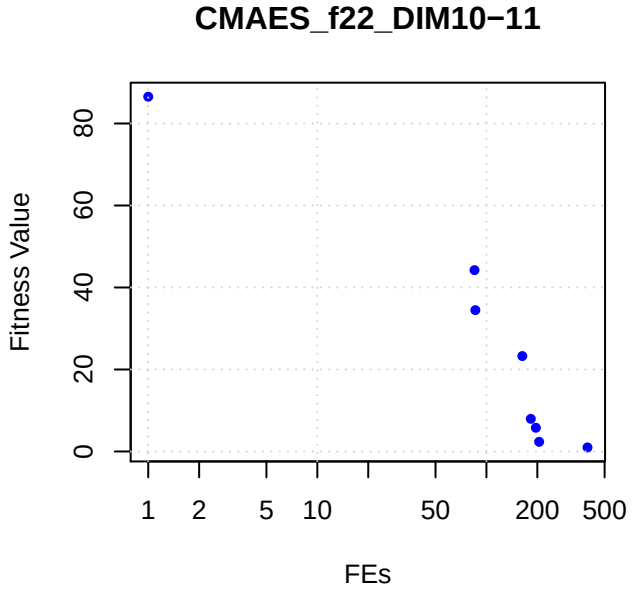

CMAES_f21_DIM5−7
Fitness Value
10
20
30
40
50
60
1
2
5
10
20
50
200
FEs

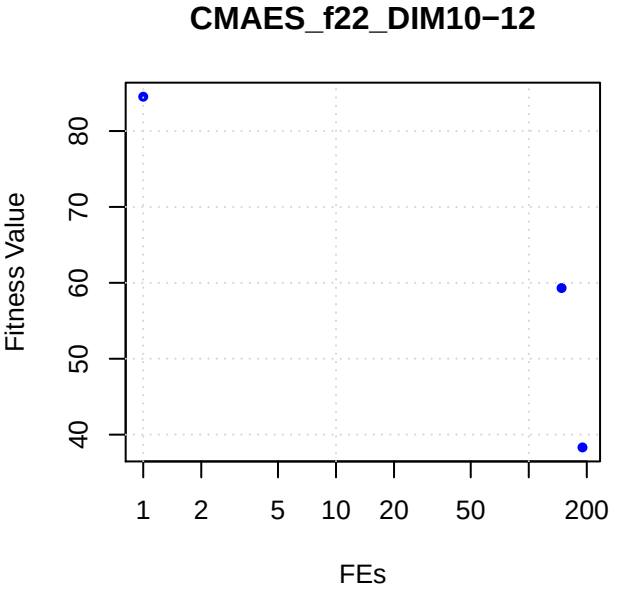

CMAES_f21_DIM5−8
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
50
200
FEs

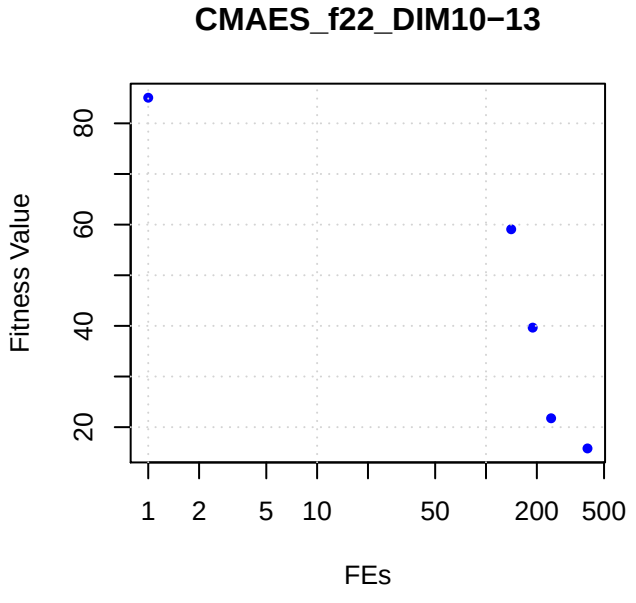

CMAES_f21_DIM5−9
Fitness Value
1.0
1.4
1.8
2.2
1
2
5
10
20
50
200
FEs

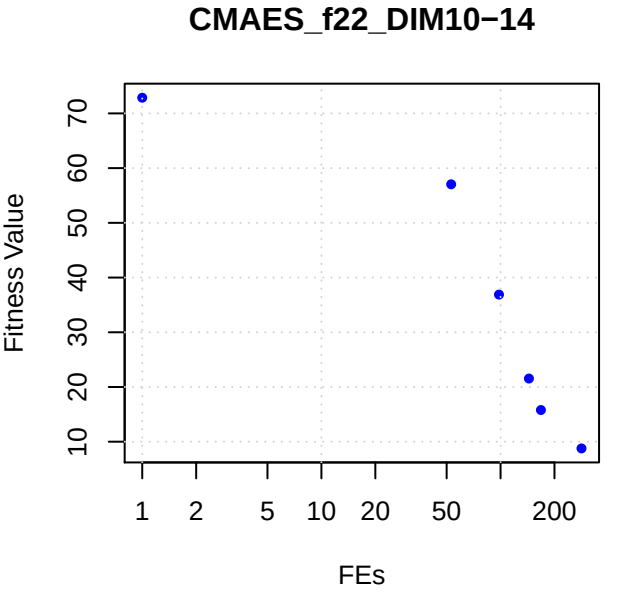

CMAES_f22_DIM10−1
Fitness Value
20
40
60
80
1
2
5
10
50
200
FEs

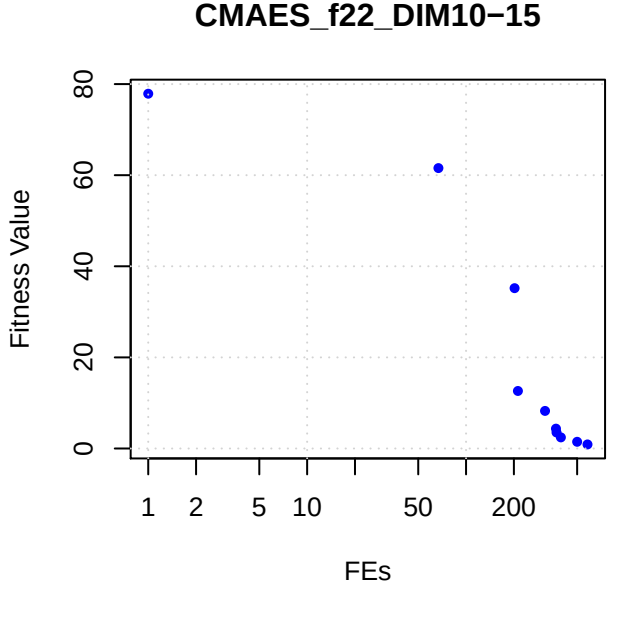

CMAES_f22_DIM10−10
Fitness Value
0
10
20
30
40
50
60
70
1
2
5
10
20
50
200
FEs

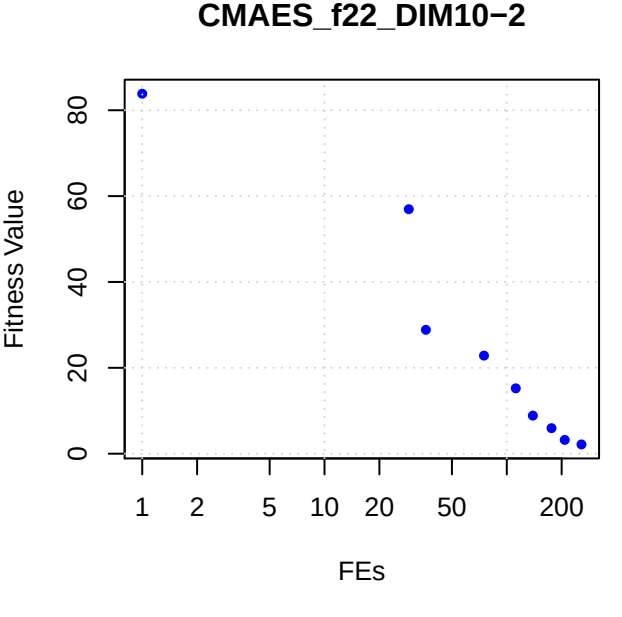

CMAES_f22_DIM10−11
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
500
FEs

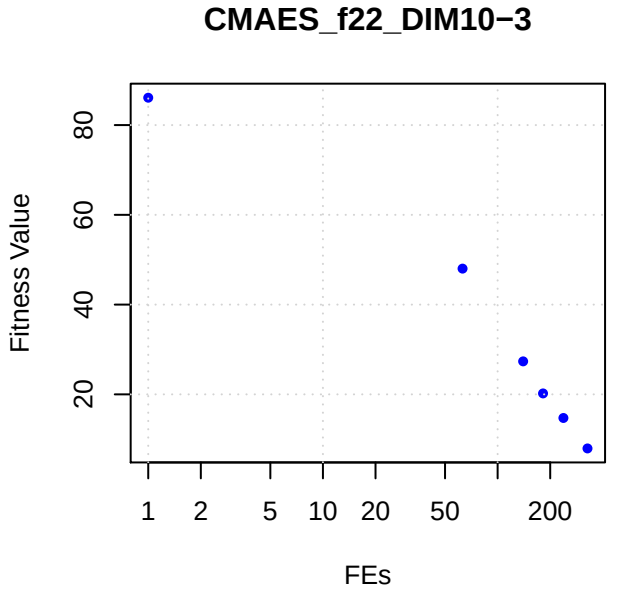

CMAES_f22_DIM10−12
Fitness Value
40
50
60
70
80
1
2
5
10
20
50
200
FEs

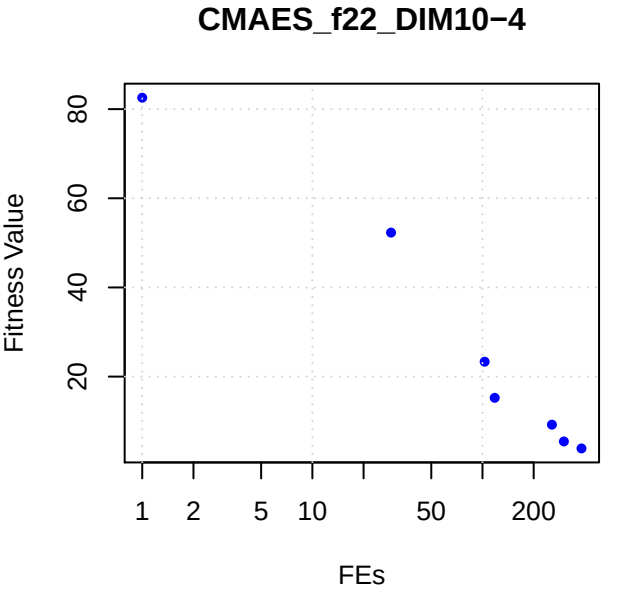

CMAES_f22_DIM10−13
Fitness Value
20
40
60
80
1
2
5
10
50
200
500
FEs

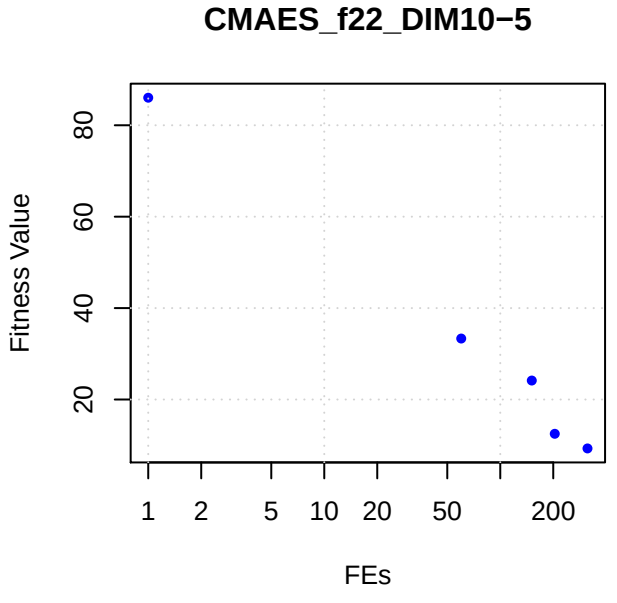

CMAES_f22_DIM10−14
Fitness Value
10
20
30
40
50
60
70
1
2
5
10
20
50
200
FEs

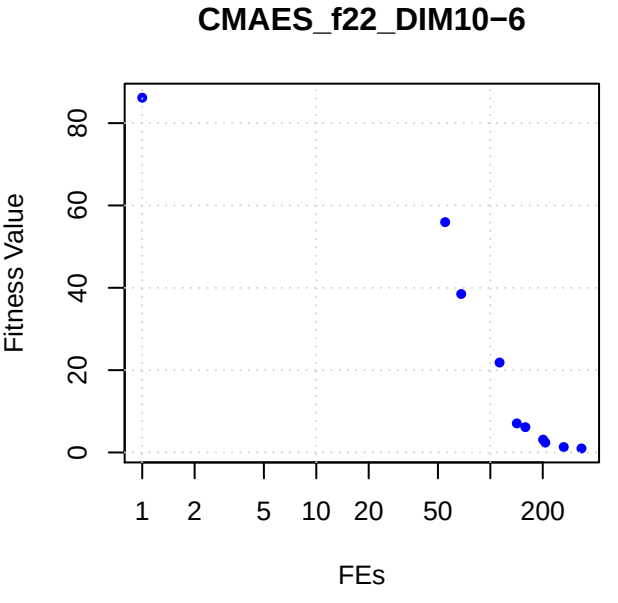

CMAES_f22_DIM10−15
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

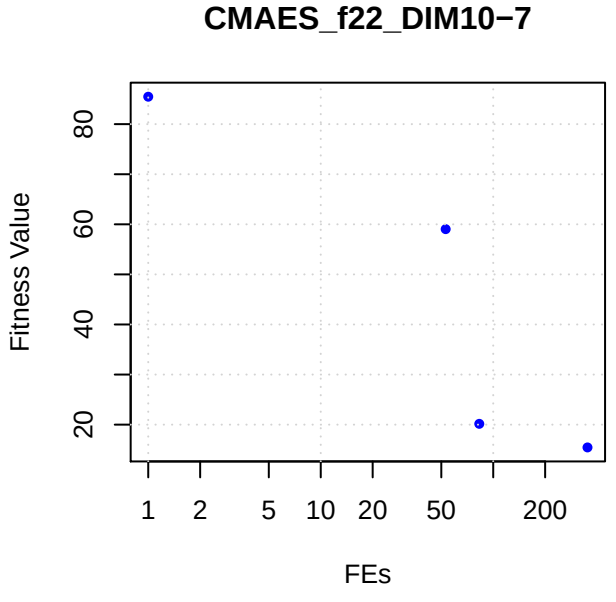

CMAES_f22_DIM10−2
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs

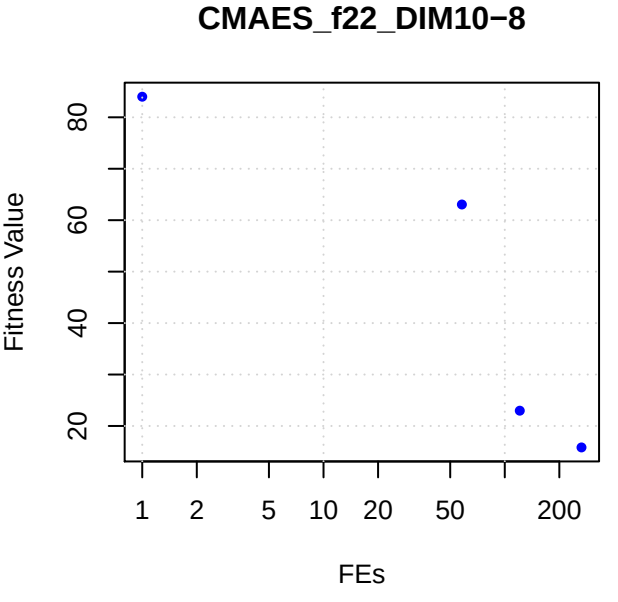

CMAES_f22_DIM10−3
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs

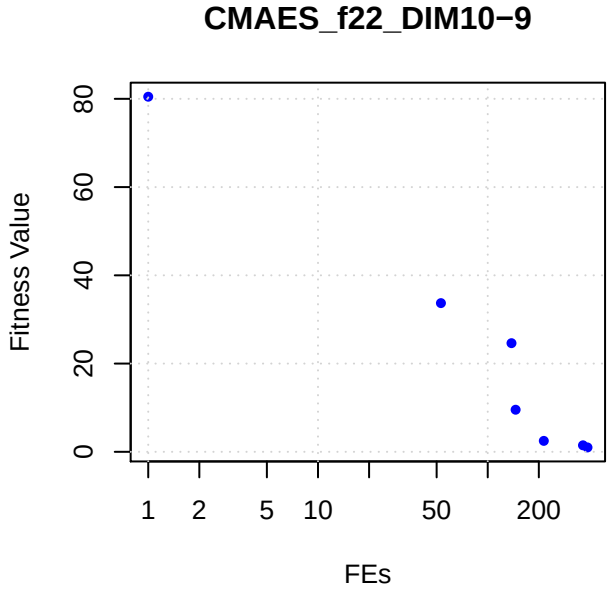

CMAES_f22_DIM10−4
Fitness Value
20
40
60
80
1
2
5
10
50
200
FEs

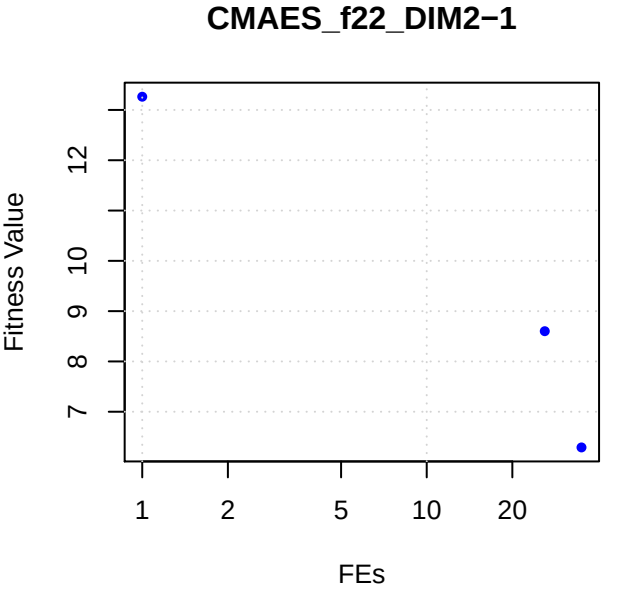

CMAES_f22_DIM10−5
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs

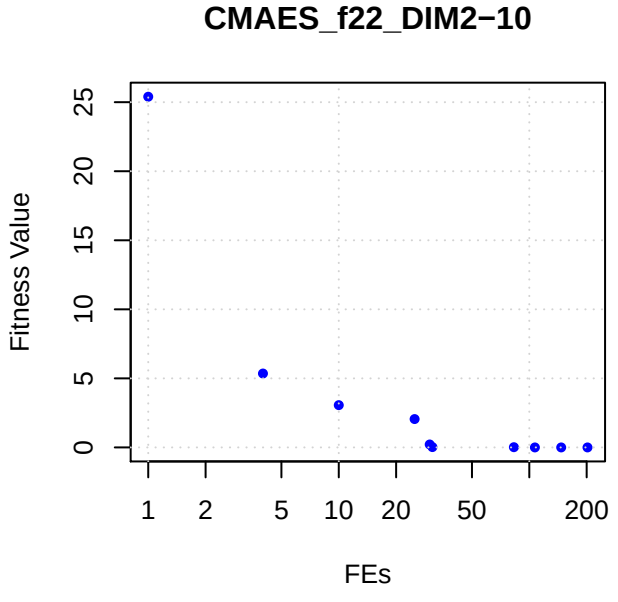

CMAES_f22_DIM10−6
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs

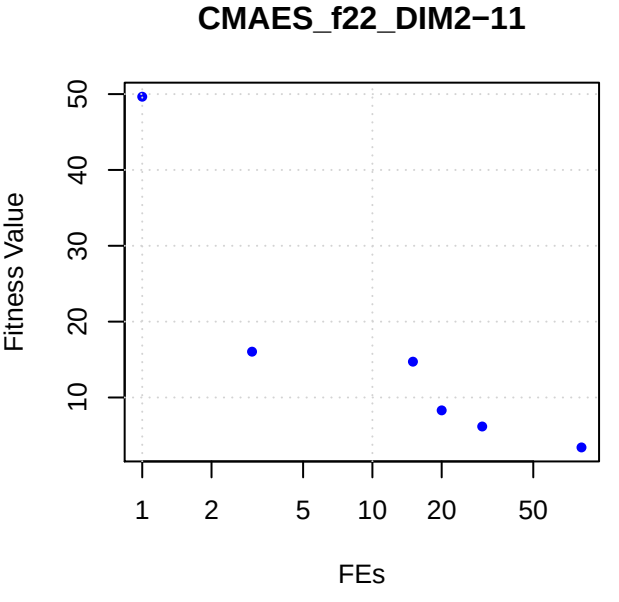

CMAES_f22_DIM10−7
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs

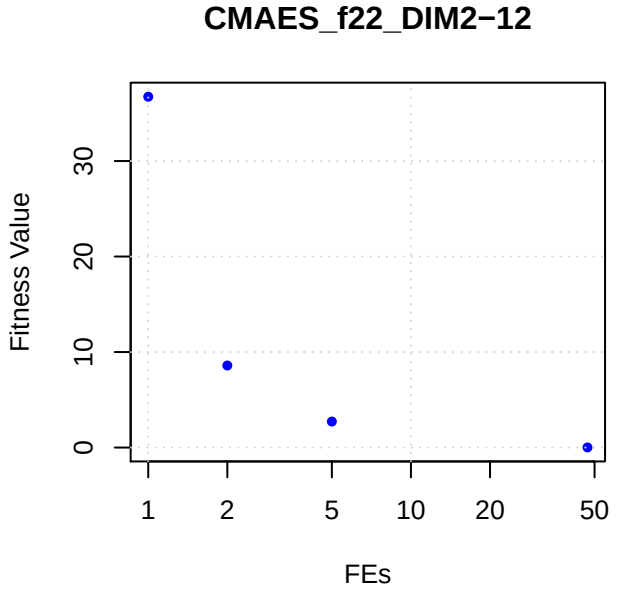

CMAES_f22_DIM10−8
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs

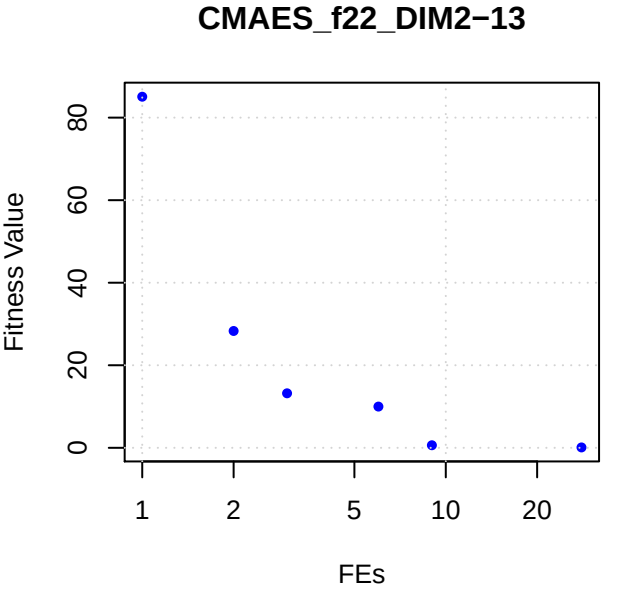

CMAES_f22_DIM10−9
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

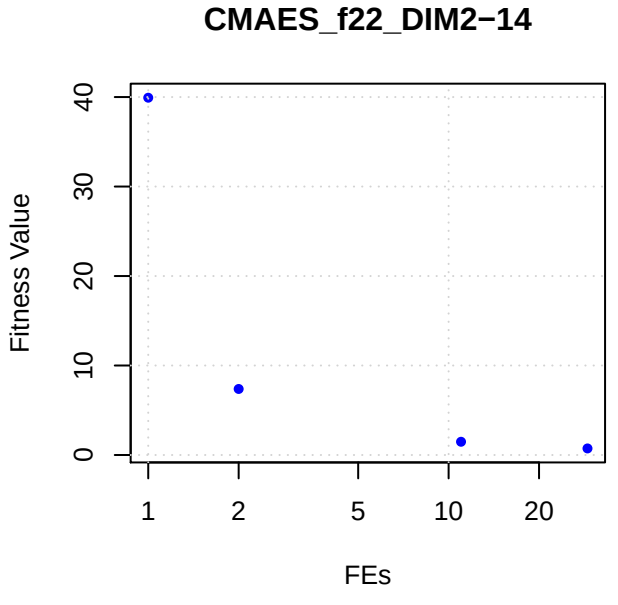

CMAES_f22_DIM2−1
Fitness Value
7
8
9
10
12
1
2
5
10
20
FEs

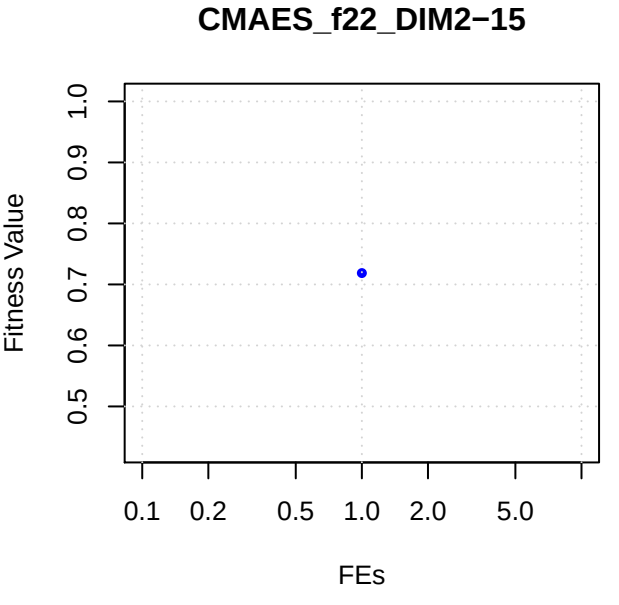

CMAES_f22_DIM2−10
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
200
FEs

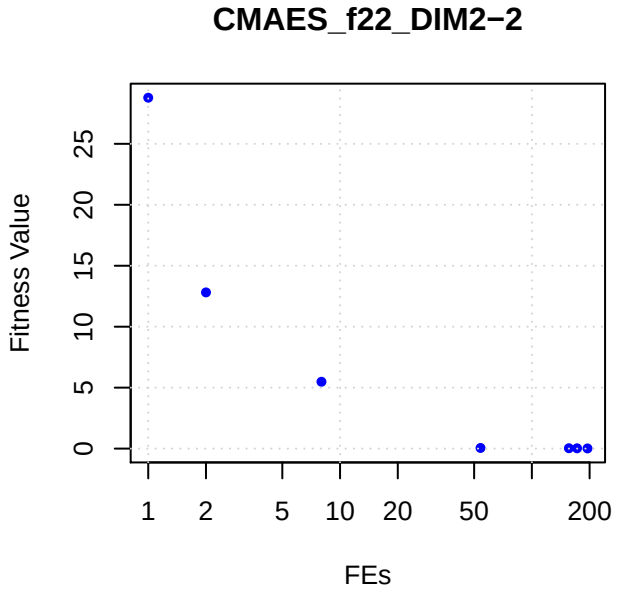

CMAES_f22_DIM2−11
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
FEs

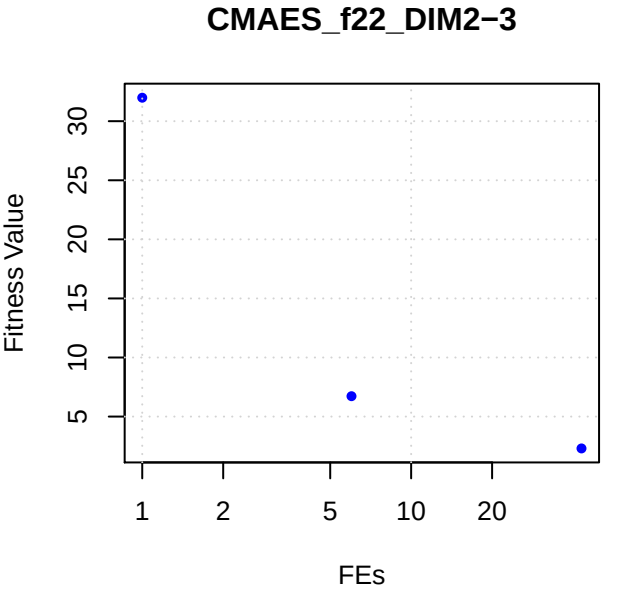

CMAES_f22_DIM2−12
Fitness Value
0
10
20
30
1
2
5
10
20
50
FEs

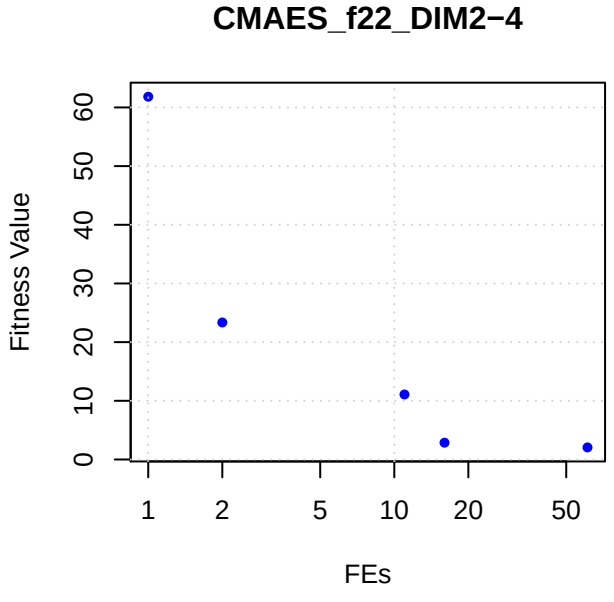

CMAES_f22_DIM2−13
Fitness Value
0
20
40
60
80
1
2
5
10
20
FEs

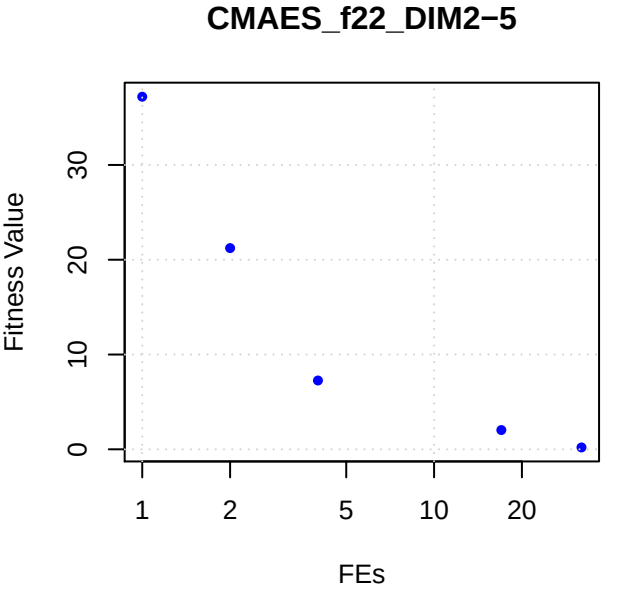

CMAES_f22_DIM2−14
Fitness Value
0
10
20
30
40
1
2
5
10
20
FEs

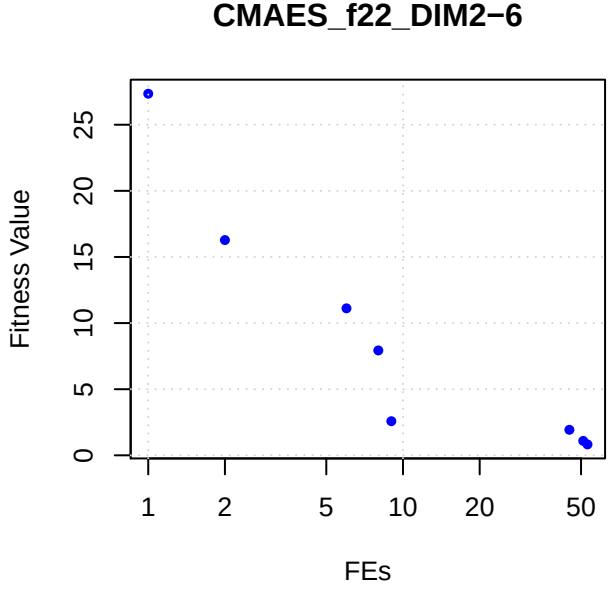

CMAES_f22_DIM2−15
Fitness Value
0.5
0.6
0.7
0.8
0.9
1.0
0.1
0.2
0.5
1.0
2.0
5.0
FEs

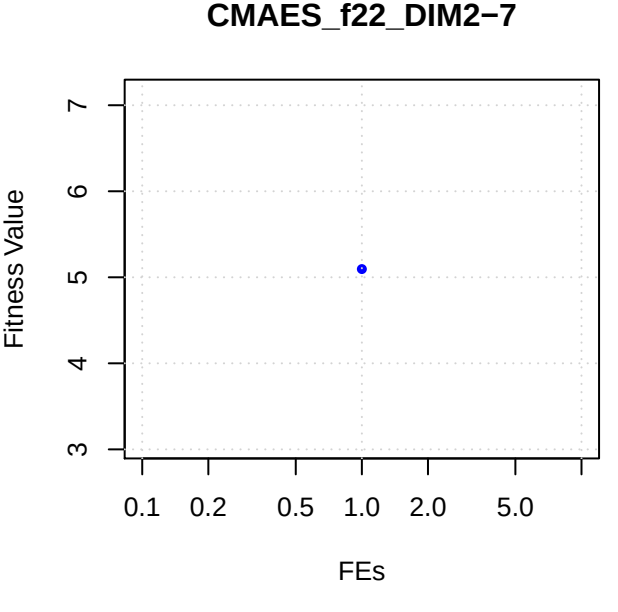

CMAES_f22_DIM2−2
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
200
FEs

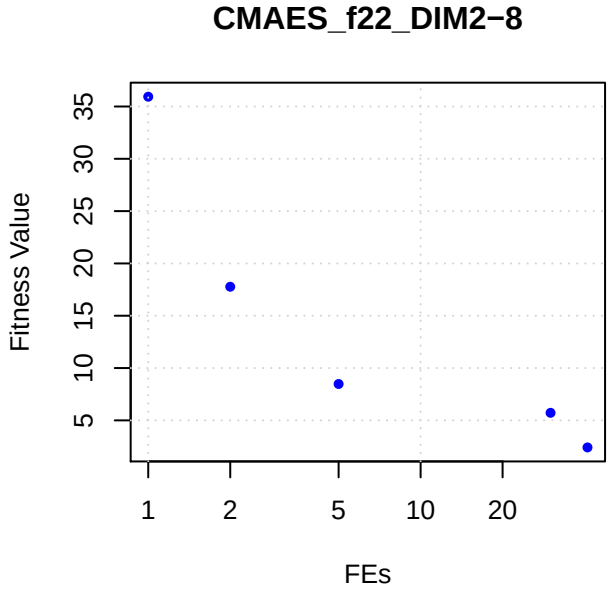

CMAES_f22_DIM2−3
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
FEs

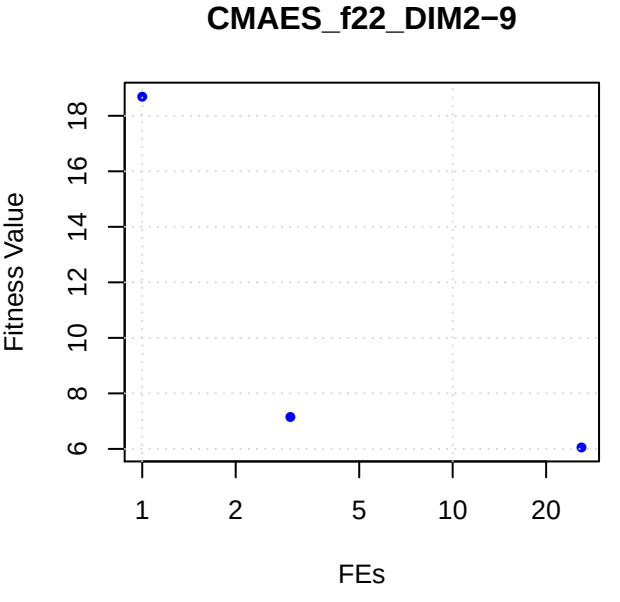

CMAES_f22_DIM2−4
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
20
50
FEs

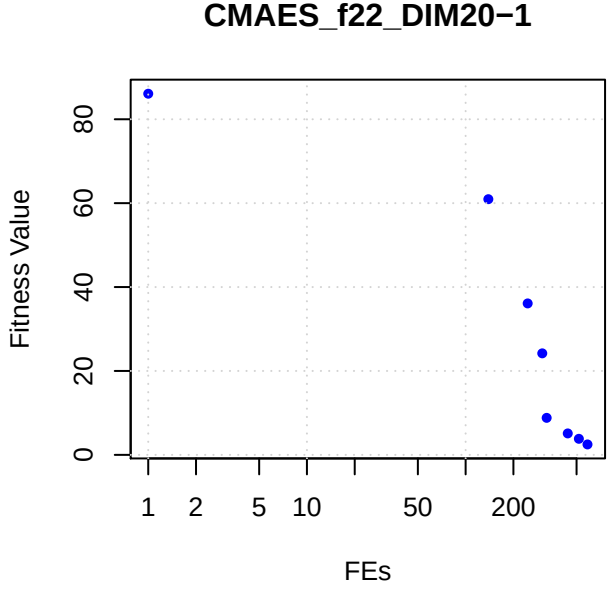

CMAES_f22_DIM2−5
Fitness Value
0
10
20
30
1
2
5
10
20
FEs

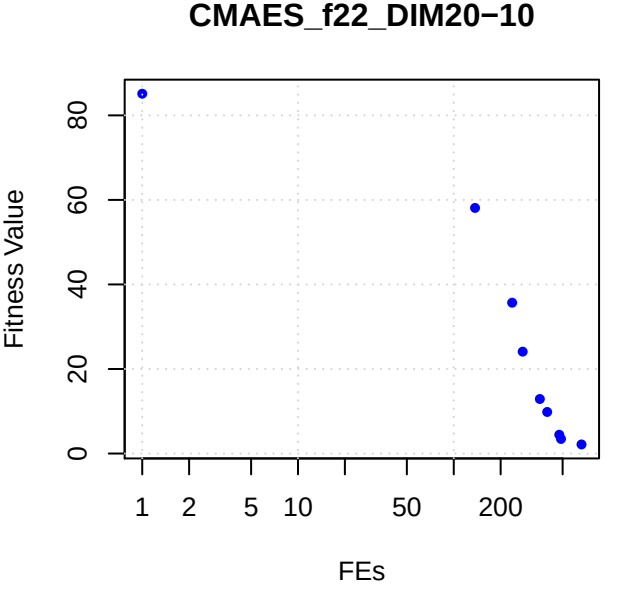

CMAES_f22_DIM2−6
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
FEs

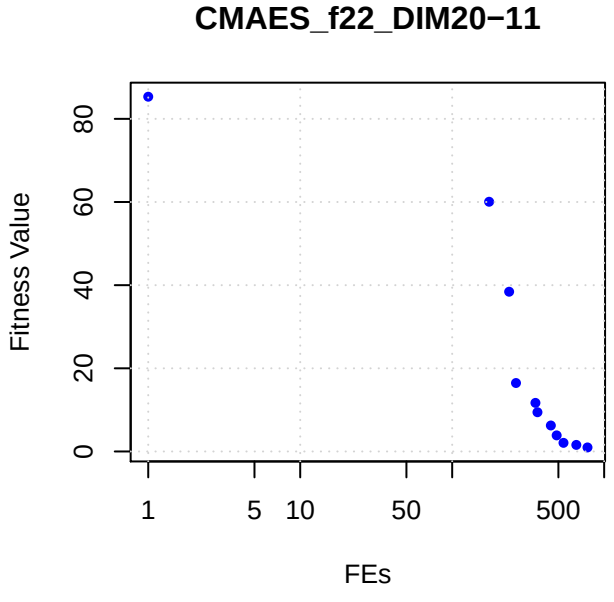

CMAES_f22_DIM2−7
Fitness Value
3
4
5
6
7
0.1
0.2
0.5
1.0
2.0
5.0
FEs

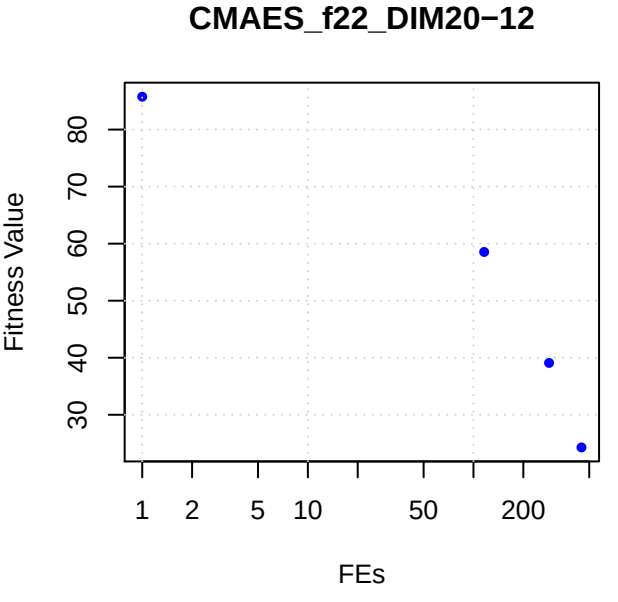

CMAES_f22_DIM2−8
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
20
FEs

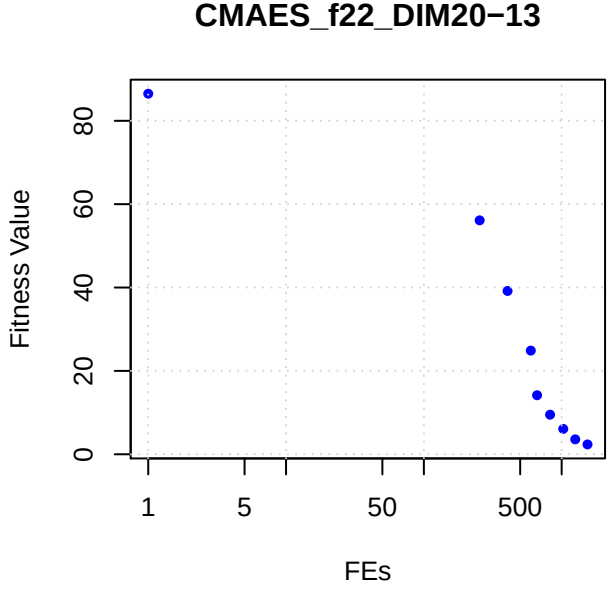

CMAES_f22_DIM2−9
Fitness Value
6
8
10
12
14
16
18
1
2
5
10
20
FEs

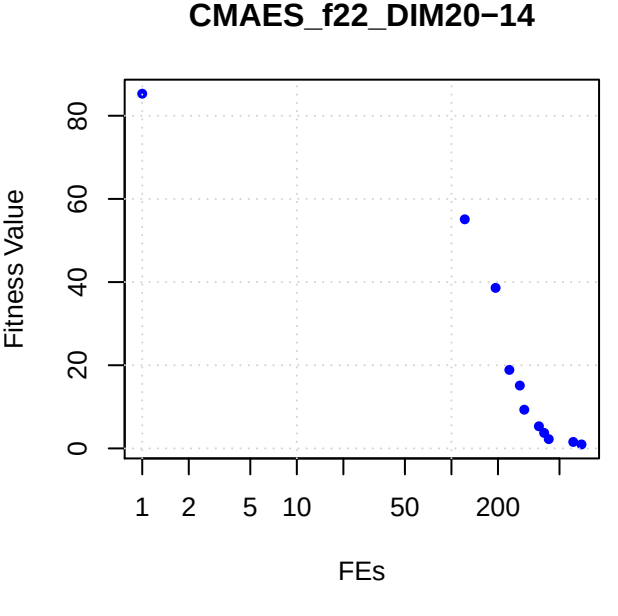

CMAES_f22_DIM20−1
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

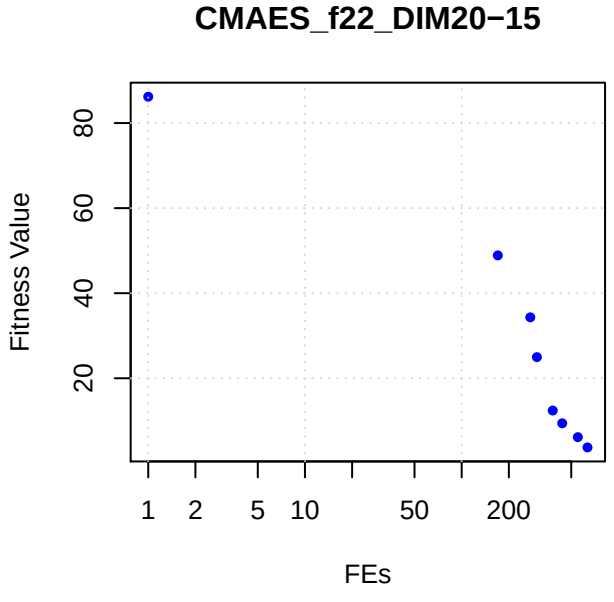

CMAES_f22_DIM20−10
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

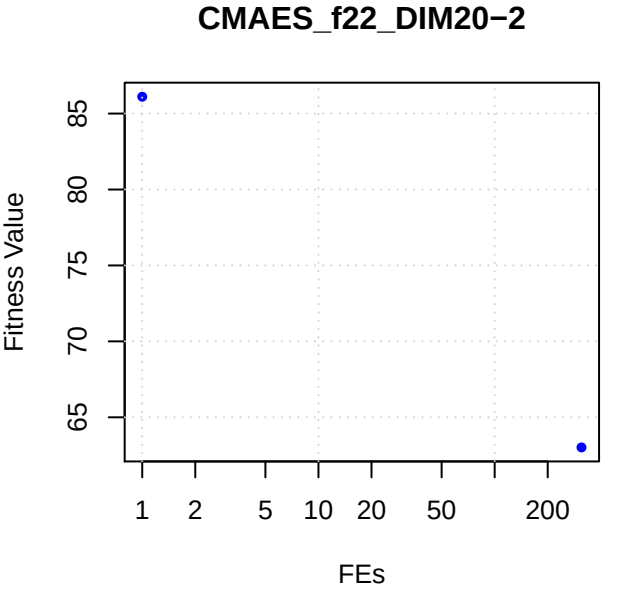

CMAES_f22_DIM20−11
Fitness Value
0
20
40
60
80
1
5
10
50
500
FEs

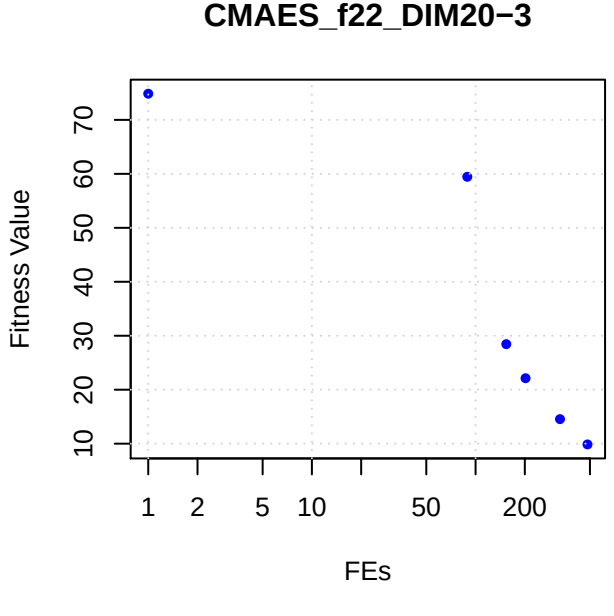

CMAES_f22_DIM20−12
Fitness Value
30
40
50
60
70
80
1
2
5
10
50
200
FEs

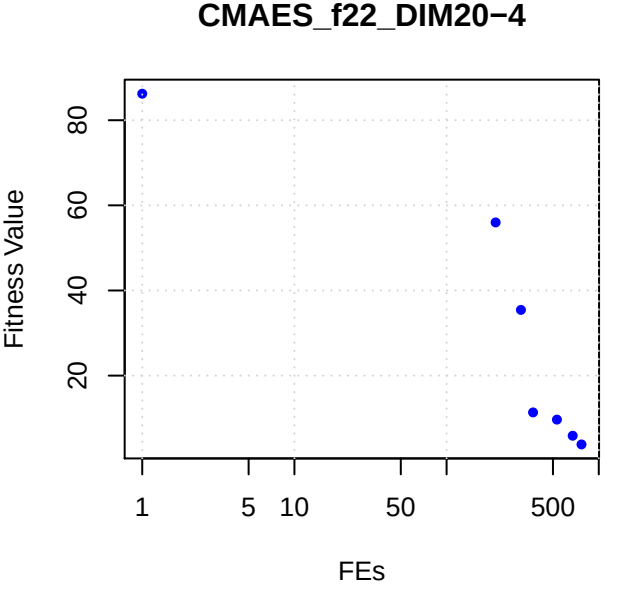

CMAES_f22_DIM20−13
Fitness Value
0
20
40
60
80
1
5
50
500
FEs

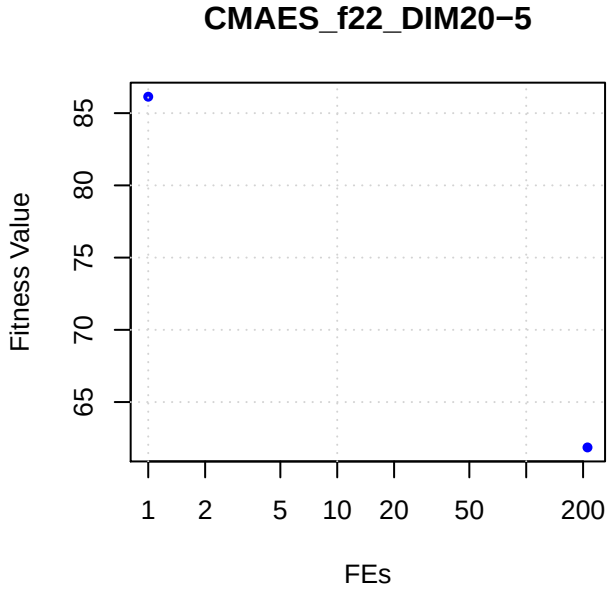

CMAES_f22_DIM20−14
Fitness Value
0
20
40
60
80
1
2
5
10
50
200
FEs

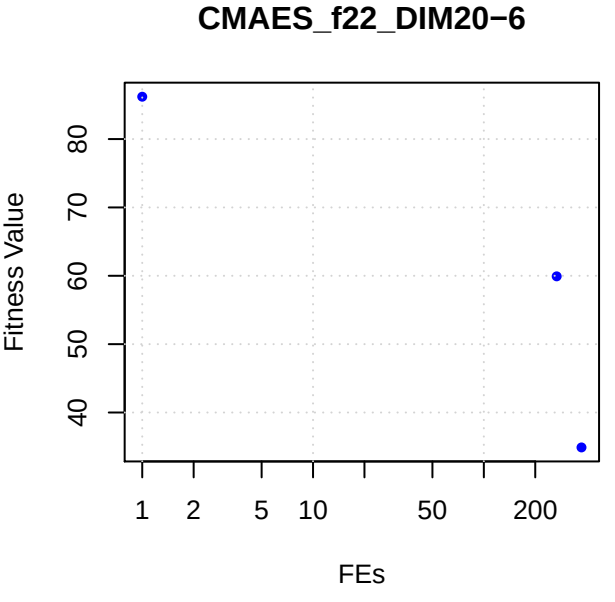

CMAES_f22_DIM20−15
Fitness Value
20
40
60
80
1
2
5
10
50
200
FEs

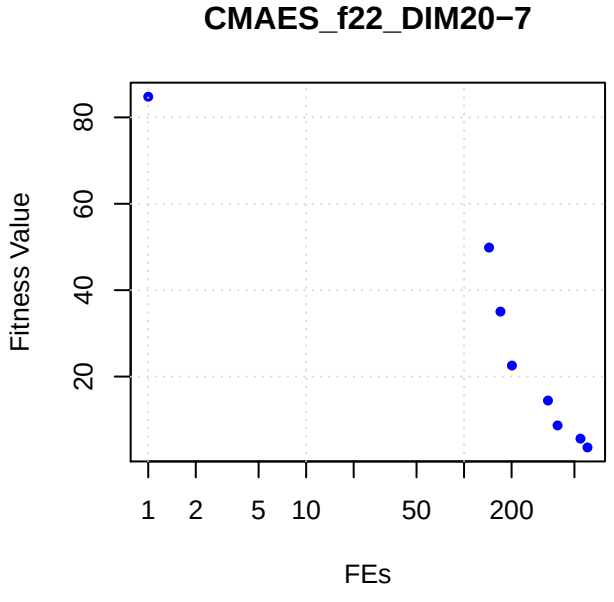

CMAES_f22_DIM20−2
Fitness Value
65
70
75
80
85
1
2
5
10
20
50
200
FEs

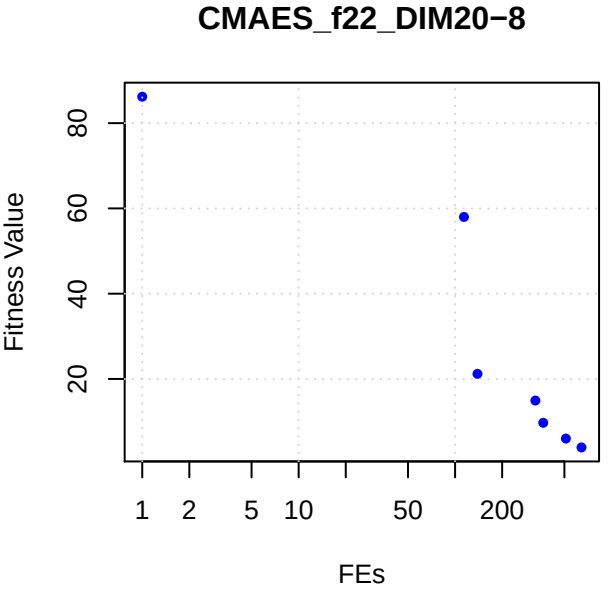

CMAES_f22_DIM20−3
Fitness Value
10
20
30
40
50
60
70
1
2
5
10
50
200
FEs


CMAES_f22_DIM20−4
Fitness Value
20
40
60
80
1
5
10
50
500
FEs


CMAES_f22_DIM20−5
Fitness Value
85
80
75
70
65
1
2
5
10
20
50
200
FEs


CMAES_f22_DIM20−6
Fitness Value
80
70
60
50
40
1
2
5
10
50
200
FEs


CMAES_f22_DIM20−7
Fitness Value
80
60
40
20
1
2
5
10
50
200
FEs


CMAES_f22_DIM20−8
Fitness Value
80
60
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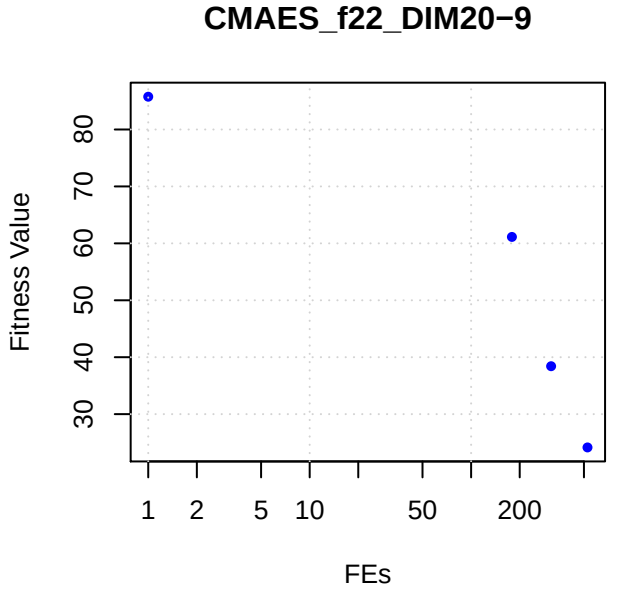
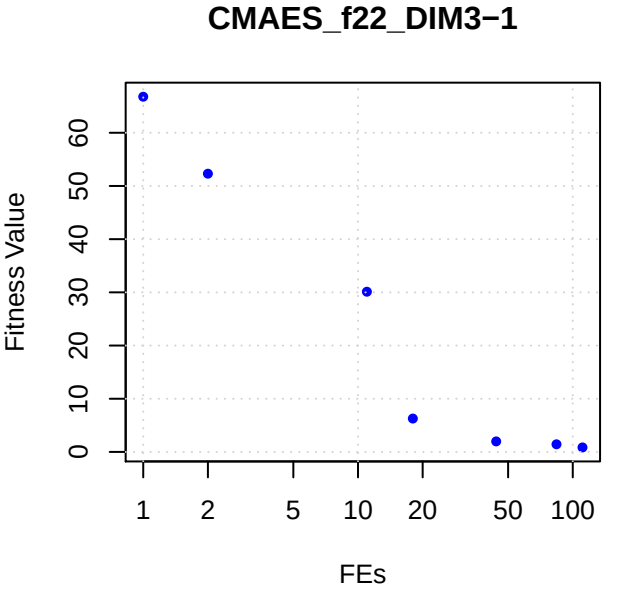
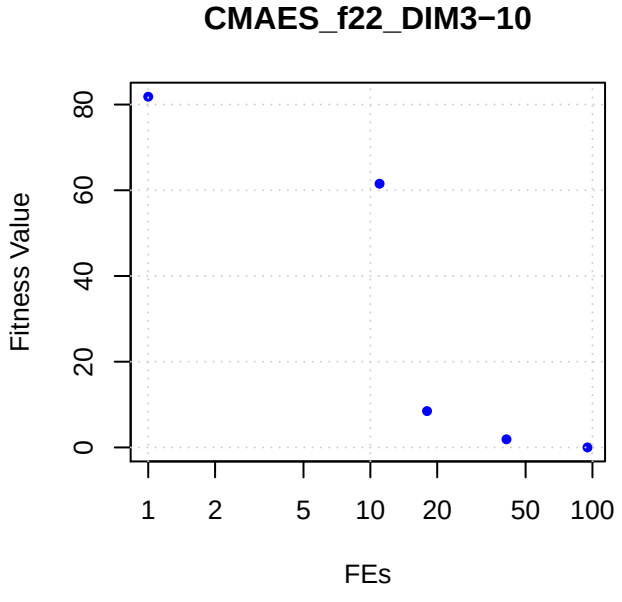
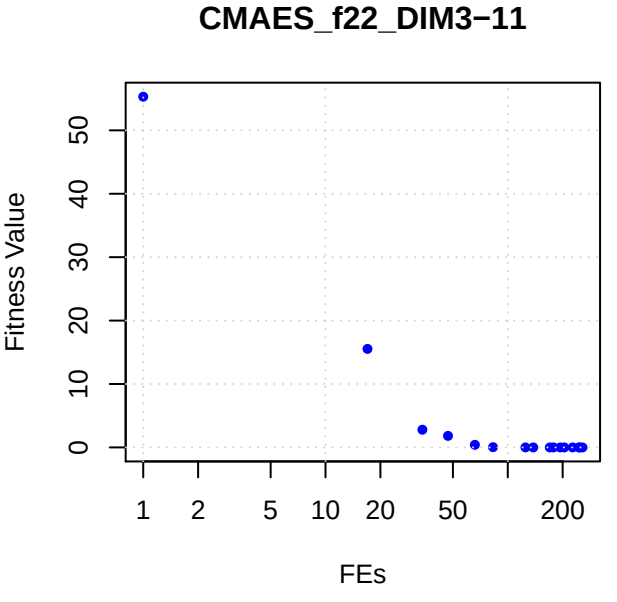
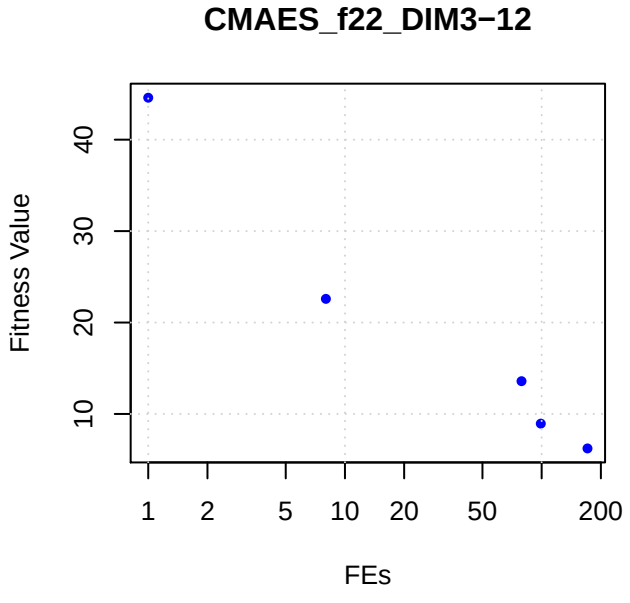
20
1
2
5
10
50
200
FEs


CMAES_f22_DIM20−9
Fitness Value
30
40
50
60
70
80
1
2
5
10
50
200
FEs


CMAES_f22_DIM3−1
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM3−10
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM3−11
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
200
FEs


CMAES_f22_DIM3−12
Fitness Value
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20
30
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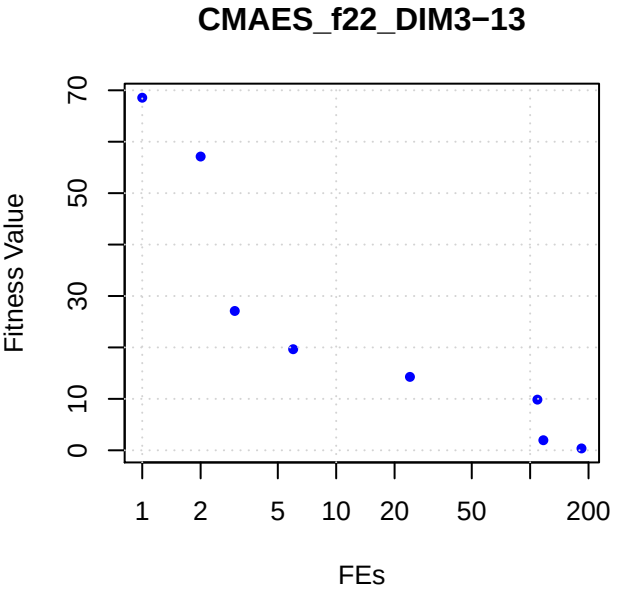
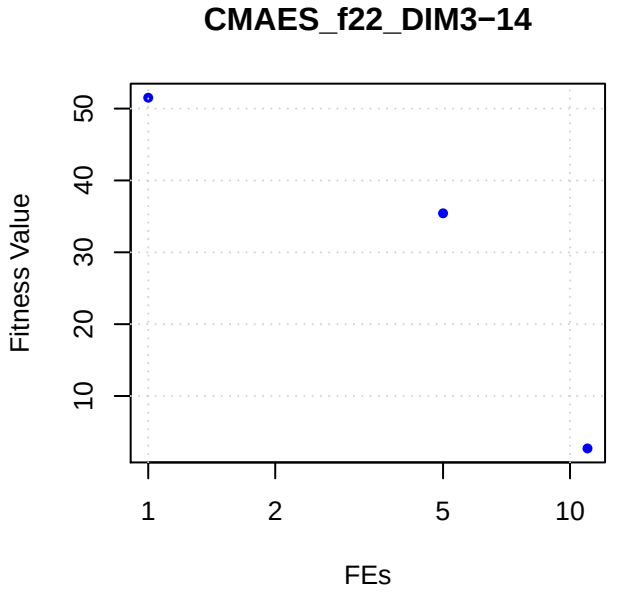
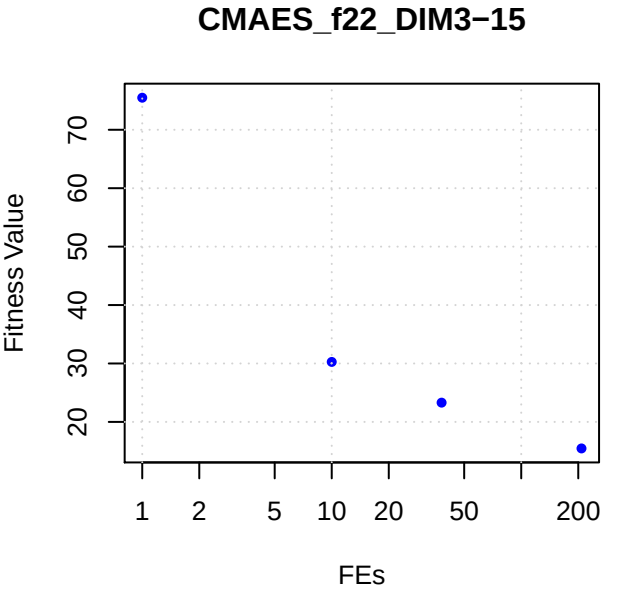
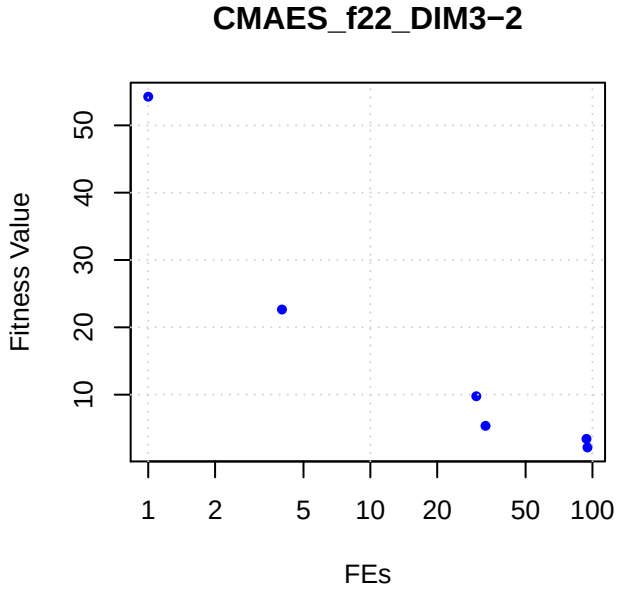
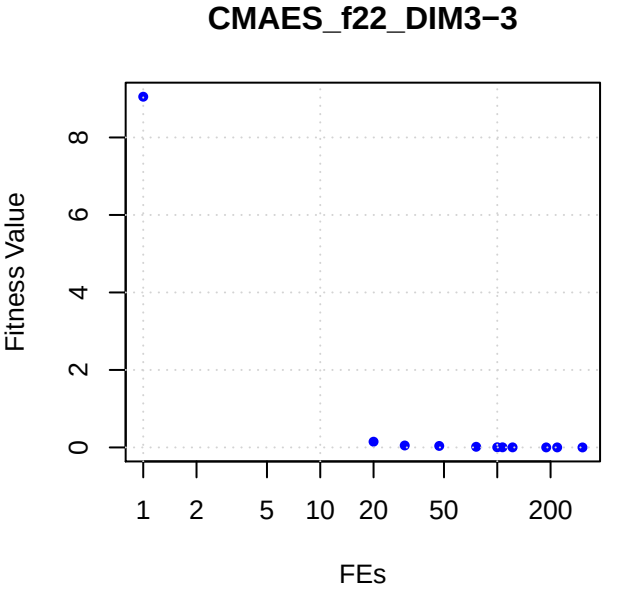
1
2
5
10
20
50
200
FEs

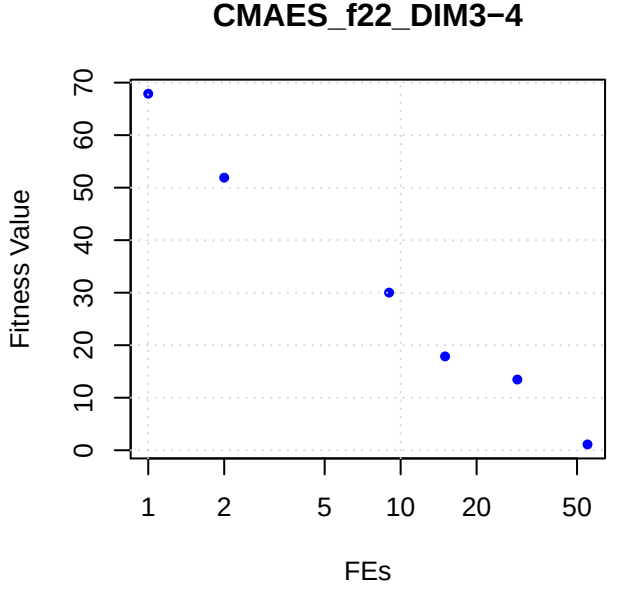

CMAES_f22_DIM3−13
Fitness Value
0
10
30
50
70
1
2
5
10
20
50
200
FEs

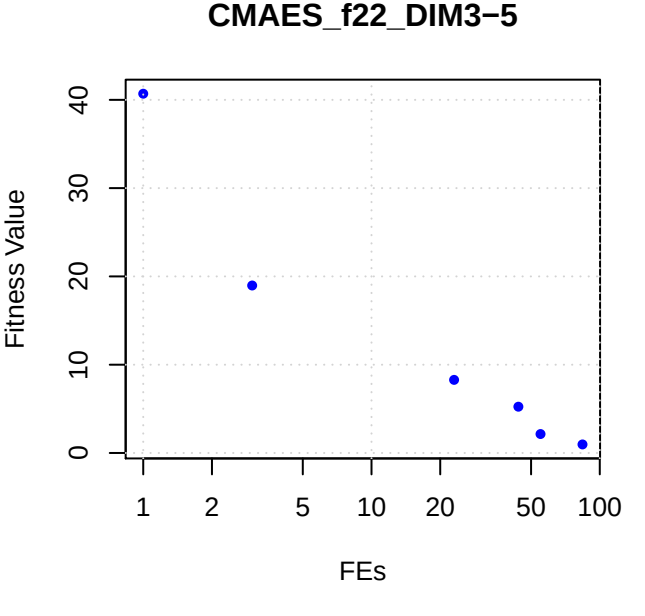

CMAES_f22_DIM3−14
Fitness Value
10
20
30
40
50
1
2
5
10
FEs


CMAES_f22_DIM3−15
Fitness Value
20
30
40
50
60
70
1
2
5
10
20
50
200
FEs


CMAES_f22_DIM3−2
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM3−3
Fitness Value
0
2
4
6
8
1
2
5
10
20
50
200
FEs


CMAES_f22_DIM3−4
Fitness Value
0
10
20
30
40
50
60
70
1
2
5
10
20
50
FEs


CMAES_f22_DIM3−5
Fitness Value
0
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30
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1
2
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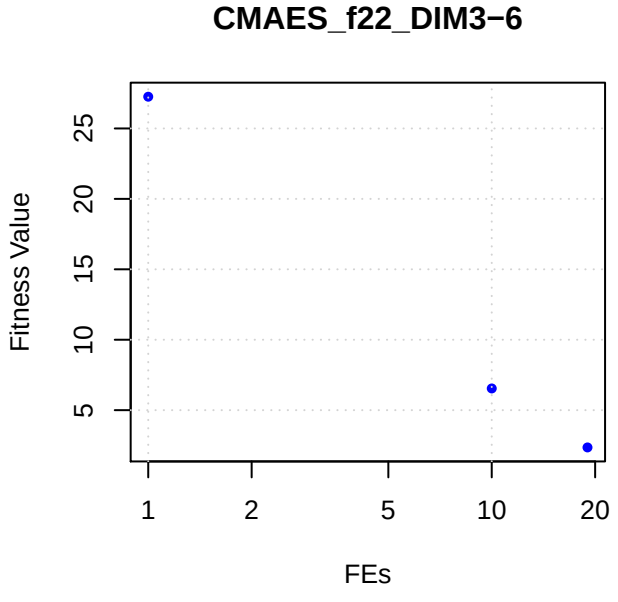
10
20
50
100
FEs


CMAES_f22_DIM3−6
Fitness Value
5
10
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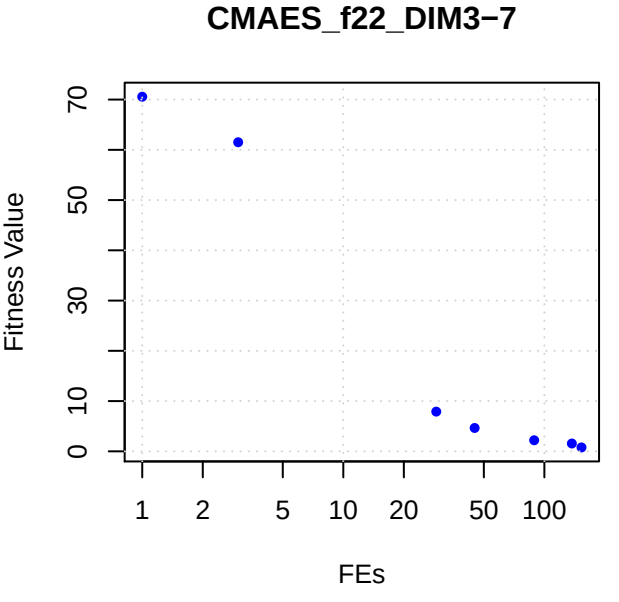
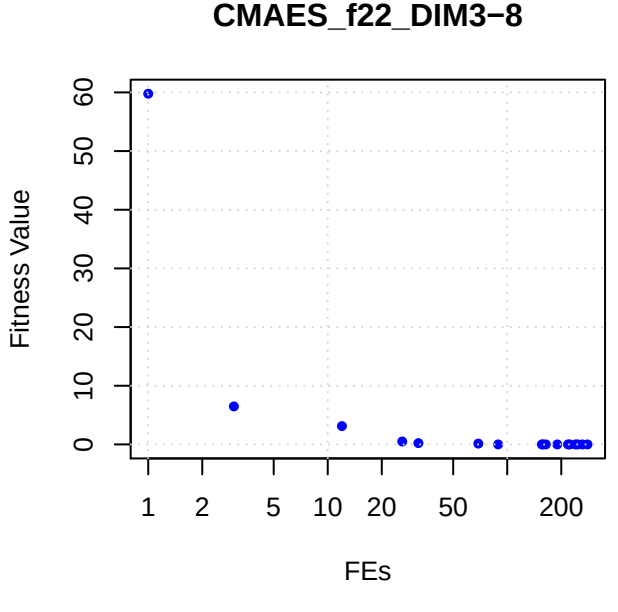
20
25
1
2
5
10
20
FEs


CMAES_f22_DIM3−7
Fitness Value
0
10
30
50
70
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM3−8
Fitness Value
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50
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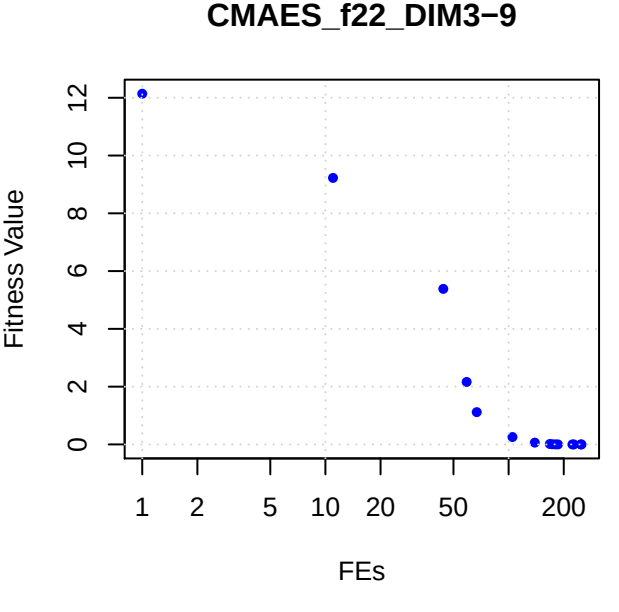
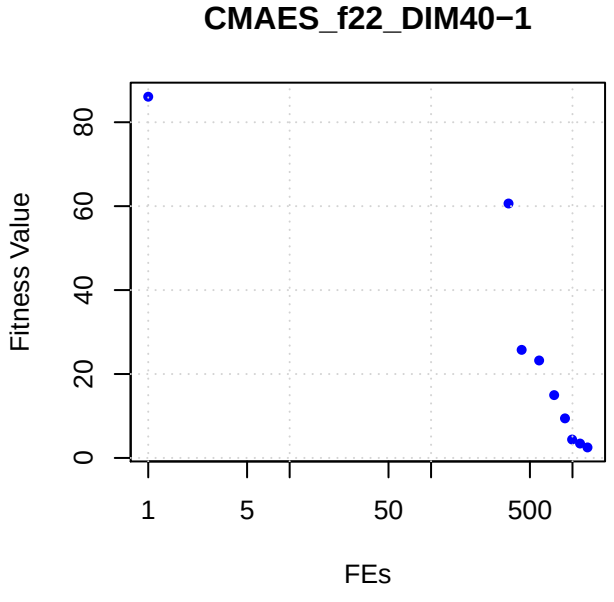
1
2
5
10
20
50
200
FEs


CMAES_f22_DIM3−9
Fitness Value
0
2
4
6
8
10
12
1
2
5
10
20
50
200
FEs


CMAES_f22_DIM40−1
Fitness Value
0
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40
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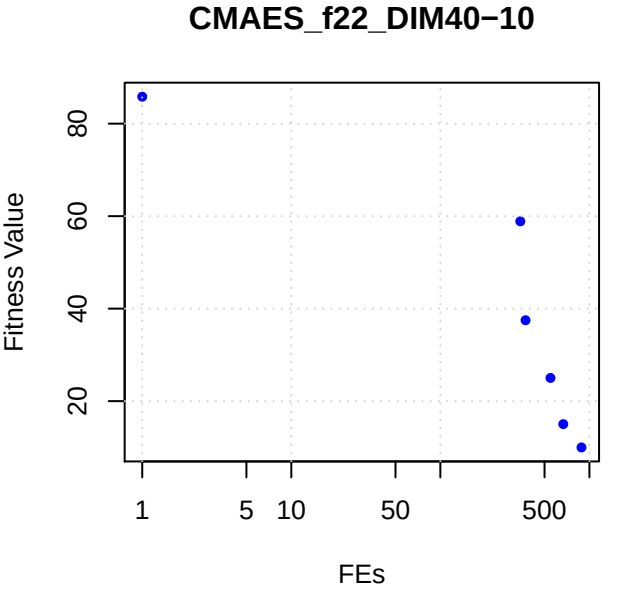
1
5
50
500
FEs


CMAES_f22_DIM40−10
Fitness Value
20
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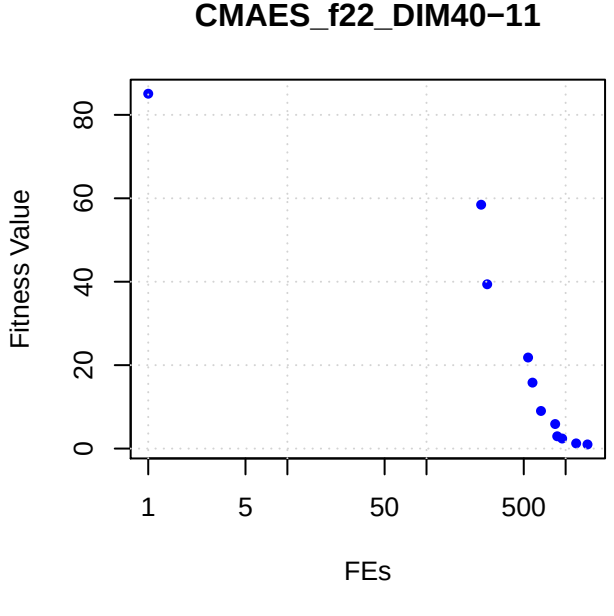
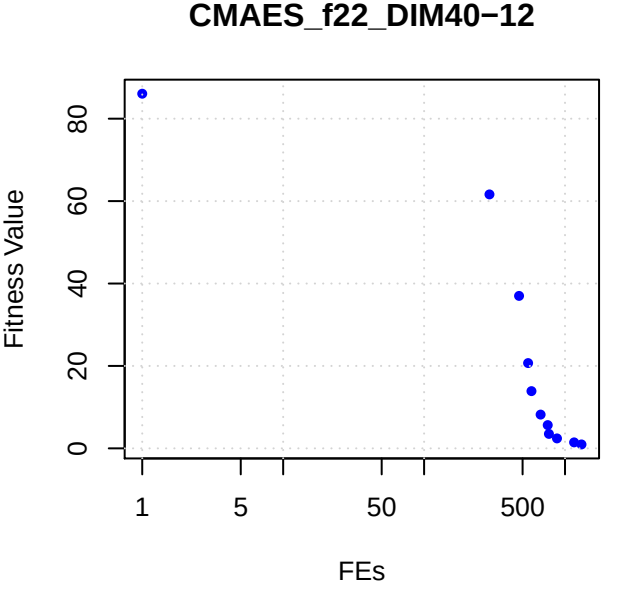
60
80
1
5
10
50
500
FEs


CMAES_f22_DIM40−11
Fitness Value
0
20
40
60
80
1
5
50
500
FEs


CMAES_f22_DIM40−12
Fitness Value
0
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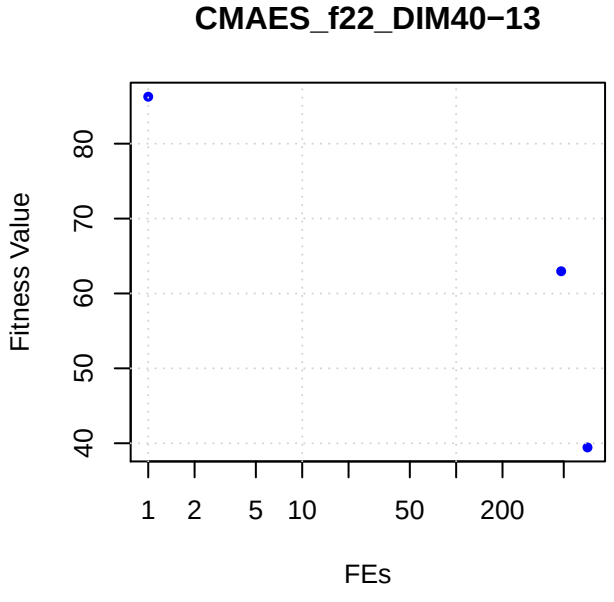
40
60
80
1
5
50
500
FEs


CMAES_f22_DIM40−13
Fitness Value
40
50
60
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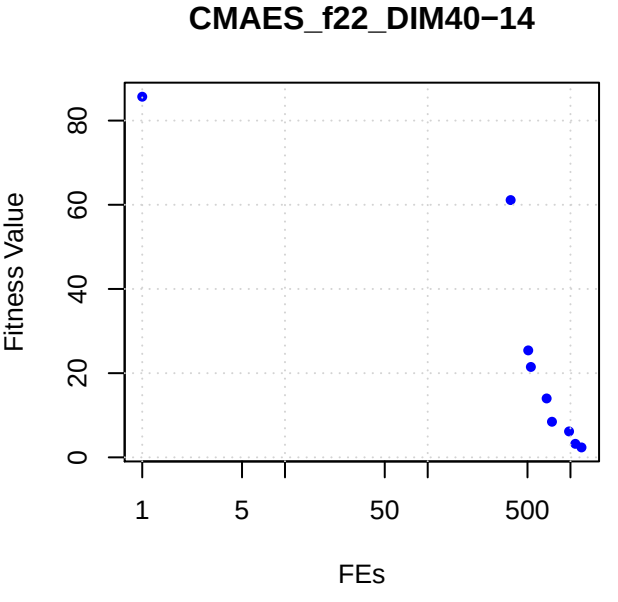
80
1
2
5
10
50
200
FEs


CMAES_f22_DIM40−14
Fitness Value
0
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60
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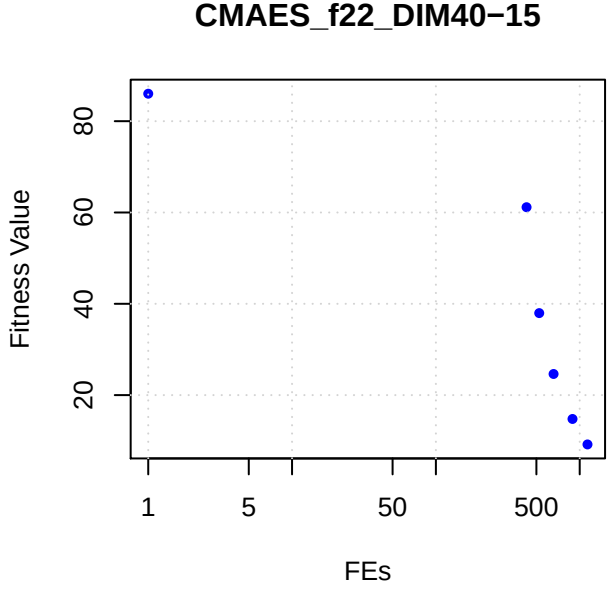
1
5
50
500
FEs


CMAES_f22_DIM40−15
Fitness Value
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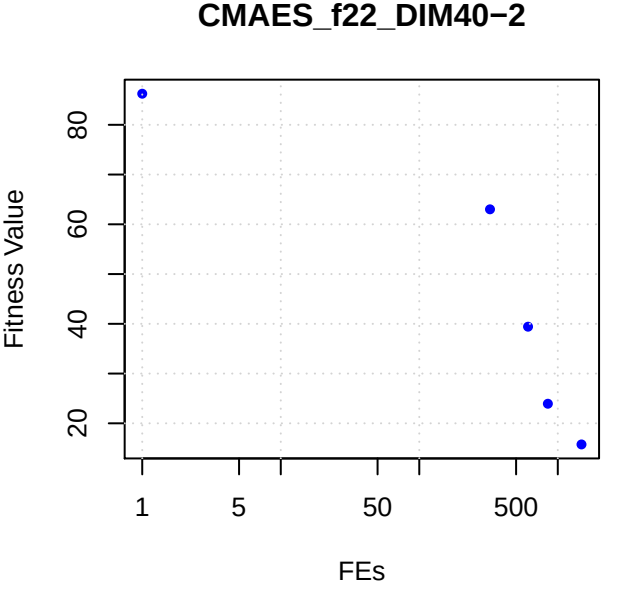
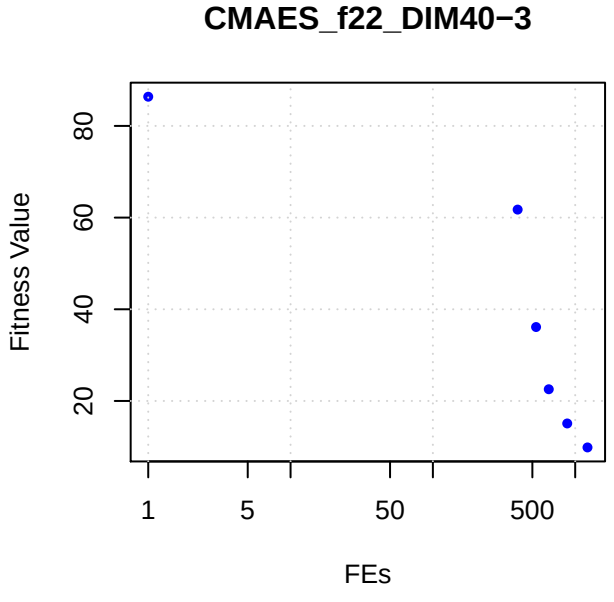
40
60
80
1
5
50
500
FEs


CMAES_f22_DIM40−2
Fitness Value
20
40
60
80
1
5
50
500
FEs


CMAES_f22_DIM40−3
Fitness Value
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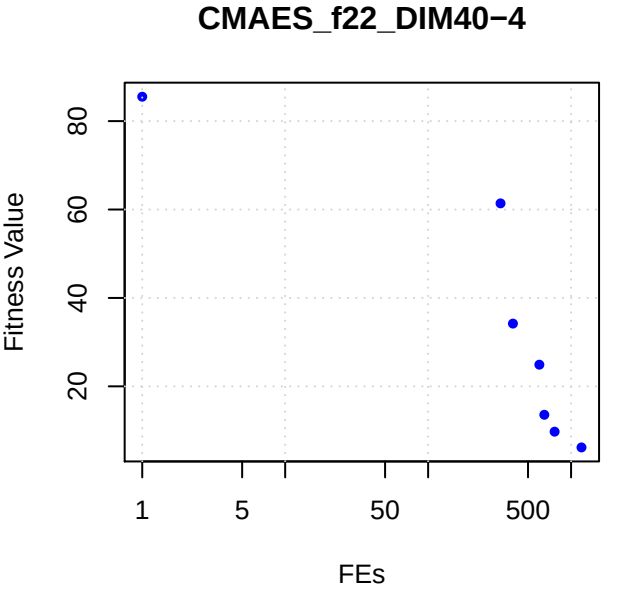
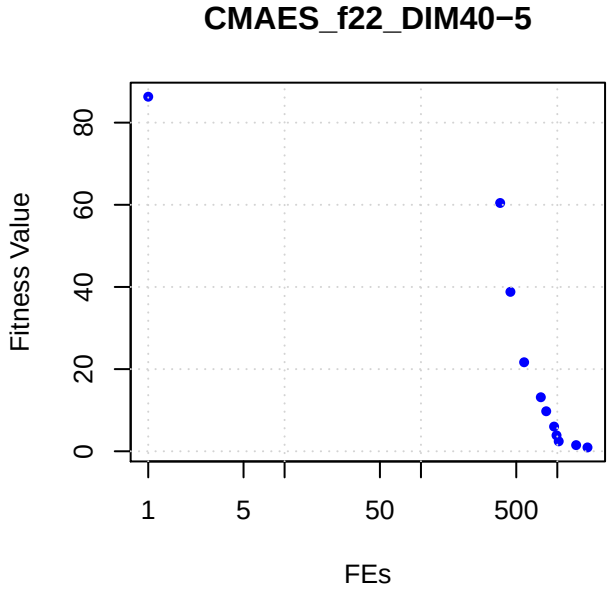
60
80
1
5
50
500
FEs


CMAES_f22_DIM40−4
Fitness Value
20
40
60
80
1
5
50
500
FEs


CMAES_f22_DIM40−5
Fitness Value
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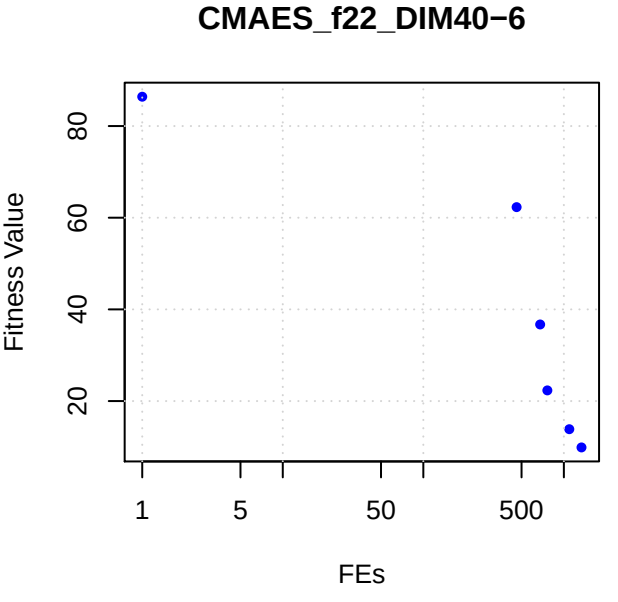
40
60
80
1
5
50
500
FEs


CMAES_f22_DIM40−6
Fitness Value
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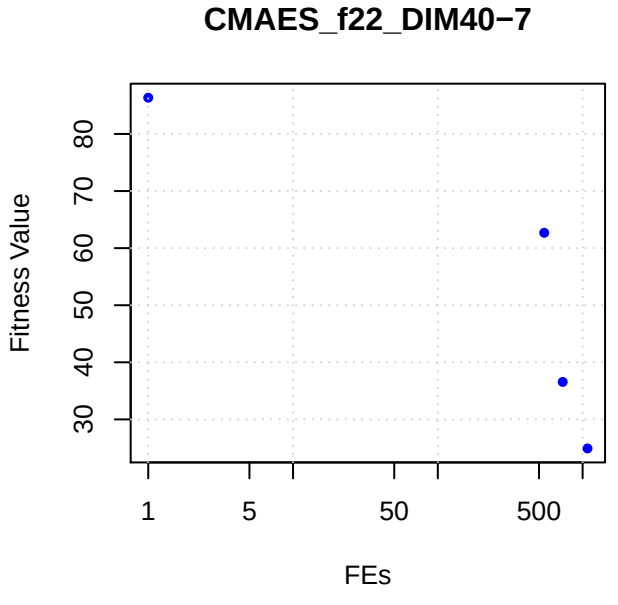
60
80
1
5
50
500
FEs


CMAES_f22_DIM40−7
Fitness Value
30
40
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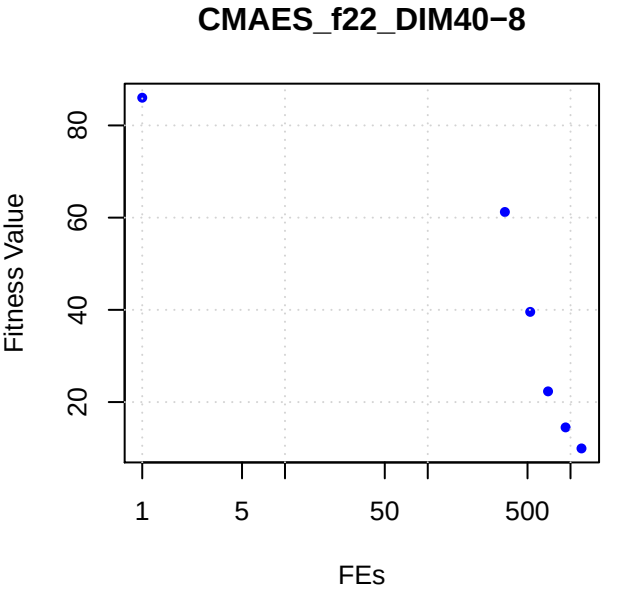
60
70
80
1
5
50
500
FEs


CMAES_f22_DIM40−8
Fitness Value
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60
80
1
5
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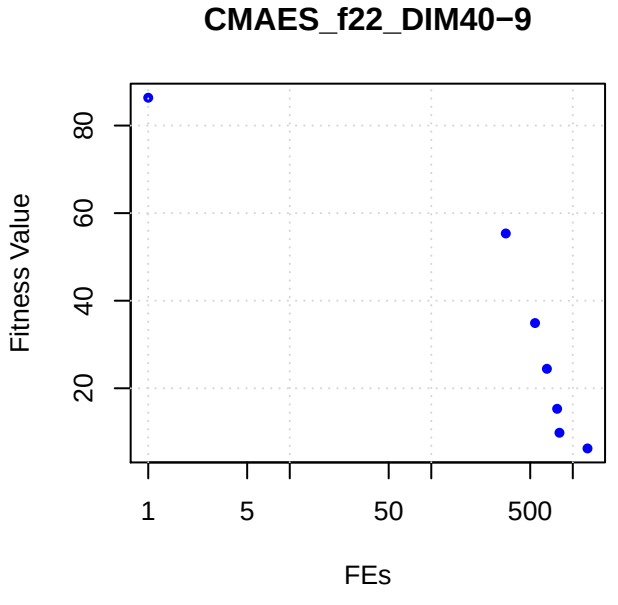
500
FEs


CMAES_f22_DIM40−9
Fitness Value
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1
5
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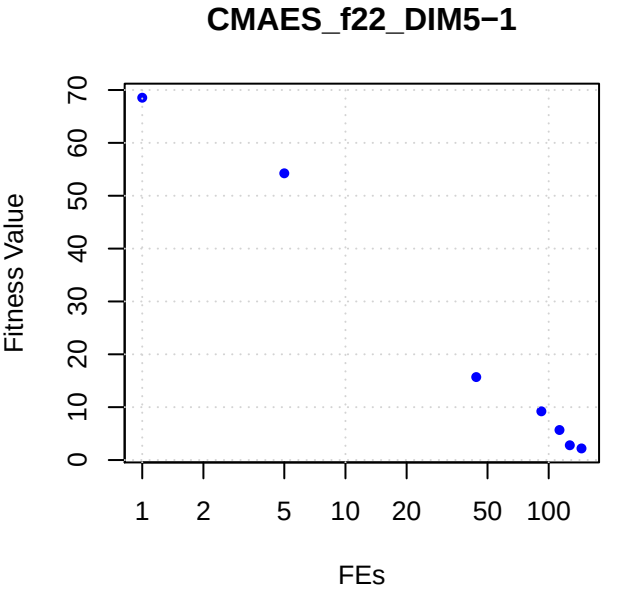
500
FEs


CMAES_f22_DIM5−1
Fitness Value
0
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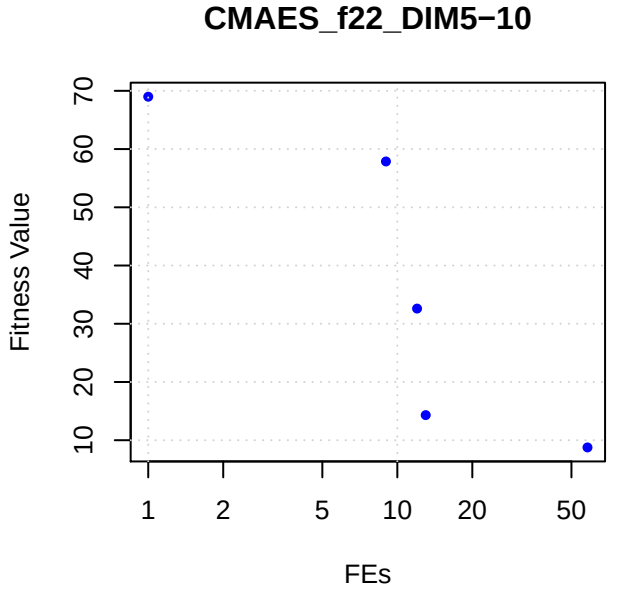
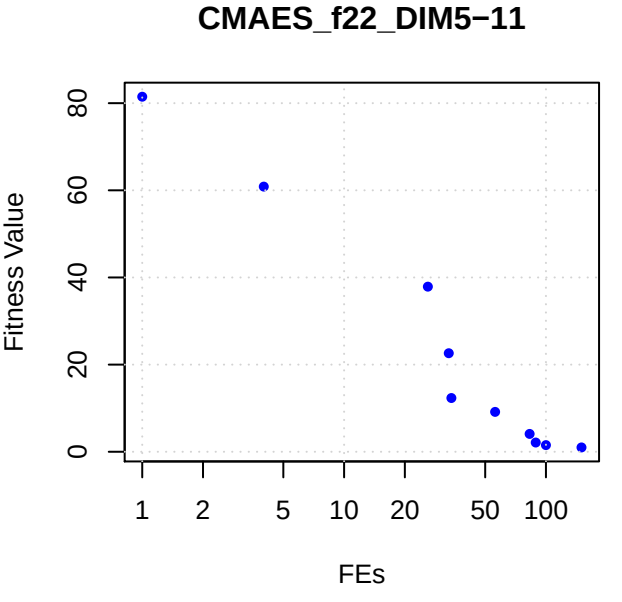
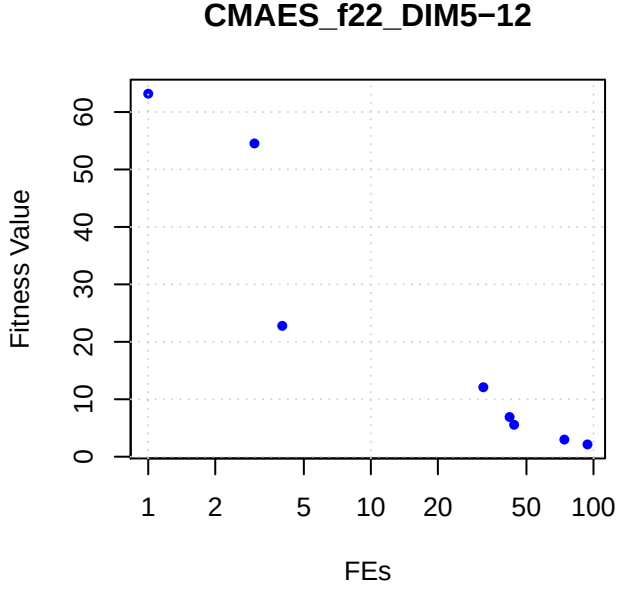
50
60
70
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM5−10
Fitness Value
10
20
30
40
50
60
70
1
2
5
10
20
50
FEs


CMAES_f22_DIM5−11
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM5−12
Fitness Value
0
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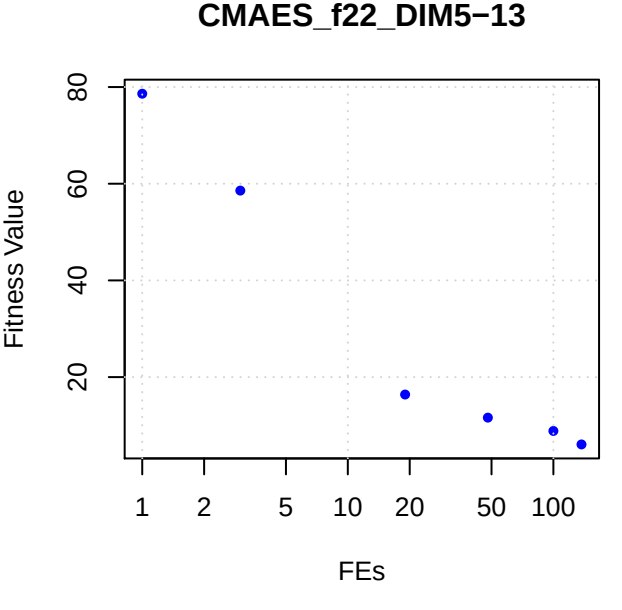
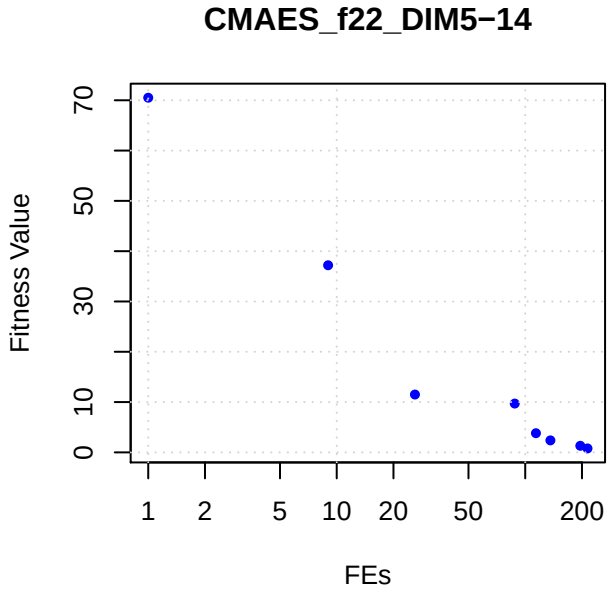
40
50
60
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM5−13
Fitness Value
20
40
60
80
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM5−14
Fitness Value
0
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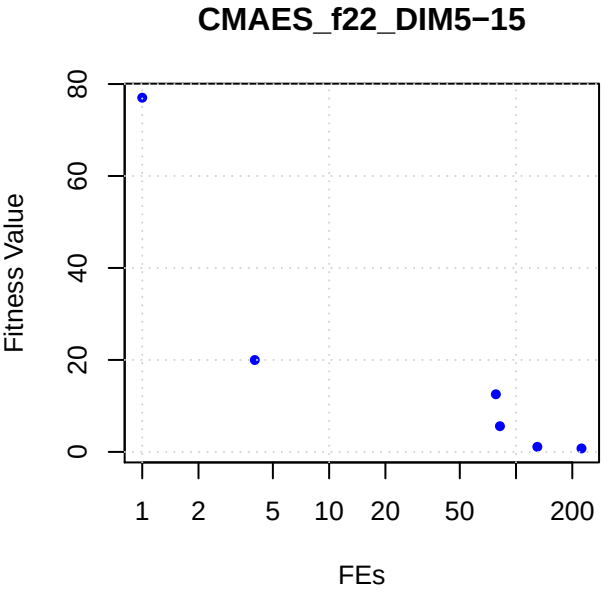
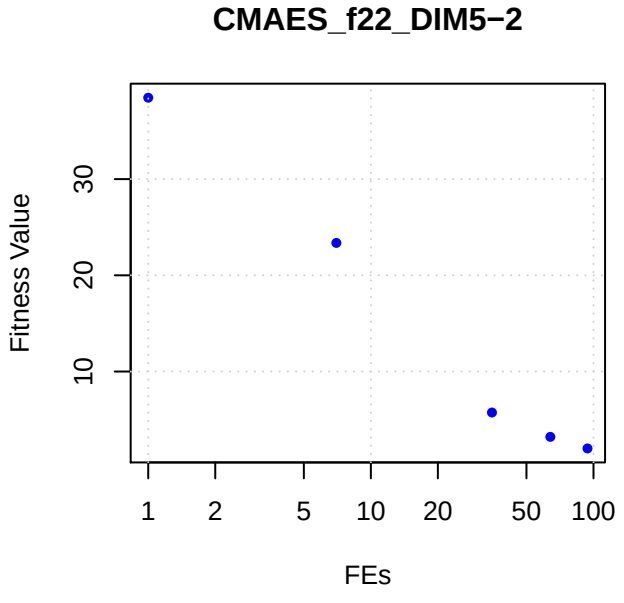
30
50
70
1
2
5
10
20
50
200
FEs


CMAES_f22_DIM5−15
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f22_DIM5−2
Fitness Value
10
20
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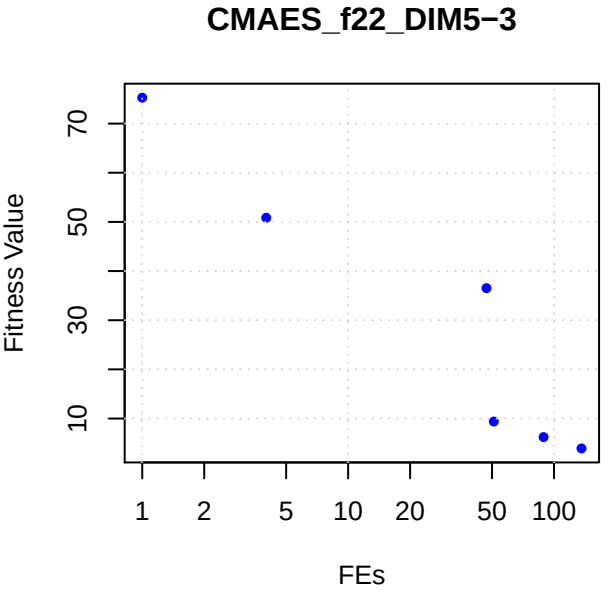
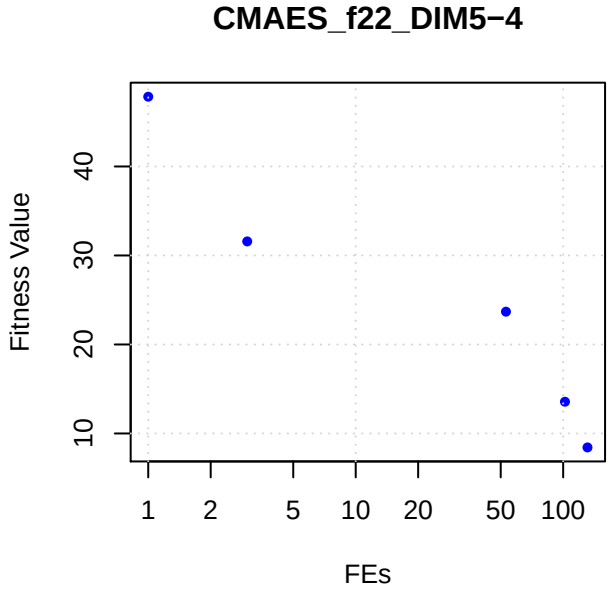
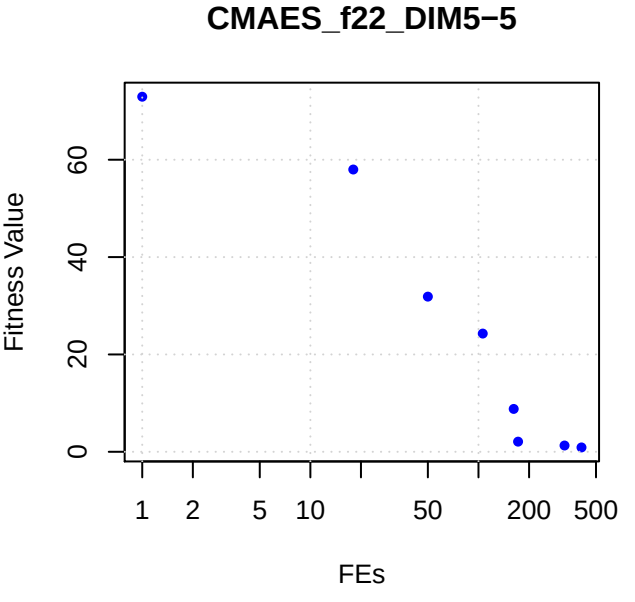
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM5−3
Fitness Value
10
30
50
70
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM5−4
Fitness Value
10
20
30
40
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM5−5
Fitness Value
0
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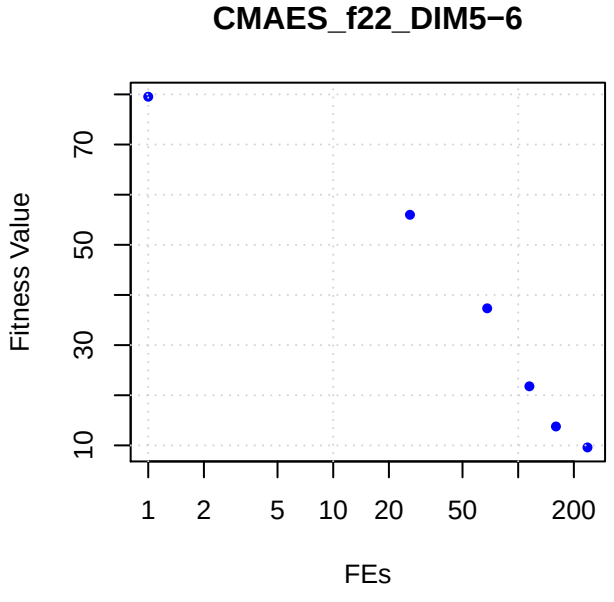
40
60
1
2
5
10
50
200
500
FEs


CMAES_f22_DIM5−6
Fitness Value
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1
2
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10
20
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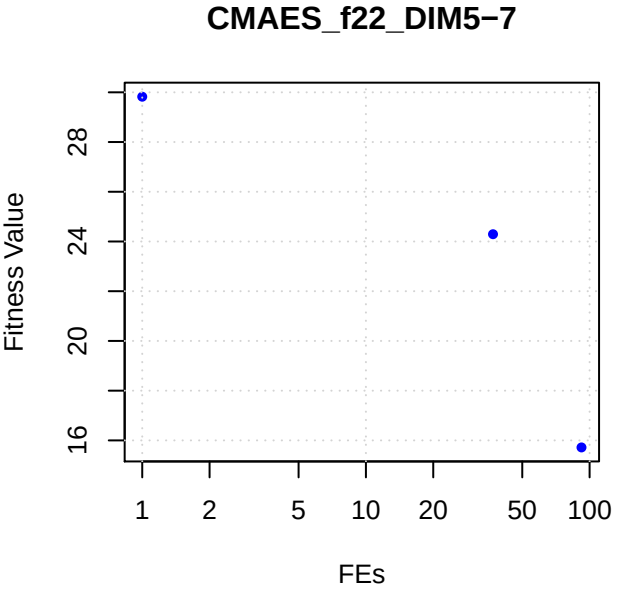
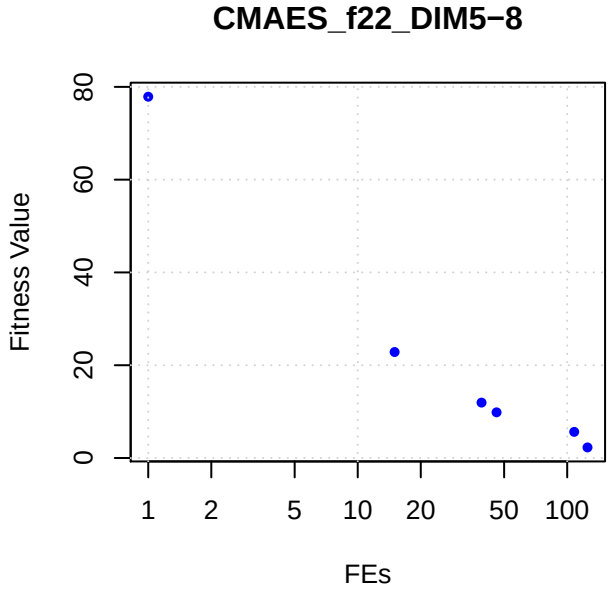
200
FEs


CMAES_f22_DIM5−7
Fitness Value
16
20
24
28
1
2
5
10
20
50
100
FEs


CMAES_f22_DIM5−8
Fitness Value
0
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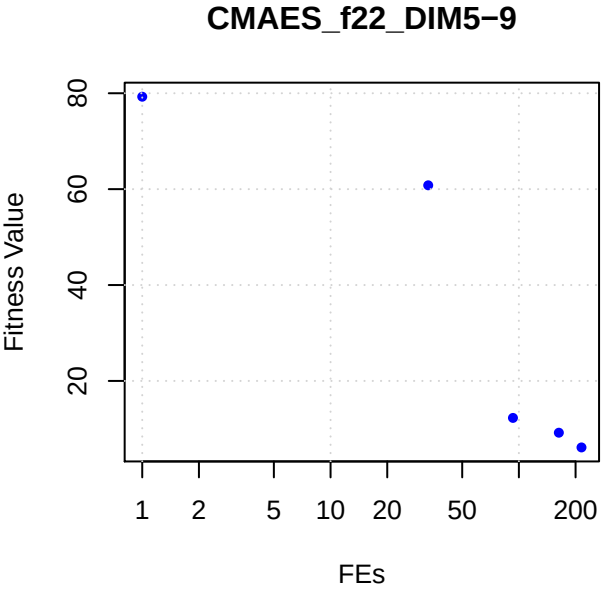
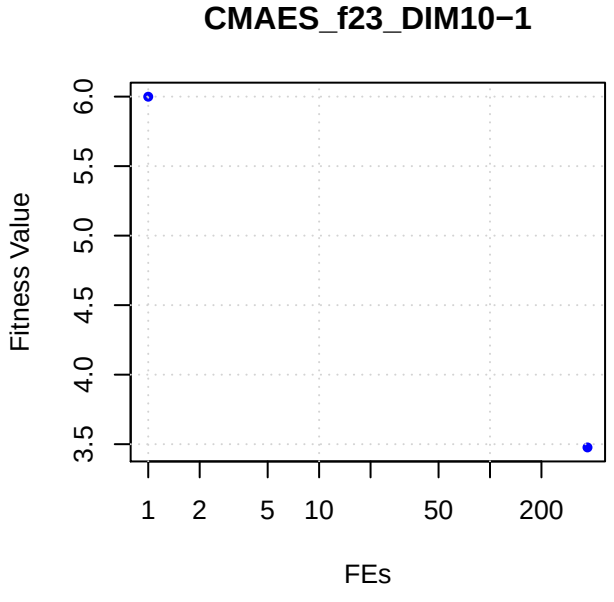
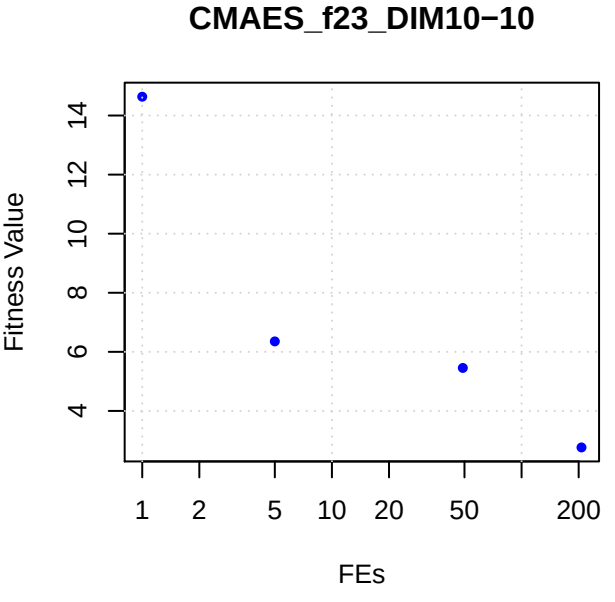
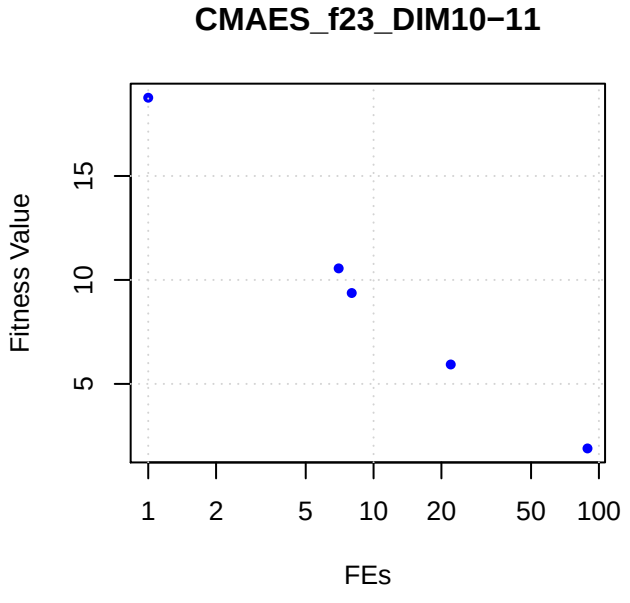
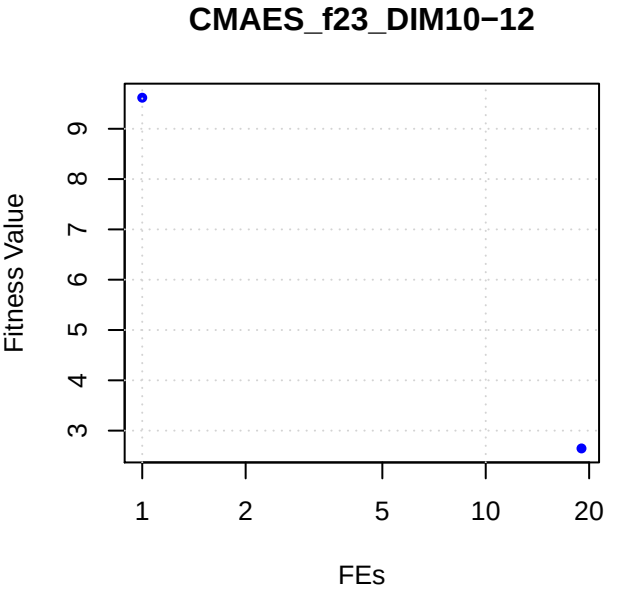
40
60
80
1
2
5
10
20
50
100
FEs

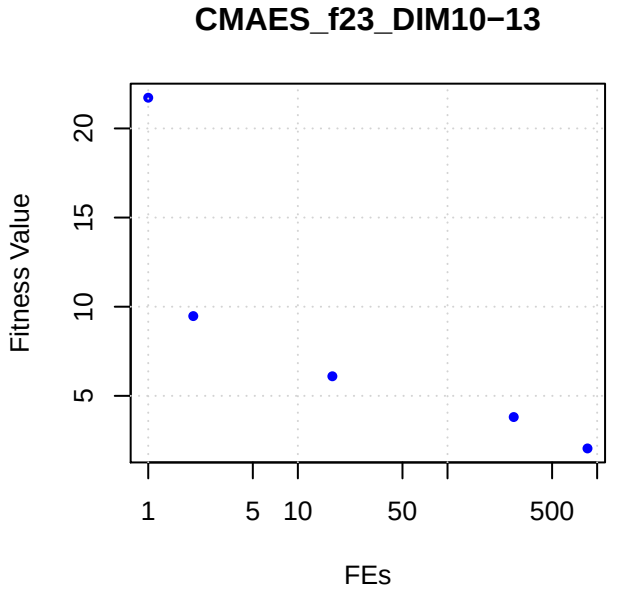

CMAES_f22_DIM5−9
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f23_DIM10−1
Fitness Value
3.5
4.0
4.5
5.0
5.5
6.0
1
2
5
10
50
200
FEs


CMAES_f23_DIM10−10
Fitness Value
4
6
8
10
12
14
1
2
5
10
20
50
200
FEs


CMAES_f23_DIM10−11
Fitness Value
5
10
15
1
2
5
10
20
50
100
FEs


CMAES_f23_DIM10−12
Fitness Value
3
4
5
6
7
8
9
1
2
5
10
20
FEs


CMAES_f23_DIM10−13
Fitness Value
5
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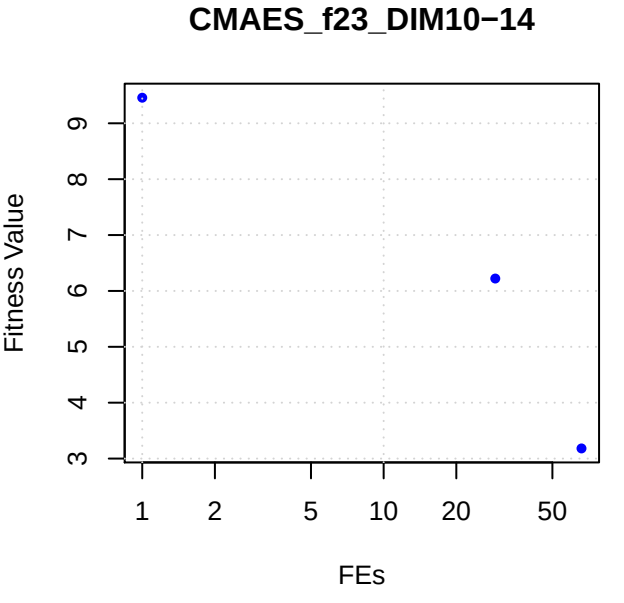
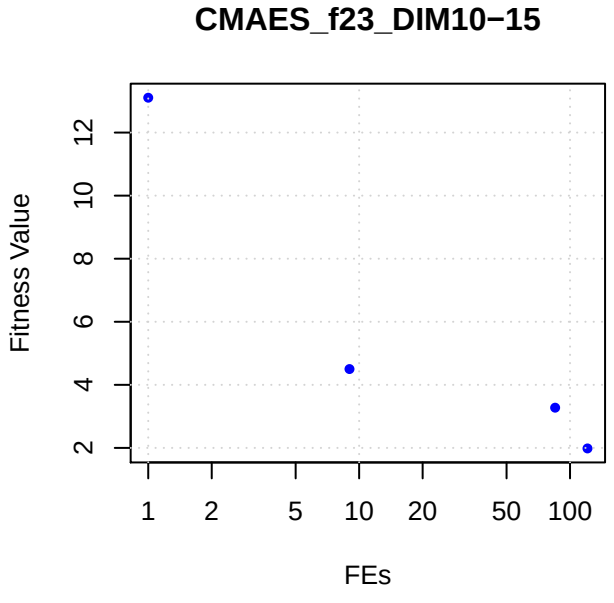
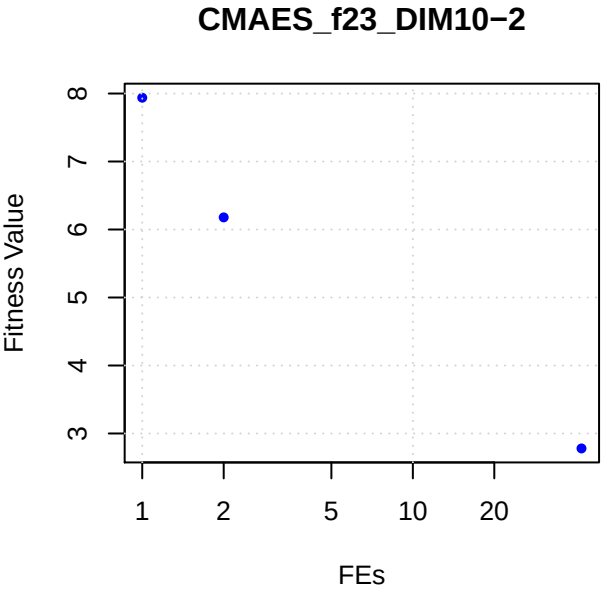
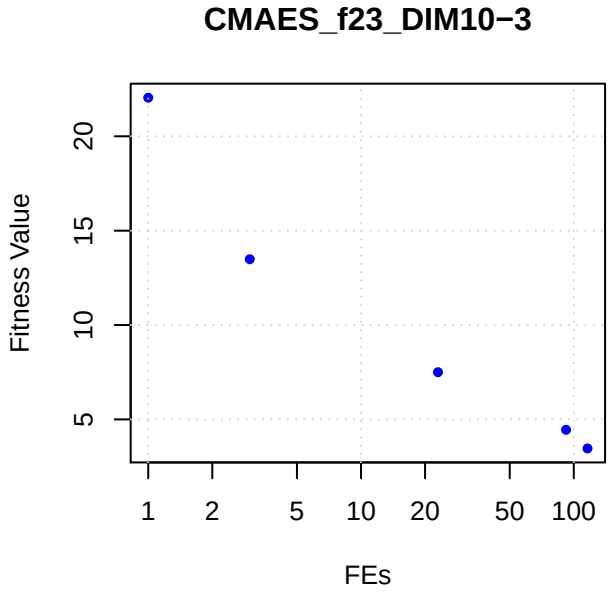
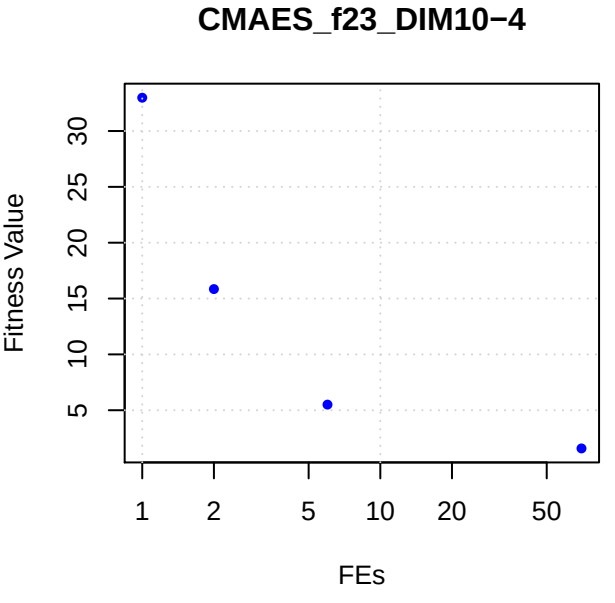
15
20
1
5
10
50
500
FEs

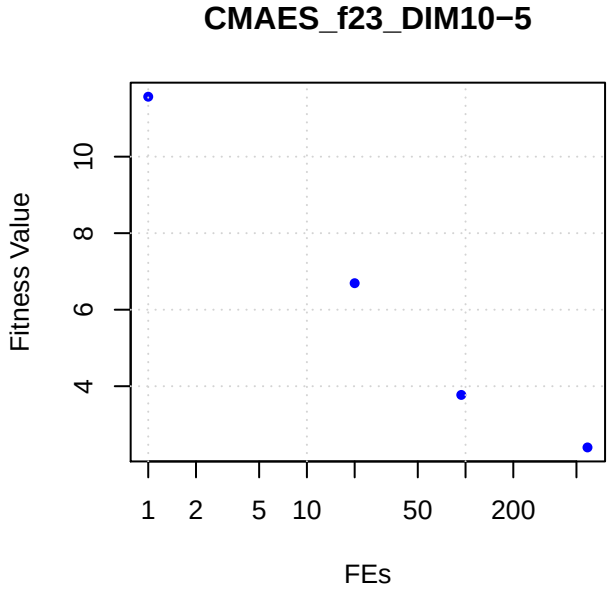

CMAES_f23_DIM10−14
Fitness Value
3
4
5
6
7
8
9
1
2
5
10
20
50
FEs

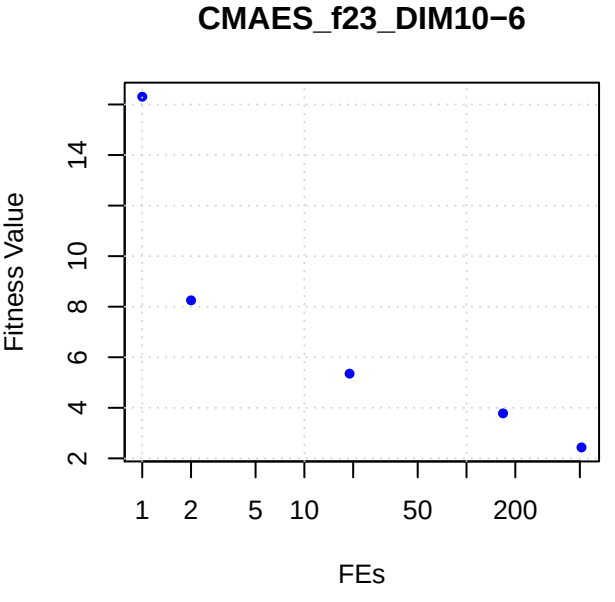

CMAES_f23_DIM10−15
Fitness Value
2
4
6
8
10
12
1
2
5
10
20
50
100
FEs

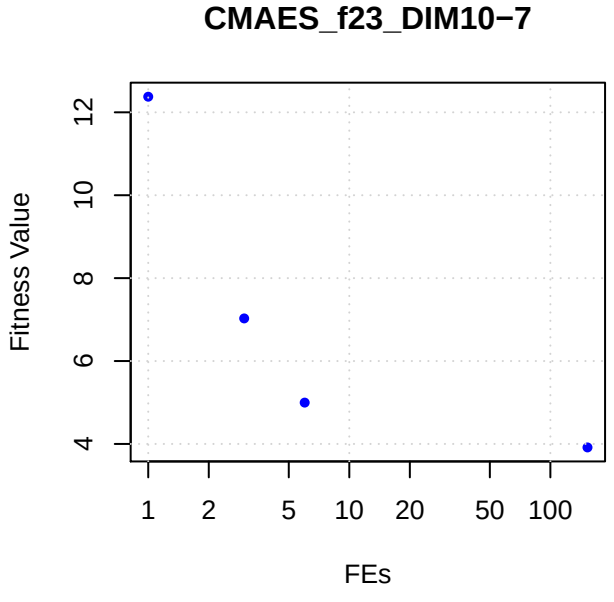

CMAES_f23_DIM10−2
Fitness Value
3
4
5
6
7
8
1
2
5
10
20
FEs

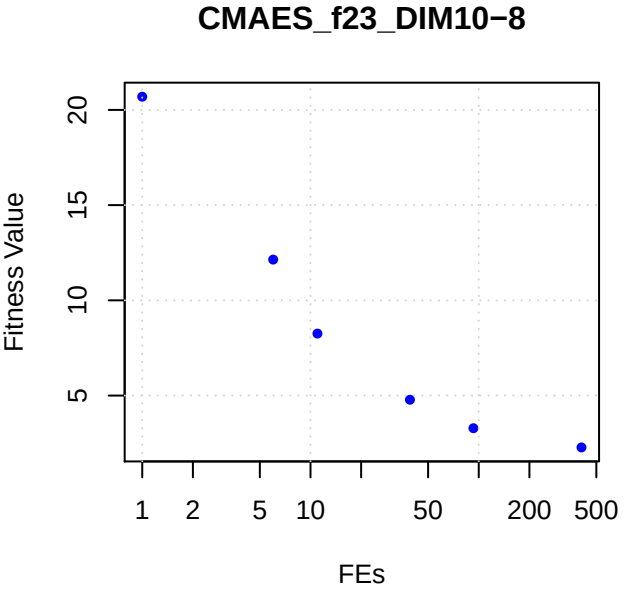

CMAES_f23_DIM10−3
Fitness Value
5
10
15
20
1
2
5
10
20
50
100
FEs

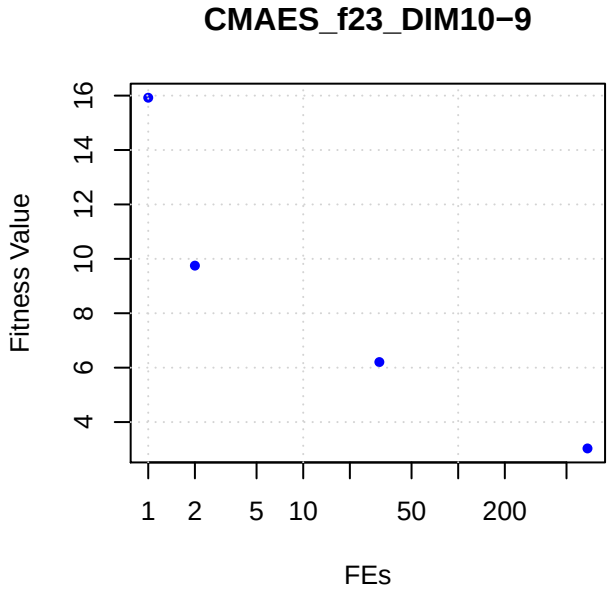

CMAES_f23_DIM10−4
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
FEs

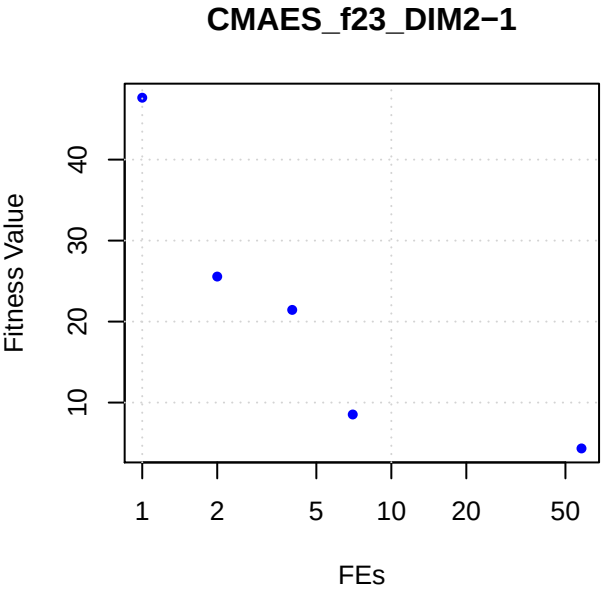

CMAES_f23_DIM10−5
Fitness Value
4
6
8
10
1
2
5
10
50
200
FEs

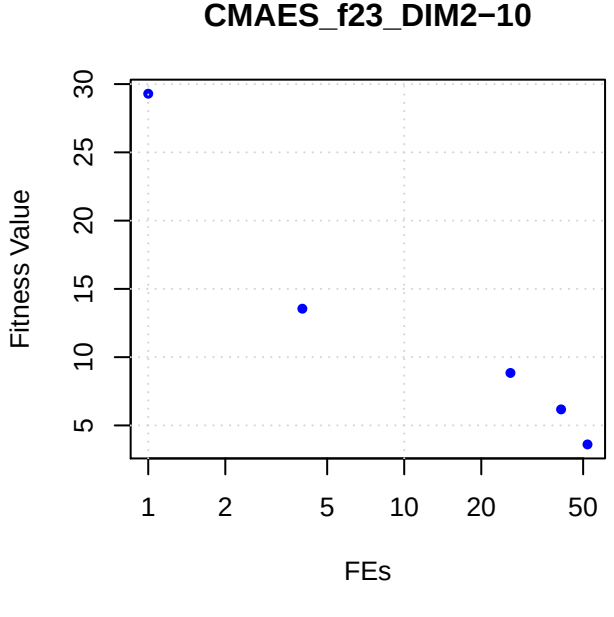

CMAES_f23_DIM10−6
Fitness Value
2
4
6
8
10
14
1
2
5
10
50
200
FEs

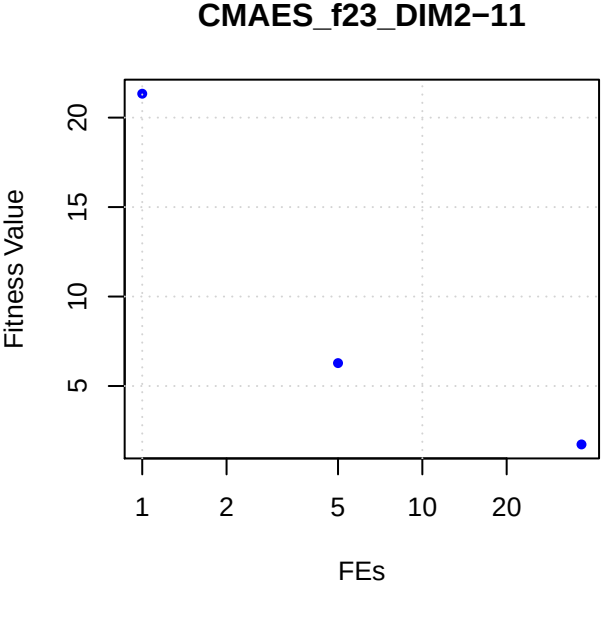

CMAES_f23_DIM10−7
Fitness Value
4
6
8
10
12
1
2
5
10
20
50
100
FEs

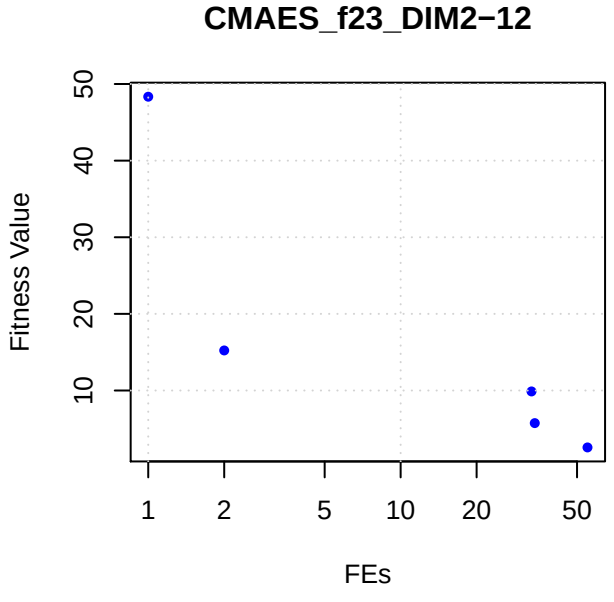

CMAES_f23_DIM10−8
Fitness Value
5
10
15
20
1
2
5
10
50
200
500
FEs

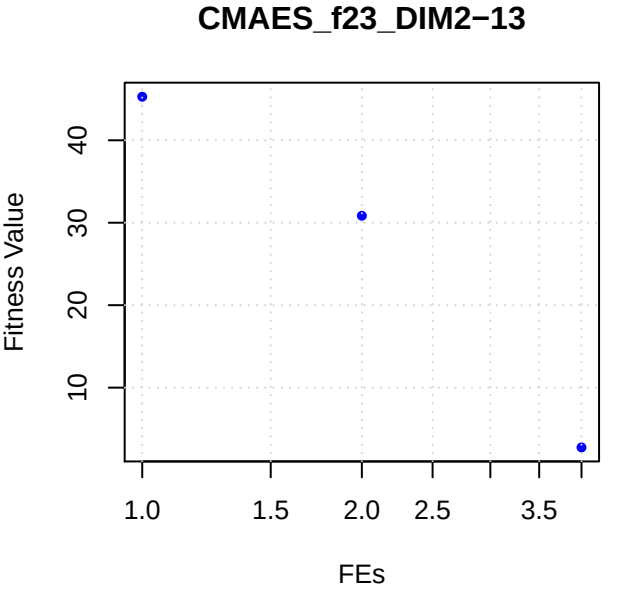

CMAES_f23_DIM10−9
Fitness Value
4
6
8
10
12
14
16
1
2
5
10
50
200
FEs

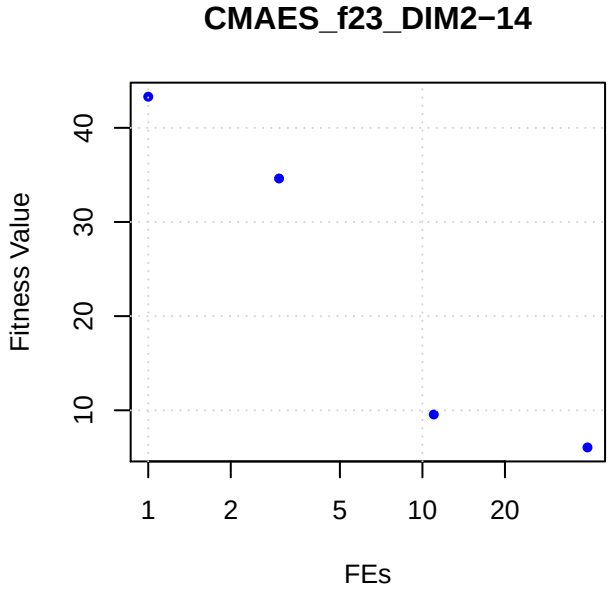

CMAES_f23_DIM2−1
Fitness Value
10
20
30
40
1
2
5
10
20
50
FEs

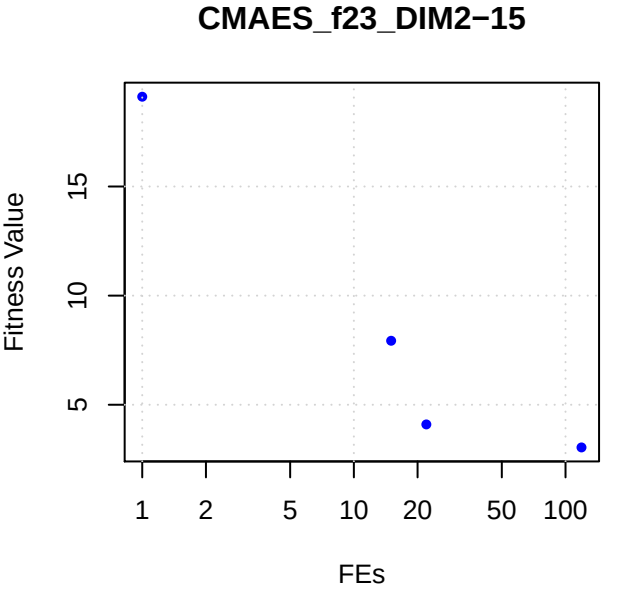

CMAES_f23_DIM2−10
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
FEs

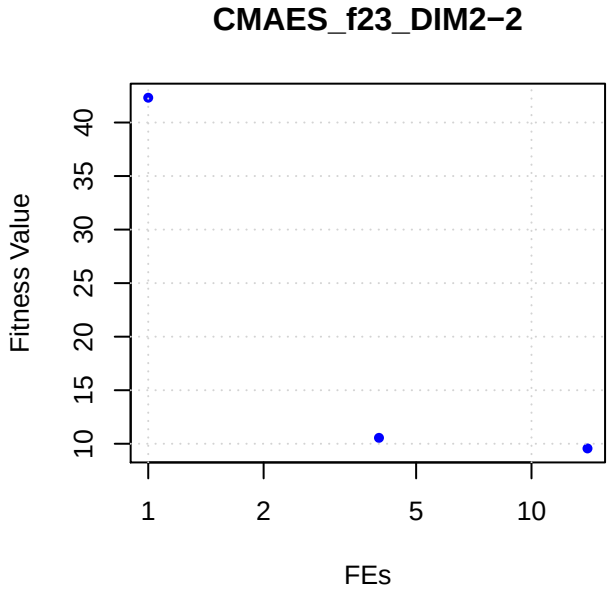

CMAES_f23_DIM2−11
Fitness Value
5
10
15
20
1
2
5
10
20
FEs

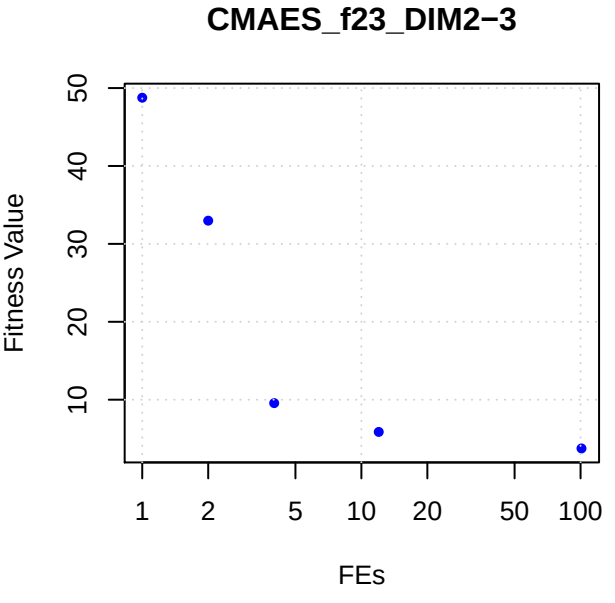

CMAES_f23_DIM2−12
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
FEs

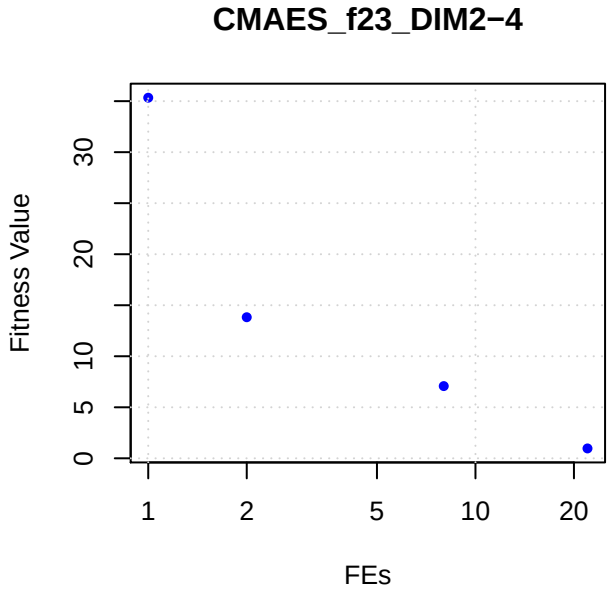

CMAES_f23_DIM2−13
Fitness Value
10
20
30
40
1.0
1.5
2.0
2.5
3.5
FEs

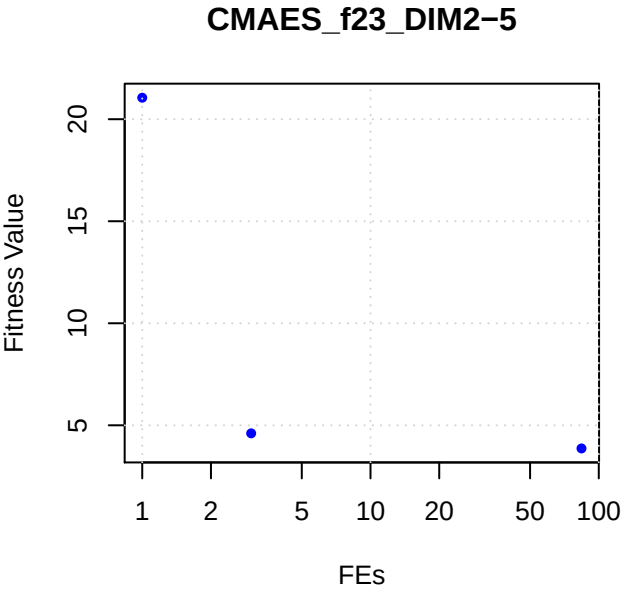

CMAES_f23_DIM2−14
Fitness Value
10
20
30
40
1
2
5
10
20
FEs

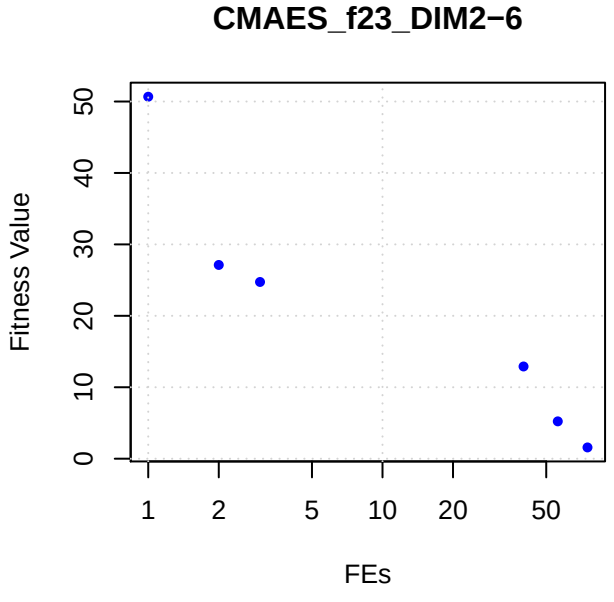

CMAES_f23_DIM2−15
Fitness Value
5
10
15
1
2
5
10
20
50
100
FEs

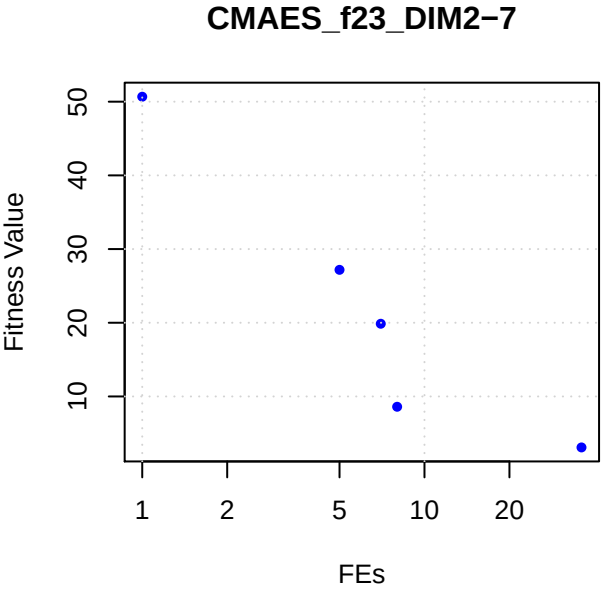

CMAES_f23_DIM2−2
Fitness Value
10
15
20
25
30
35
40
1
2
5
10
FEs

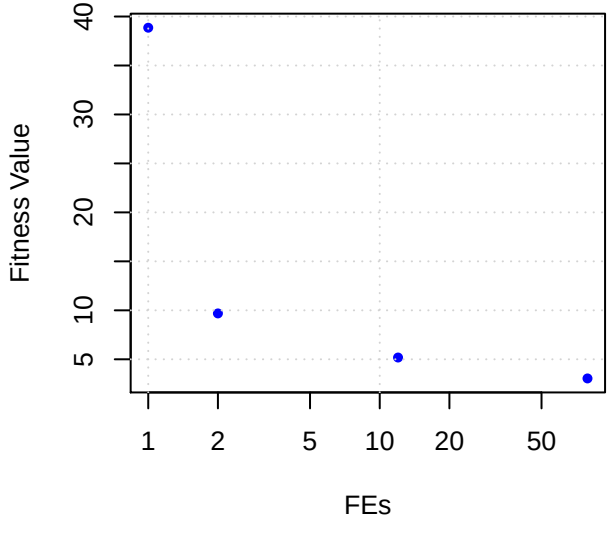

CMAES_f23_DIM2−3
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
100
FEs

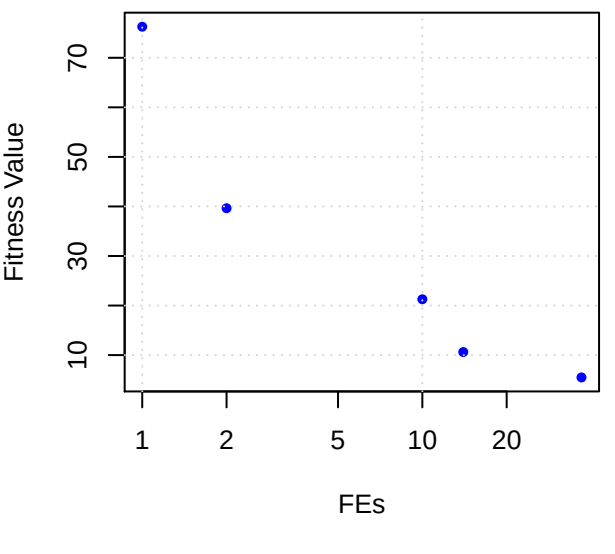

CMAES_f23_DIM2−4
Fitness Value
0
5
10
20
30
1
2
5
10
20
FEs

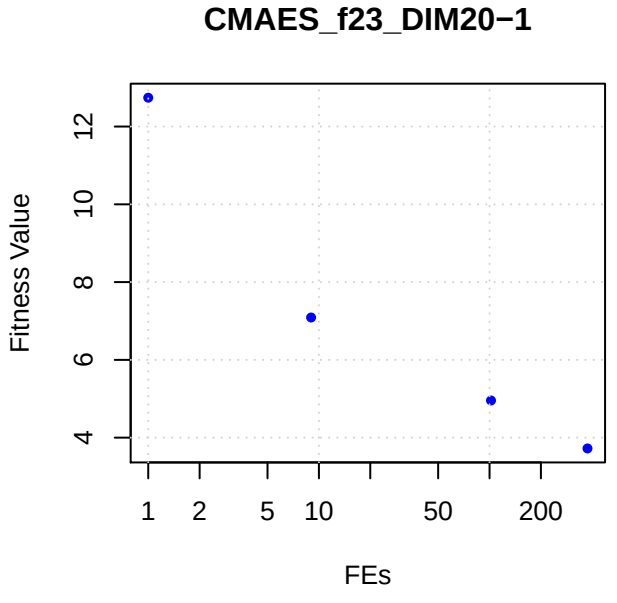

CMAES_f23_DIM2−5
Fitness Value
5
10
15
20
1
2
5
10
20
50
100
FEs

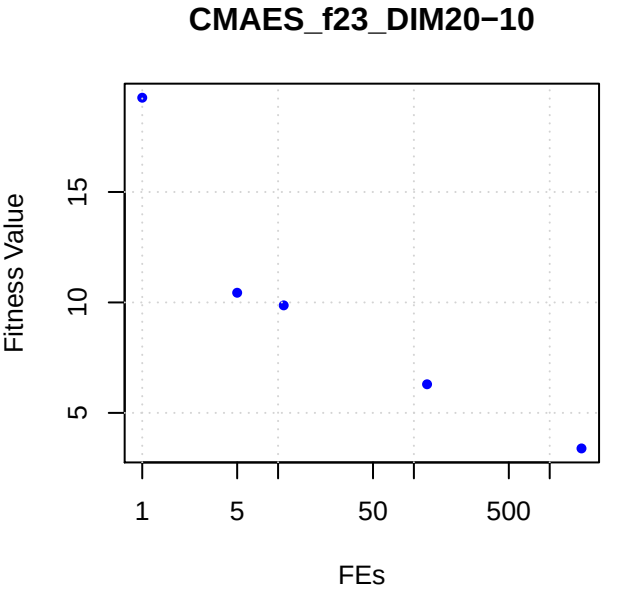

CMAES_f23_DIM2−6
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
FEs

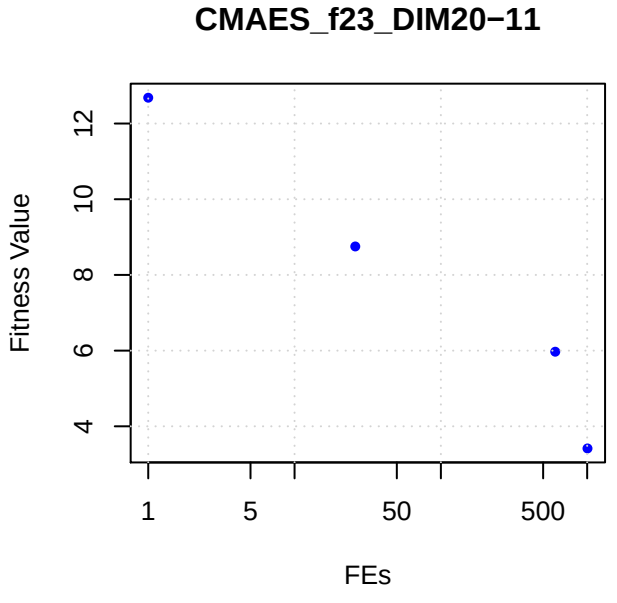

CMAES_f23_DIM2−7
Fitness Value
10
20
30
40
50
1
2
5
10
20
FEs

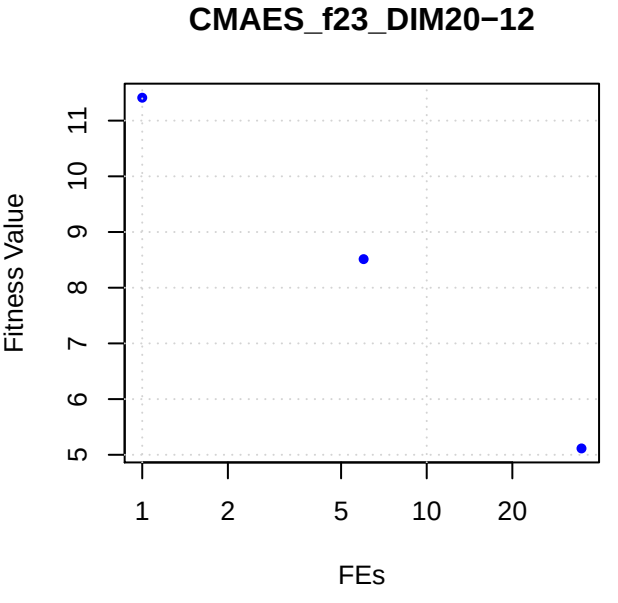

CMAES_f23_DIM2−8
Fitness Value
5
10
20
30
40
1
2
5
10
20
50
FEs

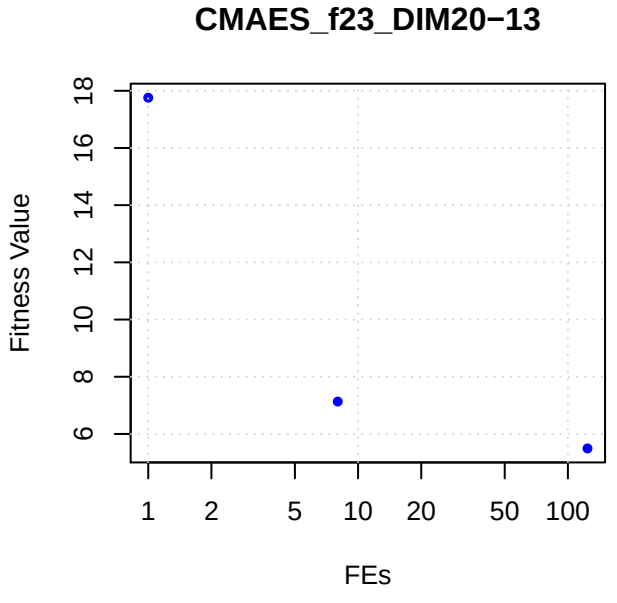

CMAES_f23_DIM2−9
Fitness Value
10
30
50
70
1
2
5
10
20
FEs

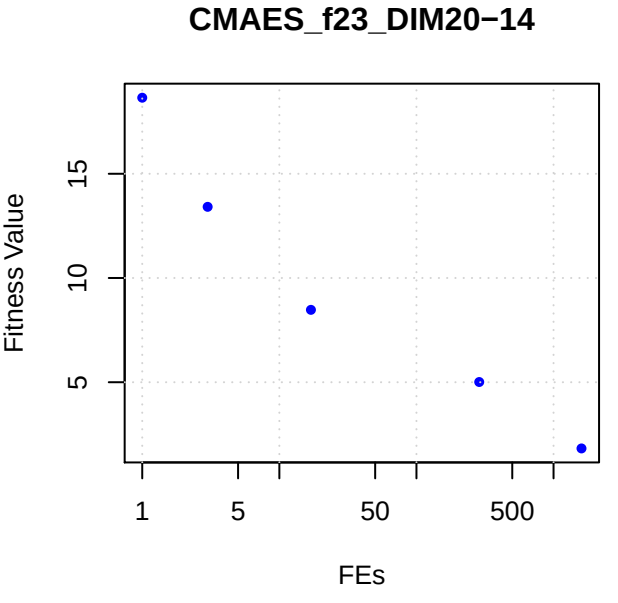

CMAES_f23_DIM20−1
Fitness Value
4
6
8
10
12
1
2
5
10
50
200
FEs

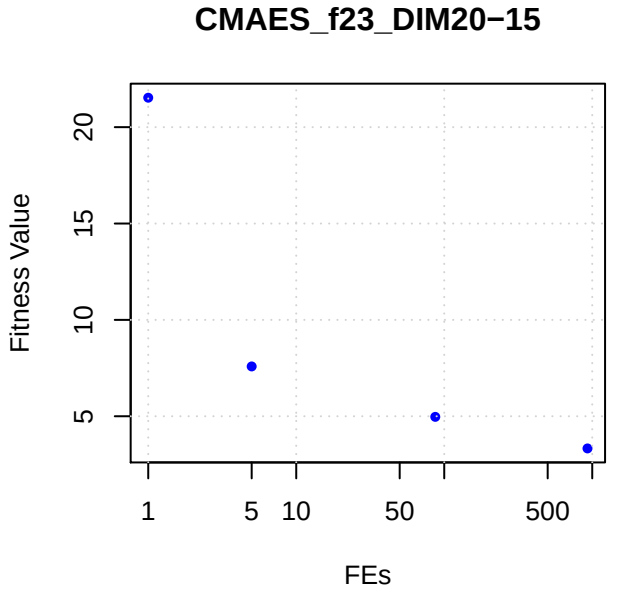

CMAES_f23_DIM20−10
Fitness Value
5
10
15
1
5
50
500
FEs

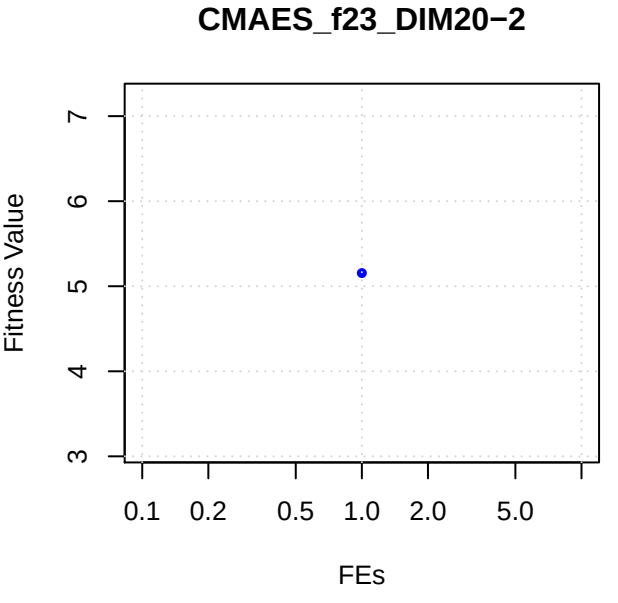

CMAES_f23_DIM20−11
Fitness Value
4
6
8
10
12
1
5
50
500
FEs

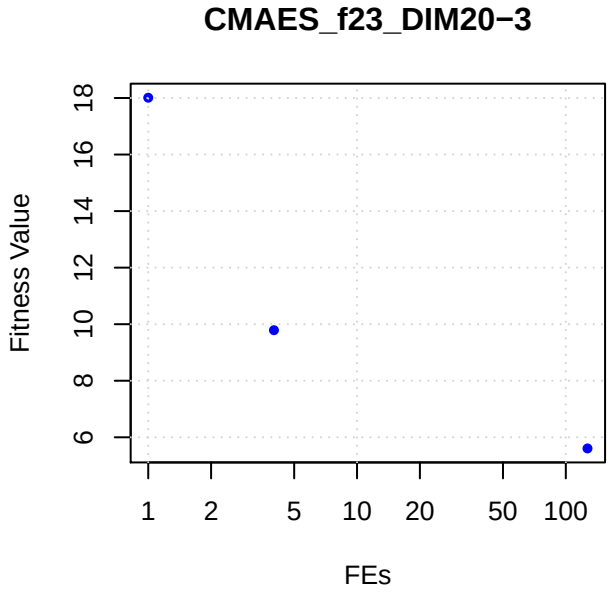

CMAES_f23_DIM20−12
Fitness Value
5
6
7
8
9
10
11
1
2
5
10
20
FEs

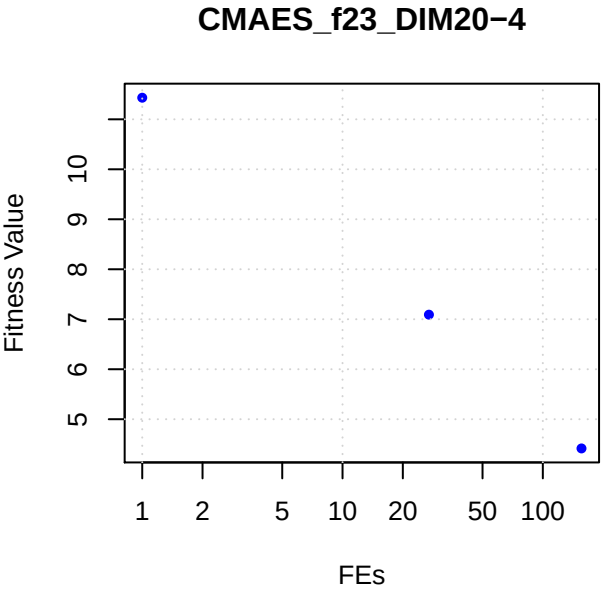

CMAES_f23_DIM20−13
Fitness Value
6
8
10
12
14
16
18
1
2
5
10
20
50
100
FEs

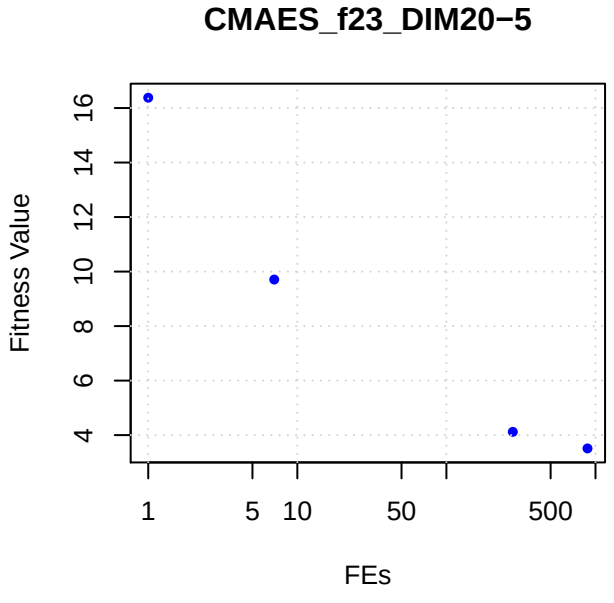

CMAES_f23_DIM20−14
Fitness Value
5
10
15
1
5
50
500
FEs

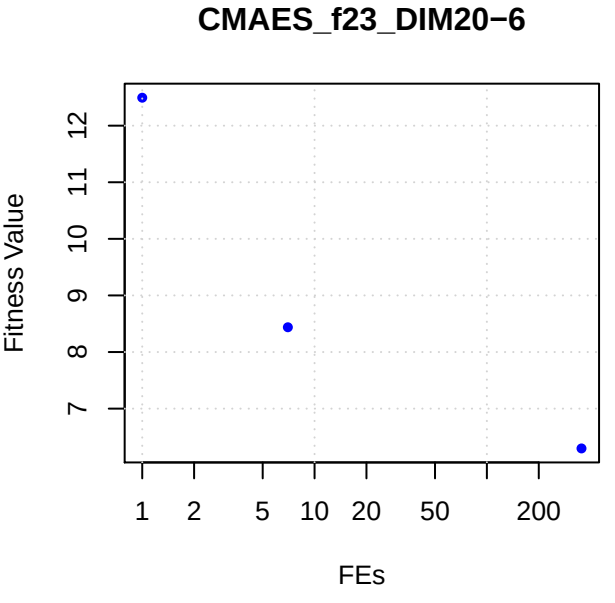

CMAES_f23_DIM20−15
Fitness Value
5
10
15
20
1
5
10
50
500
FEs

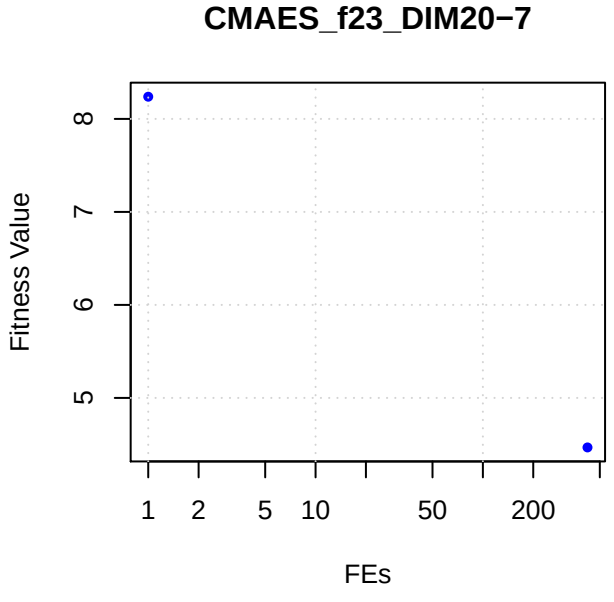

CMAES_f23_DIM20−2
Fitness Value
3
4
5
6
7
0.1
0.2
0.5
1.0
2.0
5.0
FEs

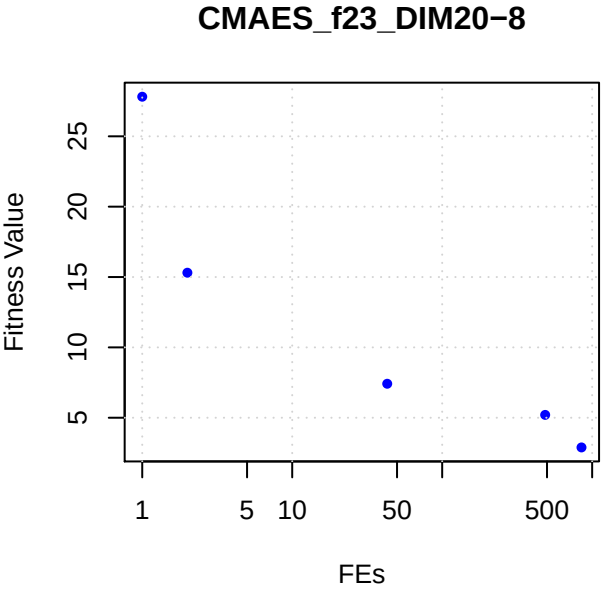

CMAES_f23_DIM20−3
Fitness Value
6
8
10
12
14
16
18
1
2
5
10
20
50
100
FEs

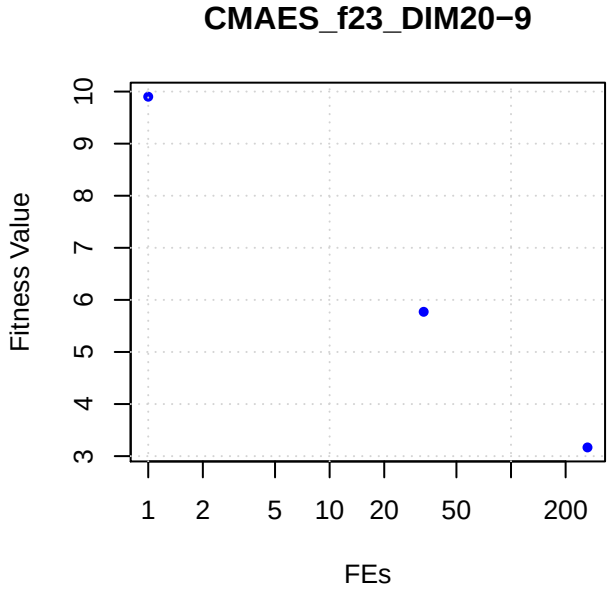

CMAES_f23_DIM20−4
Fitness Value
5
6
7
8
9
10
1
2
5
10
20
50
100
FEs

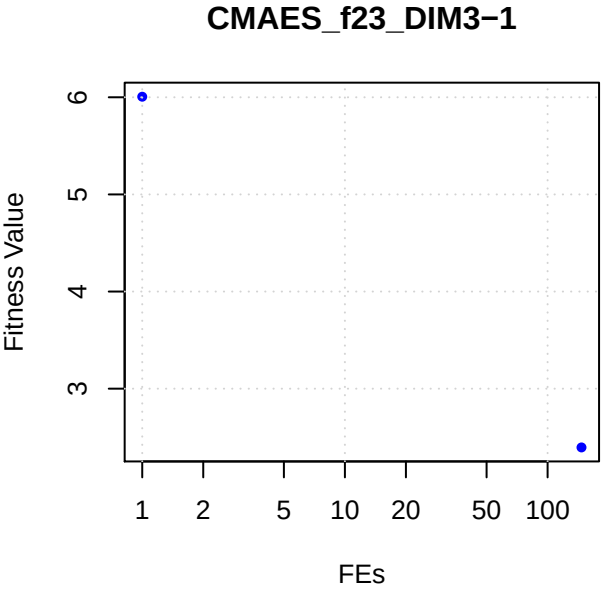

CMAES_f23_DIM20−5
Fitness Value
4
6
8
10
12
14
16
1
5
10
50
500
FEs

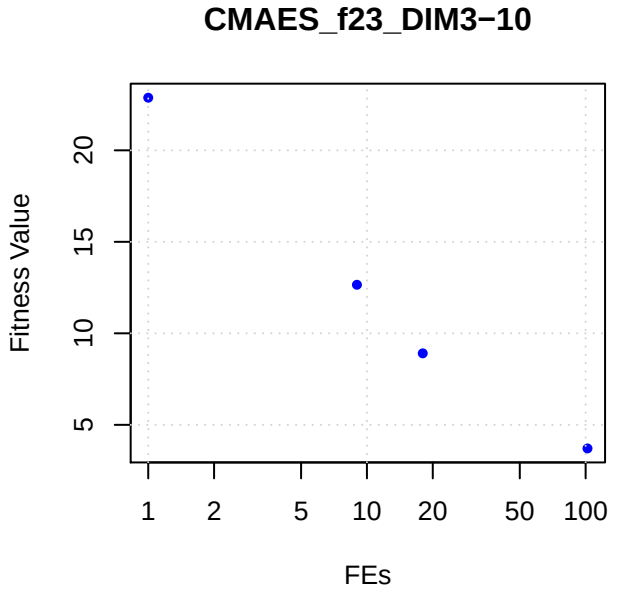

CMAES_f23_DIM20−6
Fitness Value
7
8
9
10
11
12
1
2
5
10
20
50
200
FEs

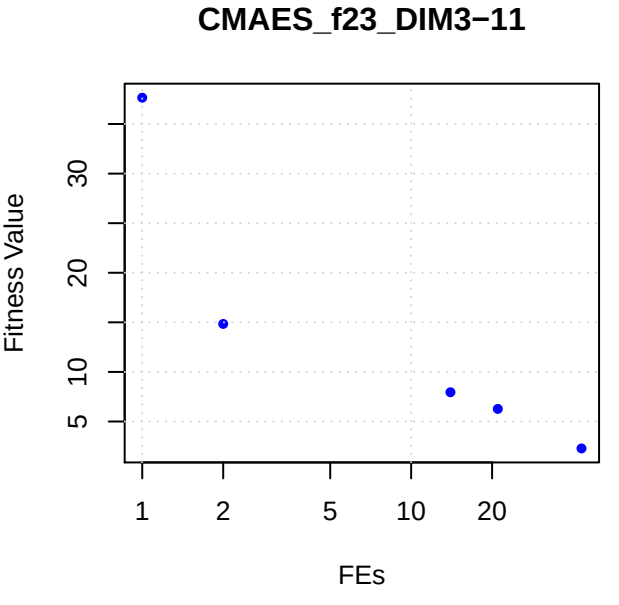

CMAES_f23_DIM20−7
Fitness Value
5
6
7
8
1
2
5
10
50
200
FEs

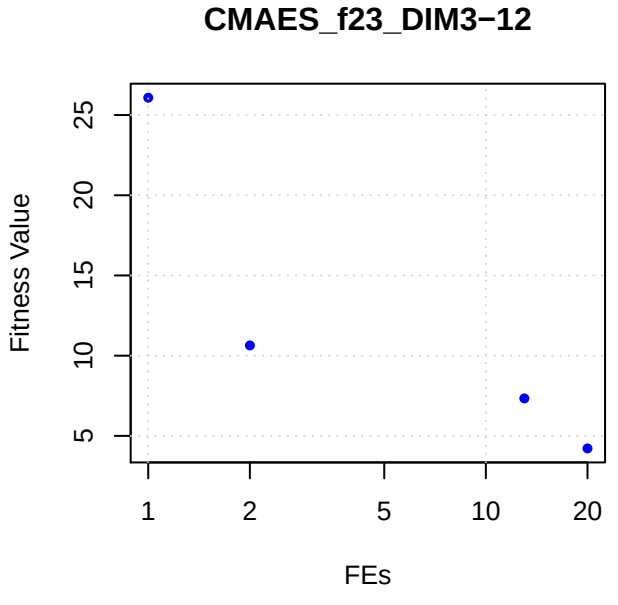

CMAES_f23_DIM20−8
Fitness Value
5
10
15
20
25
1
5
10
50
500
FEs

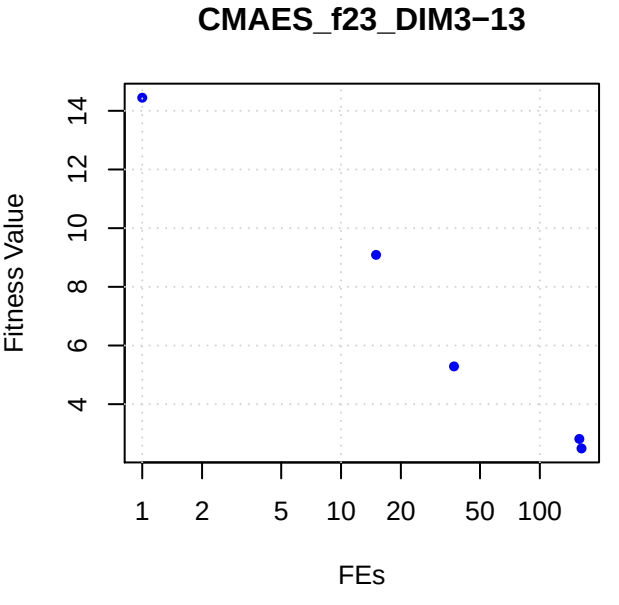

CMAES_f23_DIM20−9
Fitness Value
3
4
5
6
7
8
9
10
1
2
5
10
20
50
200
FEs

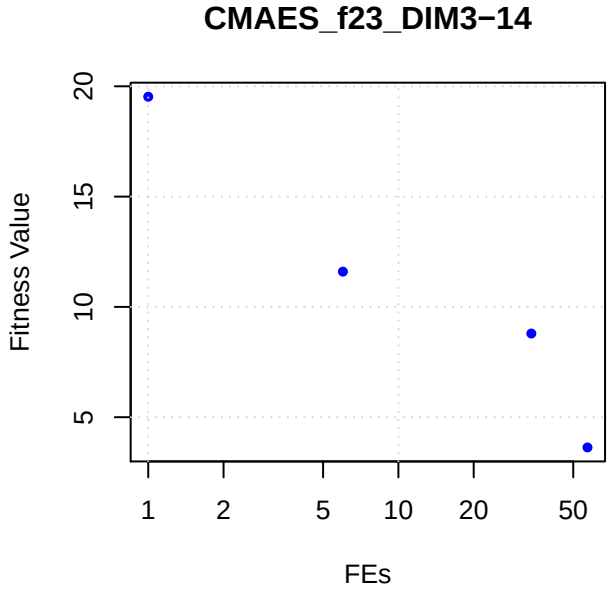

CMAES_f23_DIM3−1
Fitness Value
3
4
5
6
1
2
5
10
20
50
100
FEs

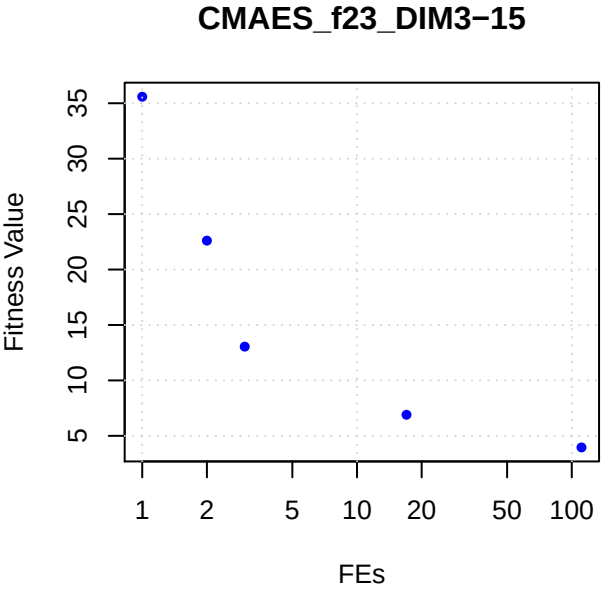

CMAES_f23_DIM3−10
Fitness Value
5
10
15
20
1
2
5
10
20
50
100
FEs

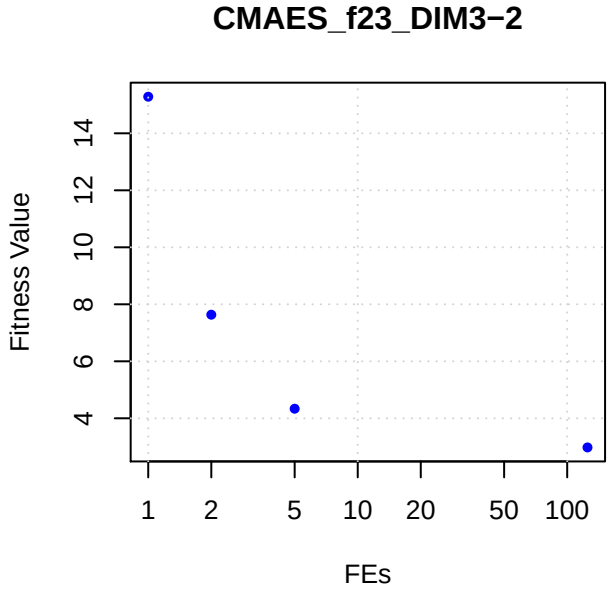

CMAES_f23_DIM3−11
Fitness Value
5
10
20
30
1
2
5
10
20
FEs

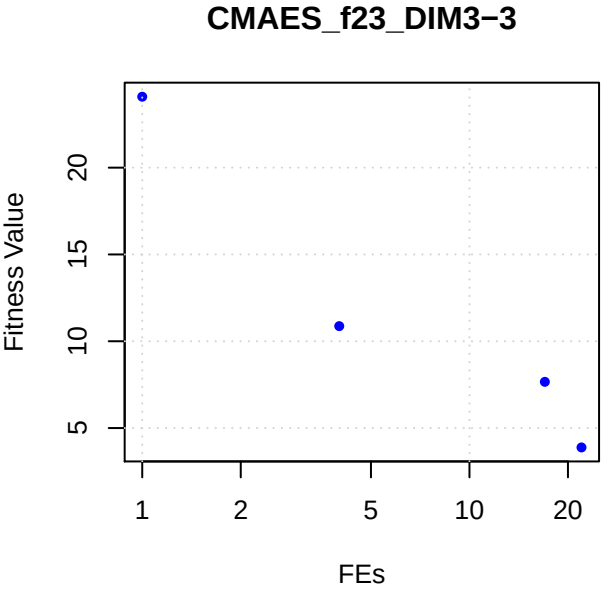

CMAES_f23_DIM3−12
Fitness Value
5
10
15
20
25
1
2
5
10
20
FEs

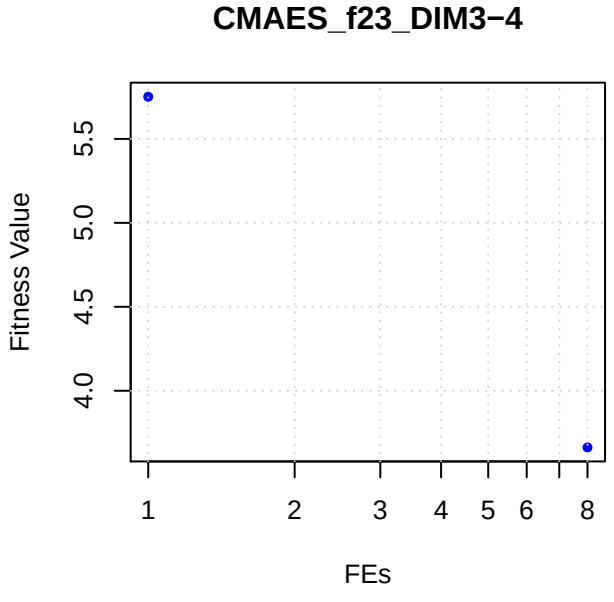

CMAES_f23_DIM3−13
Fitness Value
4
6
8
10
12
14
1
2
5
10
20
50
100
FEs

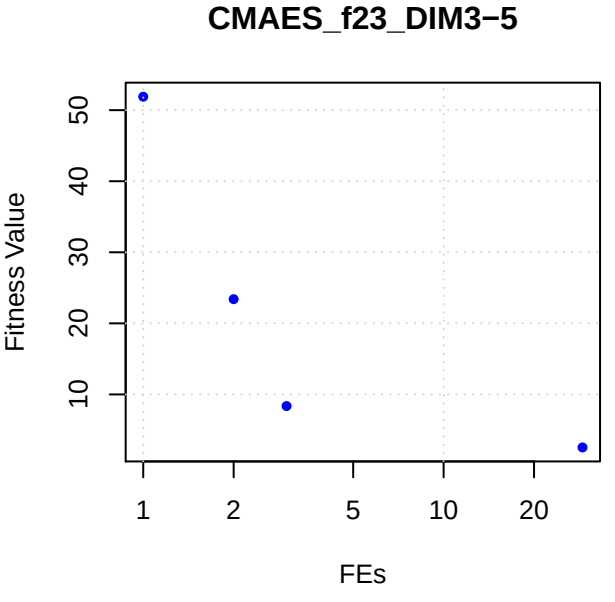

CMAES_f23_DIM3−14
Fitness Value
FEs
5
10
15
20
1
2
5
10
20
50

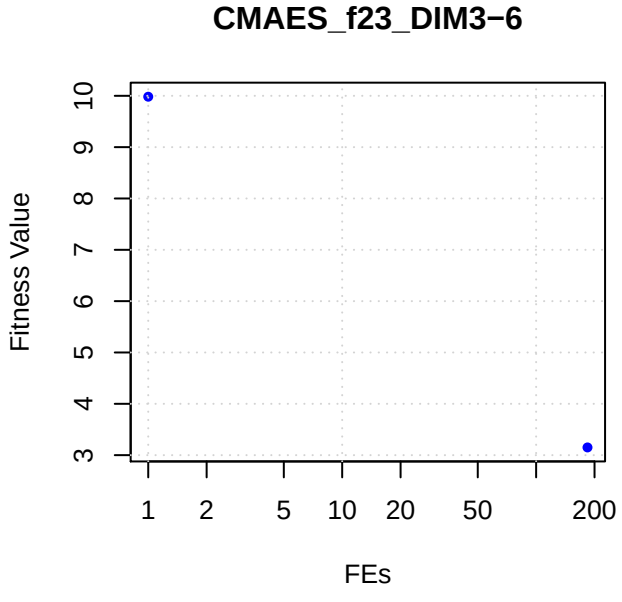

CMAES_f23_DIM3−15
Fitness Value
FEs
5
10
15
20
25
30
35
1
2
5
10
20
50
100

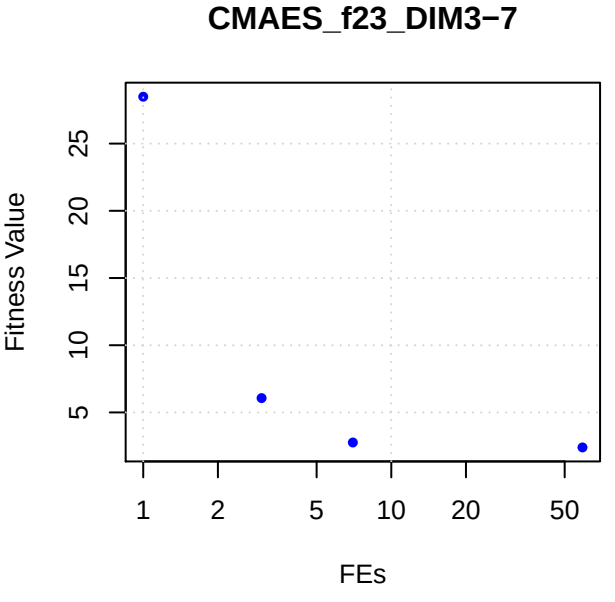

CMAES_f23_DIM3−2
Fitness Value
FEs
4
6
8
10
12
14
1
2
5
10
20
50
100

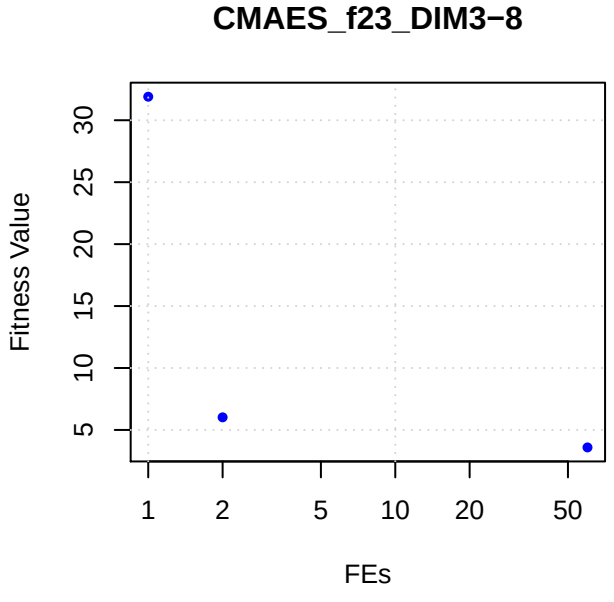

CMAES_f23_DIM3−3
Fitness Value
FEs
5
10
15
20
1
2
5
10
20

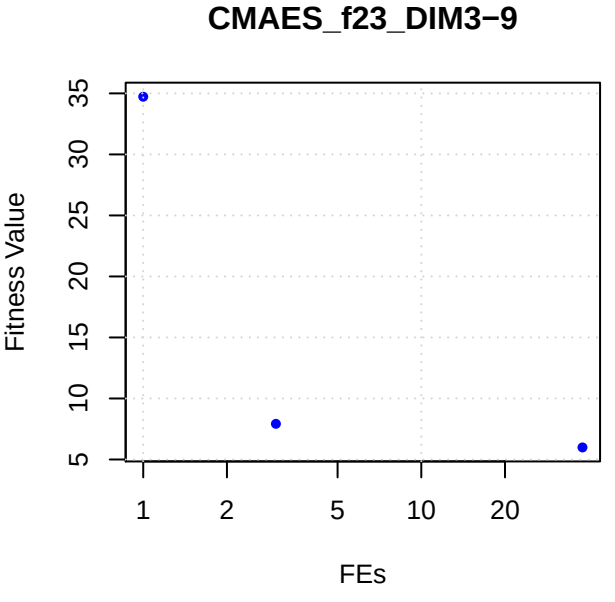

CMAES_f23_DIM3−4
Fitness Value
4.0
4.5
5.0
5.5
1
2
3
4
5
6
8
FEs

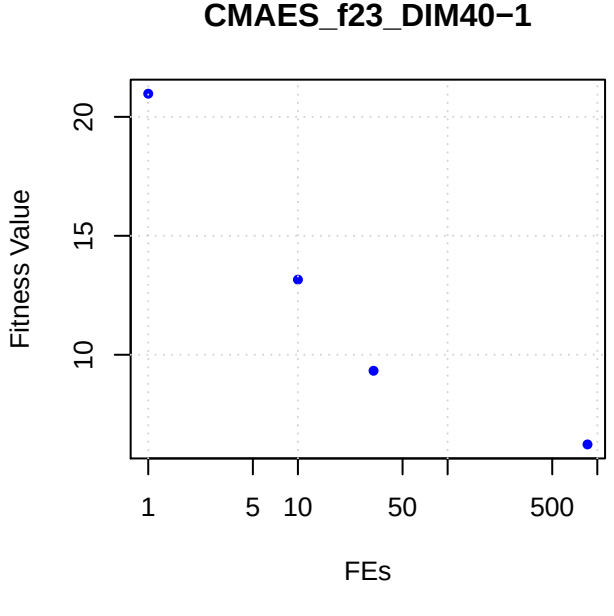

CMAES_f23_DIM3−5
Fitness Value
10
20
30
40
50
1
2
5
10
20
FEs

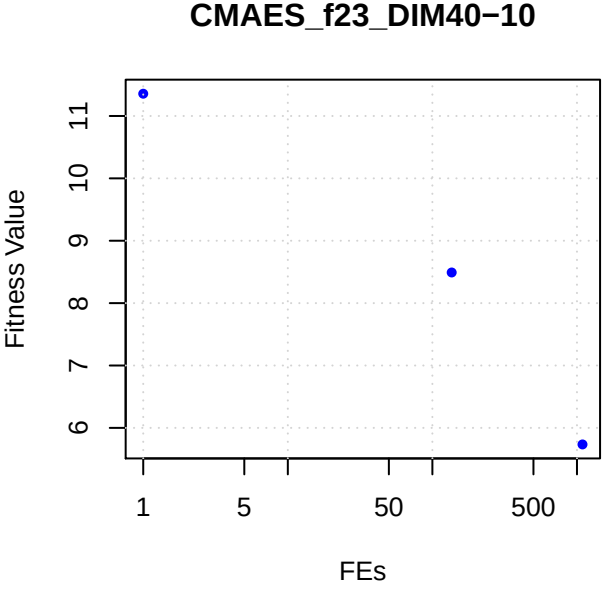

CMAES_f23_DIM3−6
Fitness Value
3
4
5
6
7
8
9
10
1
2
5
10
20
50
200
FEs

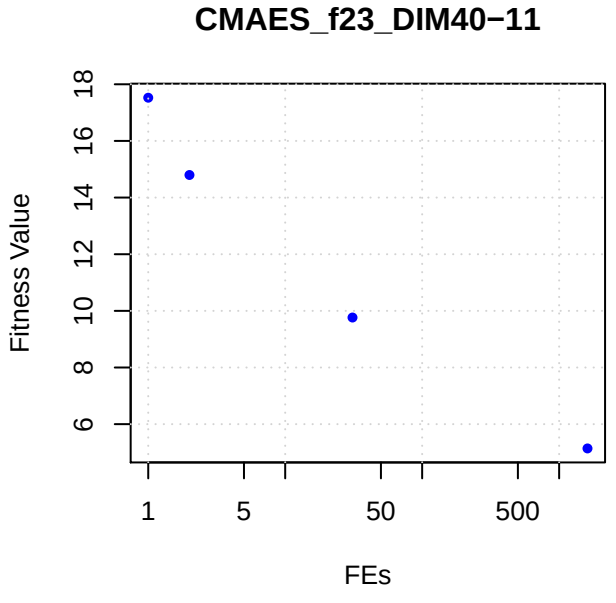

CMAES_f23_DIM3−7
Fitness Value
5
10
15
20
25
1
2
5
10
20
50
FEs

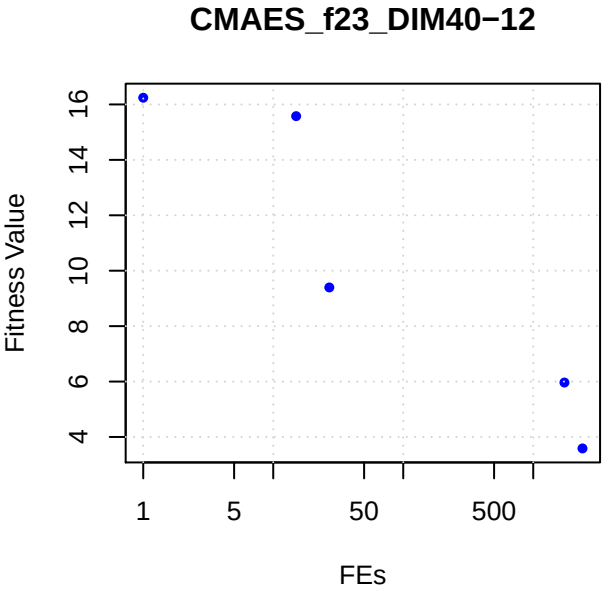

CMAES_f23_DIM3−8
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
FEs

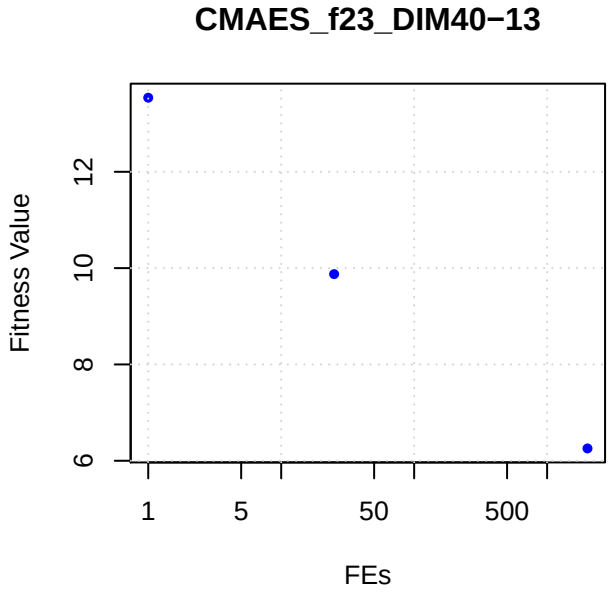

CMAES_f23_DIM3−9
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
20
FEs

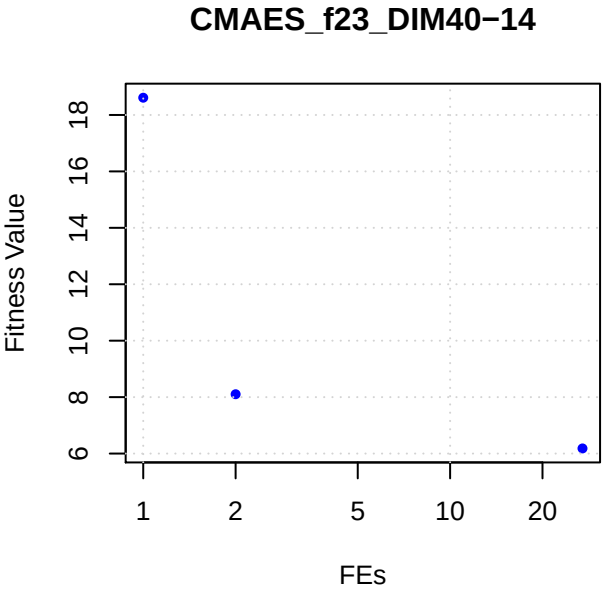

CMAES_f23_DIM40−1
Fitness Value
10
15
20
1
5
10
50
500
FEs

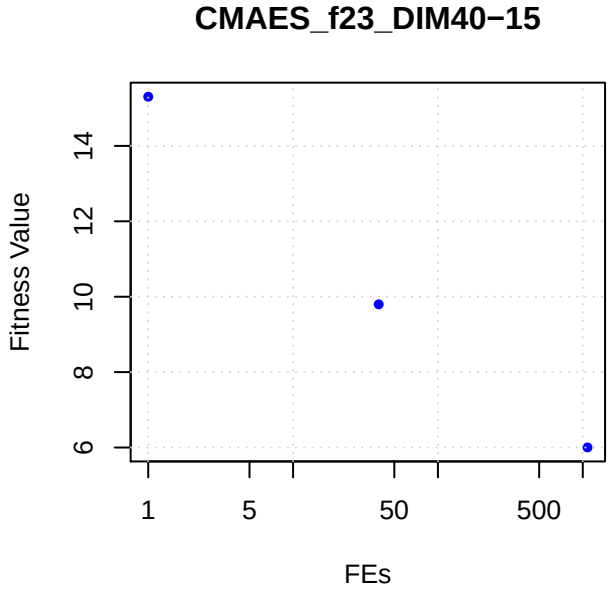

CMAES_f23_DIM40−10
Fitness Value
6
7
8
9
10
11
1
5
50
500
FEs

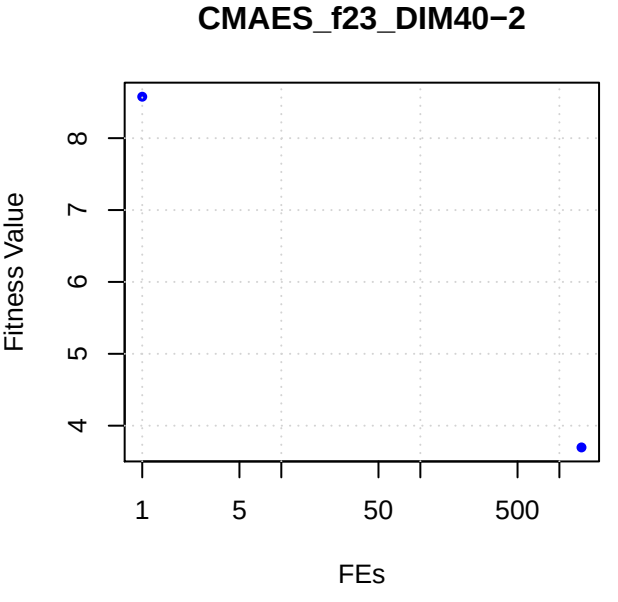

CMAES_f23_DIM40−11
Fitness Value
18
16
14
12
10
8
6
1
5
50
500
FEs

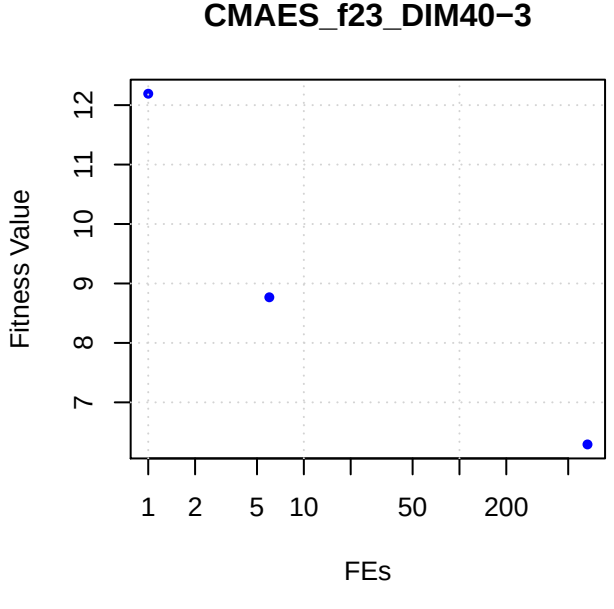

CMAES_f23_DIM40−12
Fitness Value
16
14
12
10
8
6
4
1
5
50
500
FEs

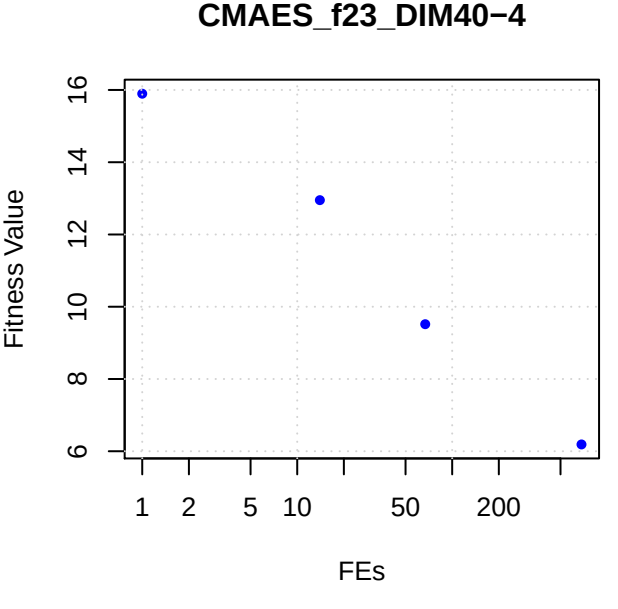

CMAES_f23_DIM40−13
Fitness Value
12
10
8
6
1
5
50
500
FEs

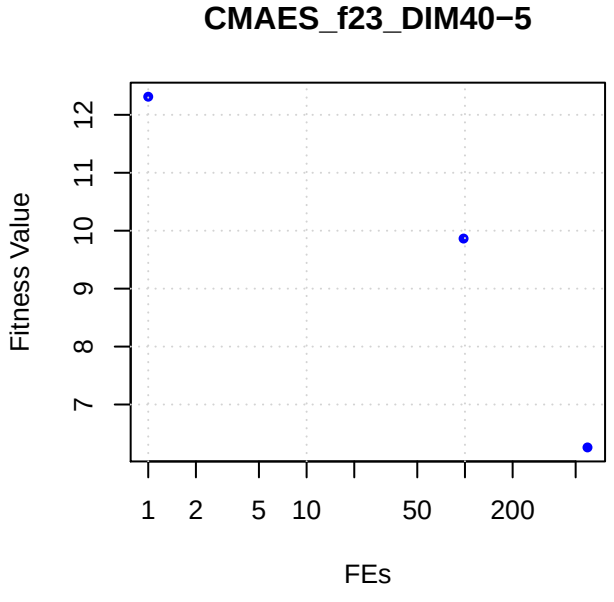

CMAES_f23_DIM40−14
Fitness Value
18
16
14
12
10
8
6
1
2
5
10
20
FEs

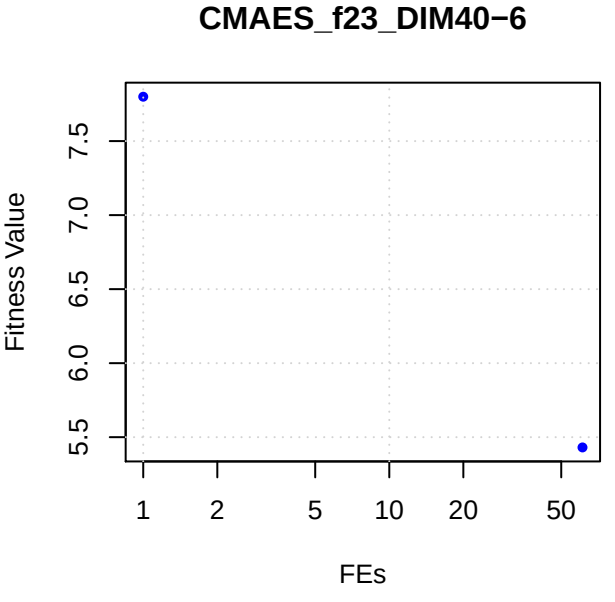

CMAES_f23_DIM40−15
Fitness Value
6
8
10
12
14
1
5
50
500
FEs

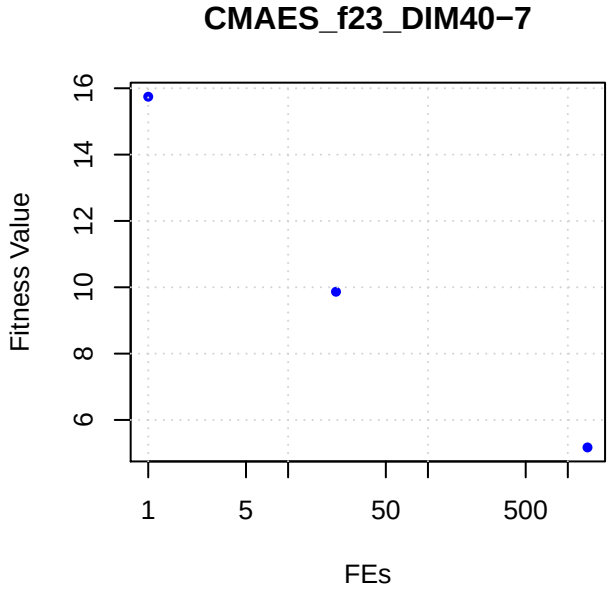

CMAES_f23_DIM40−2
Fitness Value
4
5
6
7
8
1
5
50
500
FEs

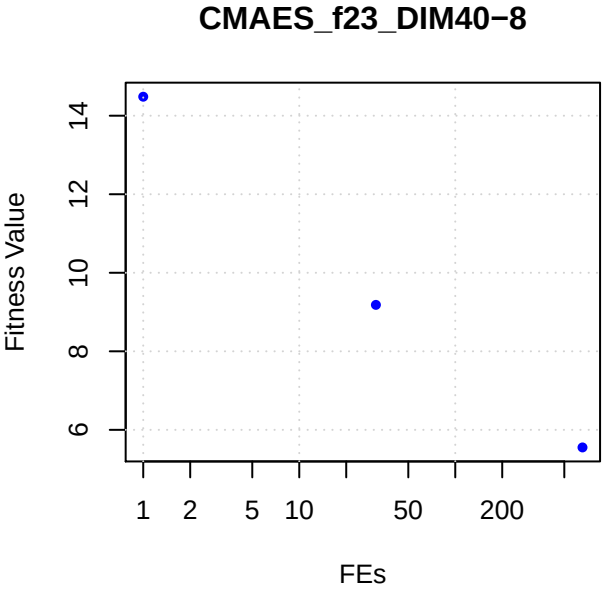

CMAES_f23_DIM40−3
Fitness Value
7
8
9
10
11
12
1
2
5
10
50
200
FEs

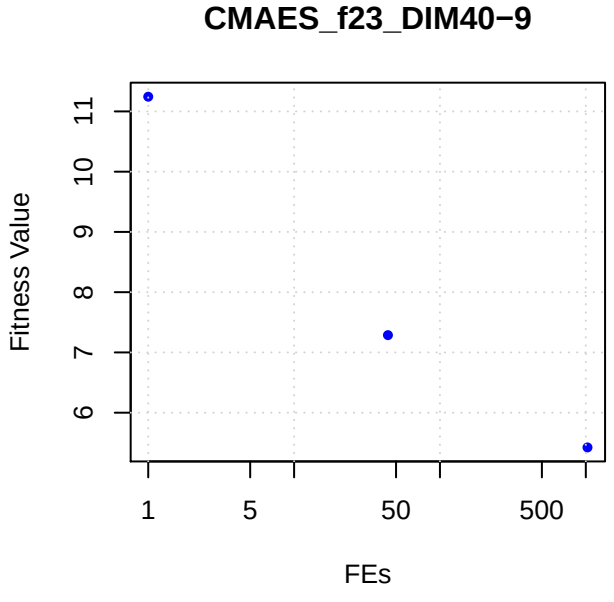

CMAES_f23_DIM40−4
Fitness Value
6
8
10
12
14
16
1
2
5
10
50
200
FEs

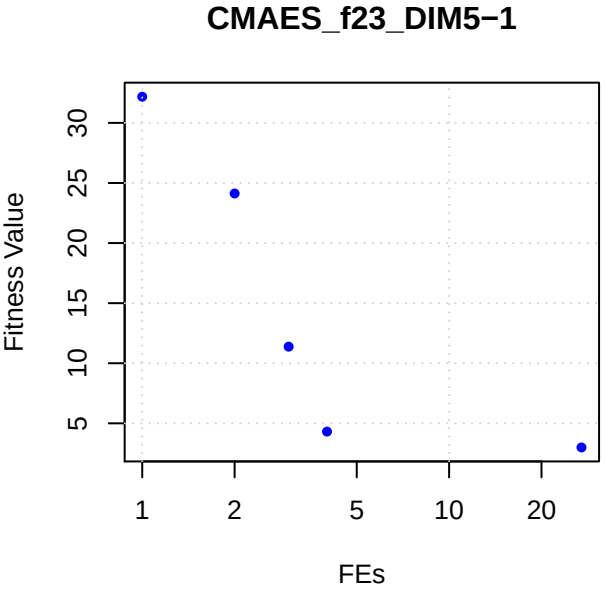

CMAES_f23_DIM40−5
Fitness Value
7
8
9
10
11
12
1
2
5
10
50
200
FEs

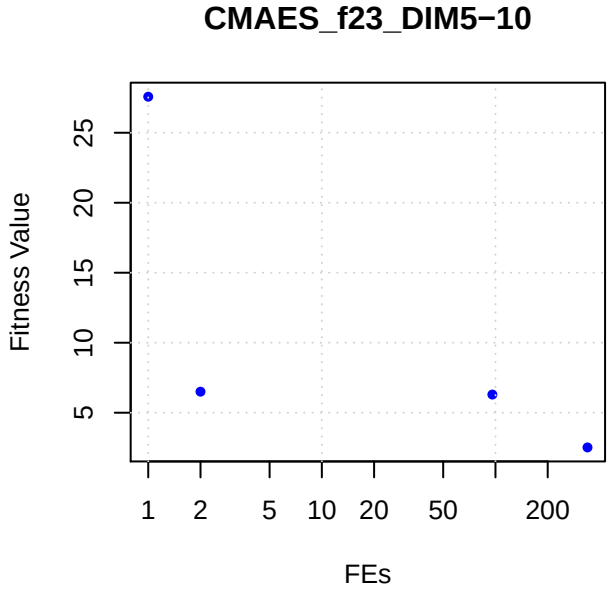

CMAES_f23_DIM40−6
Fitness Value
5.5
6.0
6.5
7.0
7.5
1
2
5
10
20
50
FEs

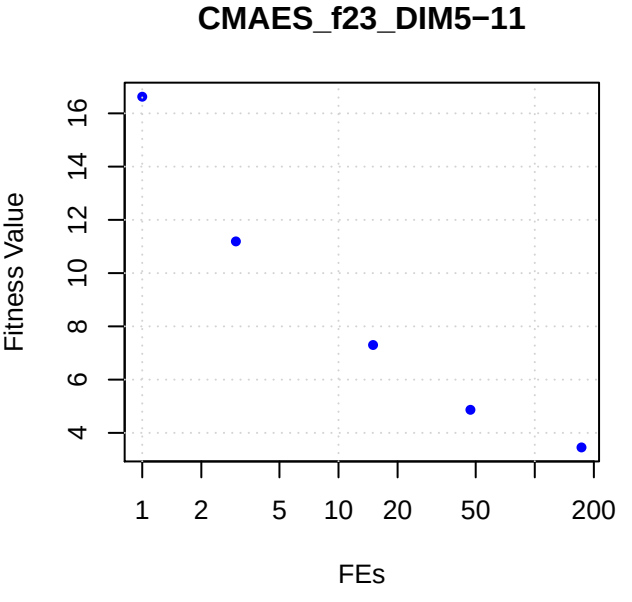

CMAES_f23_DIM40−7
Fitness Value
6
8
10
12
14
16
1
5
50
500
FEs

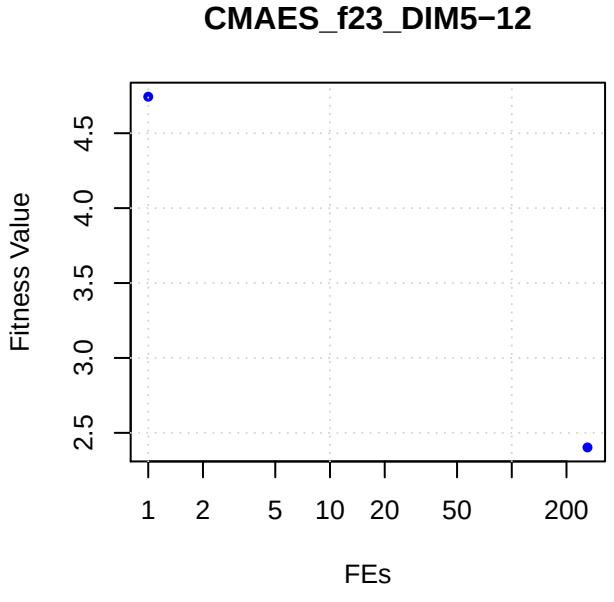

CMAES_f23_DIM40−8
Fitness Value
6
8
10
12
14
1
2
5
10
50
200
FEs

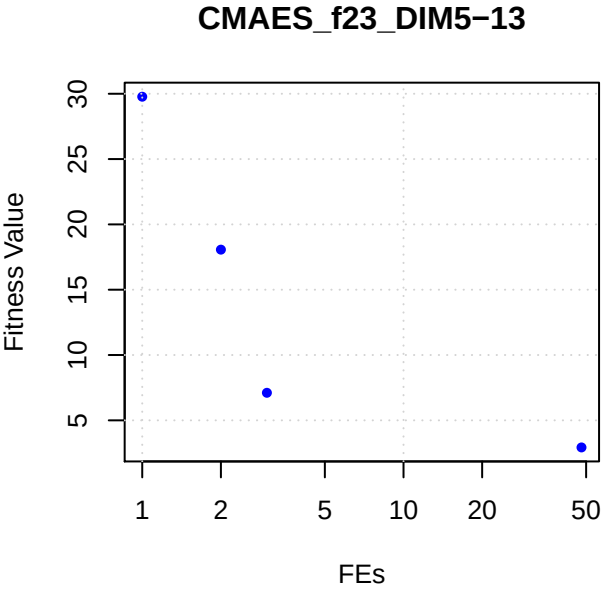

CMAES_f23_DIM40−9
Fitness Value
6
7
8
9
10
11
1
5
50
500
FEs

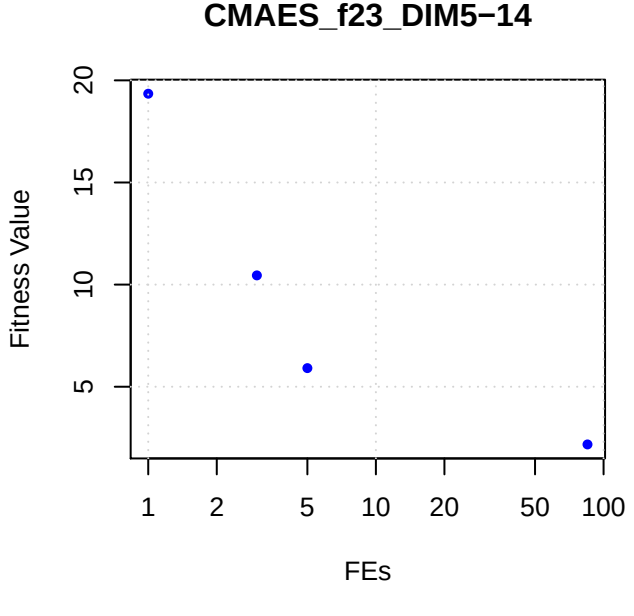

CMAES_f23_DIM5−1
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
FEs

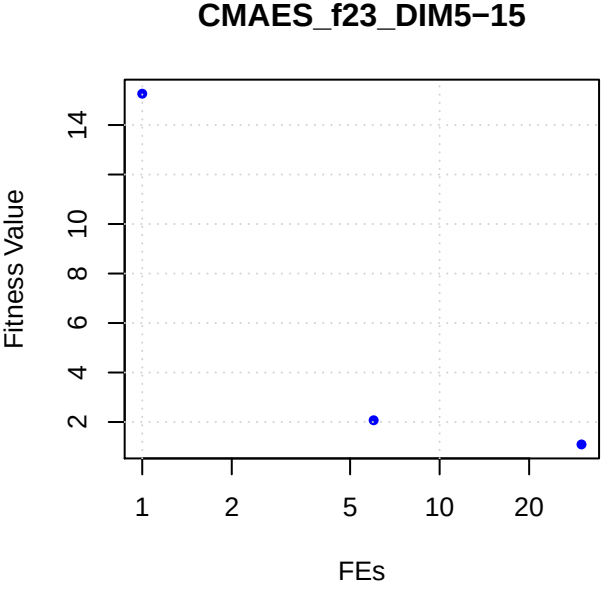

CMAES_f23_DIM5−10
Fitness Value
5
10
15
20
25
1
2
5
10
20
50
200
FEs

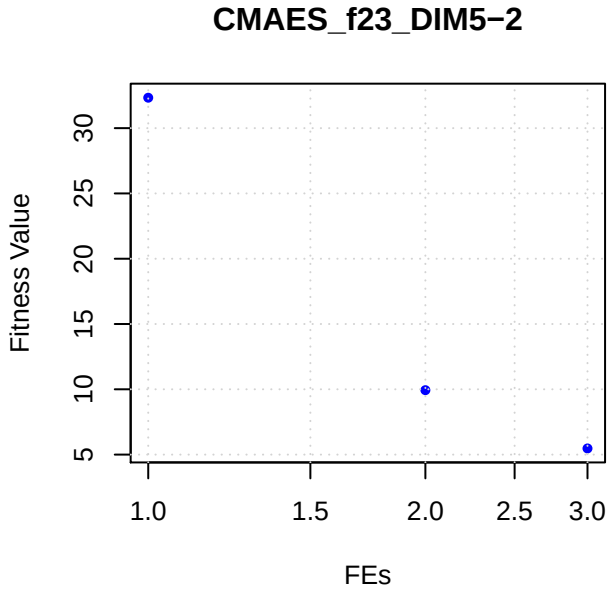

CMAES_f23_DIM5−11
Fitness Value
4
6
8
10
12
14
16
1
2
5
10
20
50
200
FEs

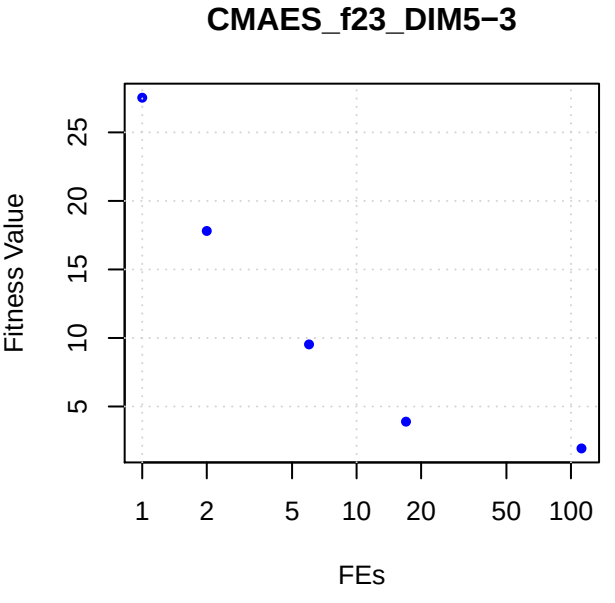

CMAES_f23_DIM5−12
Fitness Value
2.5
3.0
3.5
4.0
4.5
1
2
5
10
20
50
200
FEs

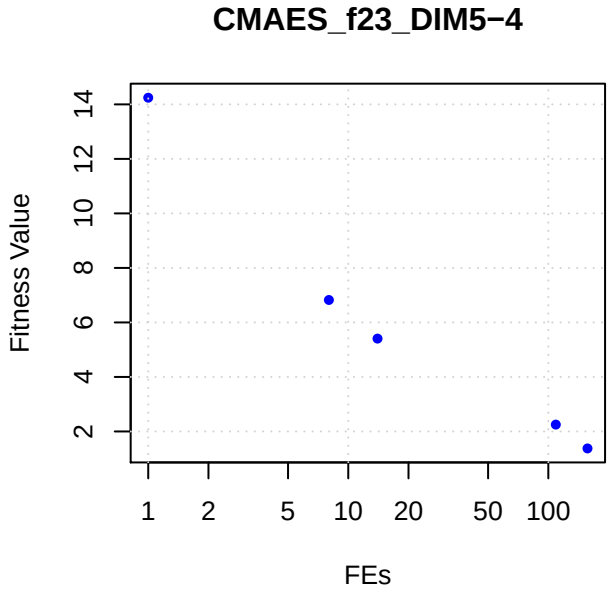

CMAES_f23_DIM5−13
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
FEs

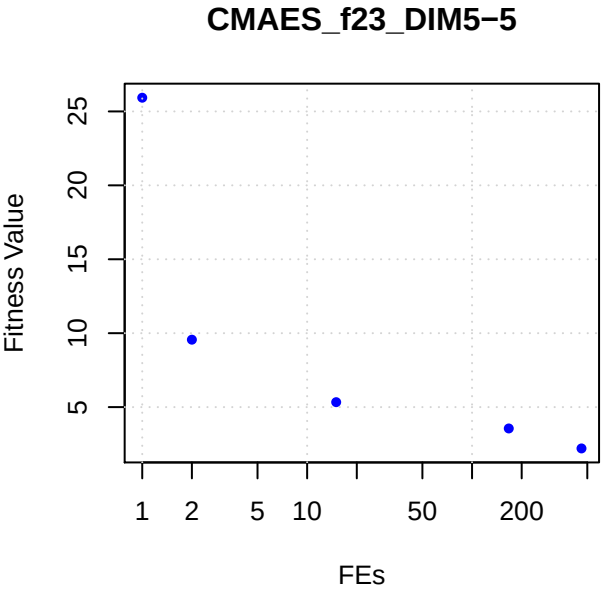

CMAES_f23_DIM5−14
Fitness Value
5
10
15
20
1
2
5
10
20
50
100
FEs

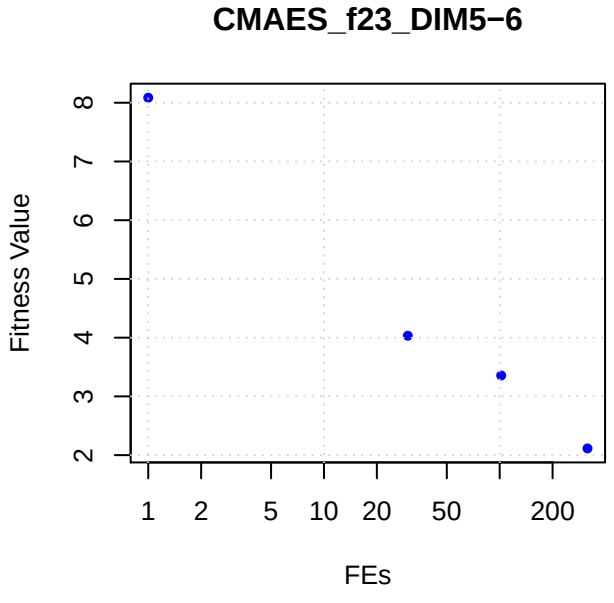

CMAES_f23_DIM5−15
Fitness Value
2
4
6
8
10
14
1
2
5
10
20
FEs

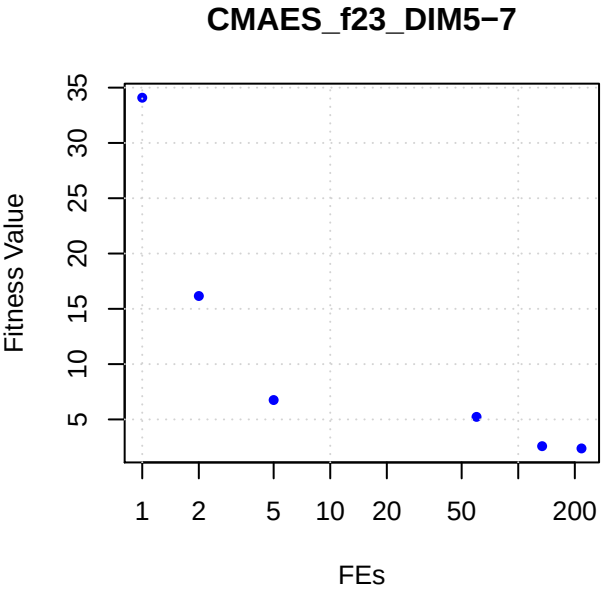

CMAES_f23_DIM5−2
Fitness Value
5
10
15
20
25
30
1.0
1.5
2.0
2.5
3.0
FEs

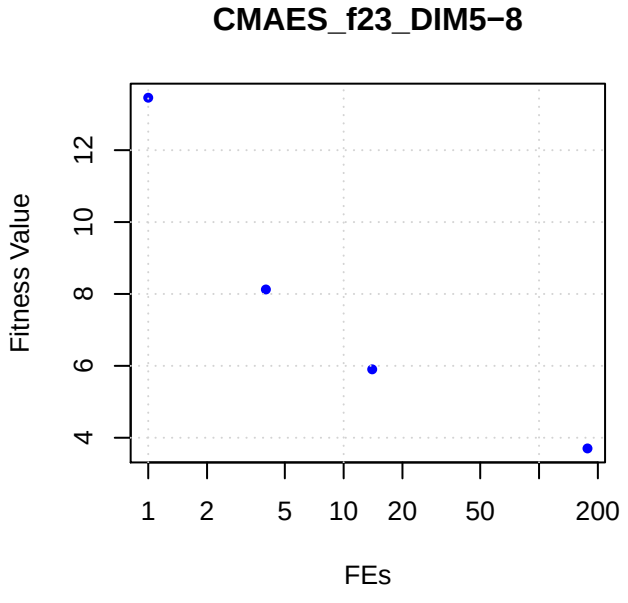

CMAES_f23_DIM5−3
Fitness Value
5
10
15
20
25
1
2
5
10
20
50
100
FEs

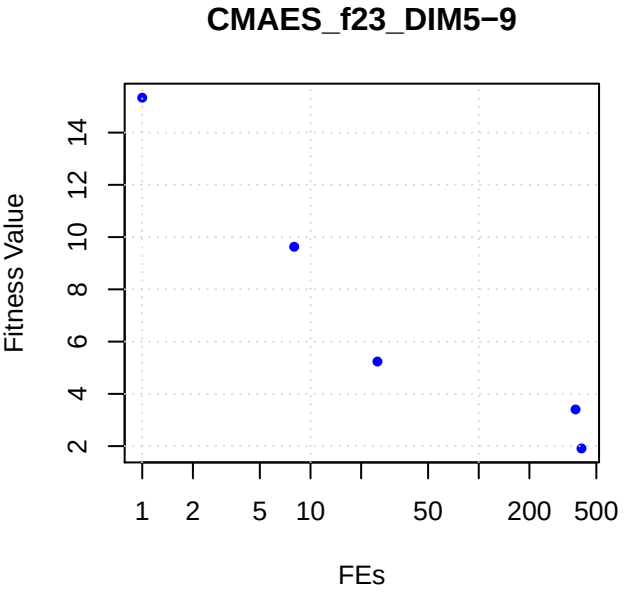

CMAES_f23_DIM5−4
Fitness Value
2
4
6
8
10
12
14
1
2
5
10
20
50
100
FEs

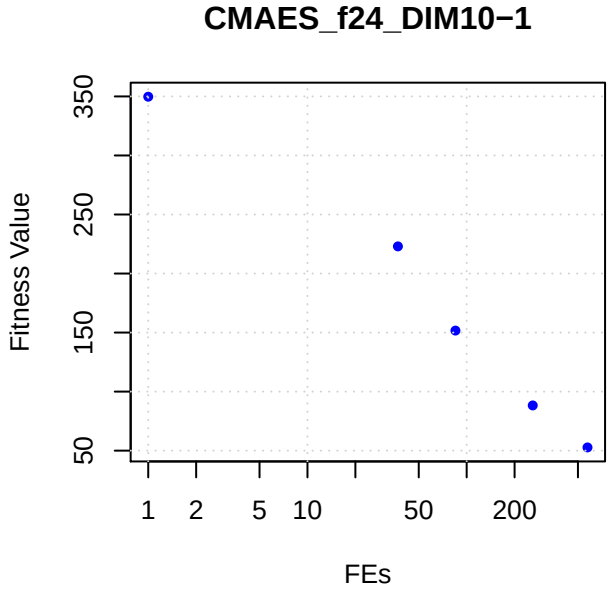

CMAES_f23_DIM5−5
Fitness Value
5
10
15
20
25
1
2
5
10
50
200
FEs

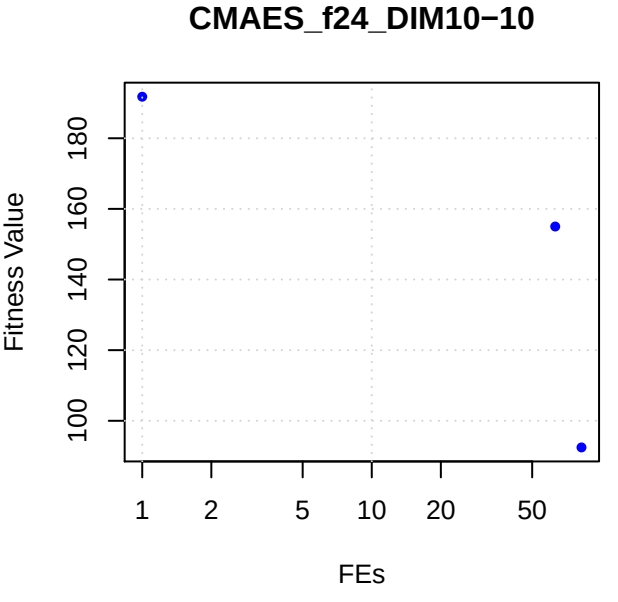

CMAES_f23_DIM5−6
Fitness Value
2
3
4
5
6
7
8
1
2
5
10
20
50
200
FEs

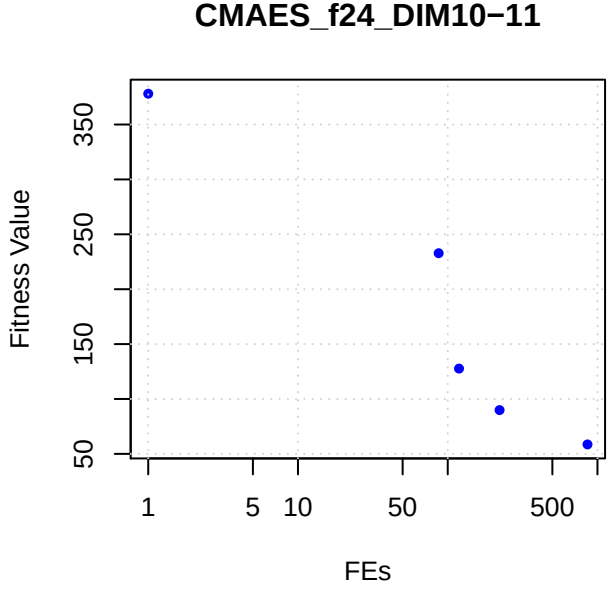

CMAES_f23_DIM5−7
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
20
50
200
FEs

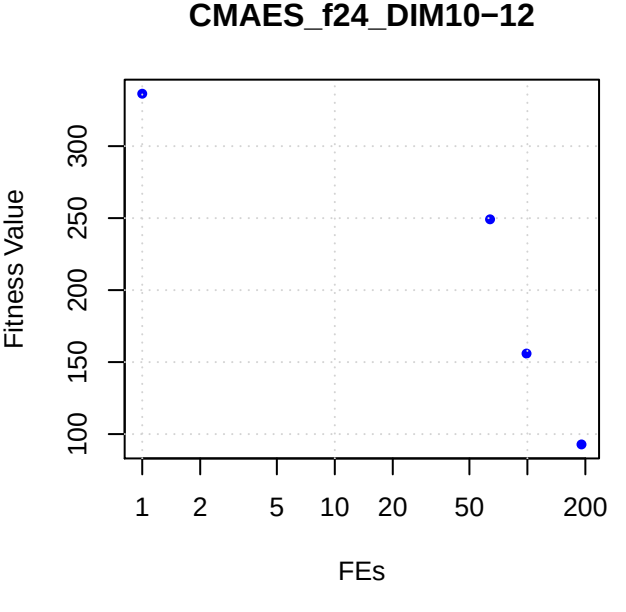

CMAES_f23_DIM5−8
Fitness Value
4
6
8
10
12
1
2
5
10
20
50
200
FEs

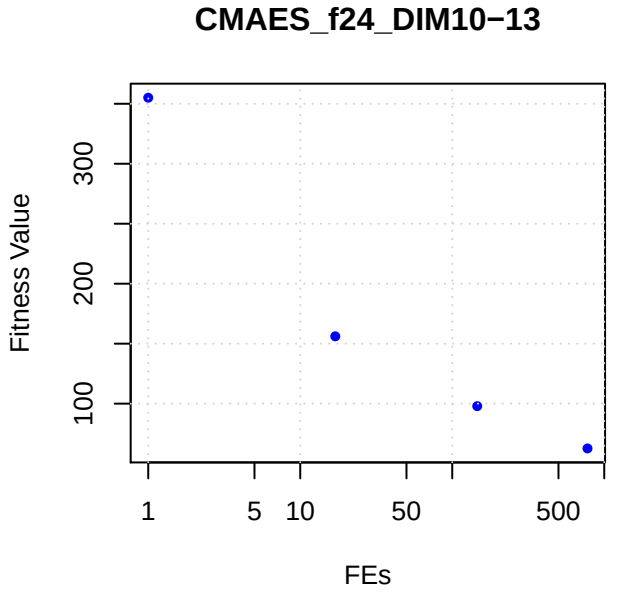

CMAES_f23_DIM5−9
Fitness Value
2
4
6
8
10
12
14
1
2
5
10
50
200
500
FEs

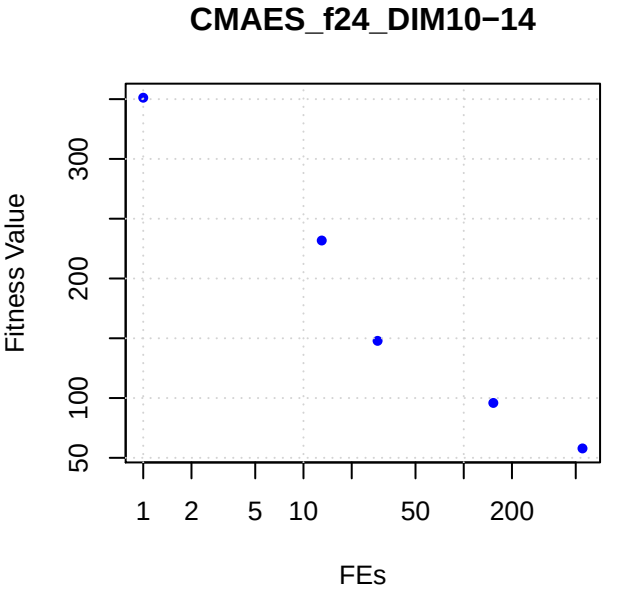

CMAES_f24_DIM10−1
Fitness Value
50
150
250
350
1
2
5
10
50
200
FEs

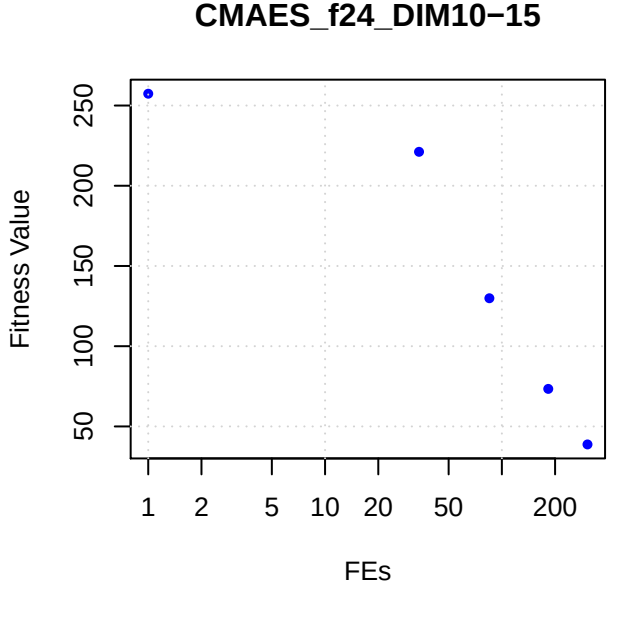

CMAES_f24_DIM10−10
Fitness Value
100
120
140
160
180
1
2
5
10
20
50
FEs

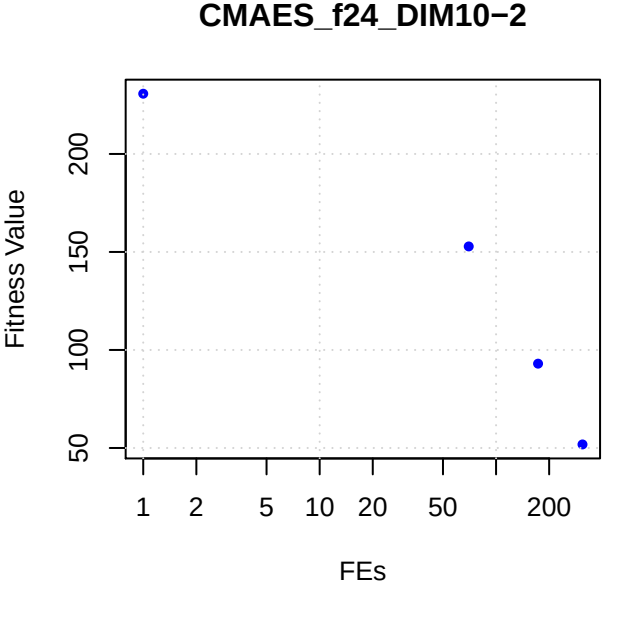

CMAES_f24_DIM10−11
Fitness Value
50
150
250
350
1
5
10
50
500
FEs

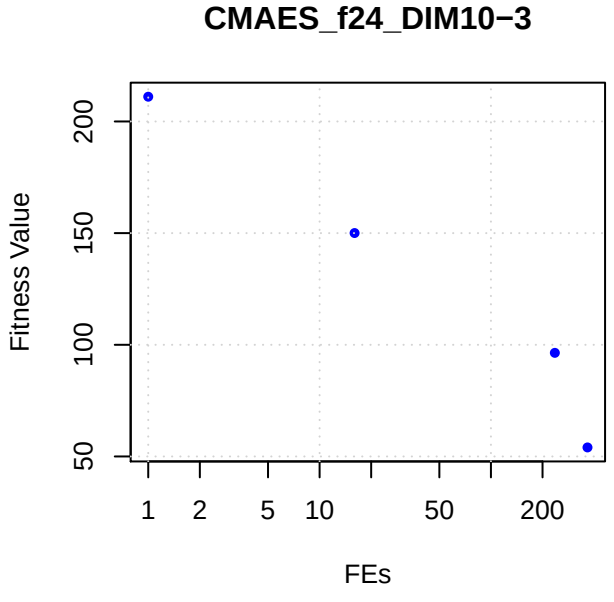

CMAES_f24_DIM10−12
Fitness Value
100
150
200
250
300
1
2
5
10
20
50
200
FEs

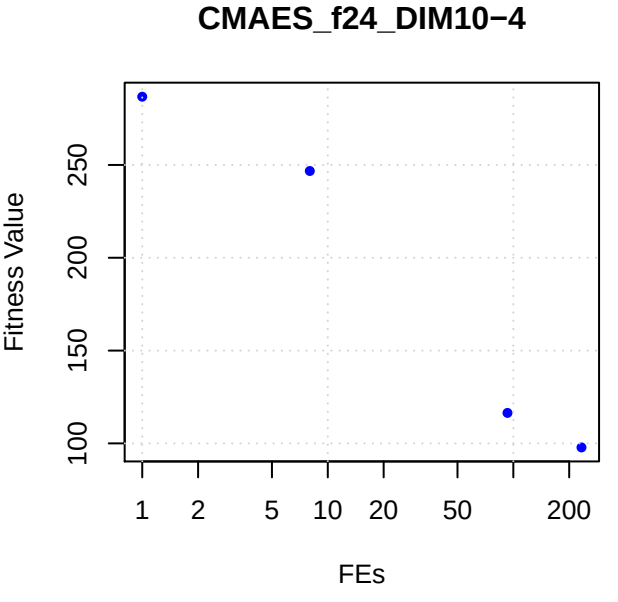

CMAES_f24_DIM10−13
Fitness Value
100
200
300
1
5
10
50
500
FEs

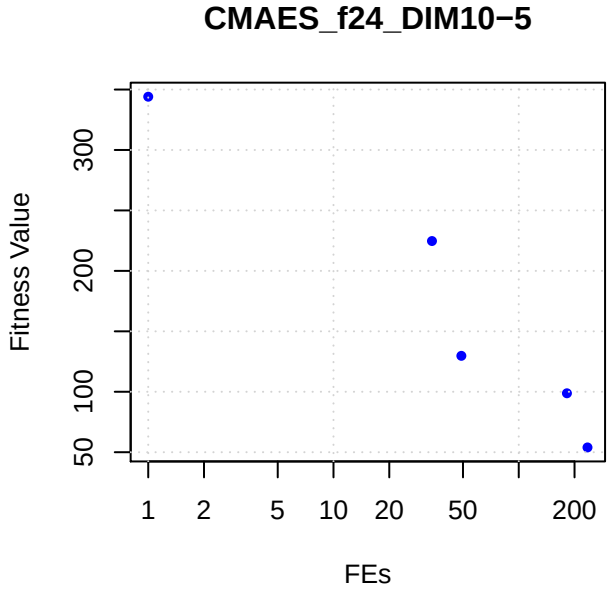

CMAES_f24_DIM10−14
Fitness Value
50
100
200
300
1
2
5
10
50
200
FEs

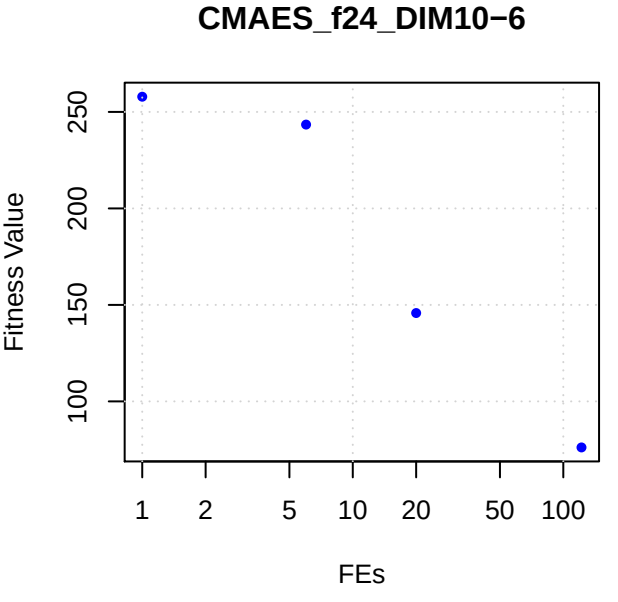

CMAES_f24_DIM10−15
Fitness Value
50
100
150
200
250
1
2
5
10
20
50
200
FEs

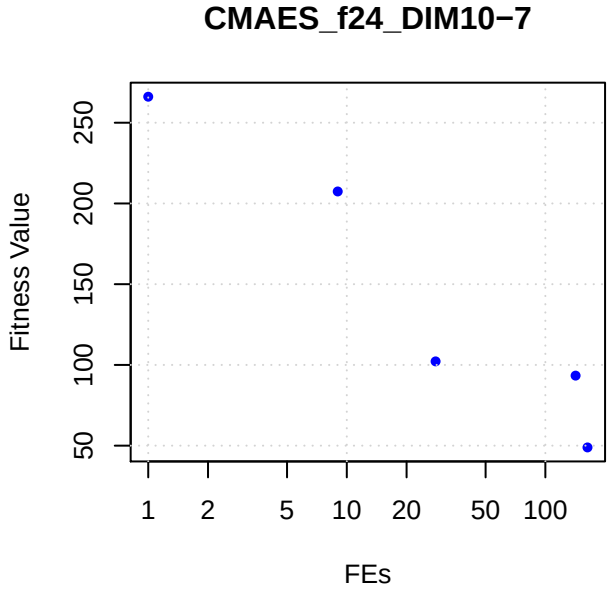

CMAES_f24_DIM10−2
Fitness Value
50
100
150
200
1
2
5
10
20
50
200
FEs

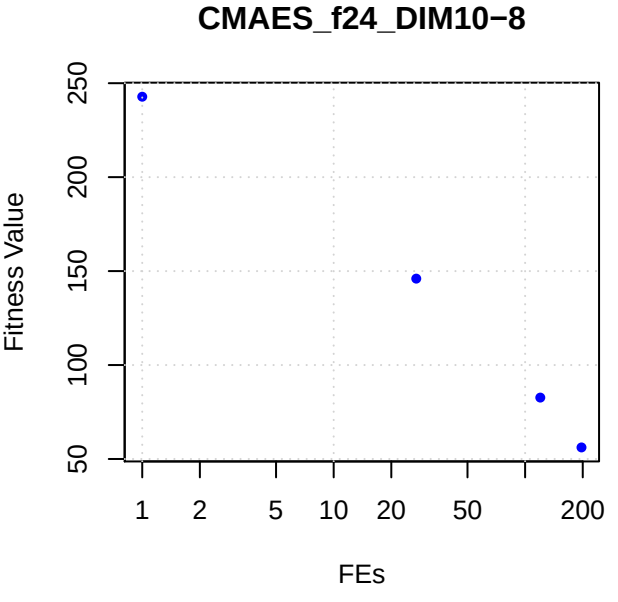

CMAES_f24_DIM10−3
Fitness Value
50
100
150
200
1
2
5
10
50
200
FEs

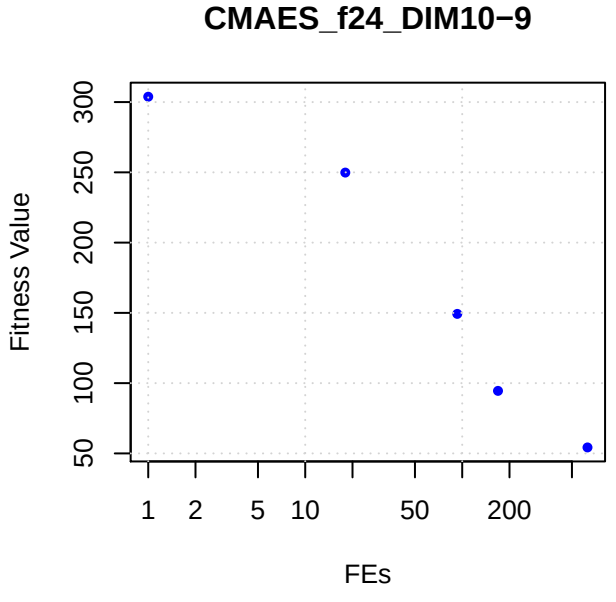

CMAES_f24_DIM10−4
Fitness Value
100
150
200
250
1
2
5
10
20
50
200
FEs

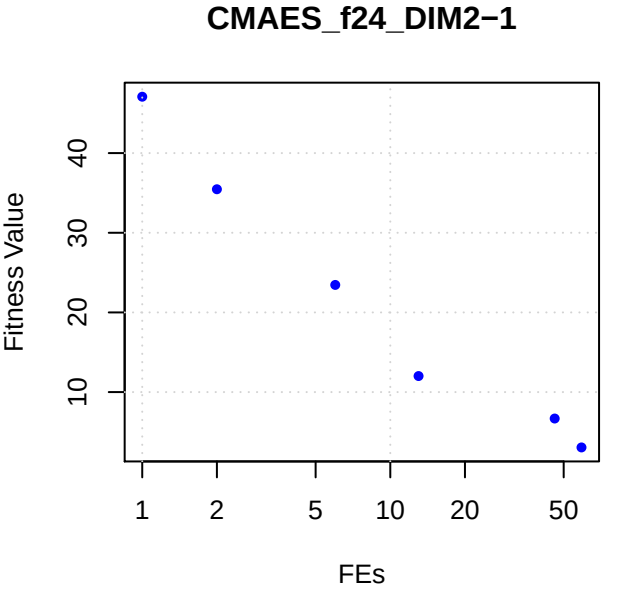

CMAES_f24_DIM10−5
Fitness Value
50
100
200
300
1
2
5
10
20
50
200
FEs

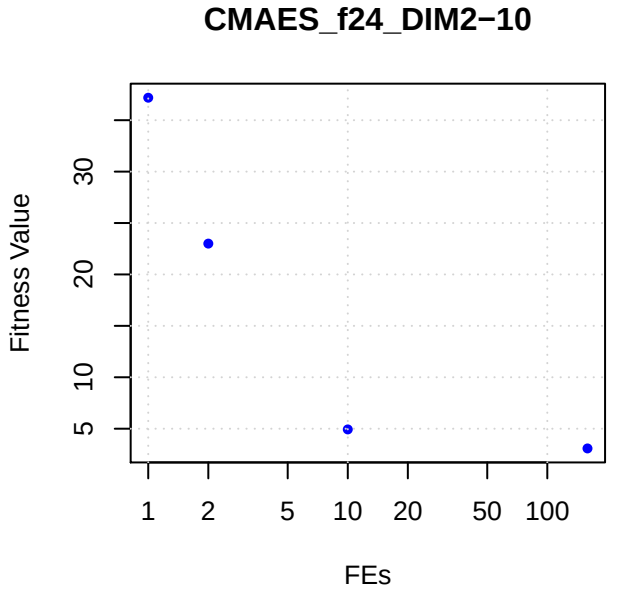

CMAES_f24_DIM10−6
Fitness Value
100
150
200
250
1
2
5
10
20
50
100
FEs

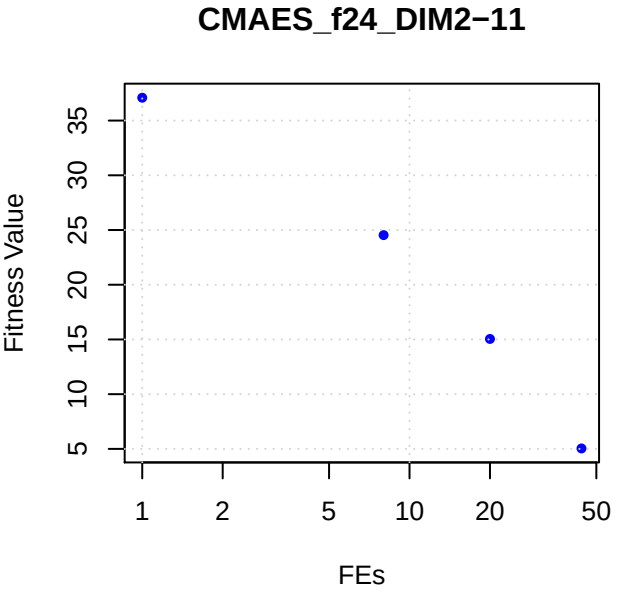

CMAES_f24_DIM10−7
Fitness Value
50
100
150
200
250
1
2
5
10
20
50
100
FEs

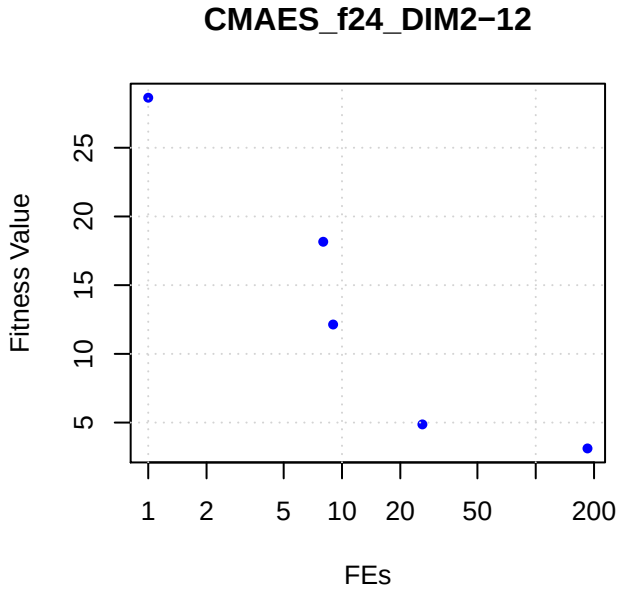

CMAES_f24_DIM10−8
Fitness Value
50
100
150
200
250
1
2
5
10
20
50
200
FEs

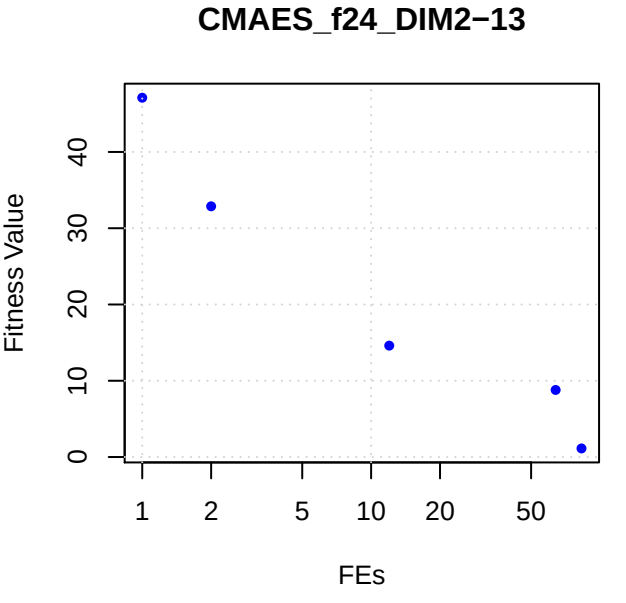

CMAES_f24_DIM10−9
Fitness Value
50
100
150
200
250
300
1
2
5
10
50
200
FEs

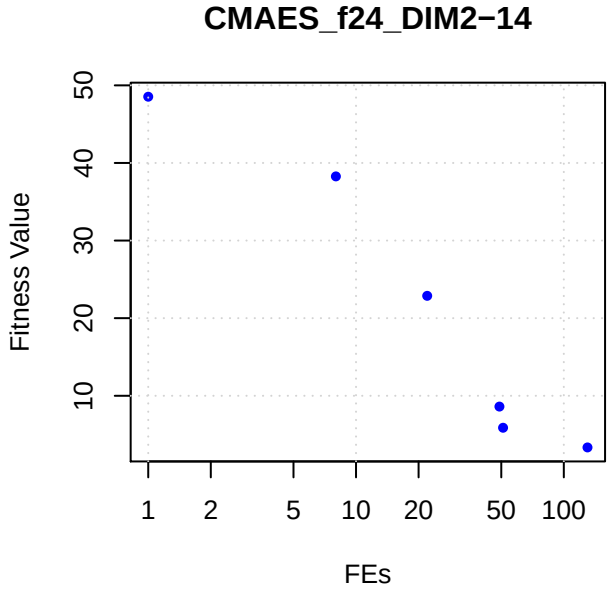

CMAES_f24_DIM2−1
Fitness Value
10
20
30
40
1
2
5
10
20
50
FEs

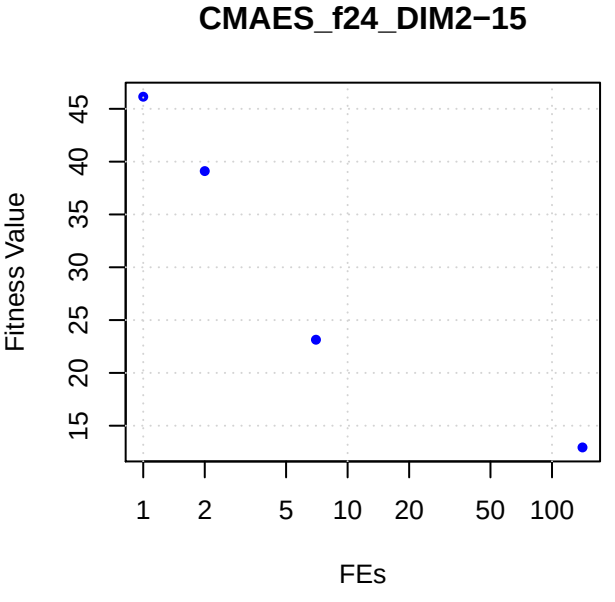

CMAES_f24_DIM2−10
Fitness Value
5
10
20
30
1
2
5
10
20
50
100
FEs

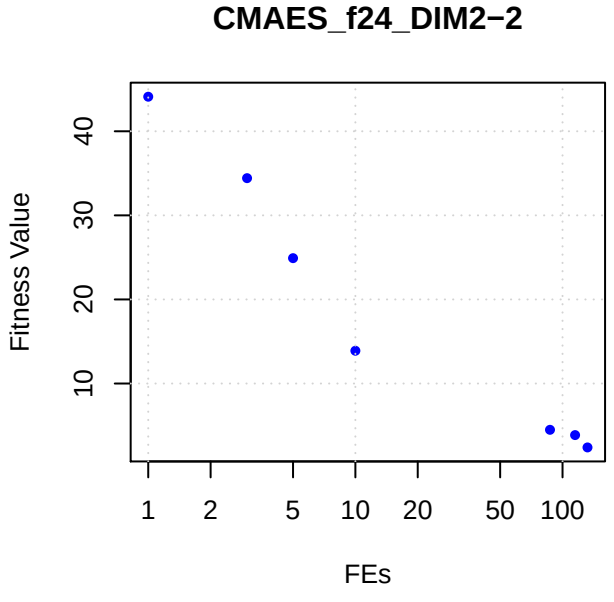

CMAES_f24_DIM2−11
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
20
50
FEs

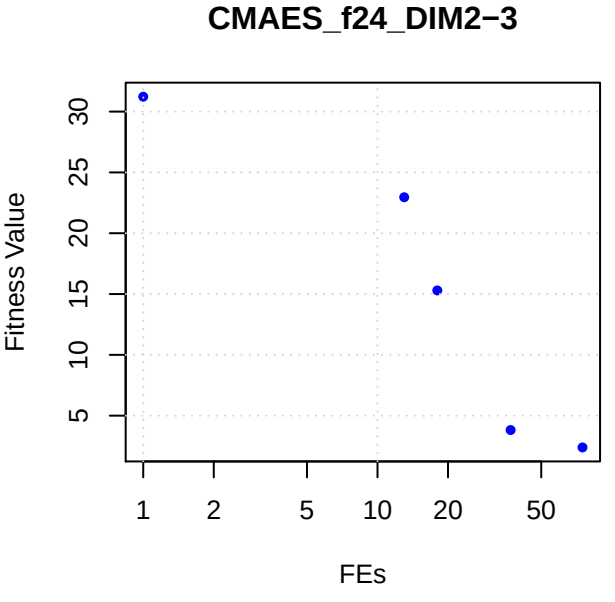

CMAES_f24_DIM2−12
Fitness Value
5
10
15
20
25
1
2
5
10
20
50
200
FEs

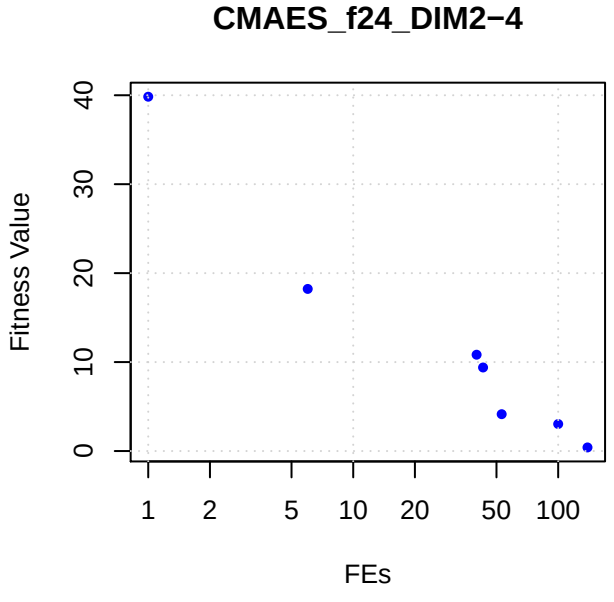

CMAES_f24_DIM2−13
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
FEs

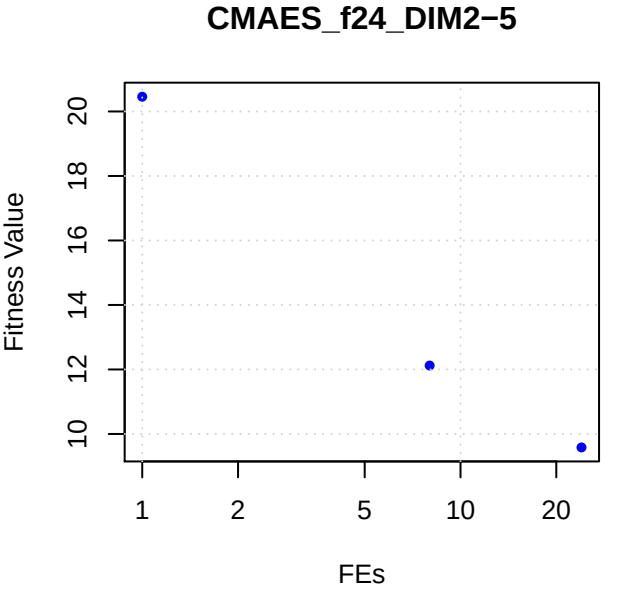

CMAES_f24_DIM2−14
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
100
FEs

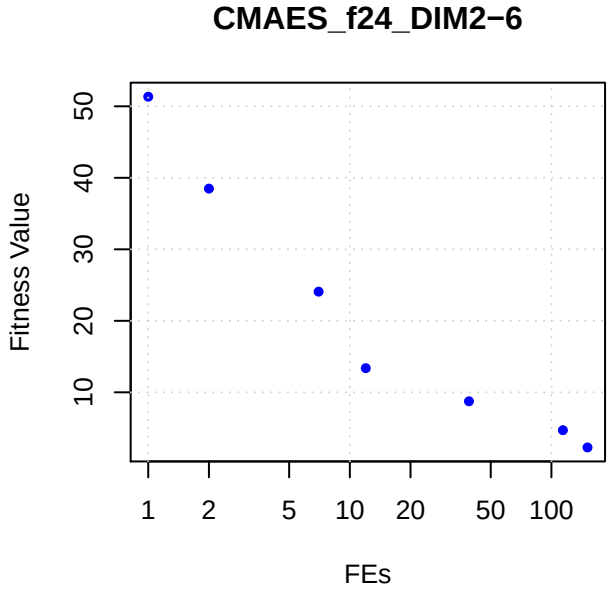

CMAES_f24_DIM2−15
Fitness Value
15
20
25
30
35
40
45
1
2
5
10
20
50
100
FEs

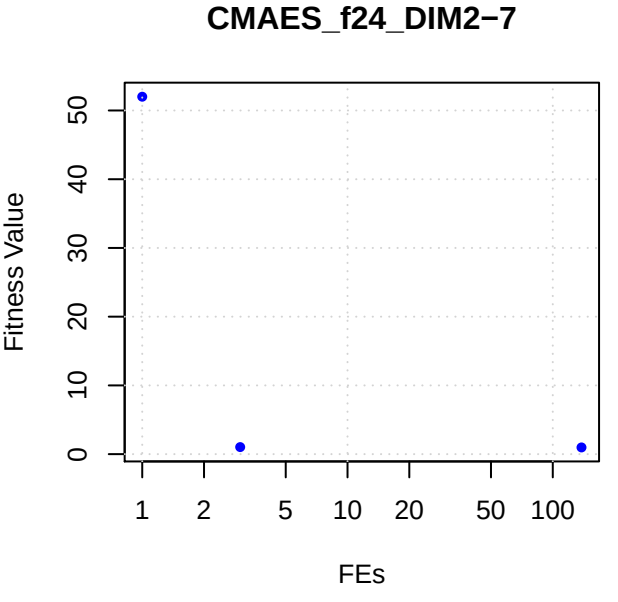

CMAES_f24_DIM2−2
Fitness Value
10
20
30
40
1
2
5
10
20
50
100
FEs

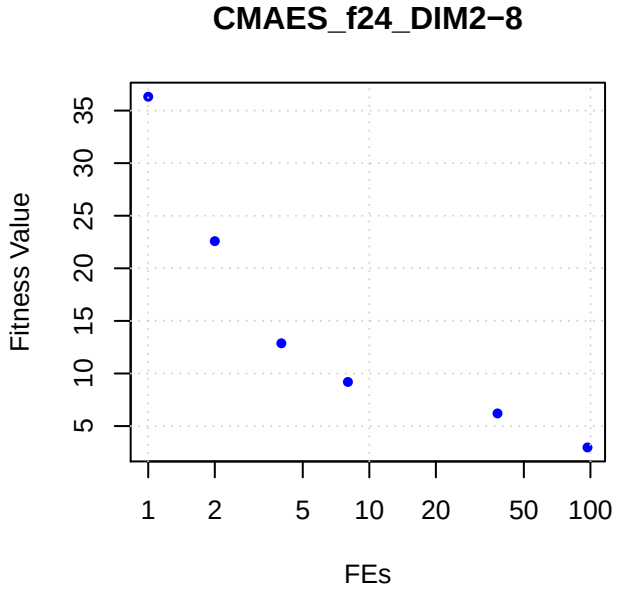

CMAES_f24_DIM2−3
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
FEs

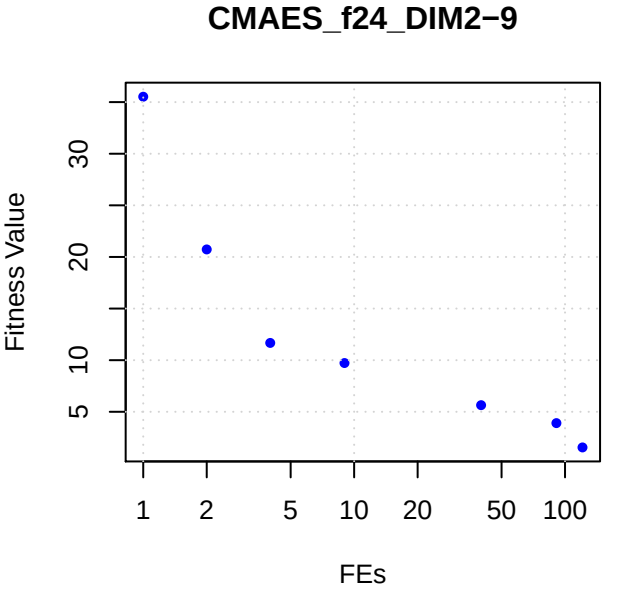

CMAES_f24_DIM2−4
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
100
FEs

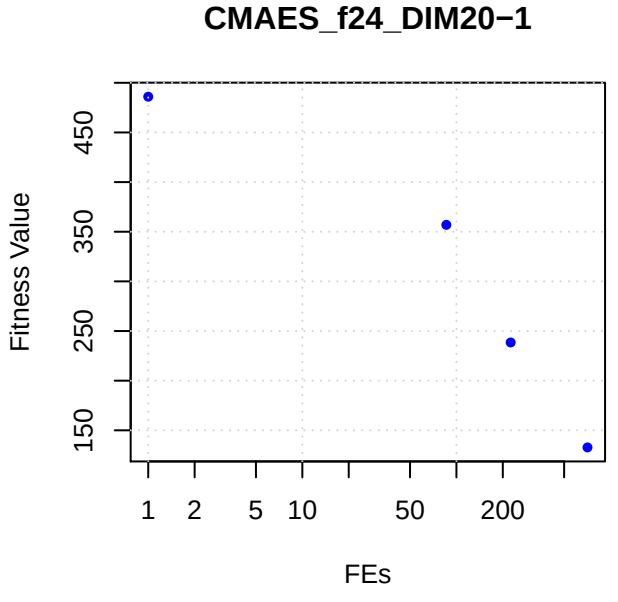

CMAES_f24_DIM2−5
Fitness Value
10
12
14
16
18
20
1
2
5
10
20
FEs

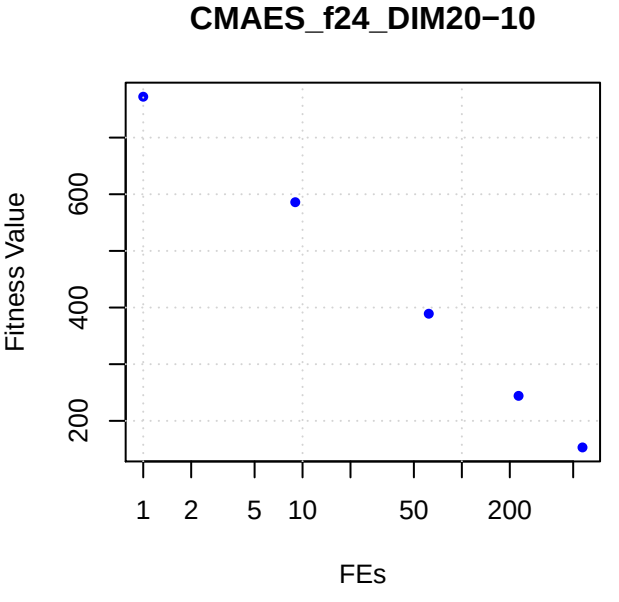

CMAES_f24_DIM2−6
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
100
FEs

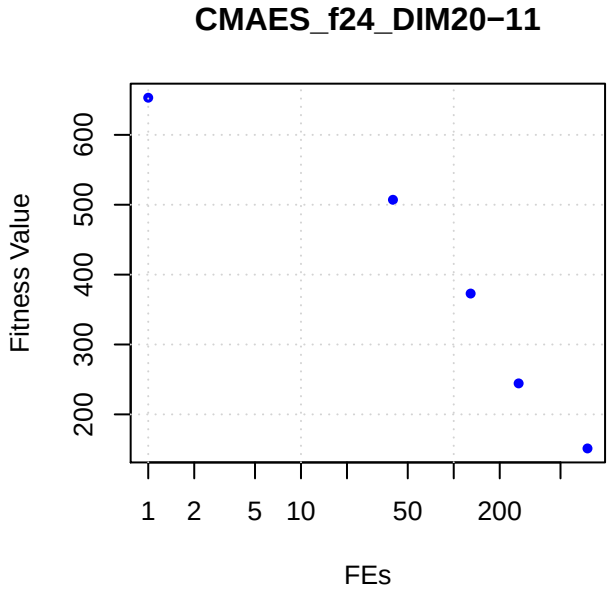

CMAES_f24_DIM2−7
Fitness Value
0
10
20
30
40
50
1
2
5
10
20
50
100
FEs

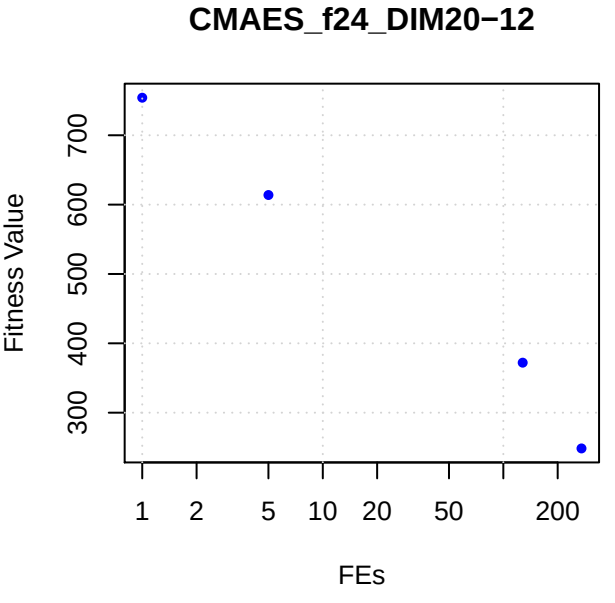

CMAES_f24_DIM2−8
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
20
50
100
FEs

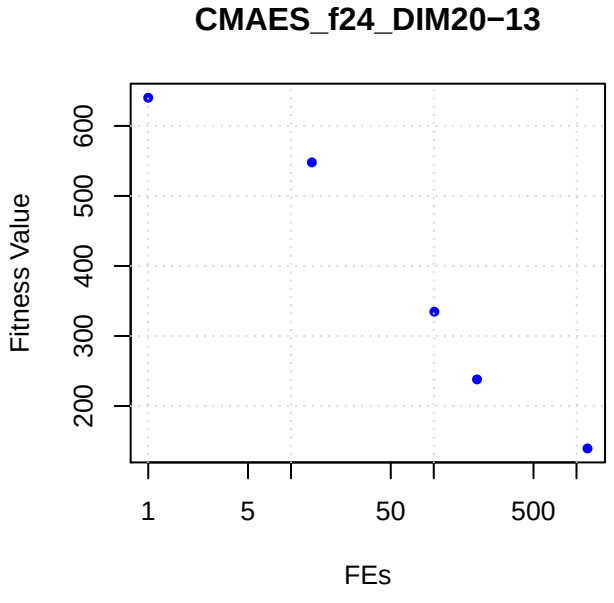

CMAES_f24_DIM2−9
Fitness Value
5
10
20
30
1
2
5
10
20
50
100
FEs

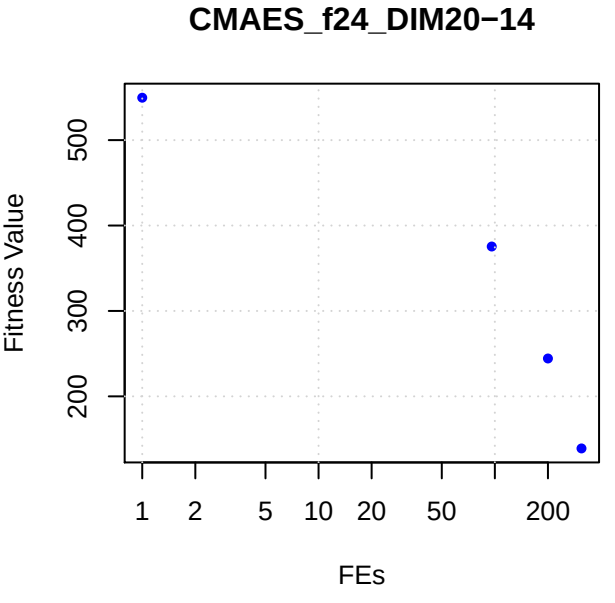

CMAES_f24_DIM20−1
Fitness Value
150
250
350
450
1
2
5
10
50
200
FEs

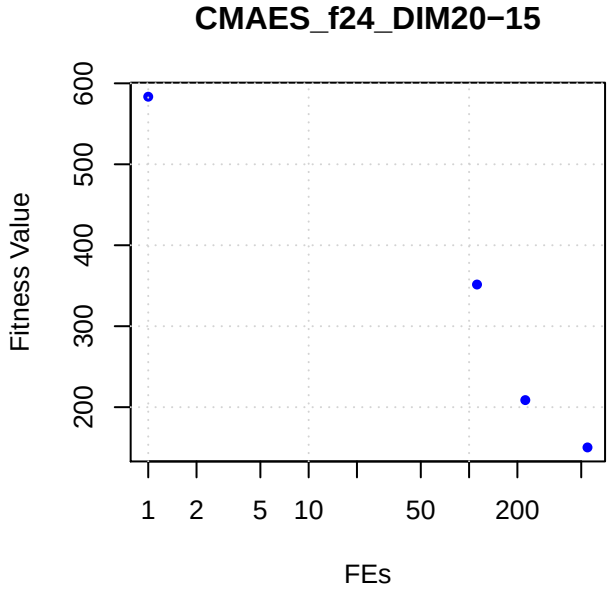

CMAES_f24_DIM20−10
Fitness Value
200
400
600
1
2
5
10
50
200
FEs

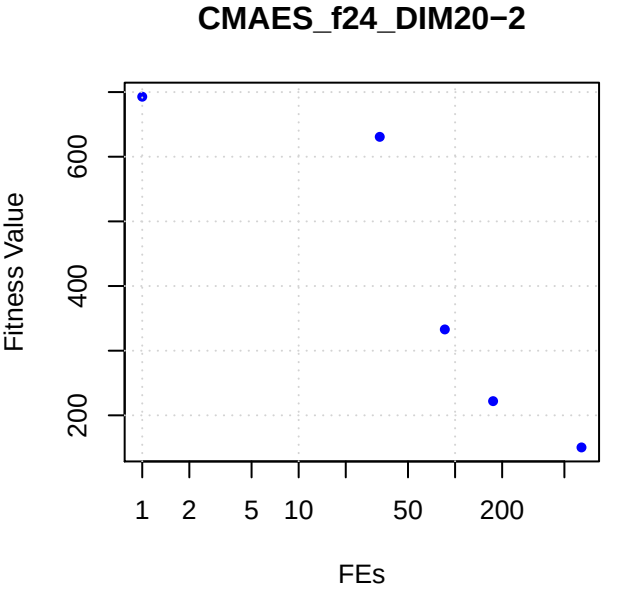

CMAES_f24_DIM20−11
Fitness Value
200
300
400
500
600
1
2
5
10
50
200
FEs

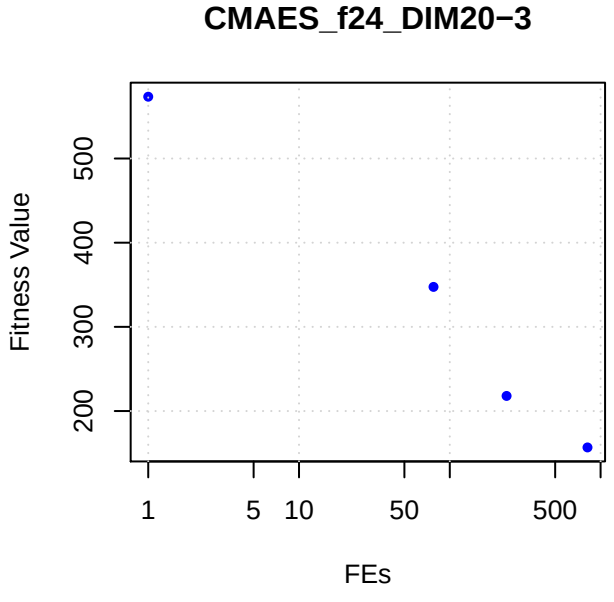

CMAES_f24_DIM20−12
Fitness Value
300
400
500
600
700
1
2
5
10
20
50
200
FEs

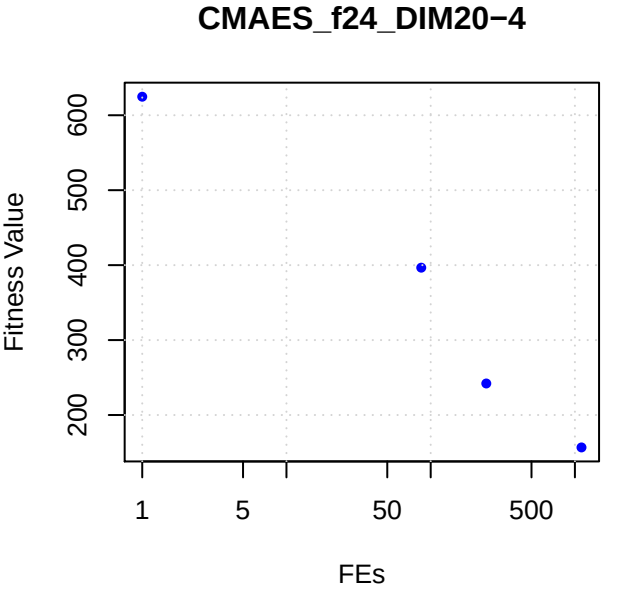

CMAES_f24_DIM20−13
Fitness Value
200
300
400
500
600
1
5
50
500
FEs


CMAES_f24_DIM20−14
Fitness Value
200
300
400
500
1
2
5
10
20
50
200
FEs


CMAES_f24_DIM20−15
Fitness Value
600
500
400
300
200
1
2
5
10
50
200
FEs


CMAES_f24_DIM20−2
Fitness Value
600
400
200
1
2
5
10
50
200
FEs


CMAES_f24_DIM20−3
Fitness Value
500
400
300
200
1
5
10
50
500
FEs


CMAES_f24_DIM20−4
Fitness Value
600
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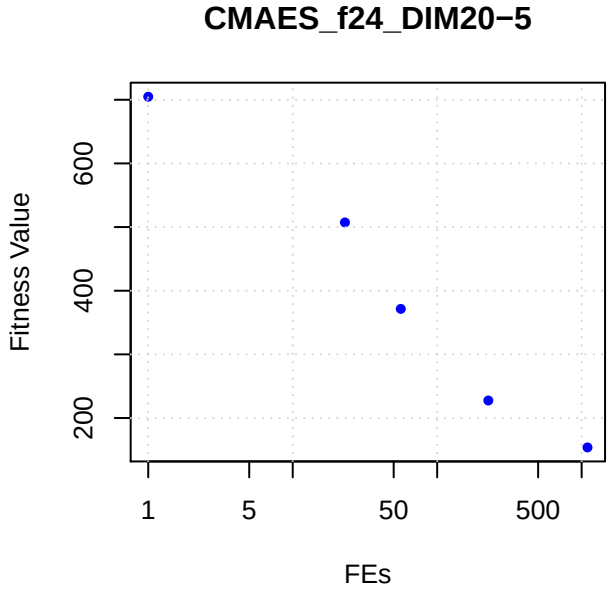
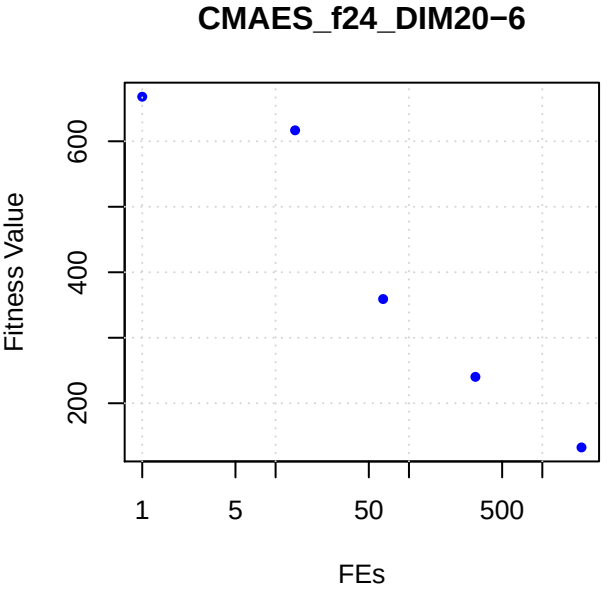
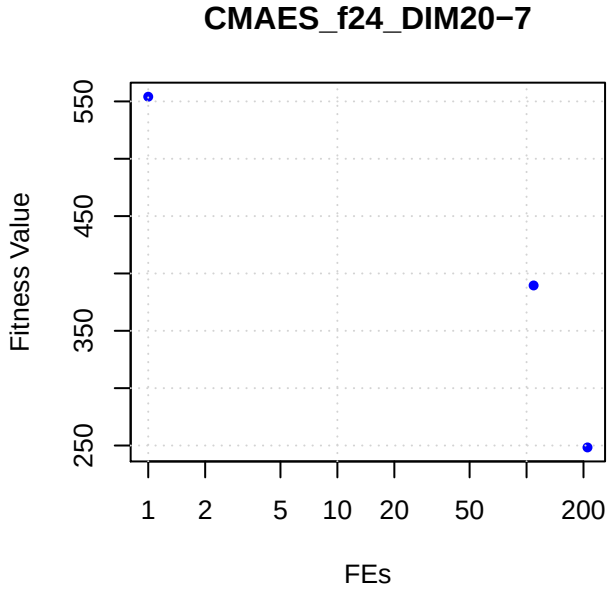
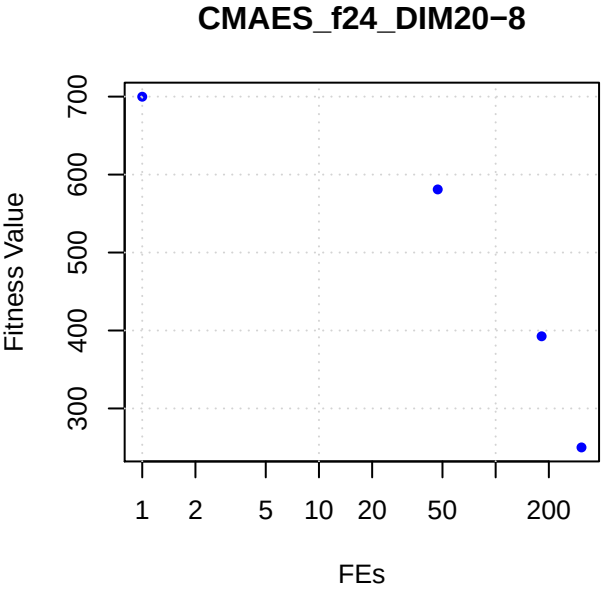
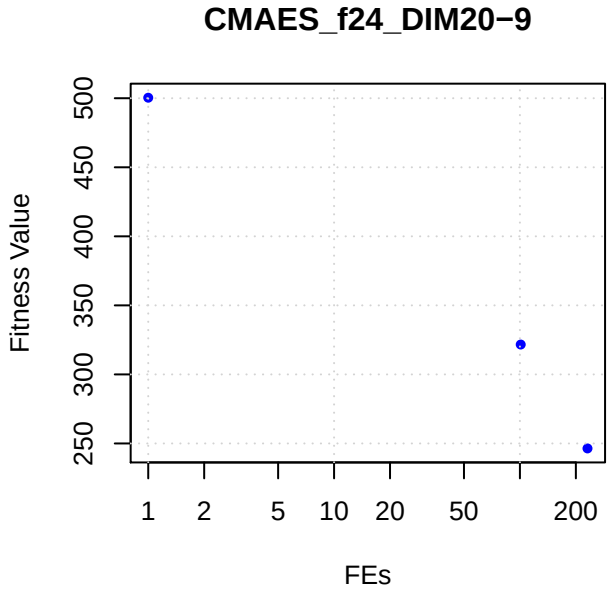
400
300
200
1
5
50
500
FEs

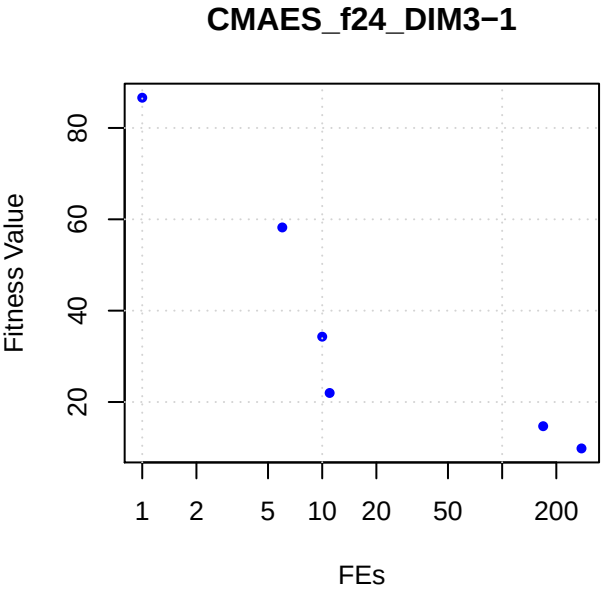

CMAES_f24_DIM20−5
Fitness Value
200
400
600
1
5
50
500
FEs

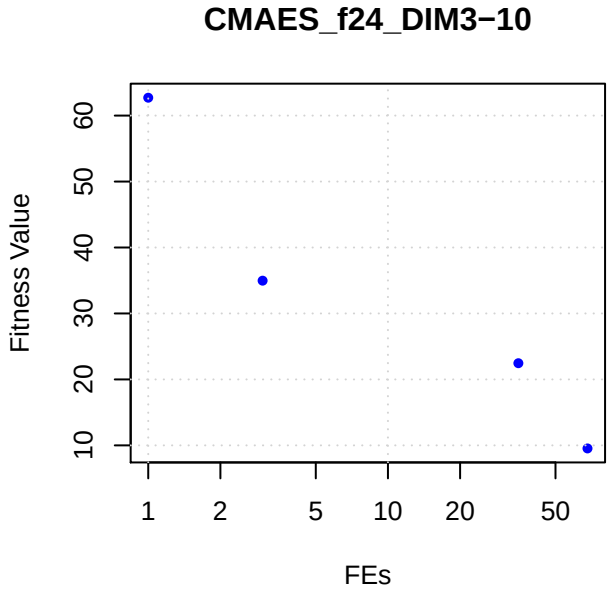

CMAES_f24_DIM20−6
Fitness Value
200
400
600
1
5
50
500
FEs

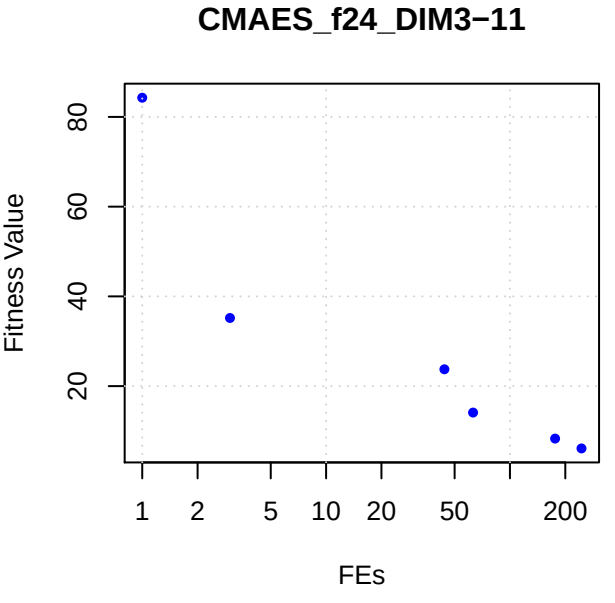

CMAES_f24_DIM20−7
Fitness Value
250
350
450
550
1
2
5
10
20
50
200
FEs

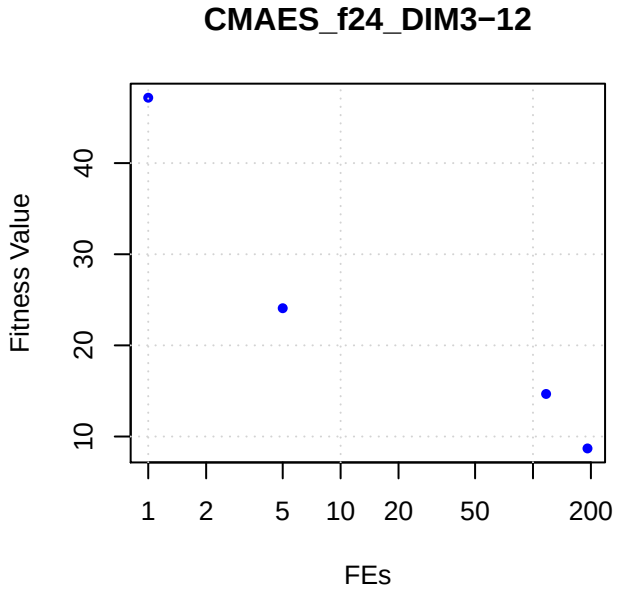

CMAES_f24_DIM20−8
Fitness Value
300
400
500
600
700
1
2
5
10
20
50
200
FEs


CMAES_f24_DIM20−9
Fitness Value
250
300
350
400
450
500
1
2
5
10
20
50
200
FEs


CMAES_f24_DIM3−1
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f24_DIM3−10
Fitness Value
10
20
30
40
50
60
1
2
5
10
20
50
FEs


CMAES_f24_DIM3−11
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f24_DIM3−12
Fitness Value
10
20
30
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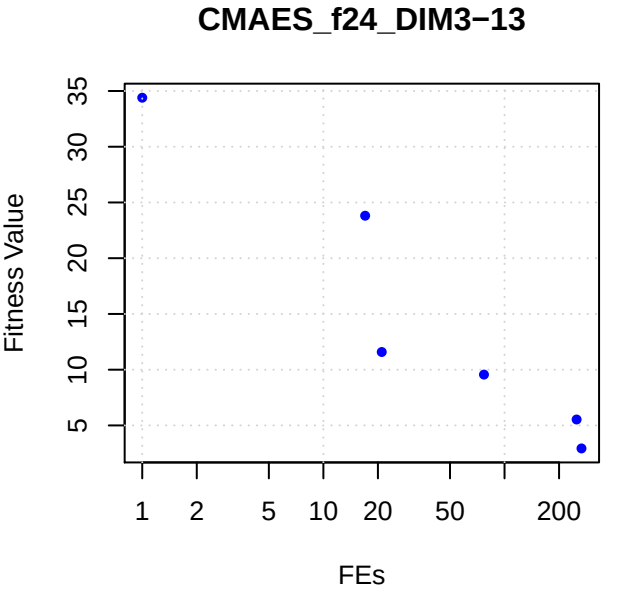
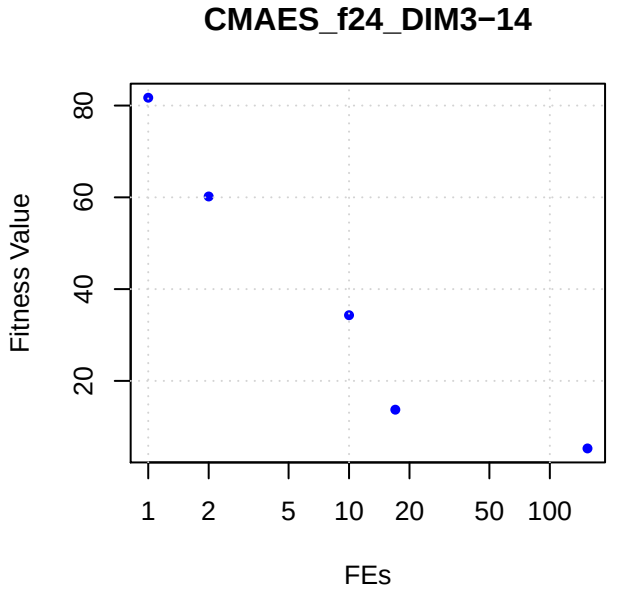
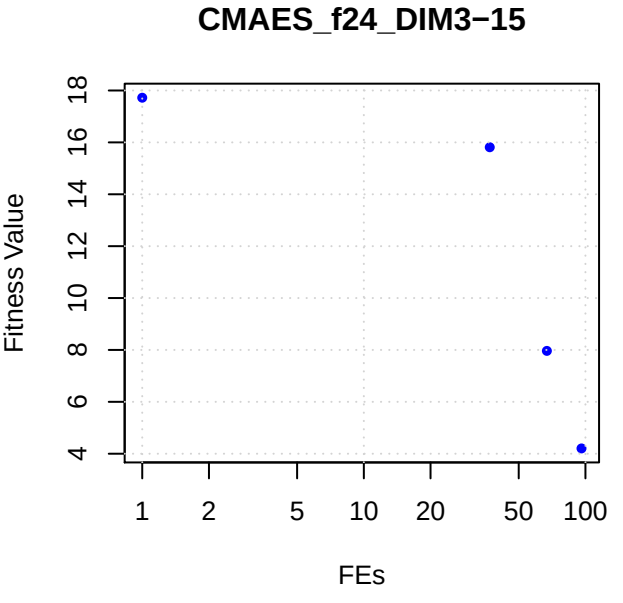
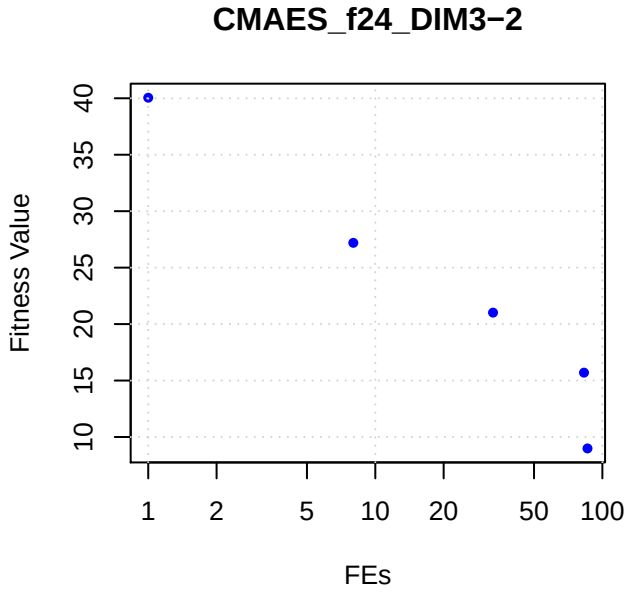
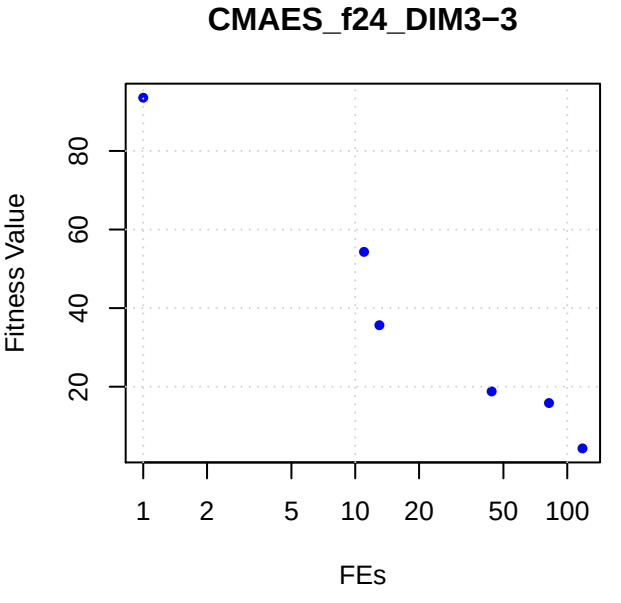
1
2
5
10
20
50
200
FEs

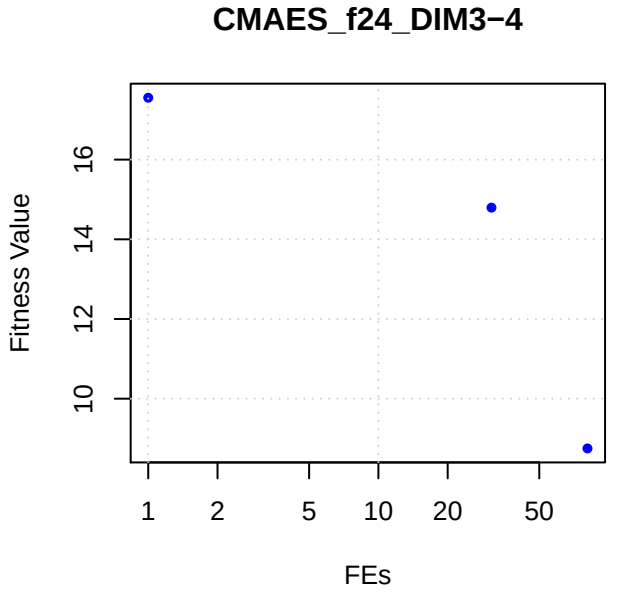

CMAES_f24_DIM3−13
Fitness Value
5
10
15
20
25
30
35
1
2
5
10
20
50
200
FEs

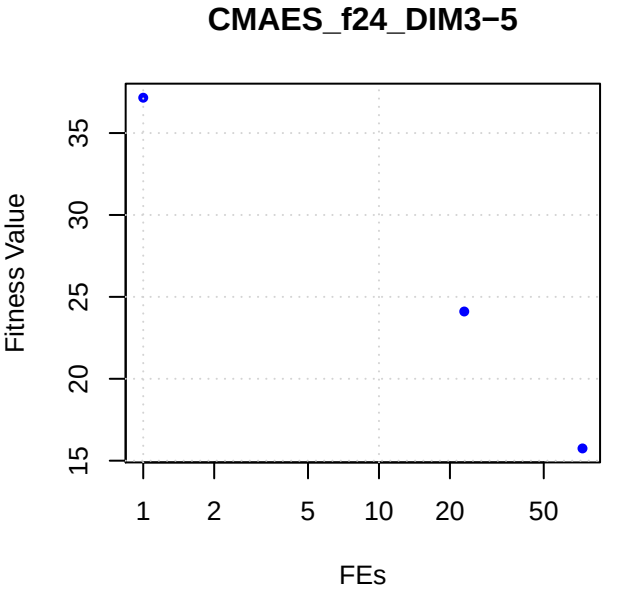

CMAES_f24_DIM3−14
Fitness Value
20
40
60
80
1
2
5
10
20
50
100
FEs

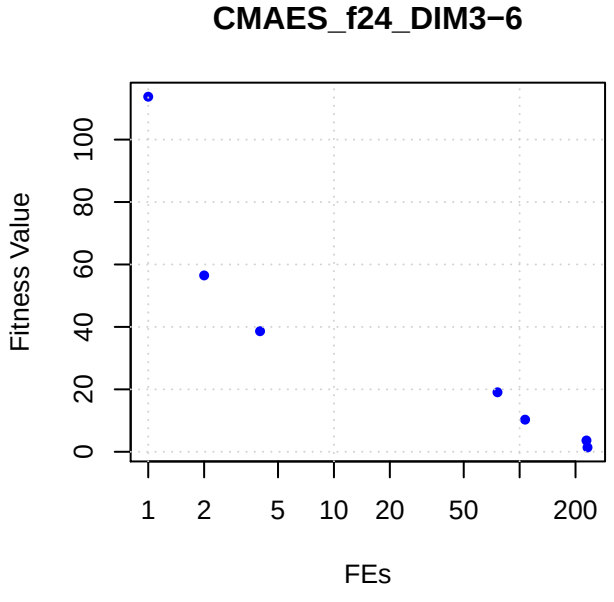

CMAES_f24_DIM3−15
Fitness Value
4
6
8
10
12
14
16
18
1
2
5
10
20
50
100
FEs

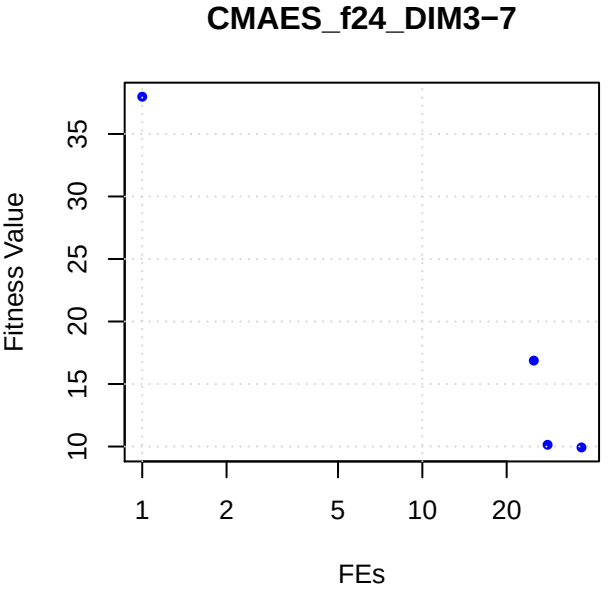

CMAES_f24_DIM3−2
Fitness Value
10
15
20
25
30
35
40
1
2
5
10
20
50
100
FEs

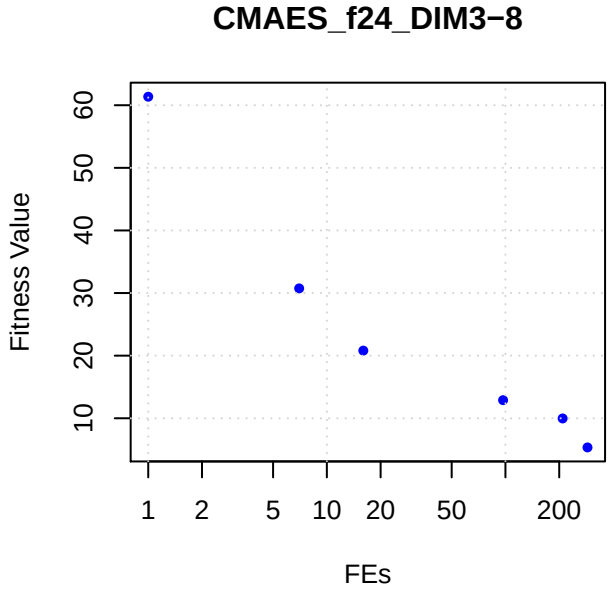

CMAES_f24_DIM3−3
Fitness Value
20
40
60
80
1
2
5
10
20
50
100
FEs

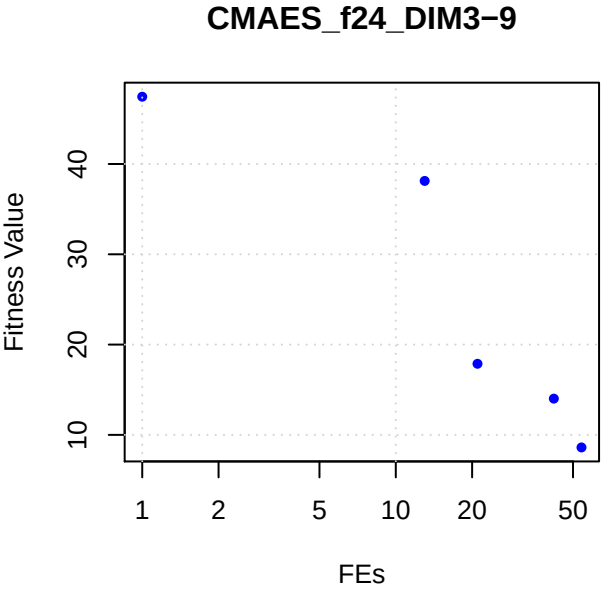

CMAES_f24_DIM3−4
Fitness Value
10
12
14
16
1
2
5
10
20
50
FEs

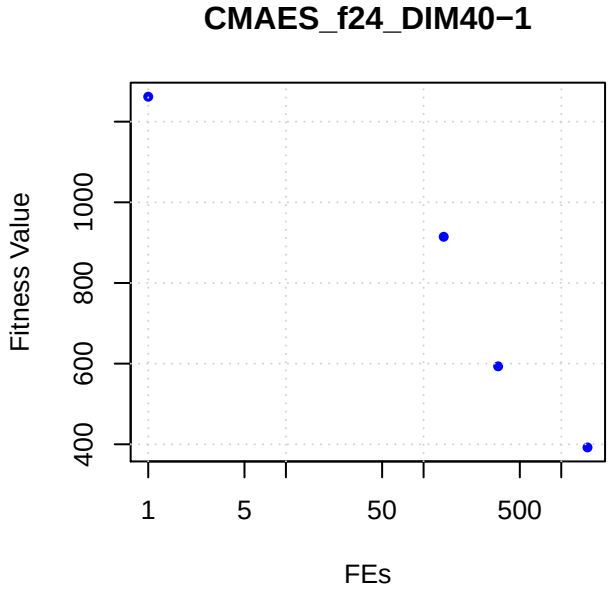

CMAES_f24_DIM3−5
Fitness Value
15
20
25
30
35
1
2
5
10
20
50
FEs

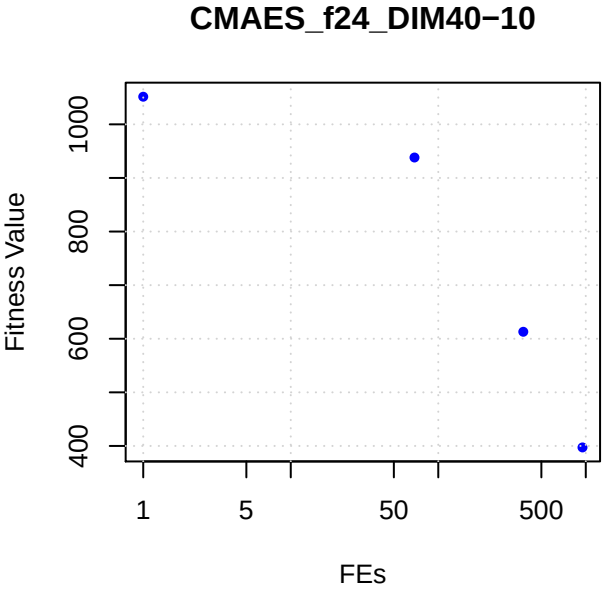

CMAES_f24_DIM3−6
Fitness Value
0
20
40
60
80
100
1
2
5
10
20
50
200
FEs

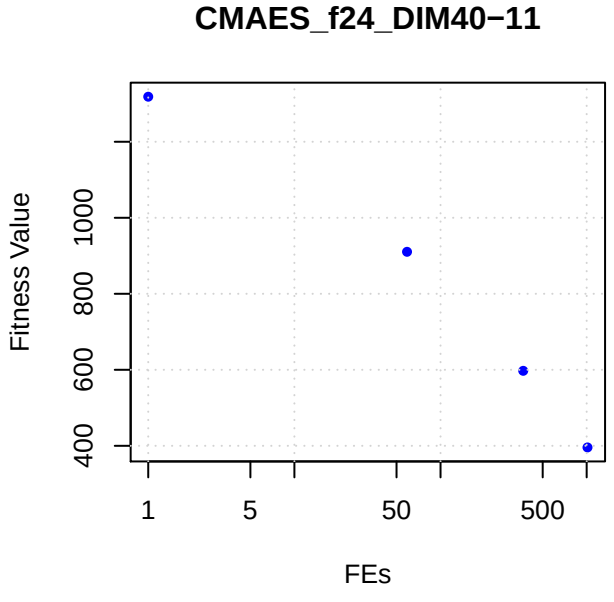

CMAES_f24_DIM3−7
Fitness Value
10
15
20
25
30
35
1
2
5
10
20
FEs


CMAES_f24_DIM3−8
Fitness Value
10
20
30
40
50
60
1
2
5
10
20
50
200
FEs


CMAES_f24_DIM3−9
Fitness Value
10
20
30
40
1
2
5
10
20
50
FEs


CMAES_f24_DIM40−1
Fitness Value
400
600
800
1000
1
5
50
500
FEs


CMAES_f24_DIM40−10
Fitness Value
400
600
800
1000
1
5
50
500
FEs


CMAES_f24_DIM40−11
Fitness Value
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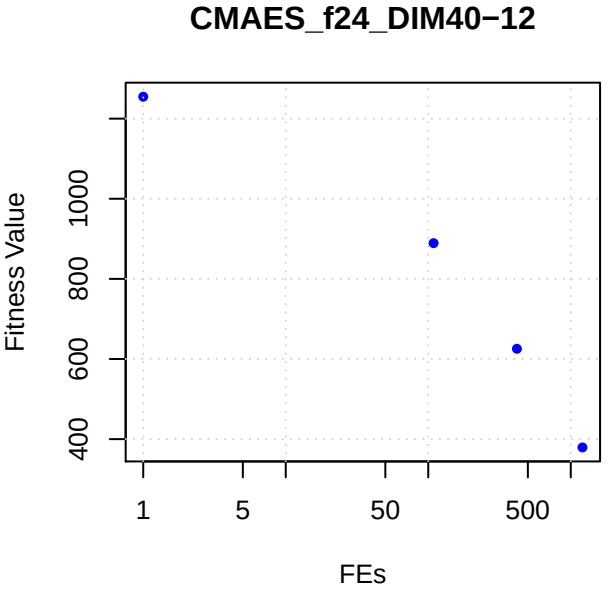
600
800
1000
1
5
50
500
FEs


CMAES_f24_DIM40−12
Fitness Value
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600
800
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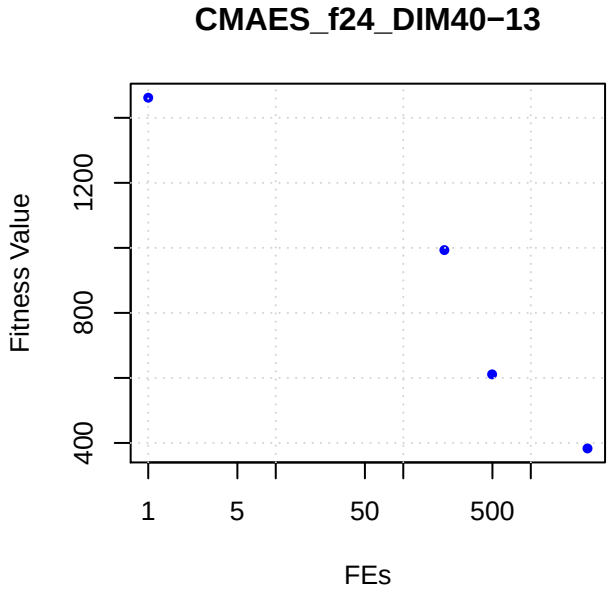
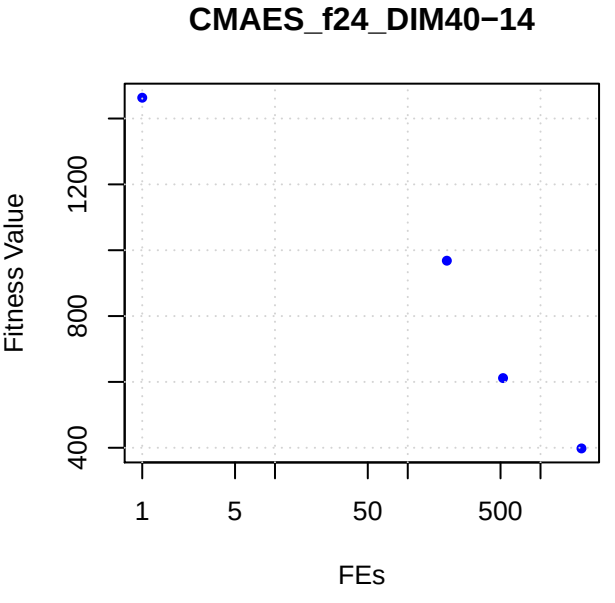
500
FEs


CMAES_f24_DIM40−13
Fitness Value
400
800
1200
1
5
50
500
FEs


CMAES_f24_DIM40−14
Fitness Value
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1
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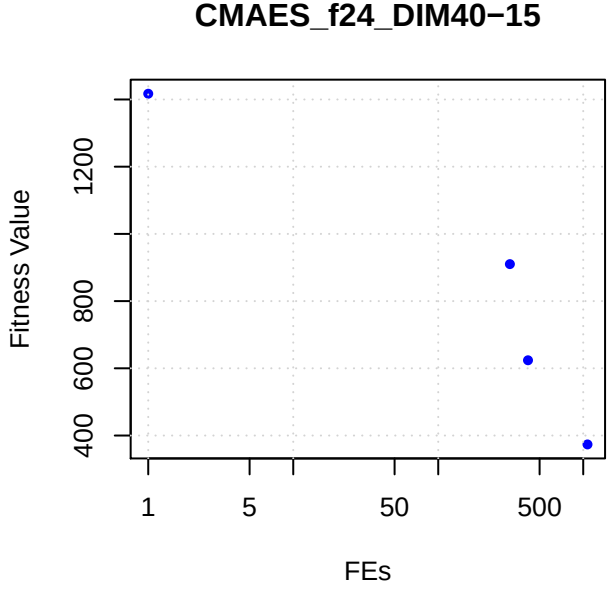
500
FEs


CMAES_f24_DIM40−15
Fitness Value
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800
1200
1
5
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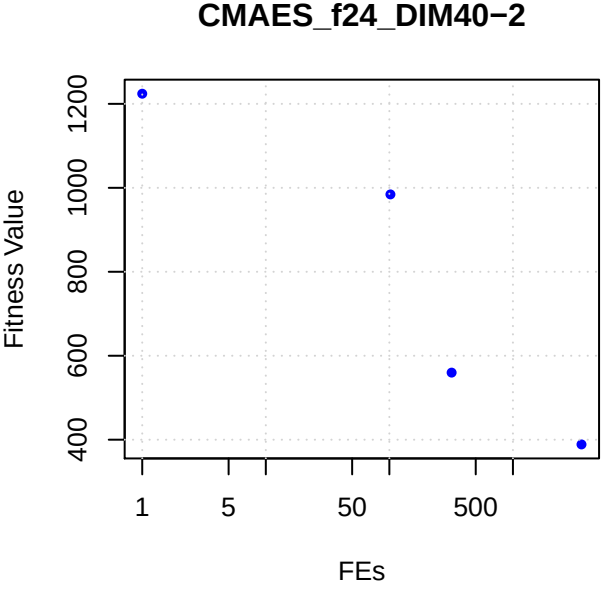
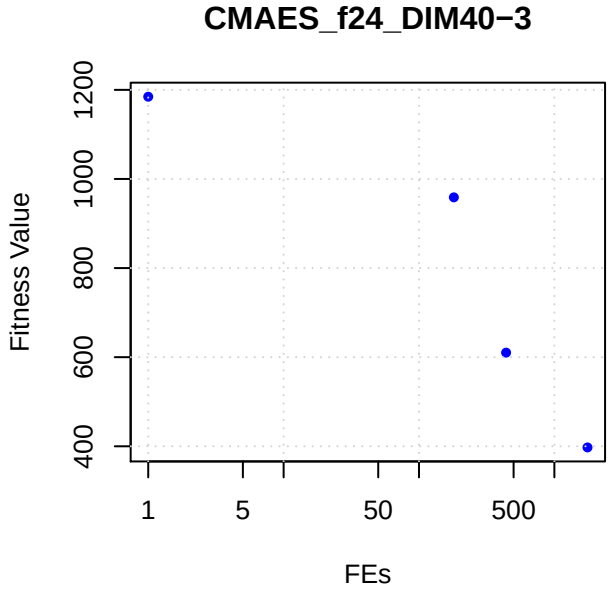
500
FEs


CMAES_f24_DIM40−2
Fitness Value
400
600
800
1000
1200
1
5
50
500
FEs


CMAES_f24_DIM40−3
Fitness Value
400
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800
1000
1200
1
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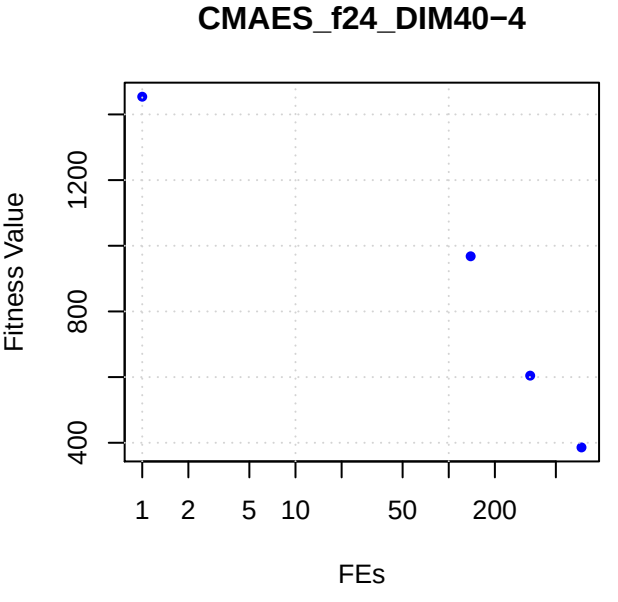
500
FEs


CMAES_f24_DIM40−4
Fitness Value
400
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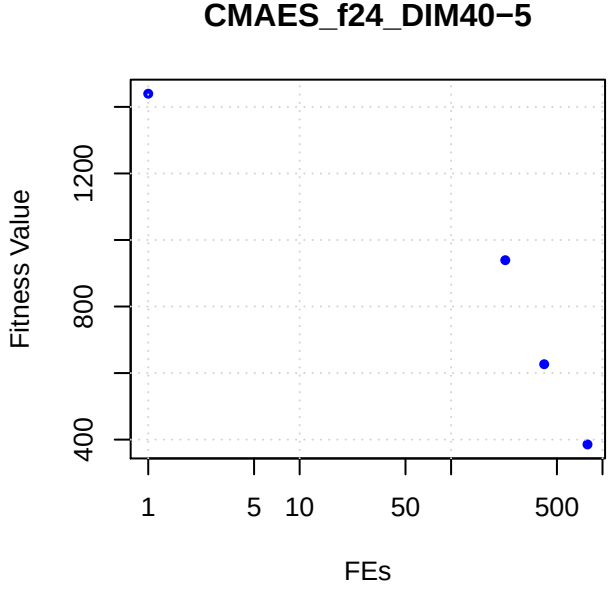
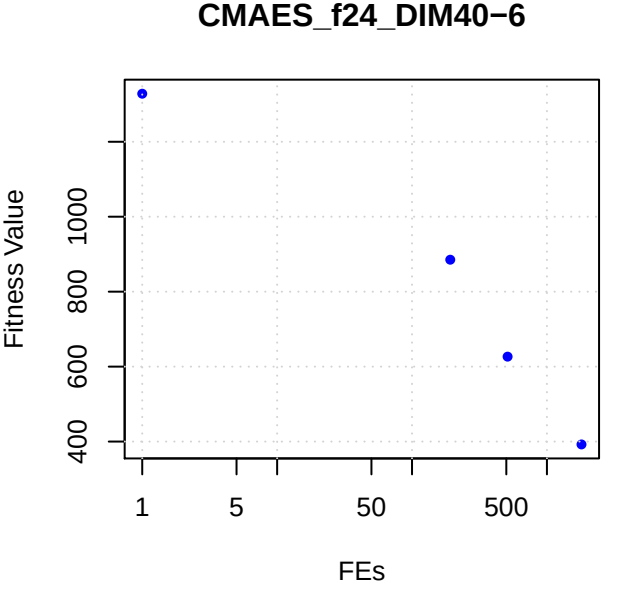
1200
1
2
5
10
50
200
FEs


CMAES_f24_DIM40−5
Fitness Value
400
800
1200
1
5
10
50
500
FEs


CMAES_f24_DIM40−6
Fitness Value
400
600
800
1000
1
5
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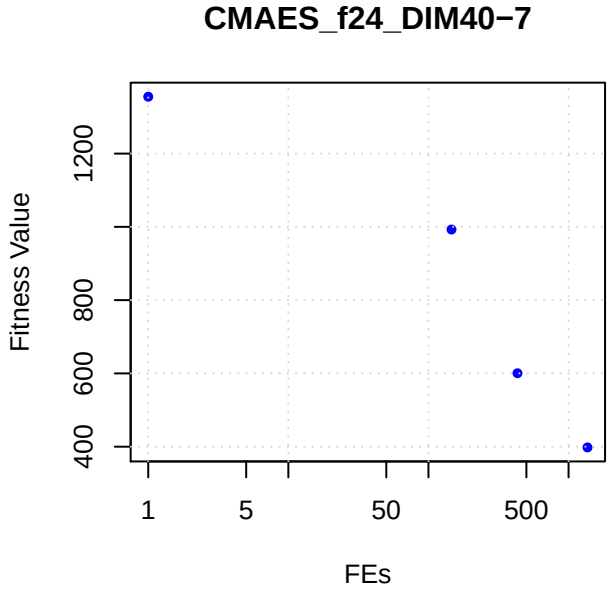
FEs


CMAES_f24_DIM40−7
Fitness Value
400
600
800
1200
1
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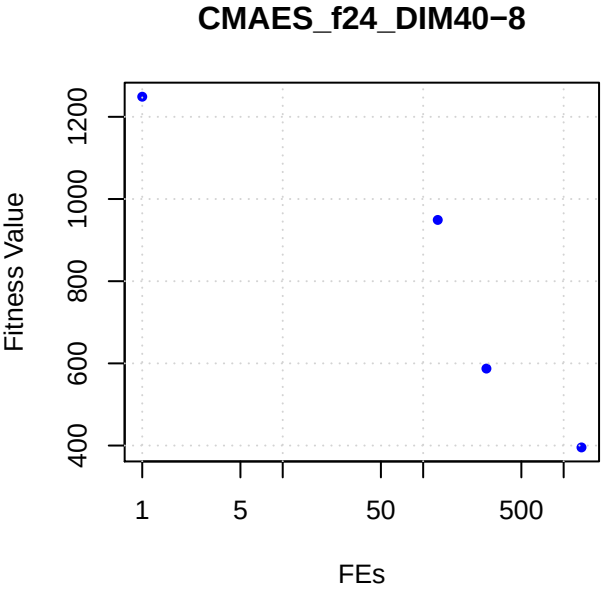
500
FEs


CMAES_f24_DIM40−8
Fitness Value
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800
1000
1200
1
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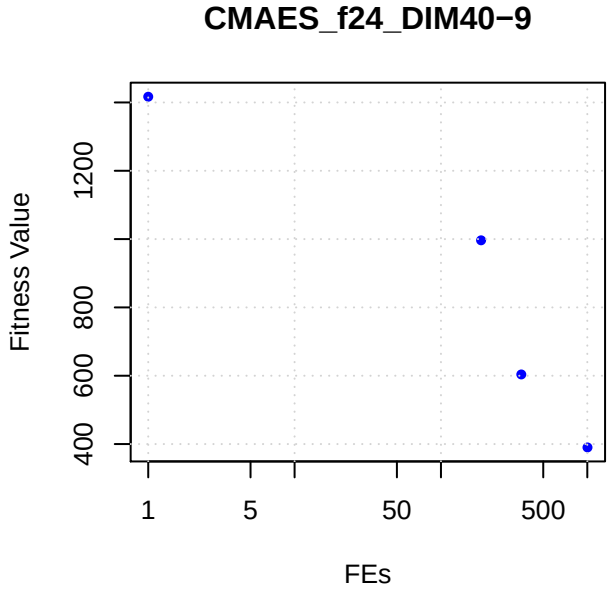
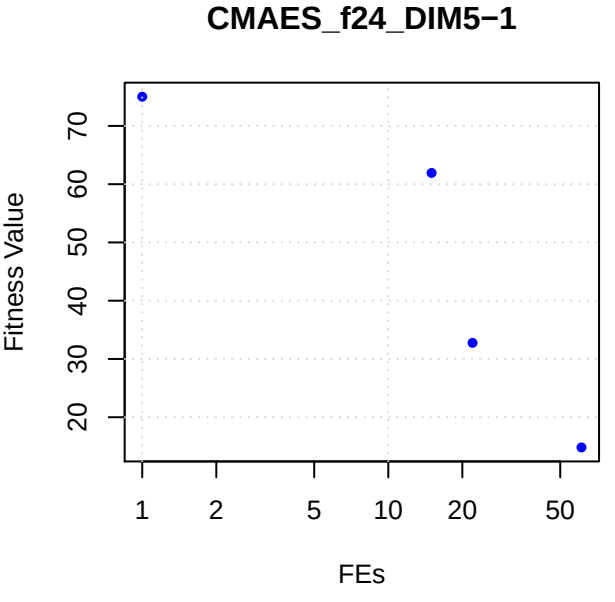
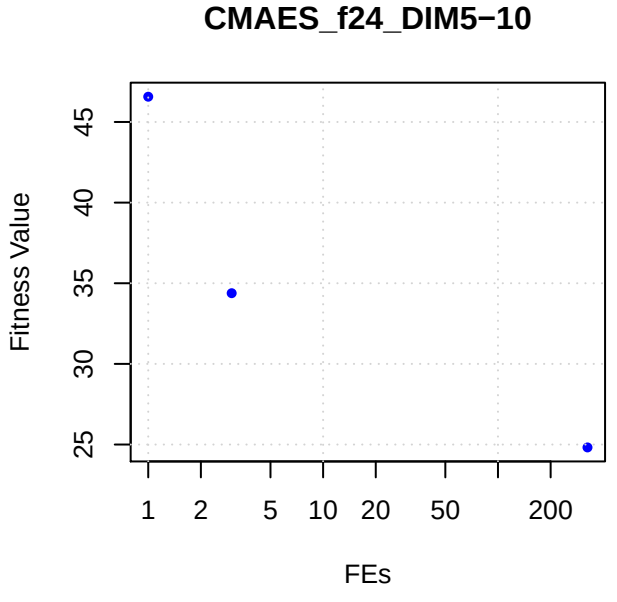
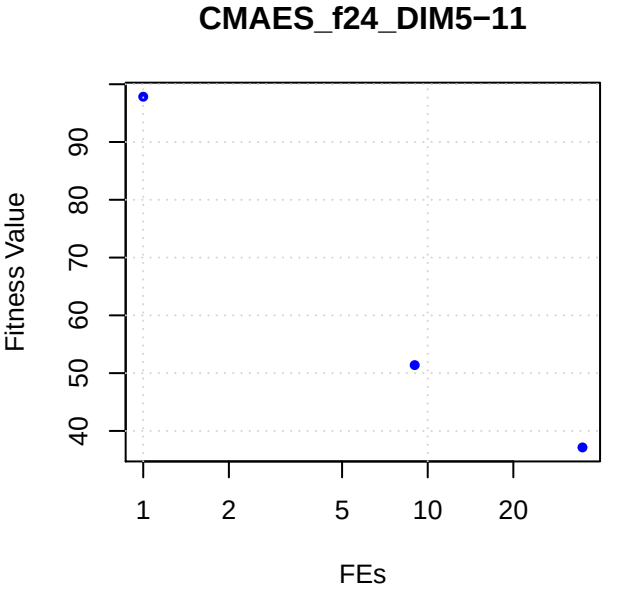
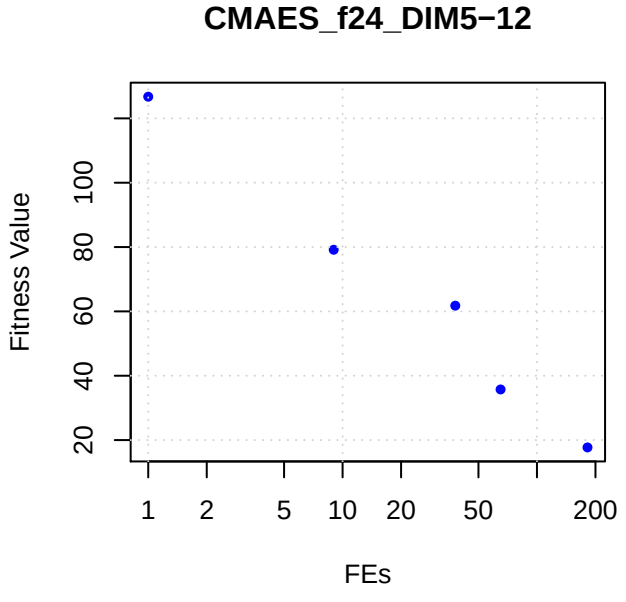
500
FEs


CMAES_f24_DIM40−9
Fitness Value
400
600
800
1200
1
5
50
500
FEs


CMAES_f24_DIM5−1
Fitness Value
20
30
40
50
60
70
1
2
5
10
20
50
FEs


CMAES_f24_DIM5−10
Fitness Value
25
30
35
40
45
1
2
5
10
20
50
200
FEs


CMAES_f24_DIM5−11
Fitness Value
40
50
60
70
80
90
1
2
5
10
20
FEs


CMAES_f24_DIM5−12
Fitness Value
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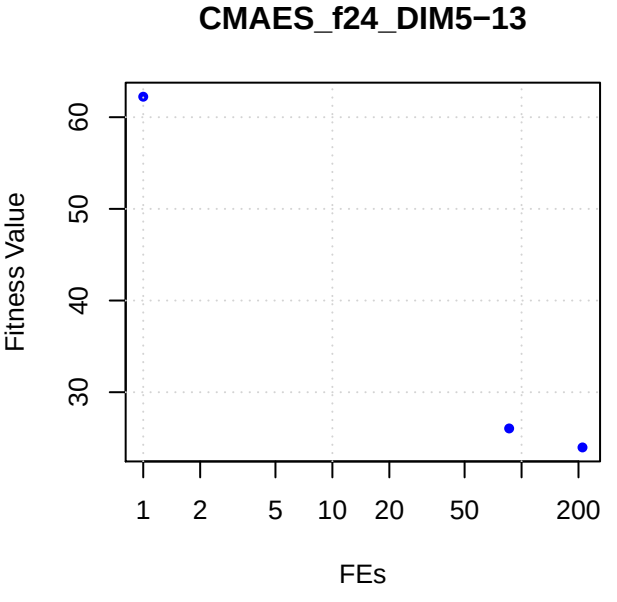
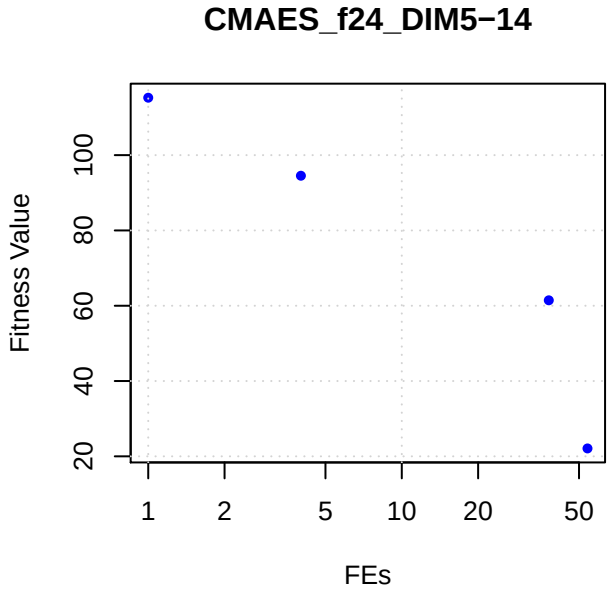
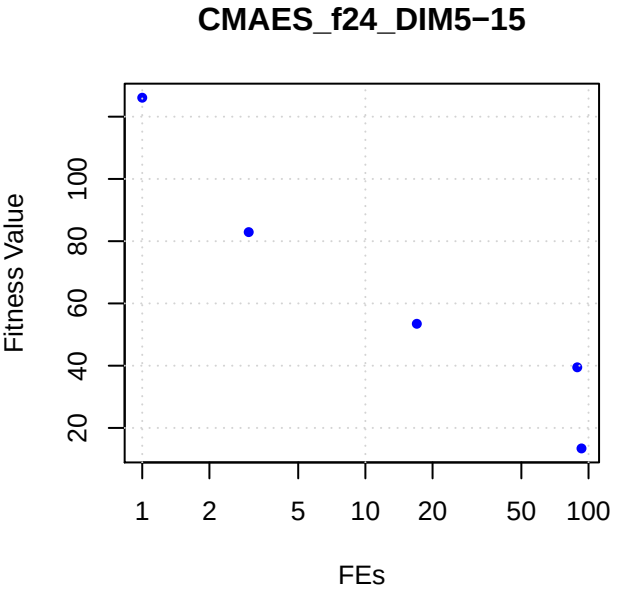
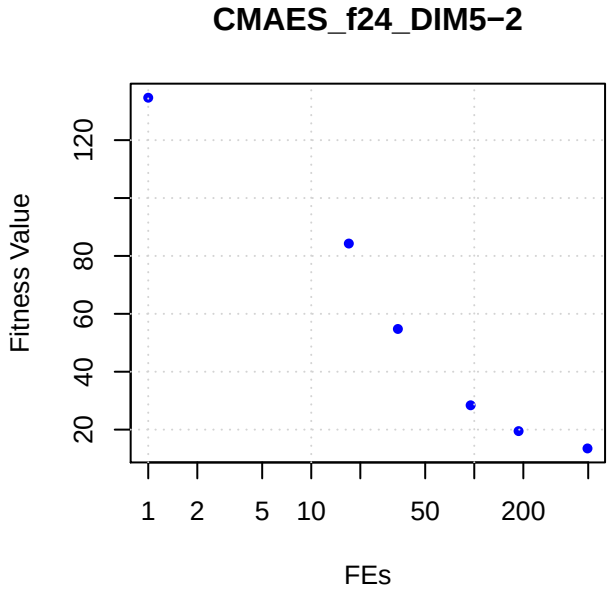
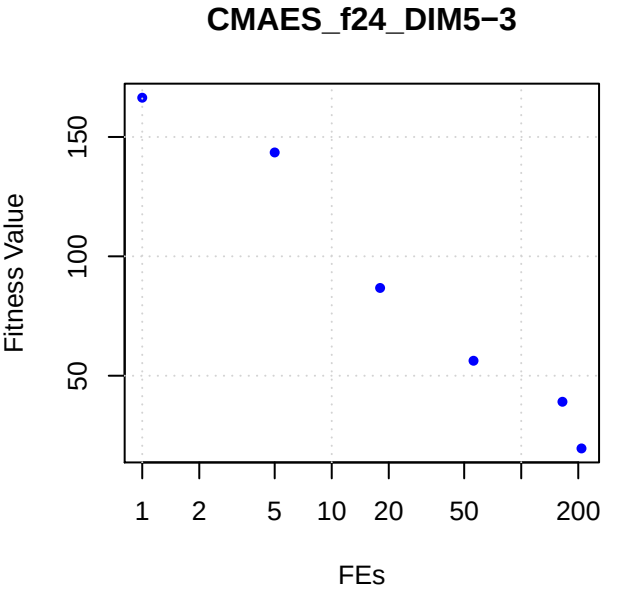
80
100
1
2
5
10
20
50
200
FEs

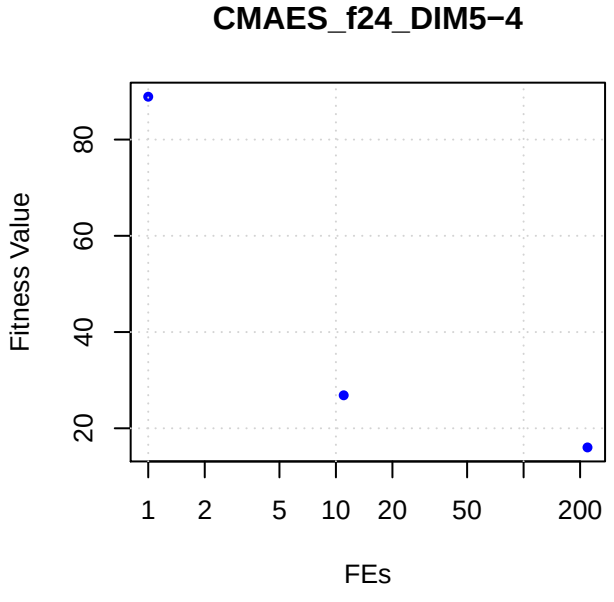

CMAES_f24_DIM5−13
Fitness Value
30
40
50
60
1
2
5
10
20
50
200
FEs

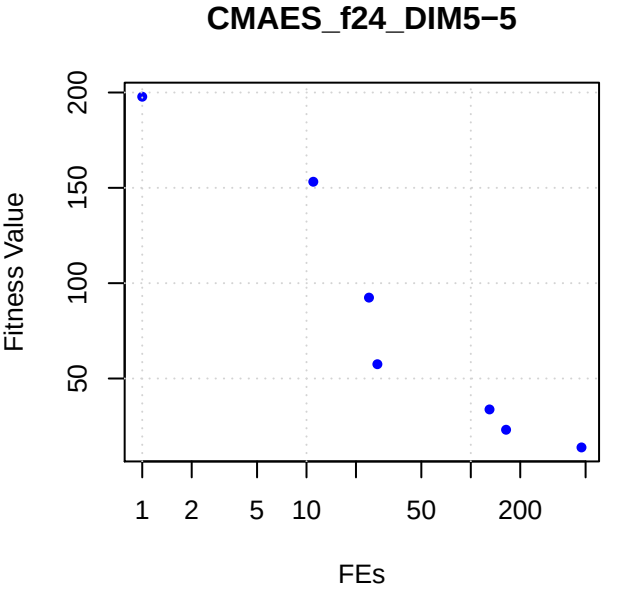

CMAES_f24_DIM5−14
Fitness Value
20
40
60
80
100
1
2
5
10
20
50
FEs

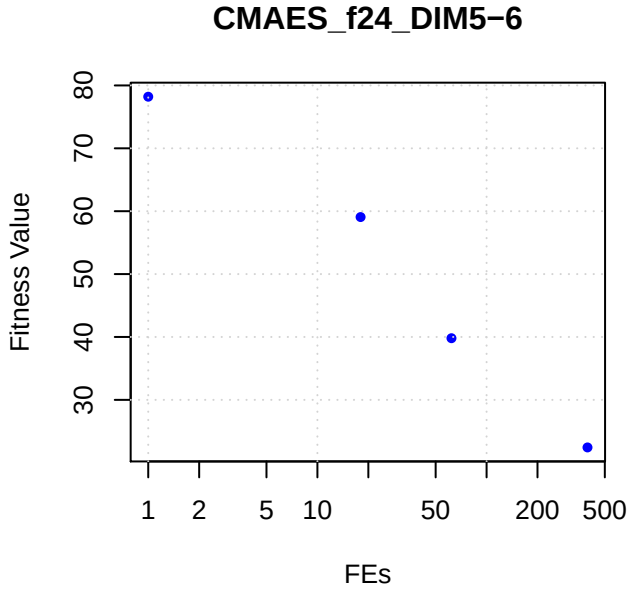

CMAES_f24_DIM5−15
Fitness Value
20
40
60
80
100
1
2
5
10
20
50
100
FEs

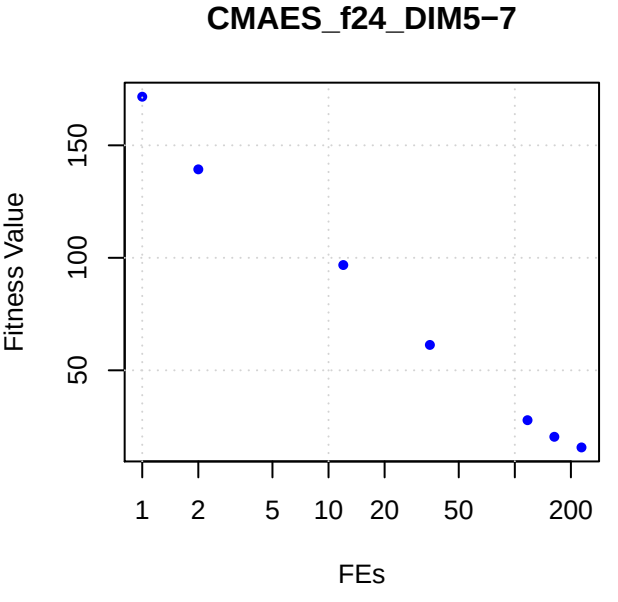

CMAES_f24_DIM5−2
Fitness Value
20
40
60
80
120
1
2
5
10
50
200
FEs

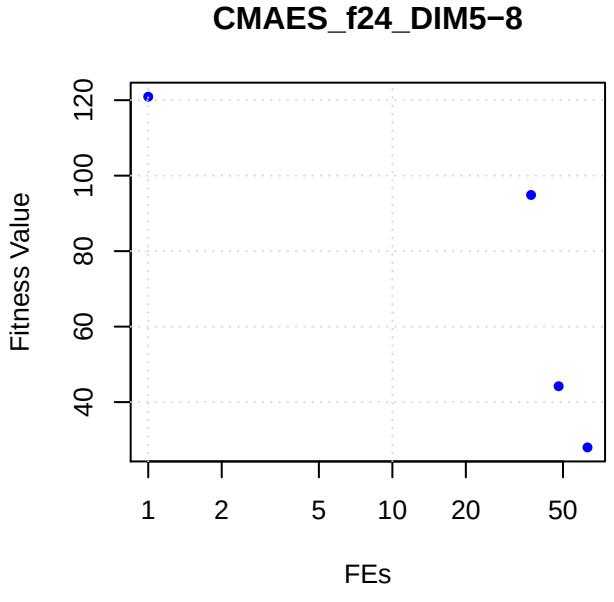

CMAES_f24_DIM5−3
Fitness Value
50
100
150
1
2
5
10
20
50
200
FEs

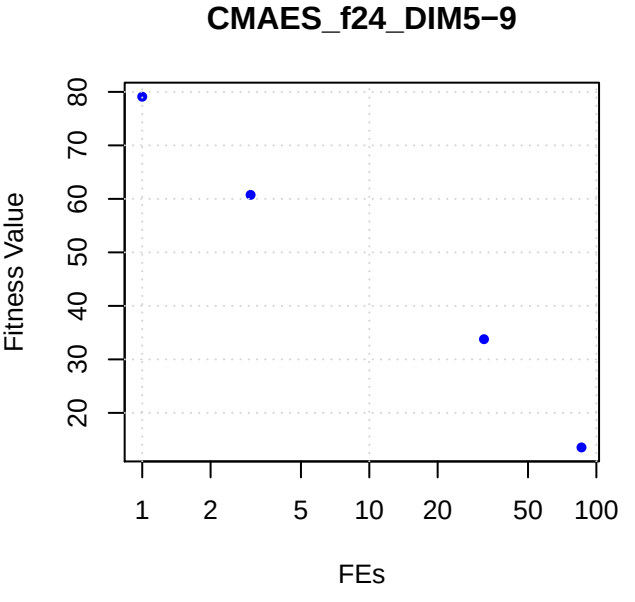

CMAES_f24_DIM5−4
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs

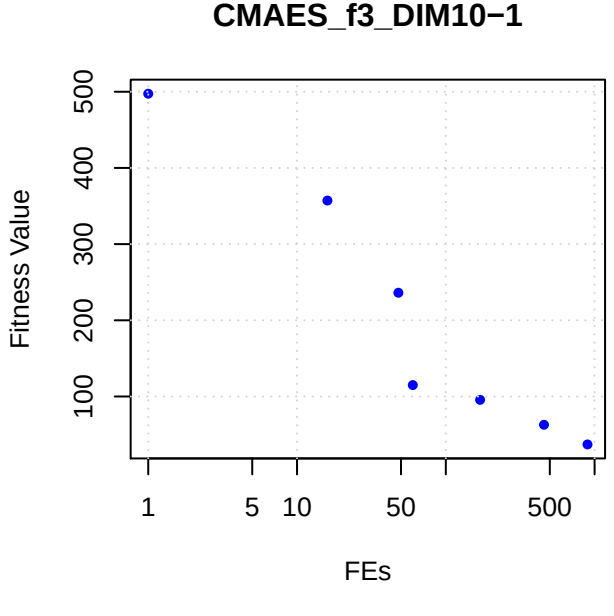

CMAES_f24_DIM5−5
Fitness Value
50
100
150
200
1
2
5
10
50
200
FEs

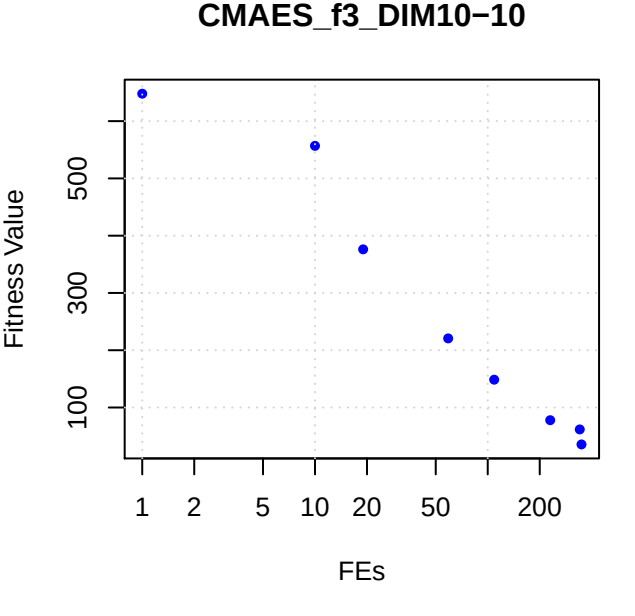

CMAES_f24_DIM5−6
Fitness Value
30
40
50
60
70
80
1
2
5
10
50
200
500
FEs

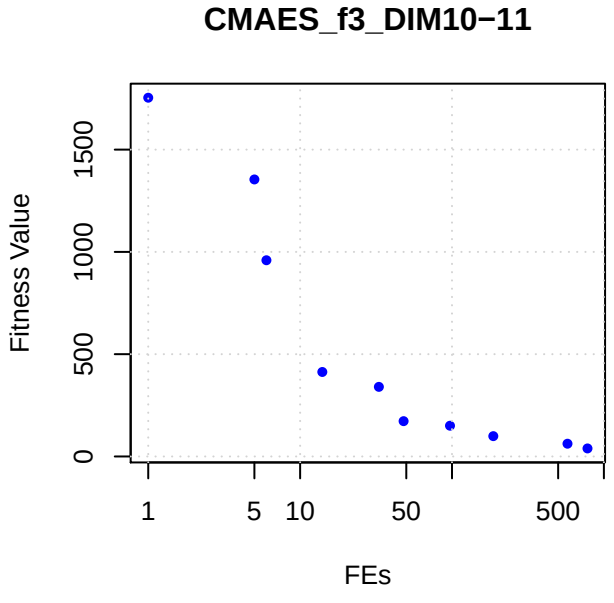

CMAES_f24_DIM5−7
Fitness Value
50
100
150
1
2
5
10
20
50
200
FEs

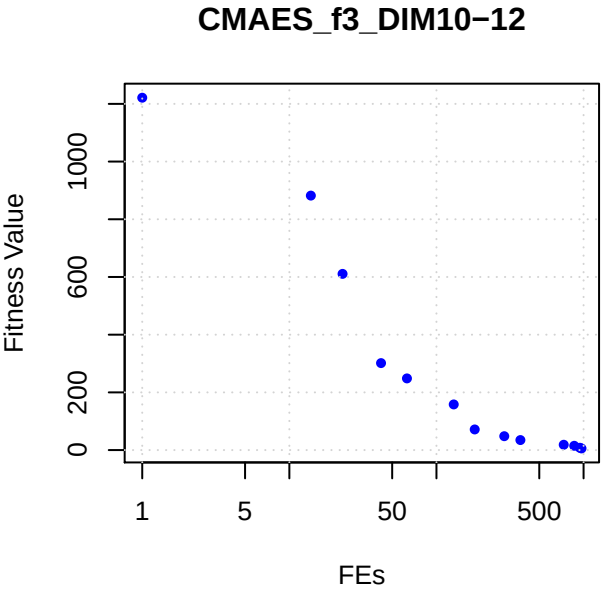

CMAES_f24_DIM5−8
Fitness Value
120
100
80
60
40
1
2
5
10
20
50
FEs

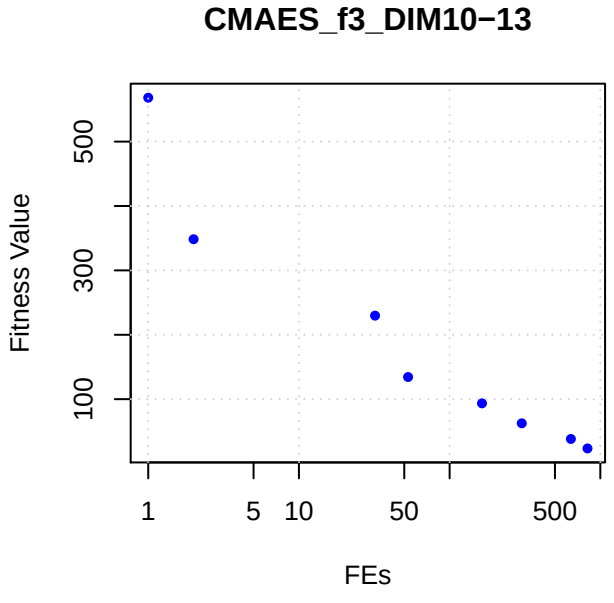

CMAES_f24_DIM5−9
Fitness Value
80
70
60
50
40
30
20
1
2
5
10
20
50
100
FEs

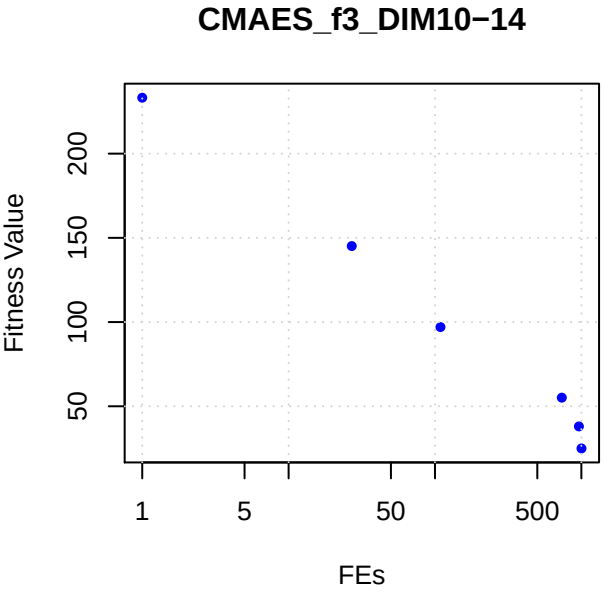

CMAES_f3_DIM10−1
Fitness Value
500
400
300
200
100
1
5
10
50
500
FEs

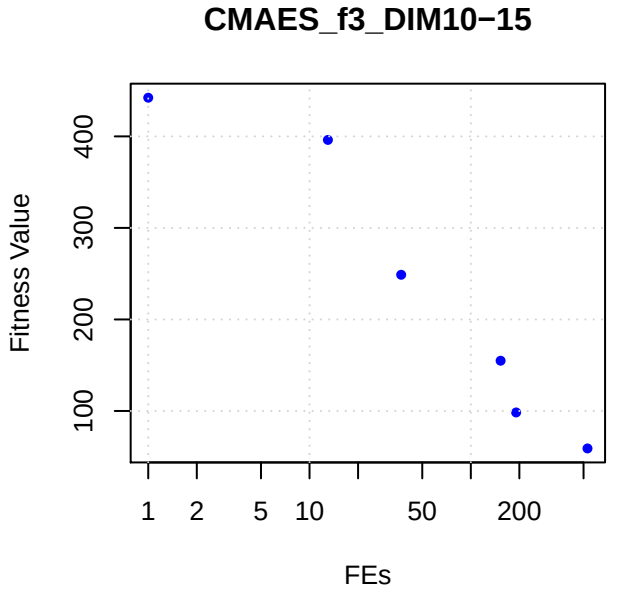

CMAES_f3_DIM10−10
Fitness Value
500
300
100
1
2
5
10
20
50
200
FEs

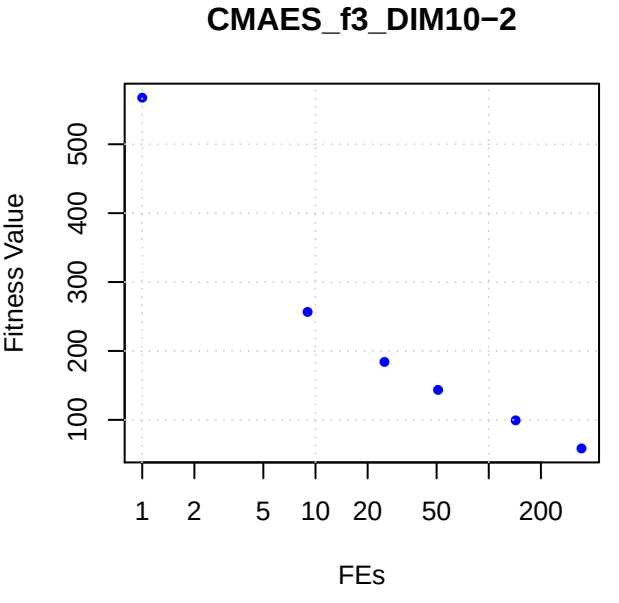

CMAES_f3_DIM10−11
Fitness Value
0
500
1000
1500
1
5
10
50
500
FEs

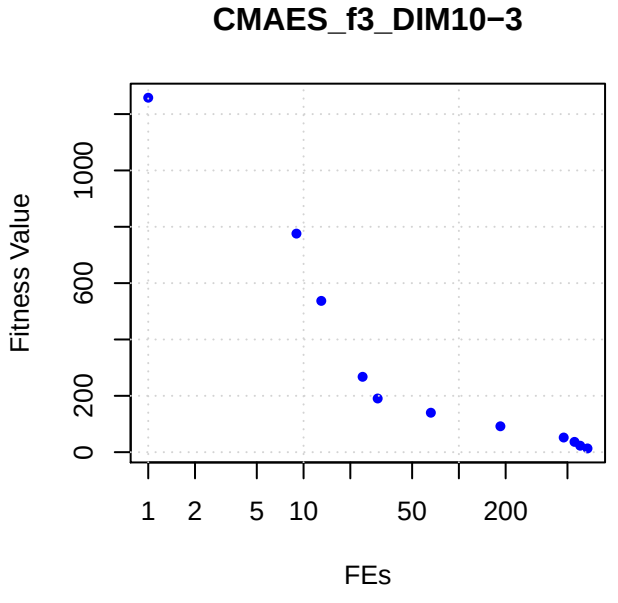

CMAES_f3_DIM10−12
Fitness Value
0
200
600
1000
1
5
50
500
FEs

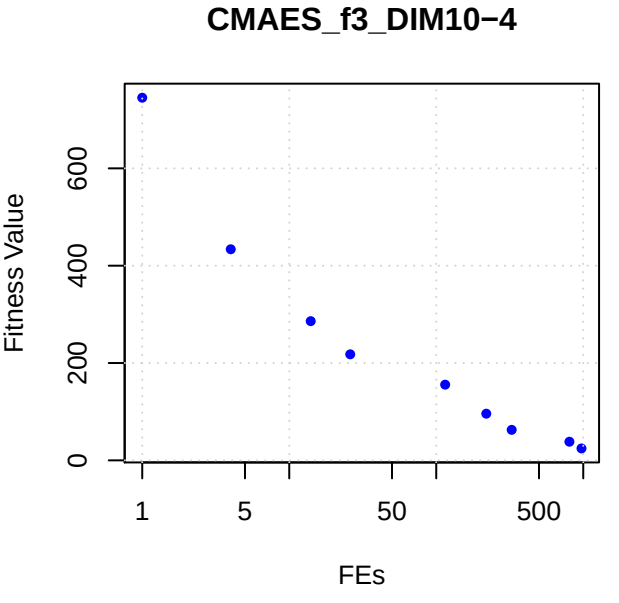

CMAES_f3_DIM10−13
Fitness Value
100
300
500
1
5
10
50
500
FEs

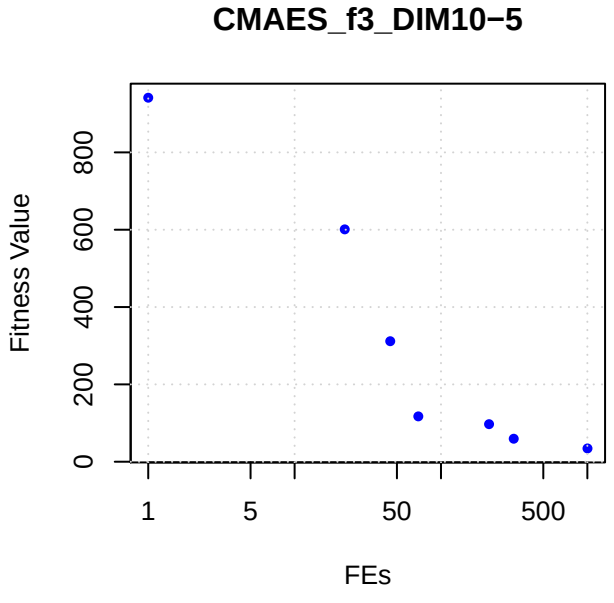

CMAES_f3_DIM10−14
Fitness Value
50
100
150
200
1
5
50
500
FEs

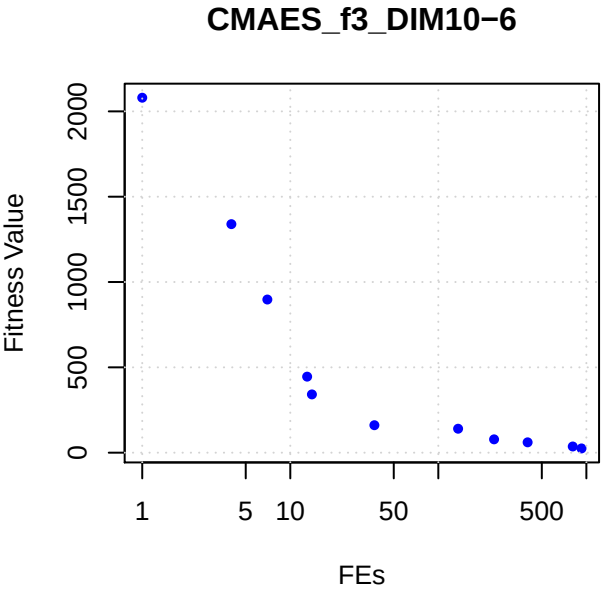

CMAES_f3_DIM10−15
Fitness Value
100
200
300
400
1
2
5
10
50
200
FEs

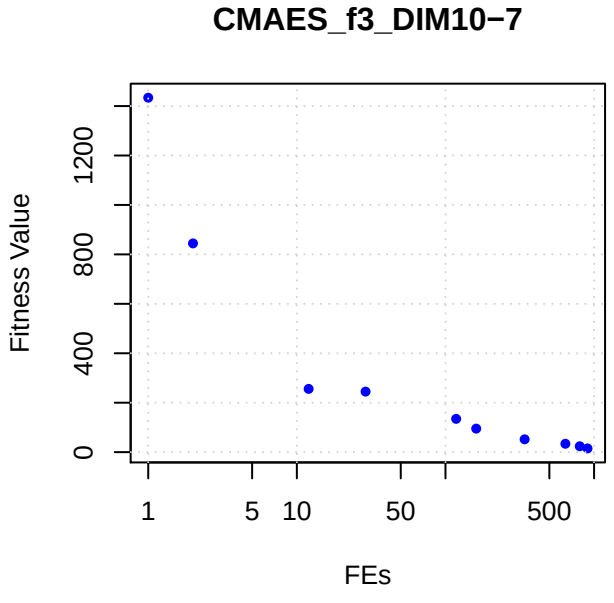

CMAES_f3_DIM10−2
Fitness Value
100
200
300
400
500
1
2
5
10
20
50
200
FEs

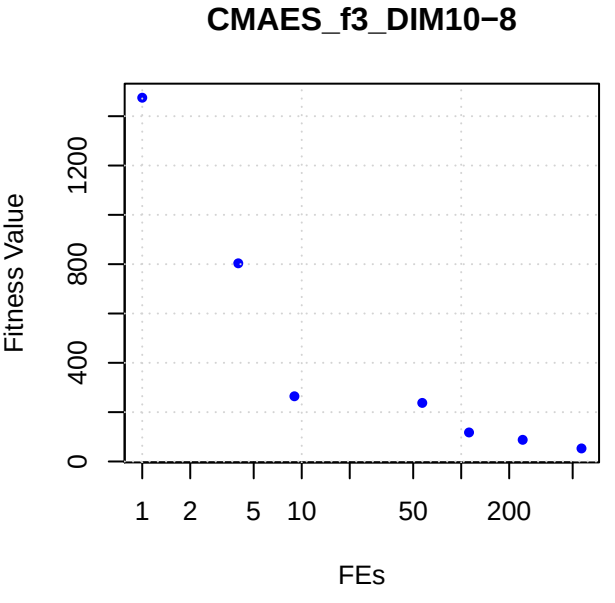

CMAES_f3_DIM10−3
Fitness Value
0
200
600
1000
1
2
5
10
50
200
FEs

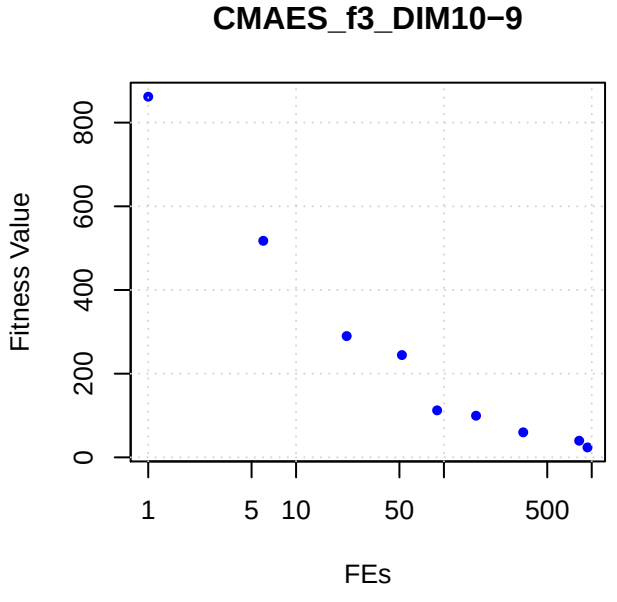

CMAES_f3_DIM10−4
Fitness Value
0
200
400
600
1
5
50
500
FEs

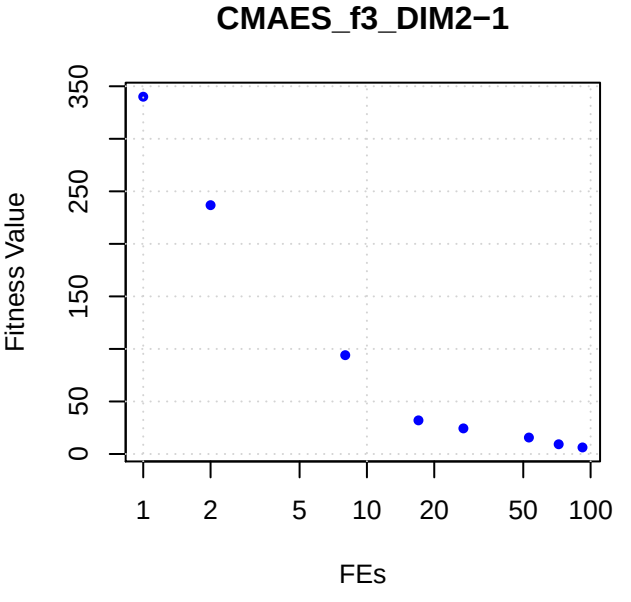

CMAES_f3_DIM10−5
Fitness Value
0
200
400
600
800
1
5
50
500
FEs

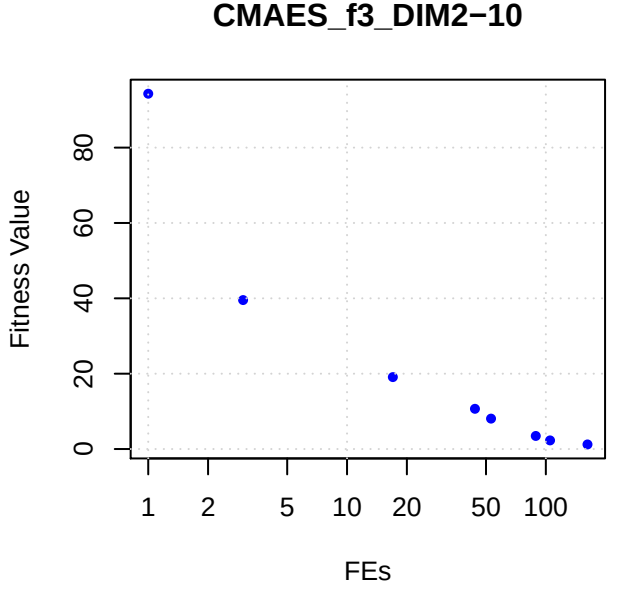

CMAES_f3_DIM10−6
Fitness Value
0
500
1000
1500
2000
1
5
10
50
500
FEs

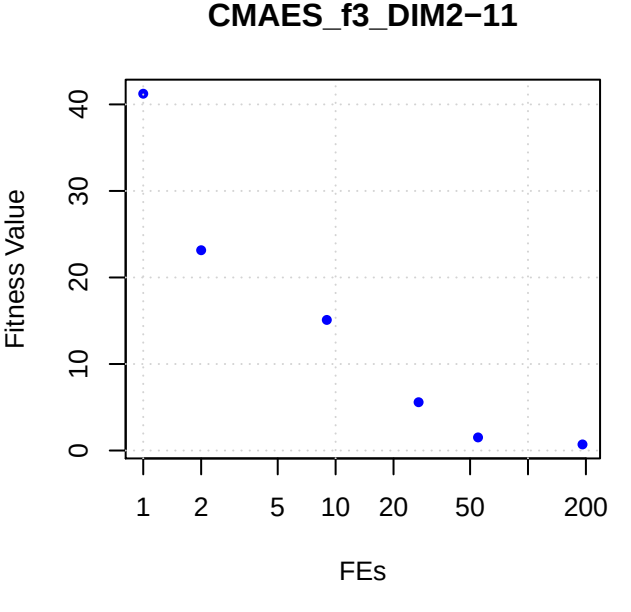

CMAES_f3_DIM10−7
Fitness Value
0
400
800
1200
1
5
10
50
500
FEs

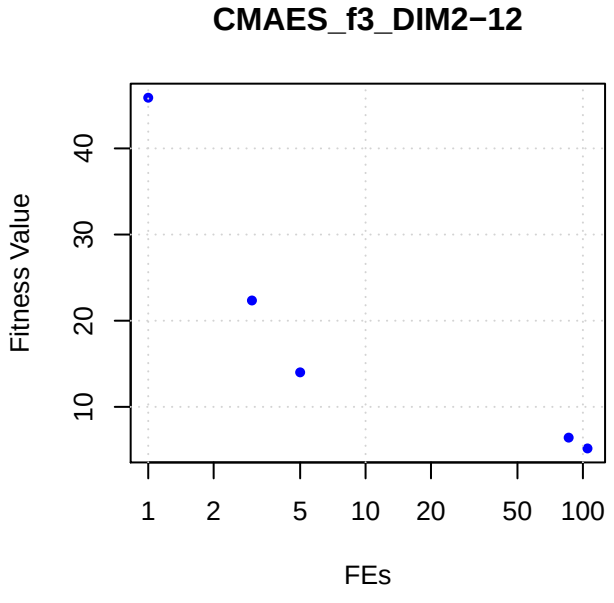

CMAES_f3_DIM10−8
Fitness Value
0
400
800
1200
1
2
5
10
50
200
FEs


CMAES_f3_DIM10−9
Fitness Value
0
200
400
600
800
1
5
10
50
500
FEs


CMAES_f3_DIM2−1
Fitness Value
0
50
150
250
350
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM2−10
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM2−11
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM2−12
Fitness Value
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20
30
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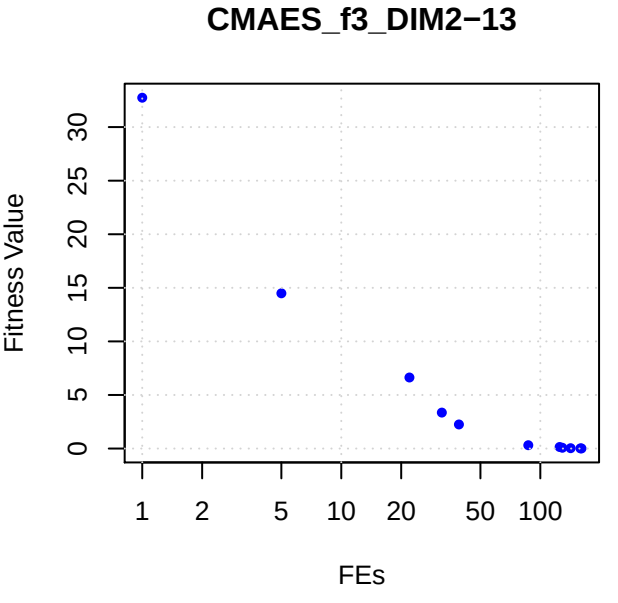
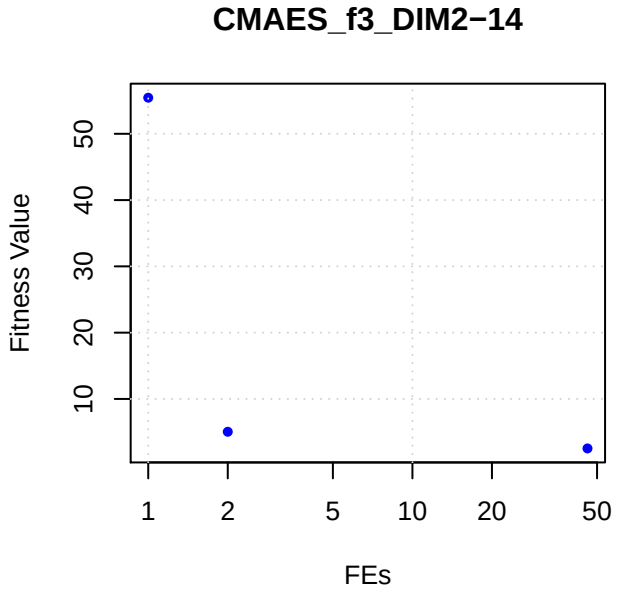
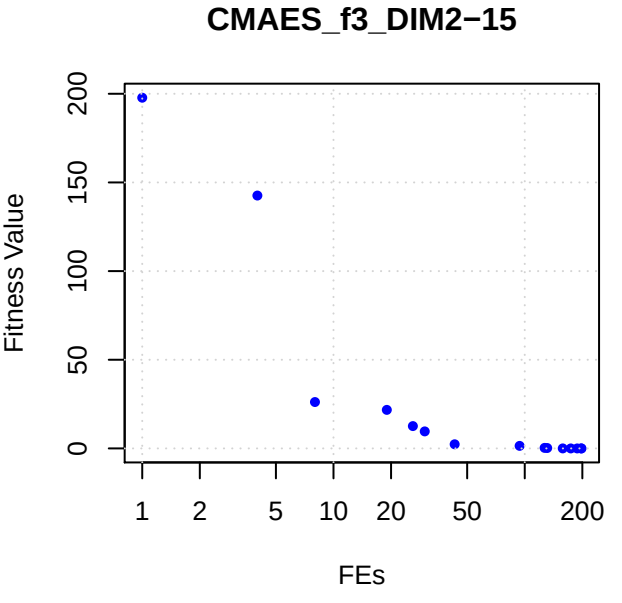
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM2−13
Fitness Value
0
5
10
15
20
25
30
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM2−14
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
FEs


CMAES_f3_DIM2−15
Fitness Value
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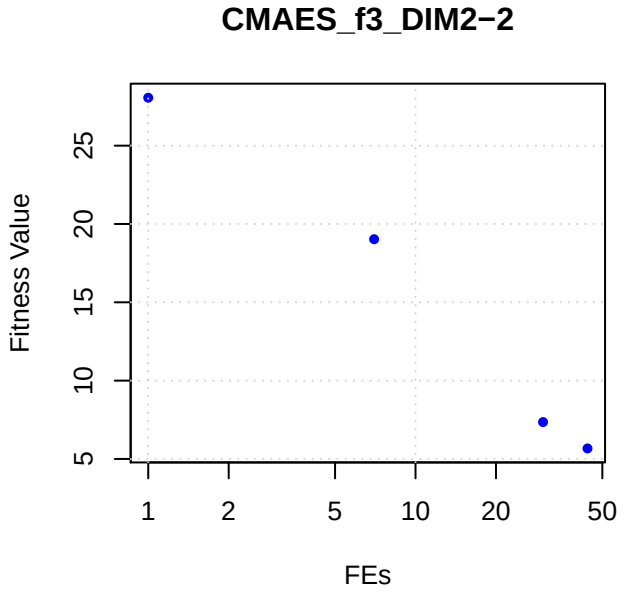
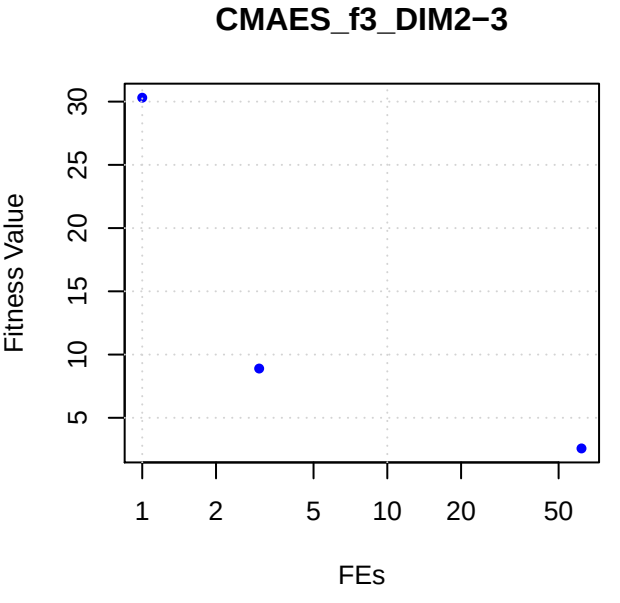
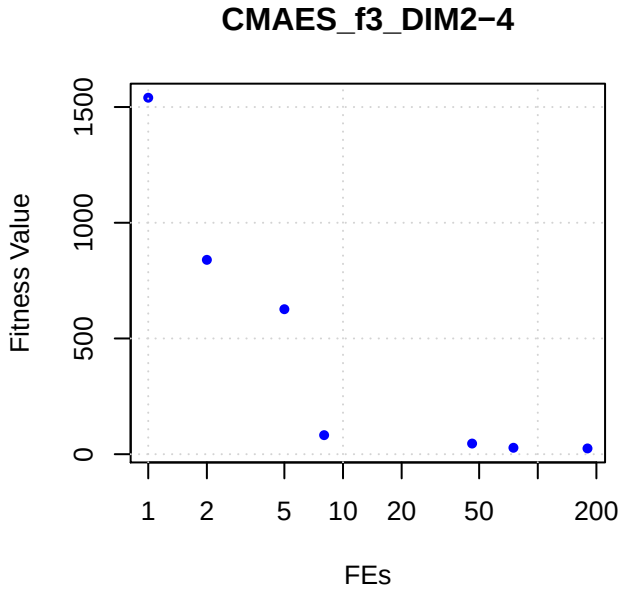
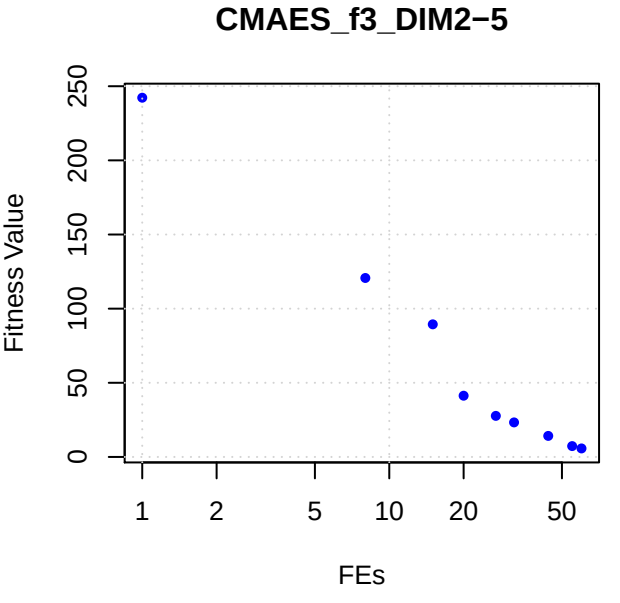
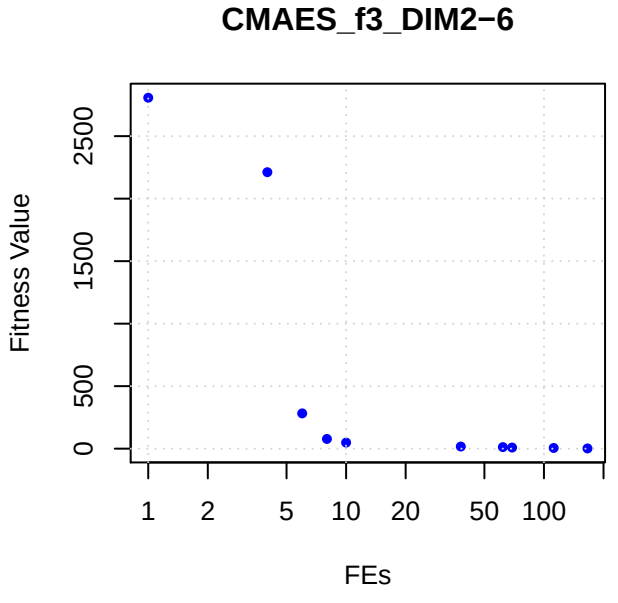
100
150
200
1
2
5
10
20
50
200
FEs

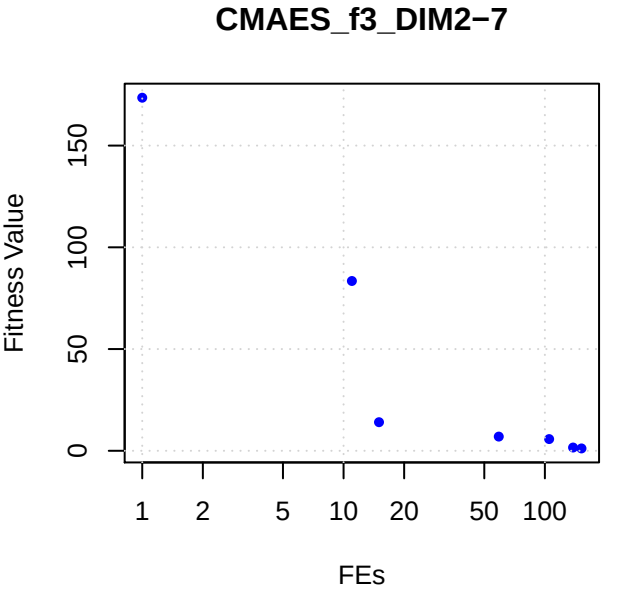

CMAES_f3_DIM2−2
Fitness Value
5
10
15
20
25
1
2
5
10
20
50
FEs

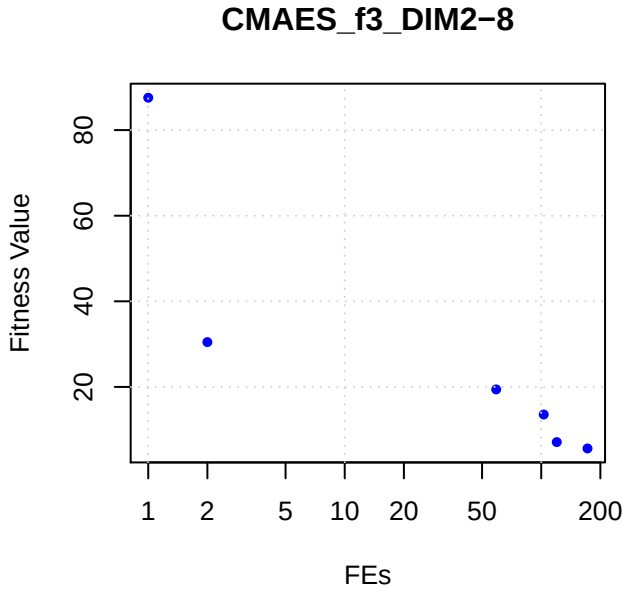

CMAES_f3_DIM2−3
Fitness Value
5
10
15
20
25
30
1
2
5
10
20
50
FEs

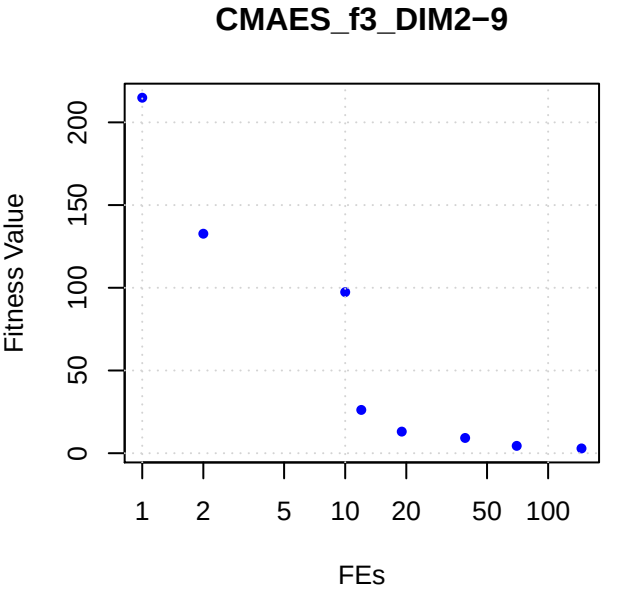

CMAES_f3_DIM2−4
Fitness Value
0
500
1000
1500
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM2−5
Fitness Value
0
50
100
150
200
250
1
2
5
10
20
50
FEs


CMAES_f3_DIM2−6
Fitness Value
0
500
1500
2500
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM2−7
Fitness Value
0
50
100
150
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM2−8
Fitness Value
20
40
60
80
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM2−9
Fitness Value
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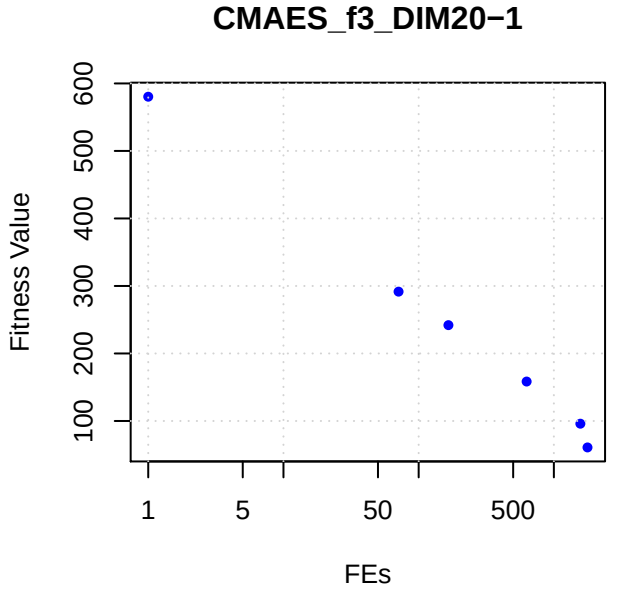
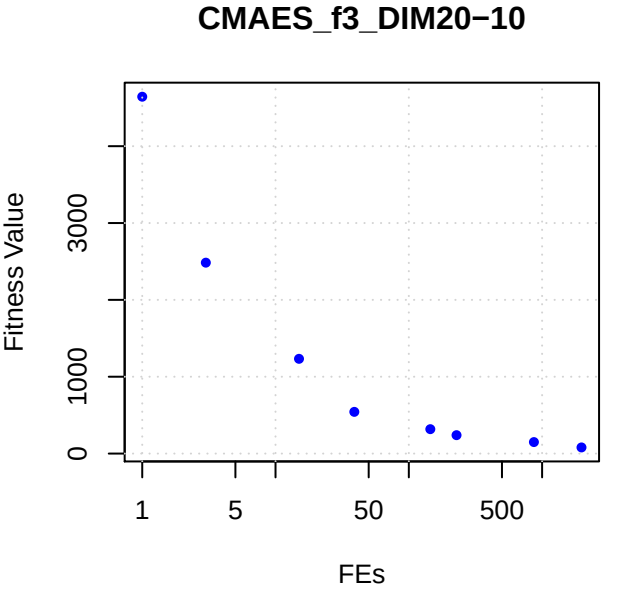
50
100
150
200
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM20−1
Fitness Value
100
200
300
400
500
600
1
5
50
500
FEs


CMAES_f3_DIM20−10
Fitness Value
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3000
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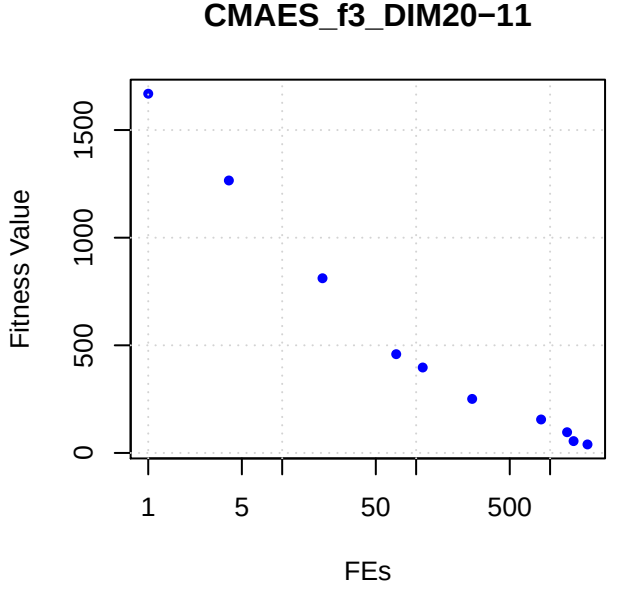
500
FEs


CMAES_f3_DIM20−11
Fitness Value
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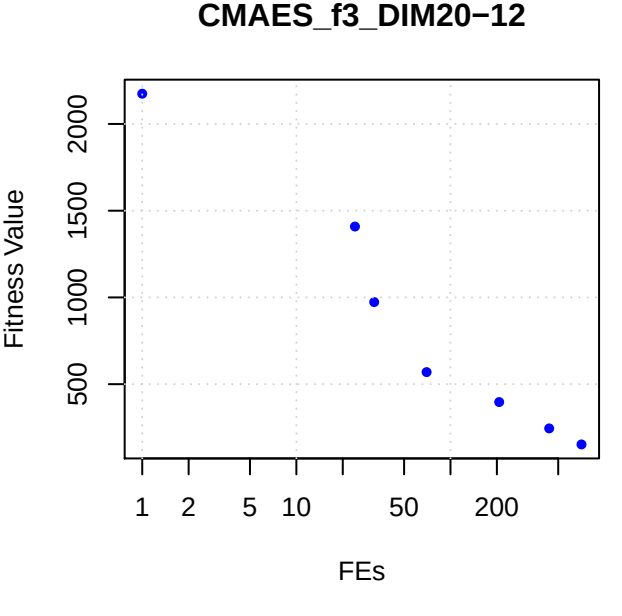
FEs


CMAES_f3_DIM20−12
Fitness Value
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2000
1
2
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10
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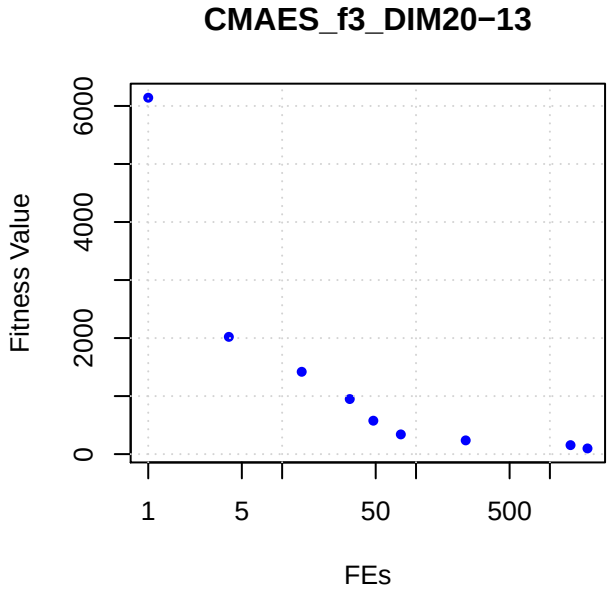
200
FEs


CMAES_f3_DIM20−13
Fitness Value
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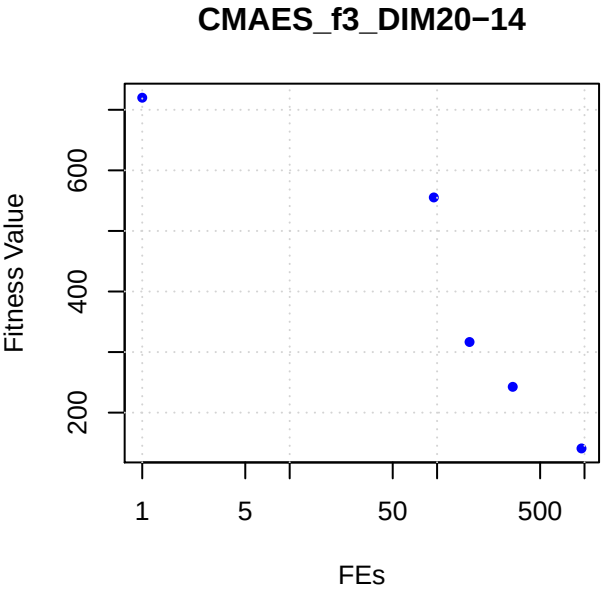
1
5
50
500
FEs


CMAES_f3_DIM20−14
Fitness Value
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5
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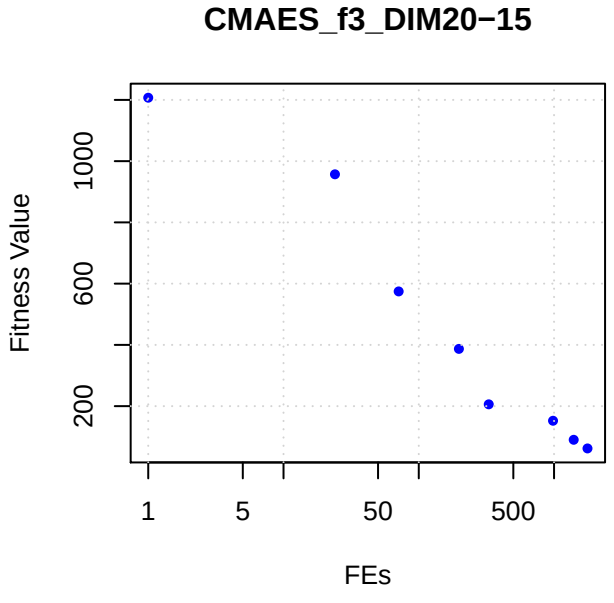
500
FEs


CMAES_f3_DIM20−15
Fitness Value
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1
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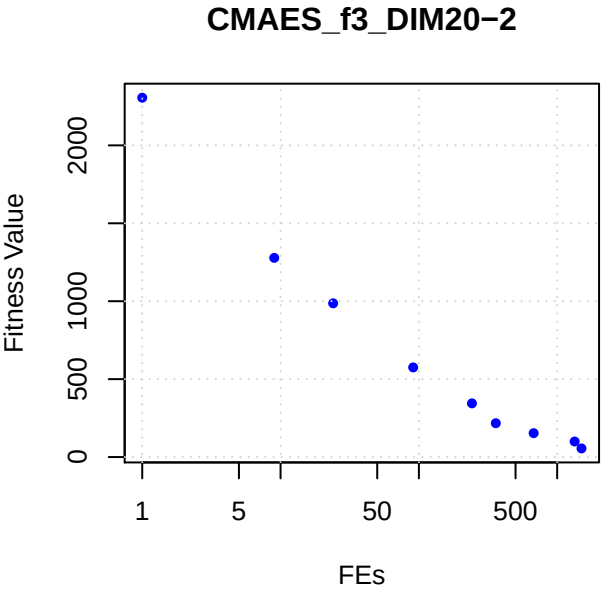
500
FEs


CMAES_f3_DIM20−2
Fitness Value
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2000
1
5
50
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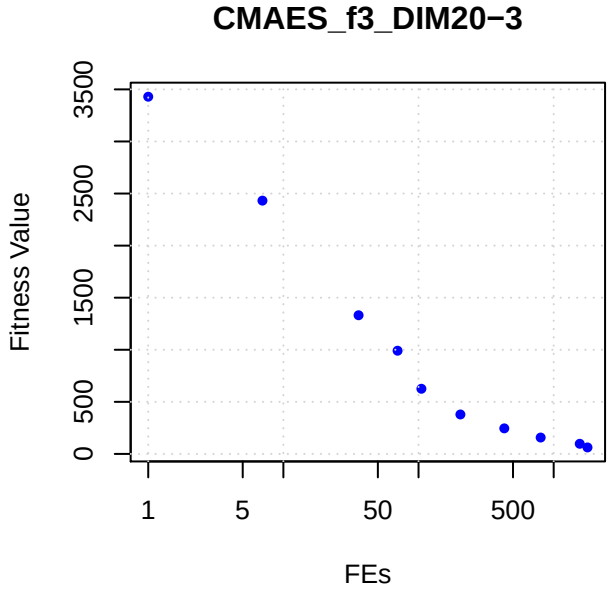
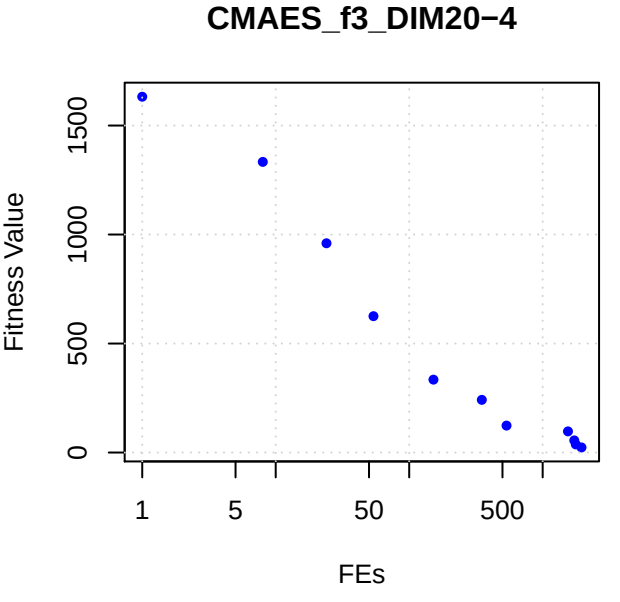
FEs


CMAES_f3_DIM20−3
Fitness Value
0
500
1500
2500
3500
1
5
50
500
FEs


CMAES_f3_DIM20−4
Fitness Value
0
500
1000
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1
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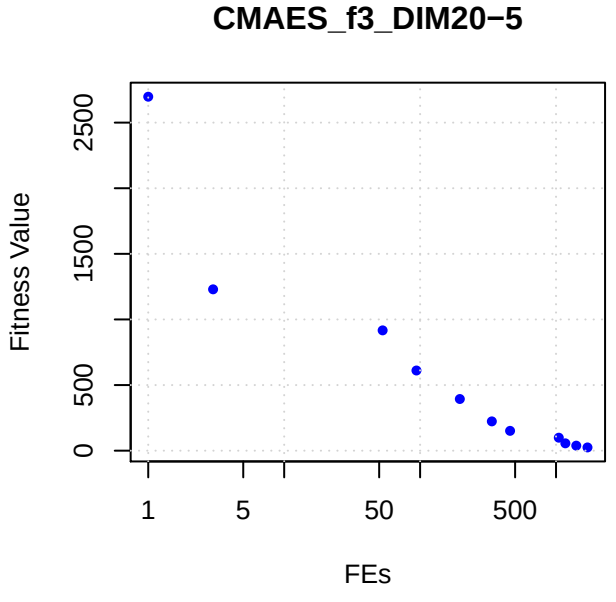
500
FEs


CMAES_f3_DIM20−5
Fitness Value
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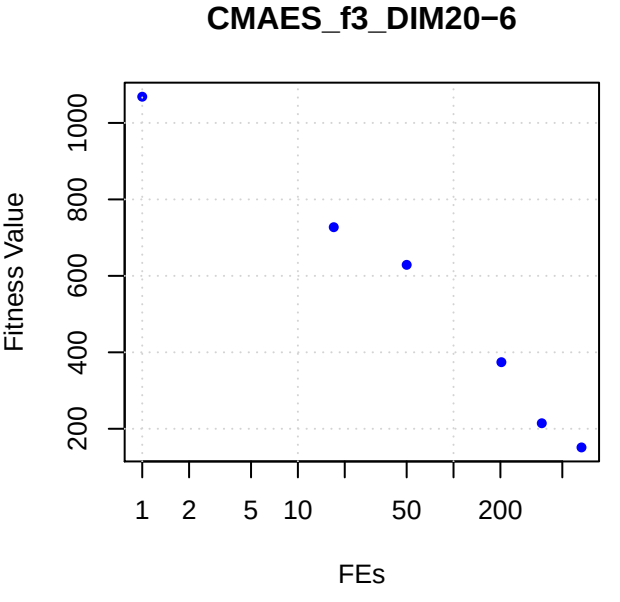
1500
2500
1
5
50
500
FEs


CMAES_f3_DIM20−6
Fitness Value
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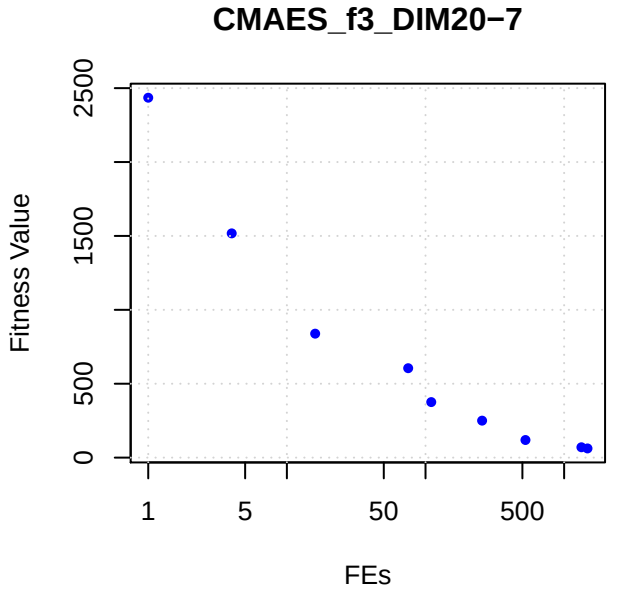
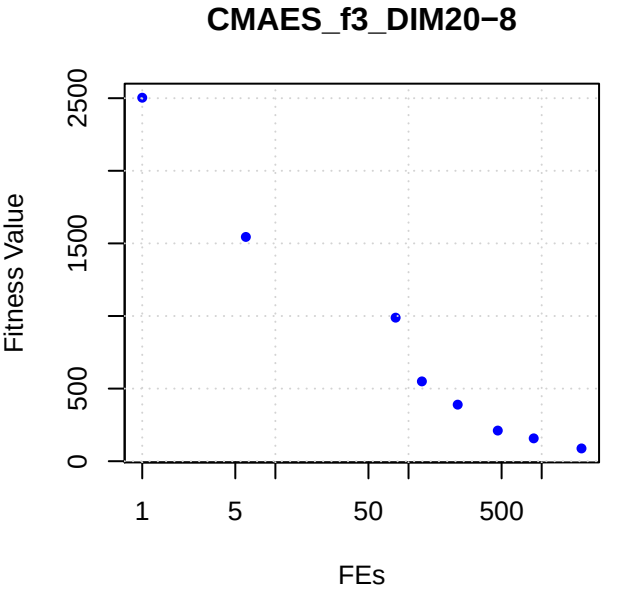
400
600
800
1000
1
2
5
10
50
200
FEs


CMAES_f3_DIM20−7
Fitness Value
0
500
1500
2500
1
5
50
500
FEs


CMAES_f3_DIM20−8
Fitness Value
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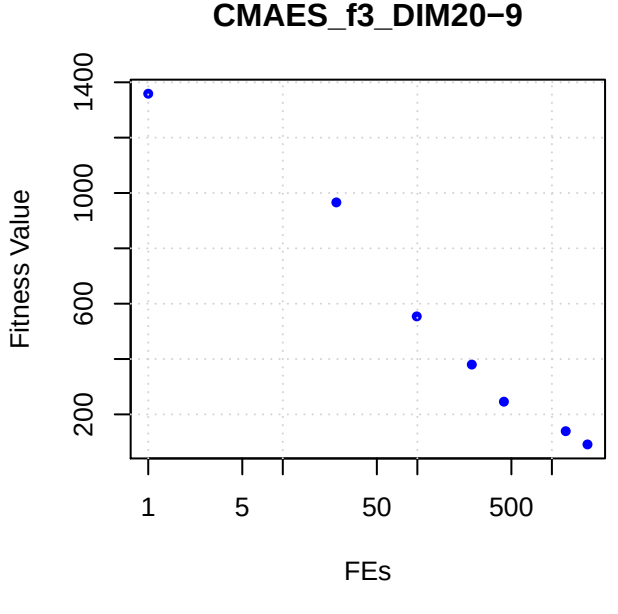
1
5
50
500
FEs


CMAES_f3_DIM20−9
Fitness Value
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600
1000
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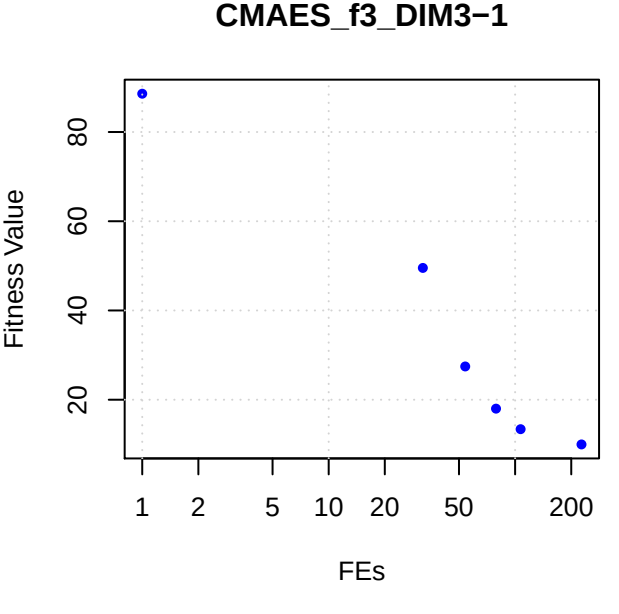
5
50
500
FEs


CMAES_f3_DIM3−1
Fitness Value
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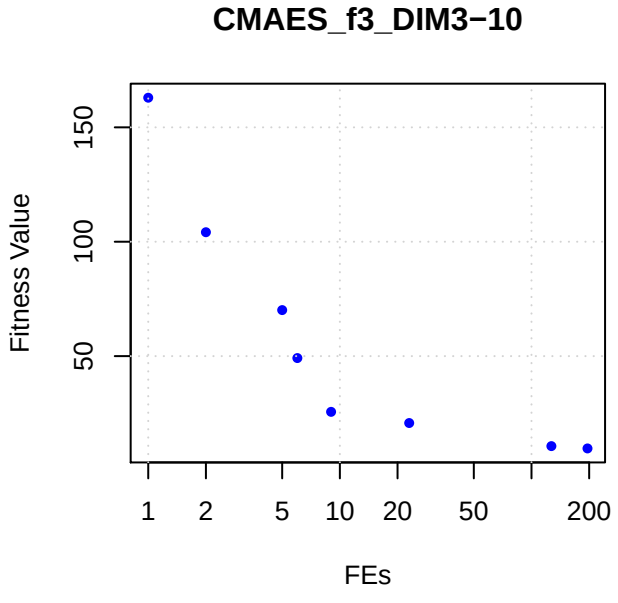
60
80
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM3−10
Fitness Value
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1
2
5
10
20
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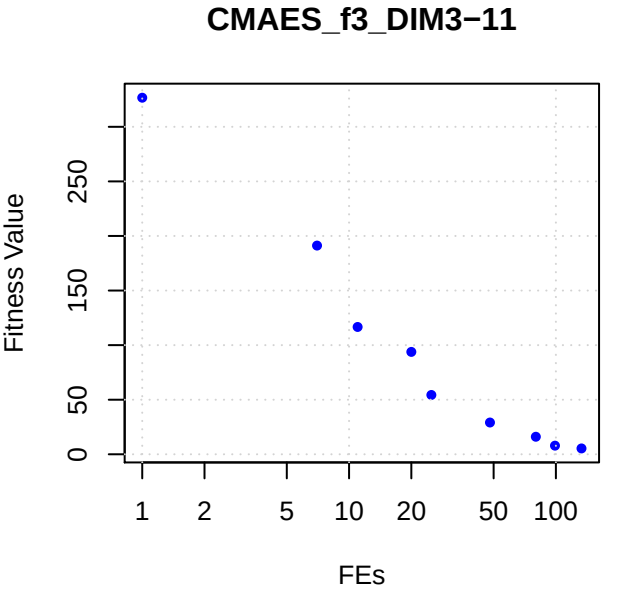
200
FEs


CMAES_f3_DIM3−11
Fitness Value
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1
2
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10
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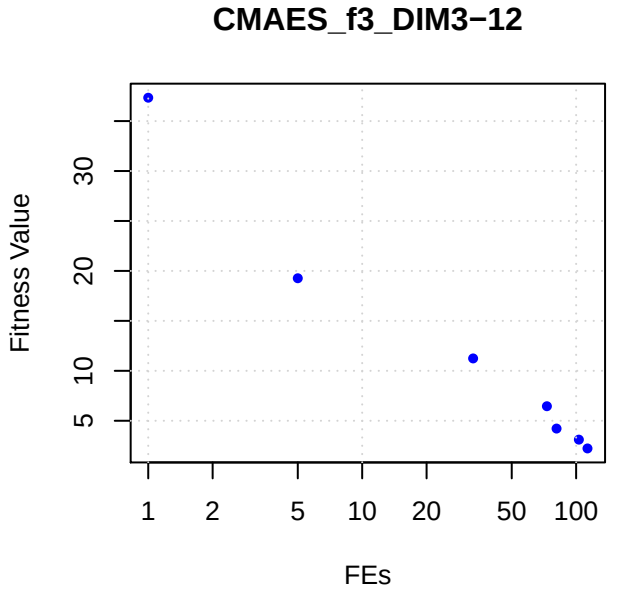
50
100
FEs


CMAES_f3_DIM3−12
Fitness Value
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20
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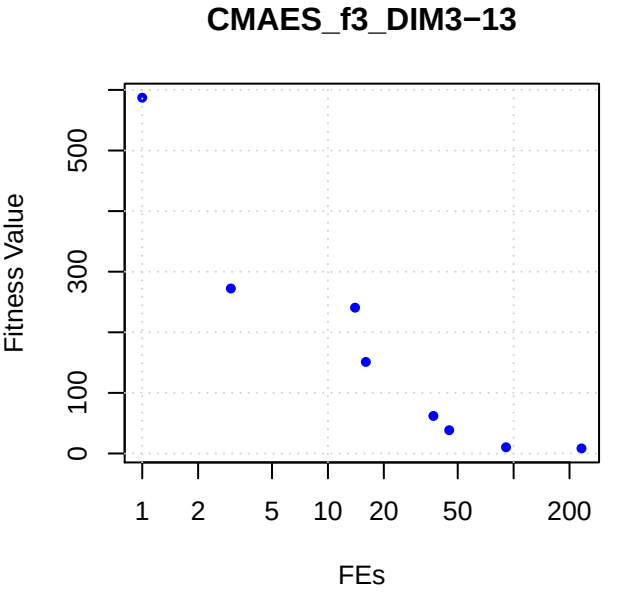
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM3−13
Fitness Value
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1
2
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10
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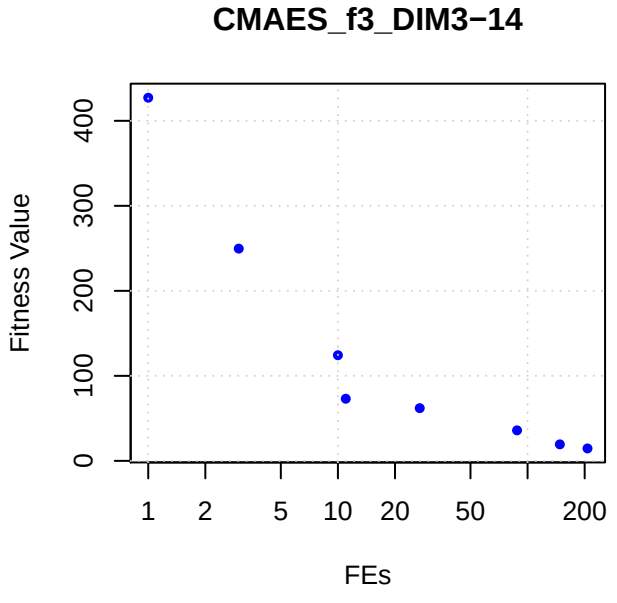
200
FEs


CMAES_f3_DIM3−14
Fitness Value
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1
2
5
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20
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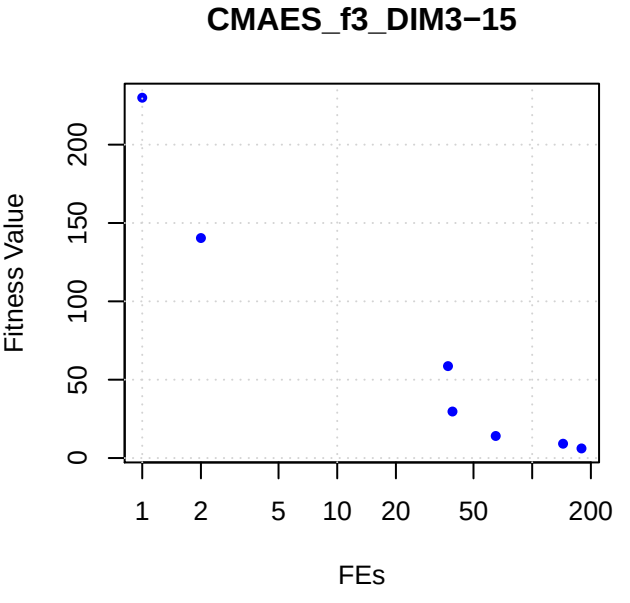
200
FEs


CMAES_f3_DIM3−15
Fitness Value
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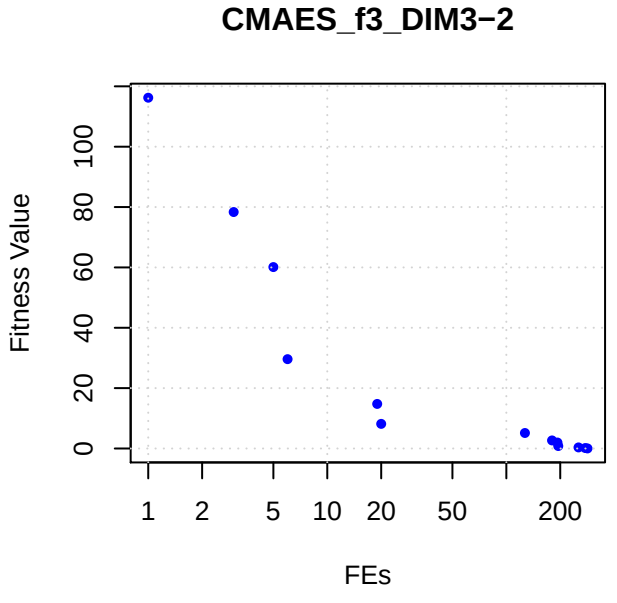
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM3−2
Fitness Value
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80
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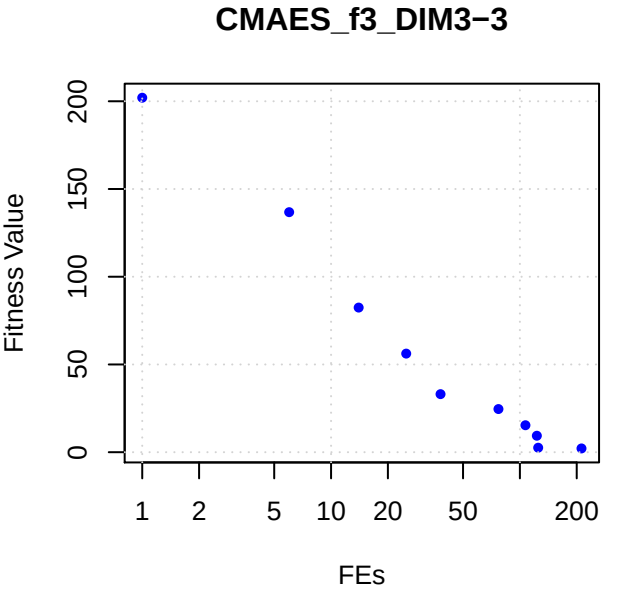
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM3−3
Fitness Value
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1
2
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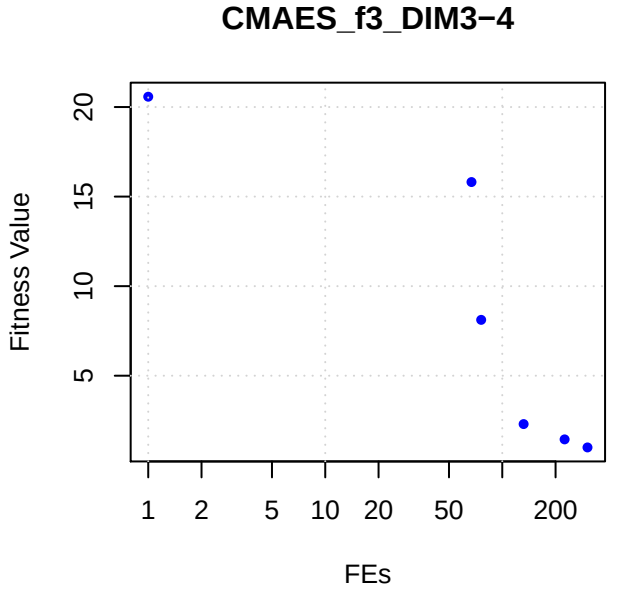
20
50
200
FEs


CMAES_f3_DIM3−4
Fitness Value
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15
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1
2
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10
20
50
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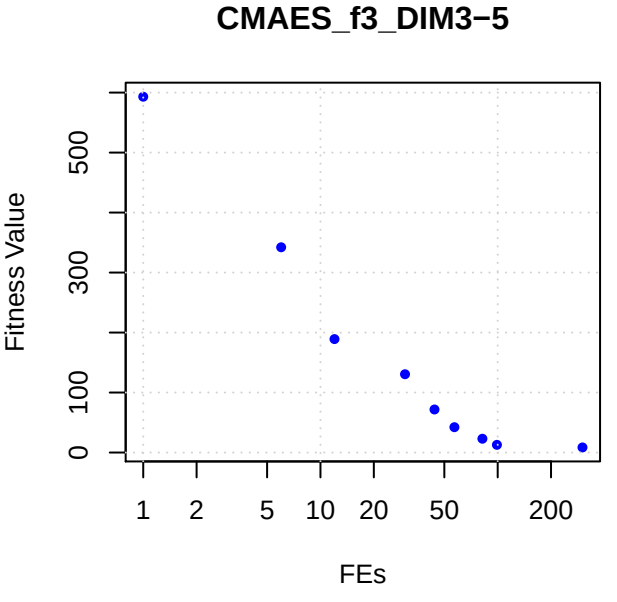
FEs


CMAES_f3_DIM3−5
Fitness Value
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300
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1
2
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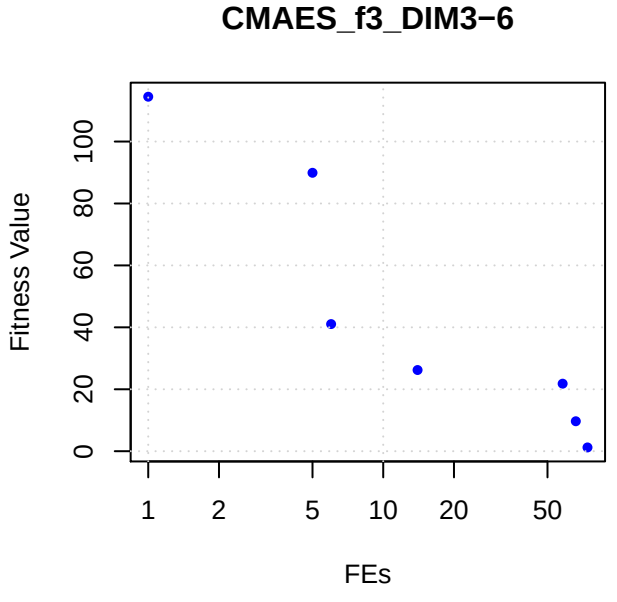
10
20
50
200
FEs


CMAES_f3_DIM3−6
Fitness Value
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1
2
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10
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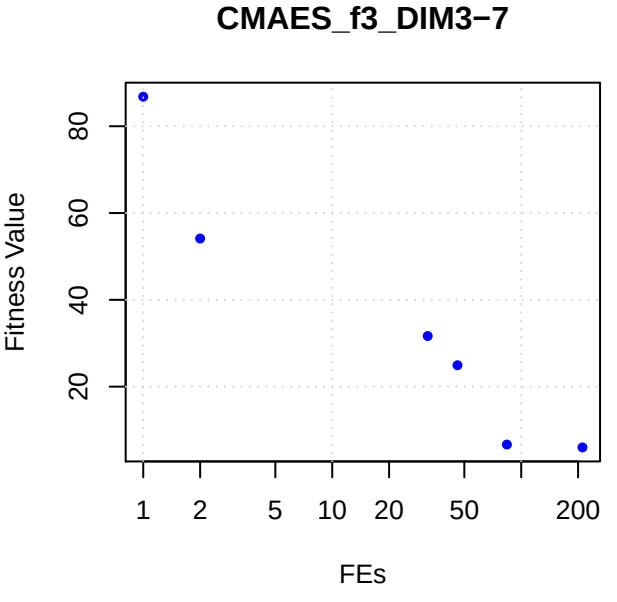
50
FEs


CMAES_f3_DIM3−7
Fitness Value
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2
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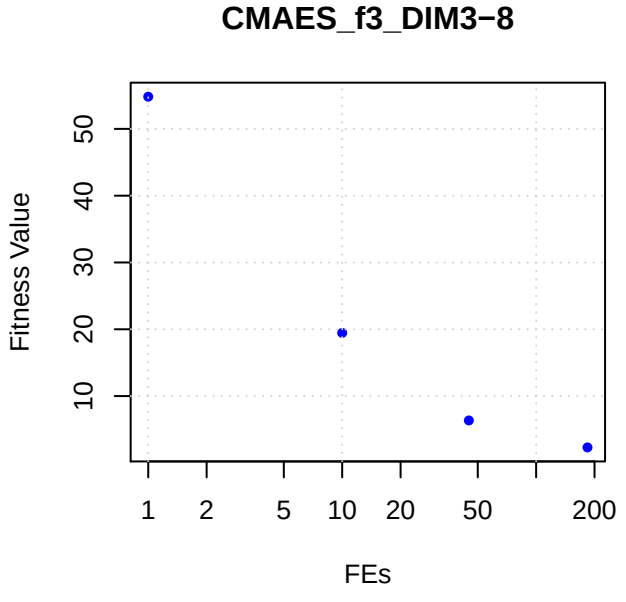
FEs


CMAES_f3_DIM3−8
Fitness Value
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1
2
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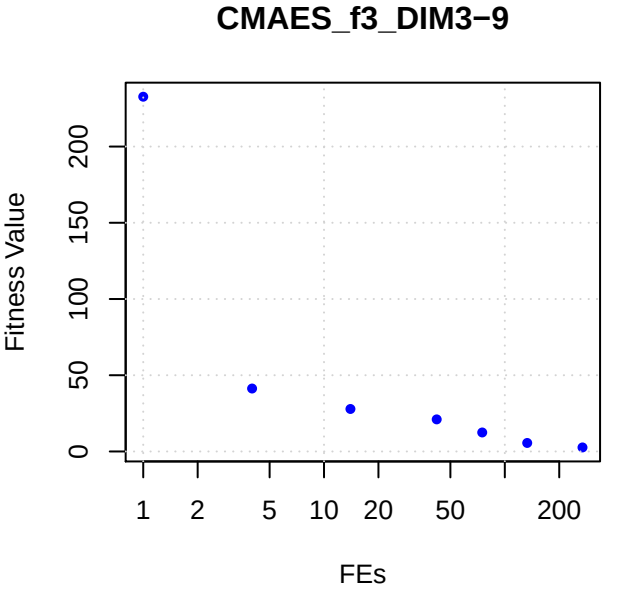
200
FEs


CMAES_f3_DIM3−9
Fitness Value
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1
2
5
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20
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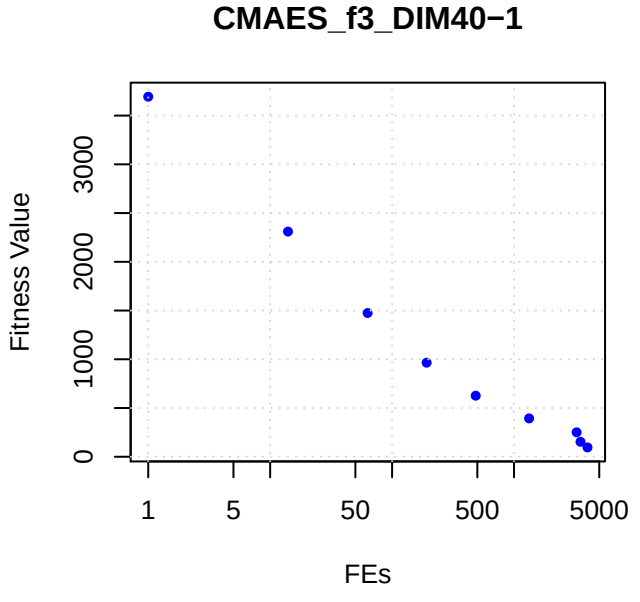
FEs


CMAES_f3_DIM40−1
Fitness Value
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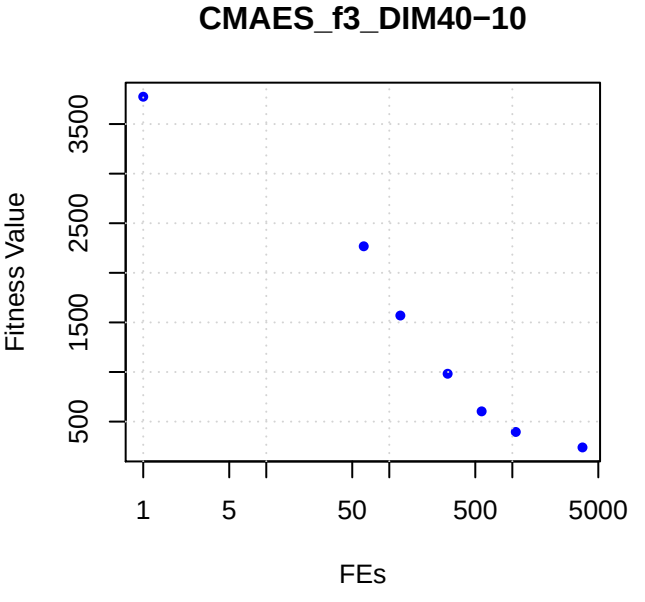
500
5000
FEs


CMAES_f3_DIM40−10
Fitness Value
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3500
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50
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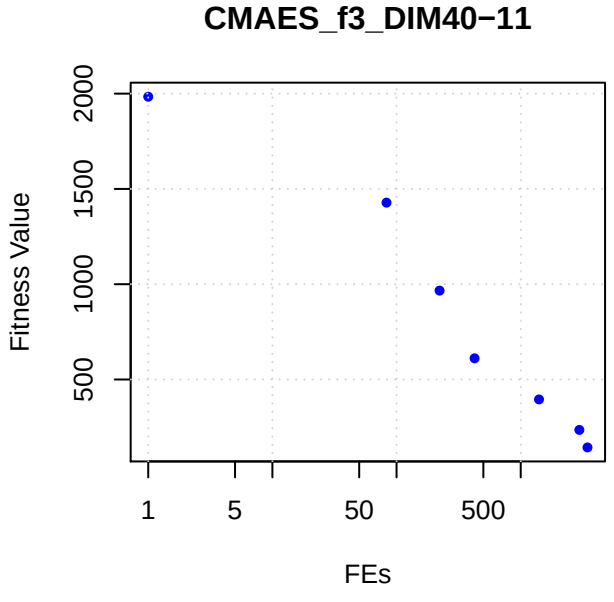
5000
FEs


CMAES_f3_DIM40−11
Fitness Value
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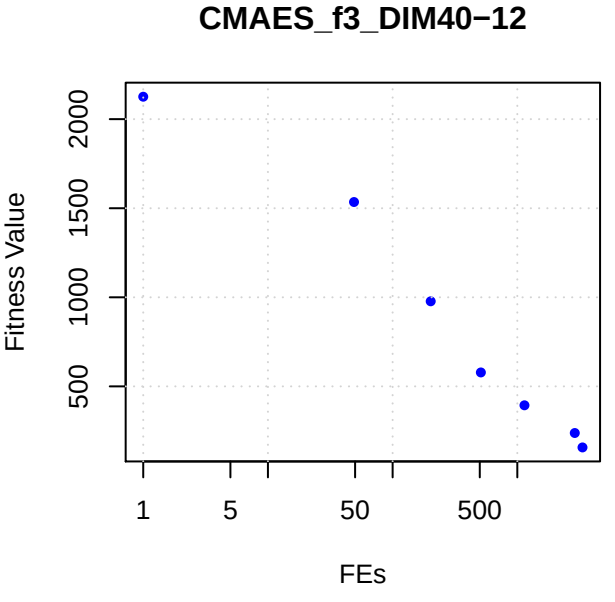
500
FEs


CMAES_f3_DIM40−12
Fitness Value
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5
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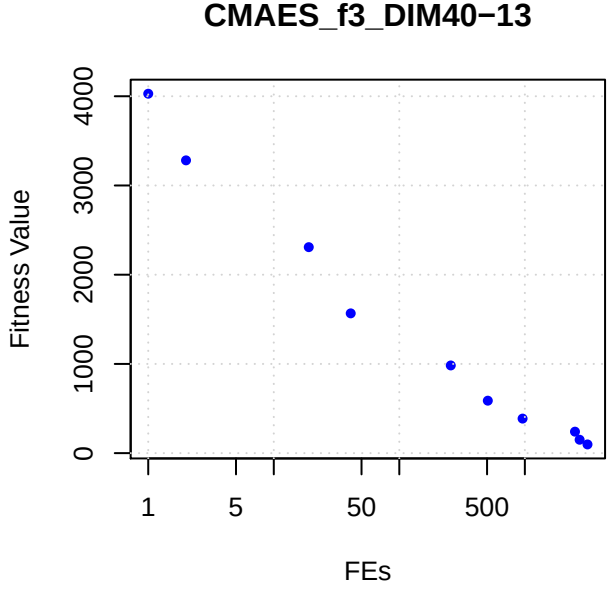
500
FEs


CMAES_f3_DIM40−13
Fitness Value
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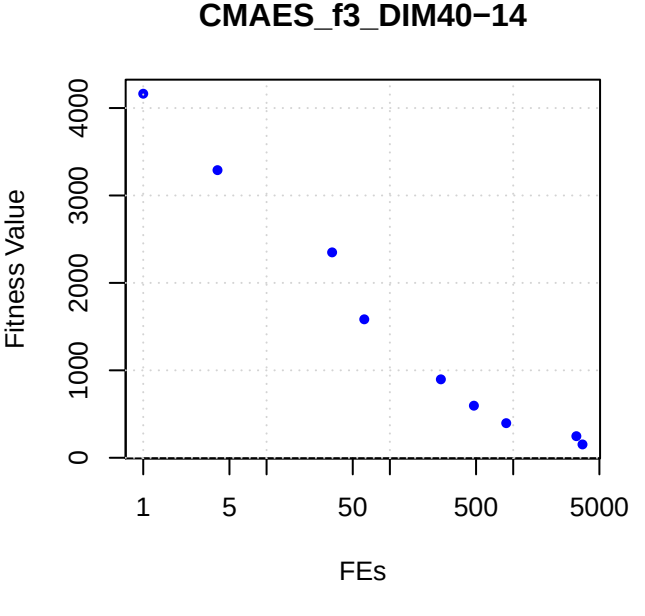
FEs


CMAES_f3_DIM40−14
Fitness Value
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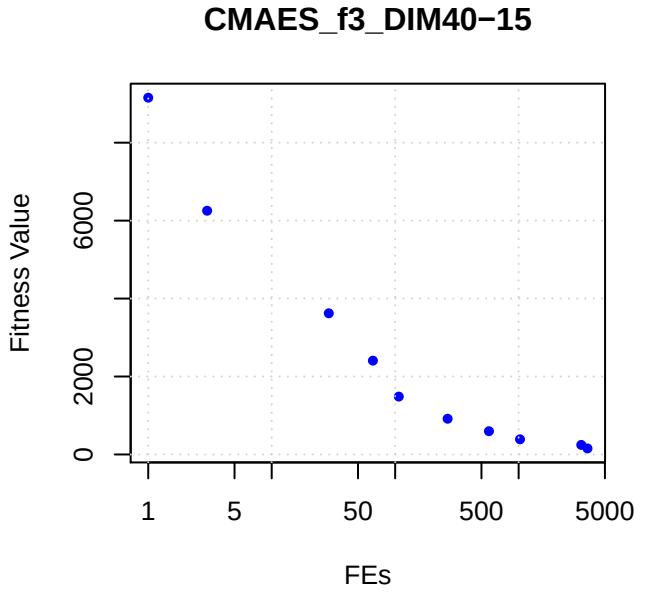
FEs


CMAES_f3_DIM40−15
Fitness Value
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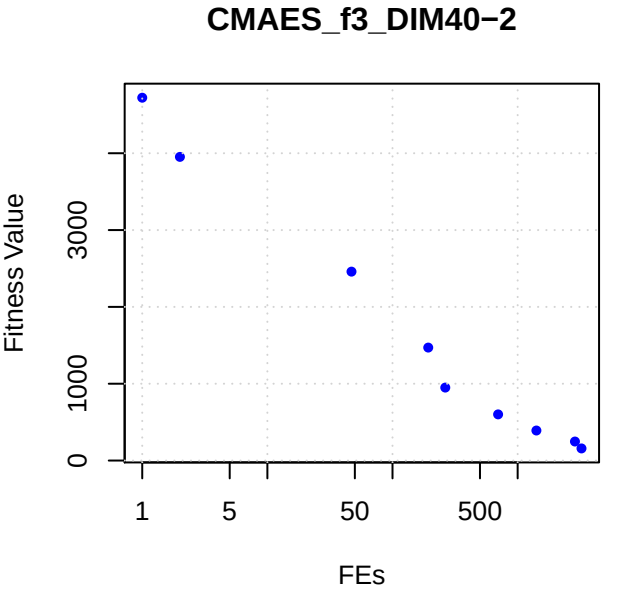
5000
FEs


CMAES_f3_DIM40−2
Fitness Value
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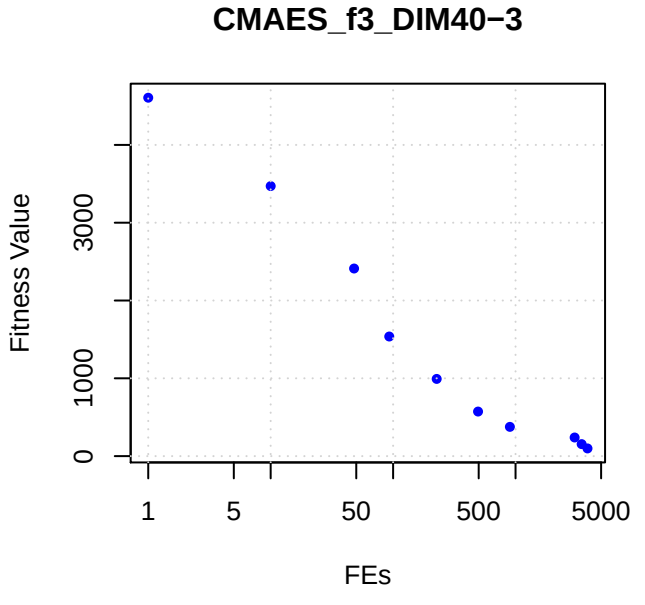
FEs


CMAES_f3_DIM40−3
Fitness Value
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1
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50
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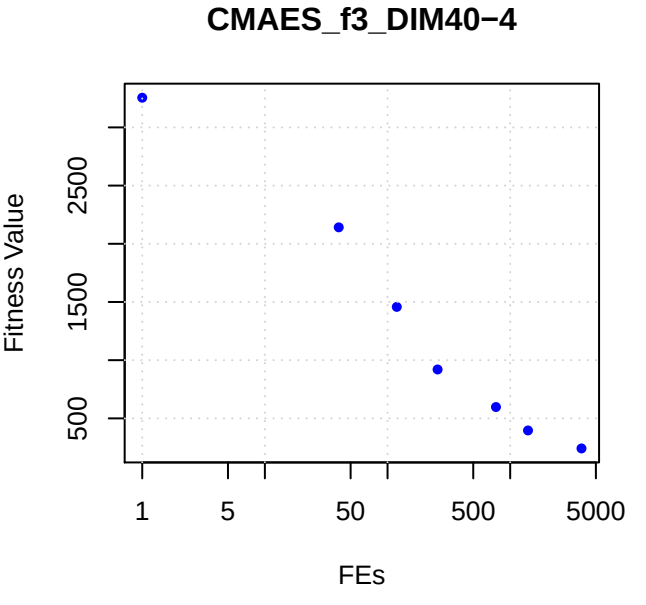
5000
FEs


CMAES_f3_DIM40−4
Fitness Value
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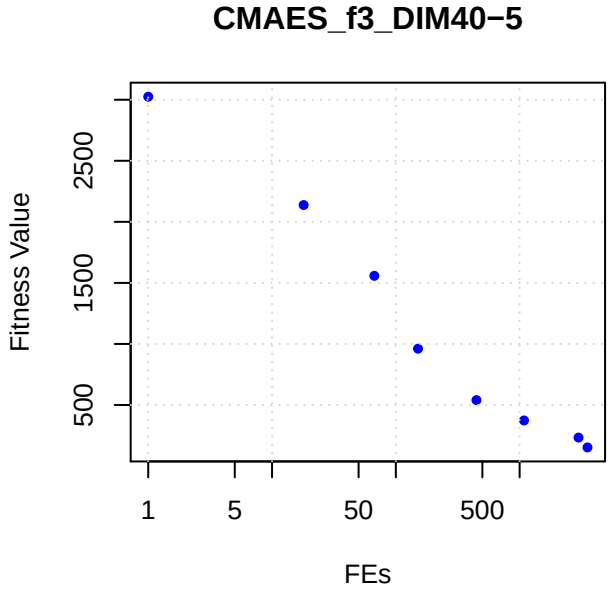
FEs


CMAES_f3_DIM40−5
Fitness Value
500
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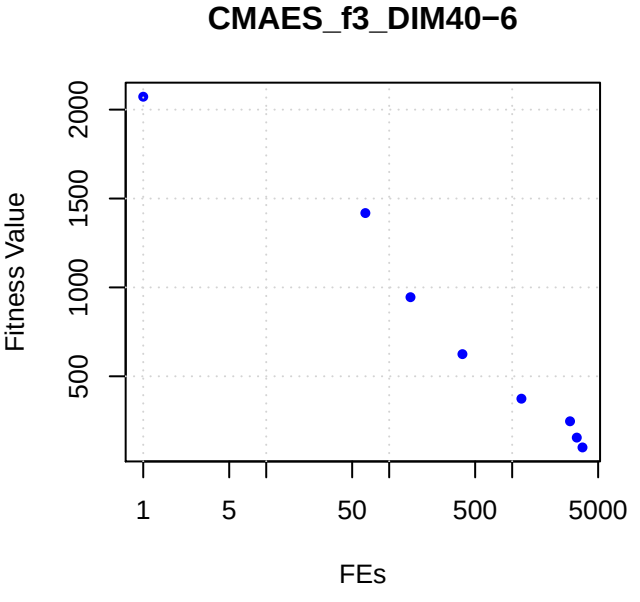
1
5
50
500
FEs


CMAES_f3_DIM40−6
Fitness Value
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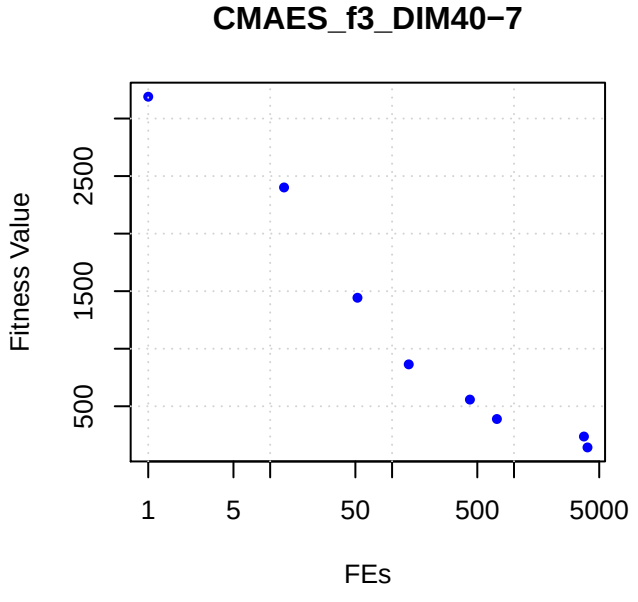
FEs


CMAES_f3_DIM40−7
Fitness Value
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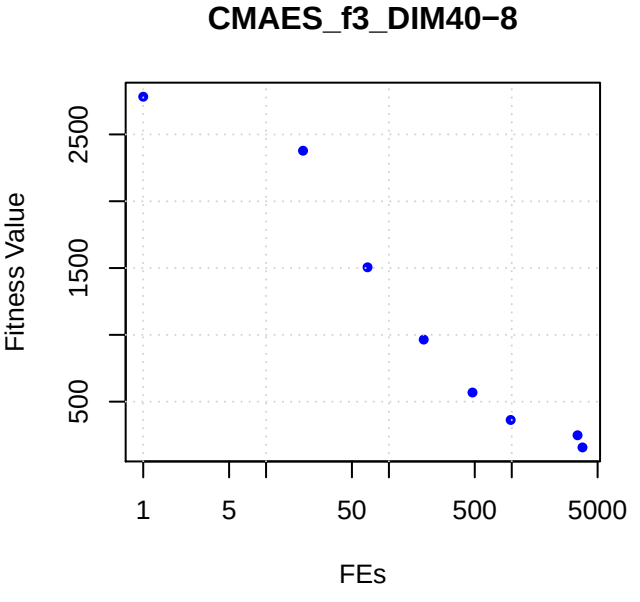
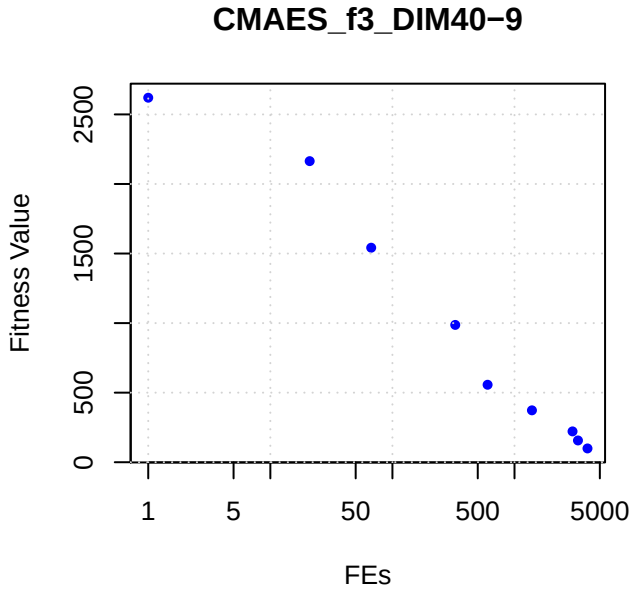
1
5
50
500
5000
FEs


CMAES_f3_DIM40−8
Fitness Value
500
1500
2500
1
5
50
500
5000
FEs


CMAES_f3_DIM40−9
Fitness Value
0
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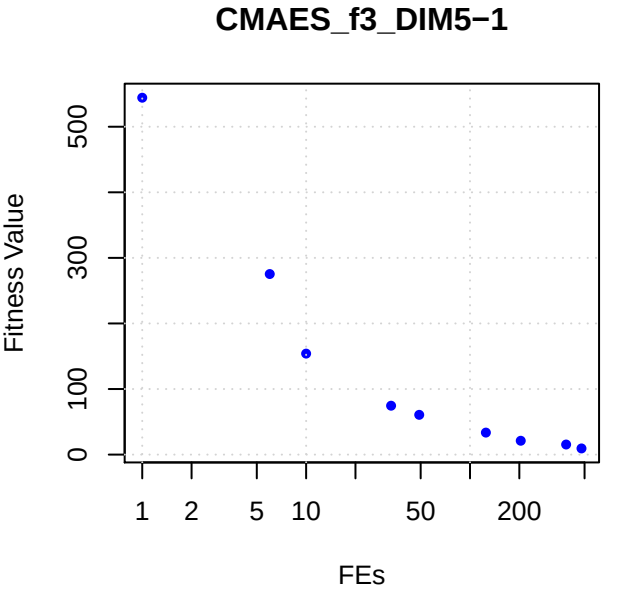
5000
FEs


CMAES_f3_DIM5−1
Fitness Value
0
100
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500
1
2
5
10
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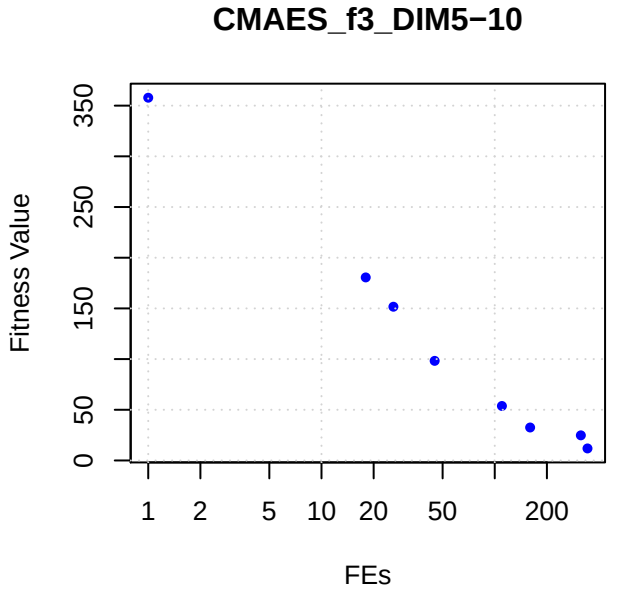
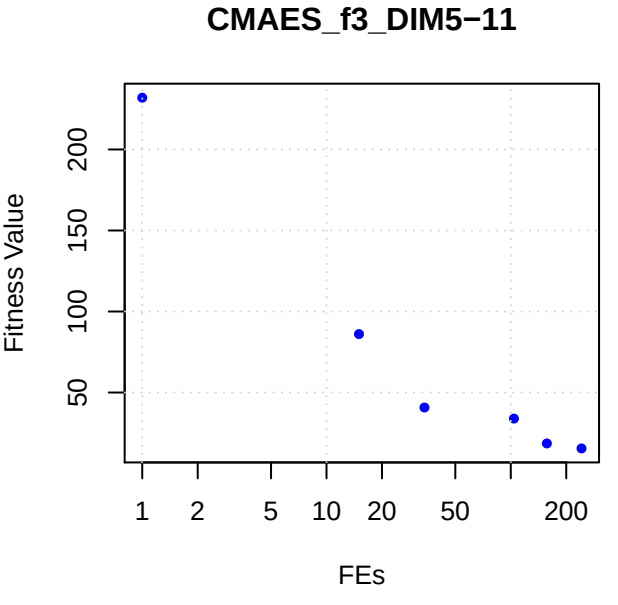
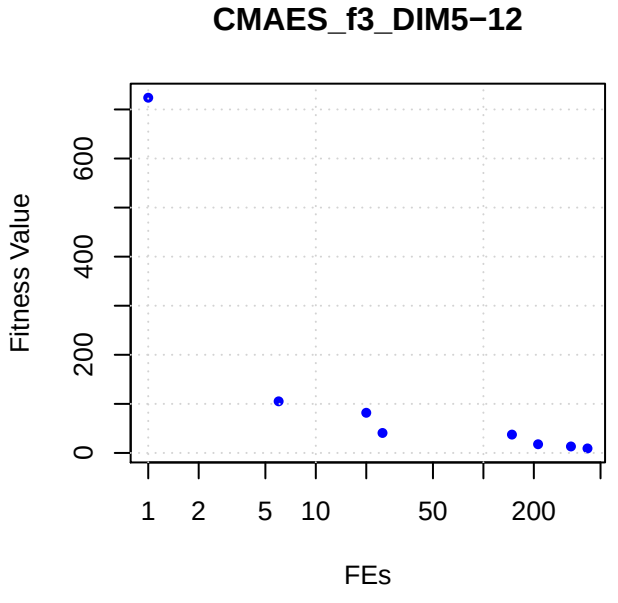
200
FEs


CMAES_f3_DIM5−10
Fitness Value
0
50
150
250
350
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM5−11
Fitness Value
50
100
150
200
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM5−12
Fitness Value
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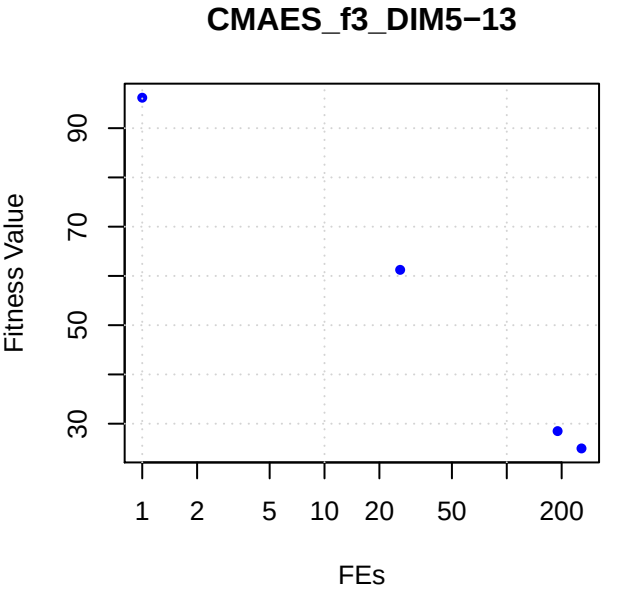
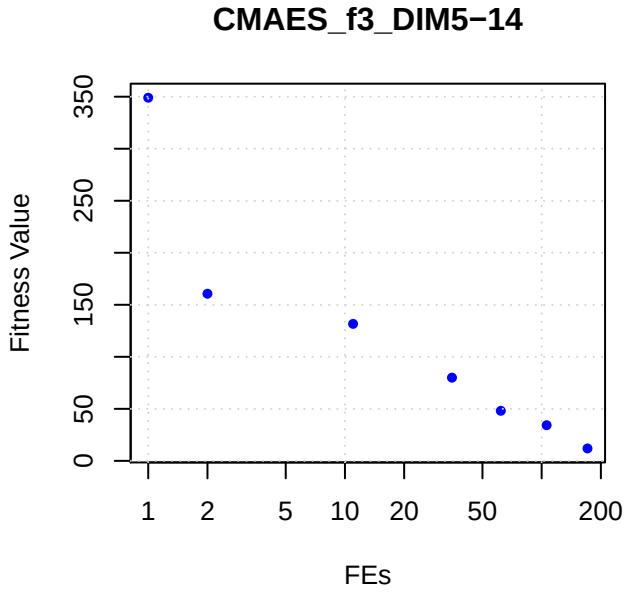
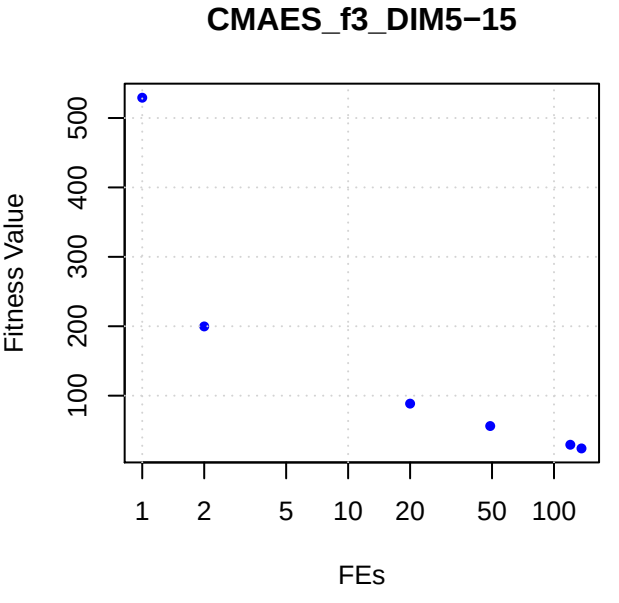
200
400
600
1
2
5
10
50
200
FEs


CMAES_f3_DIM5−13
Fitness Value
30
50
70
90
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM5−14
Fitness Value
0
50
150
250
350
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM5−15
Fitness Value
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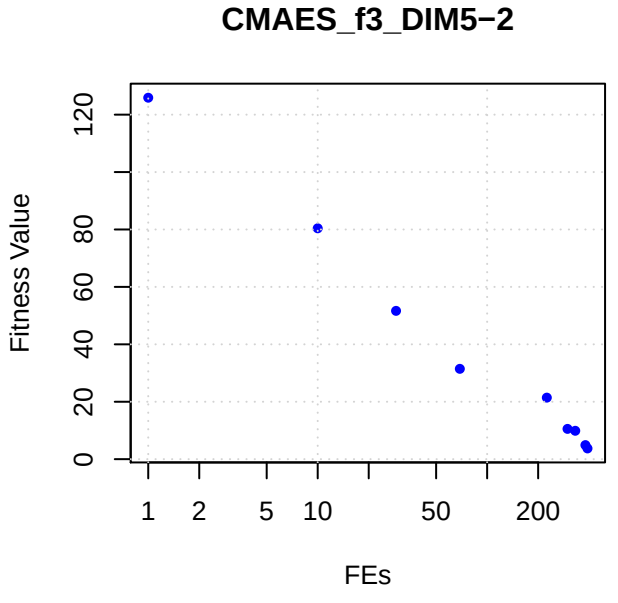
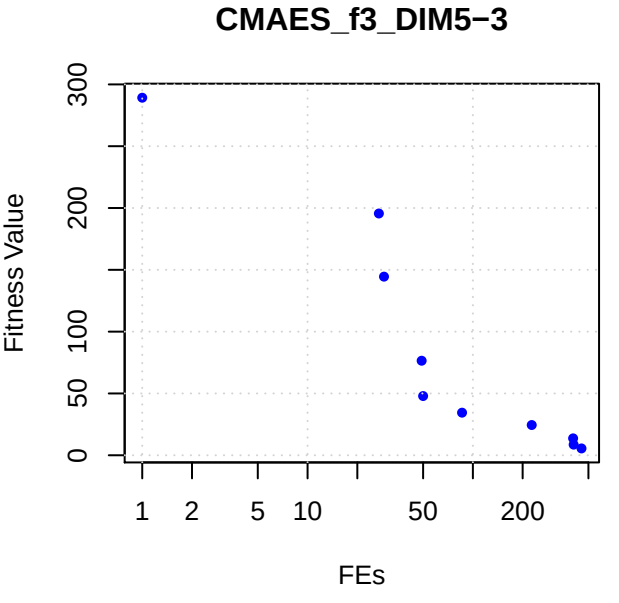
200
300
400
500
1
2
5
10
20
50
100
FEs


CMAES_f3_DIM5−2
Fitness Value
0
20
40
60
80
120
1
2
5
10
50
200
FEs


CMAES_f3_DIM5−3
Fitness Value
0
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100
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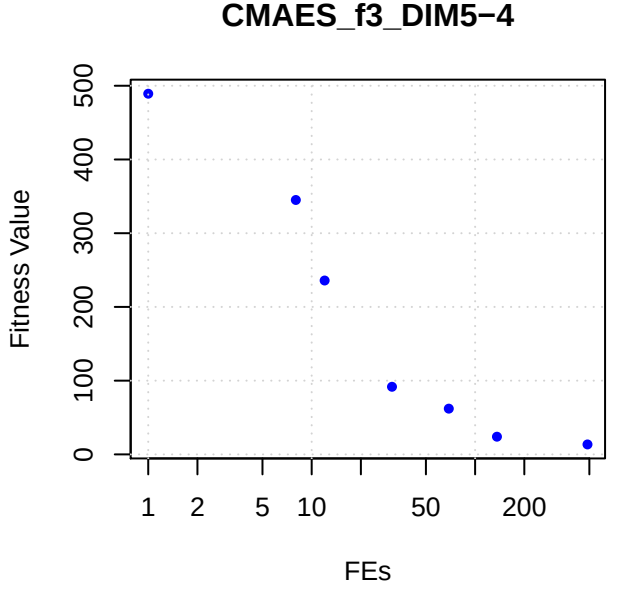
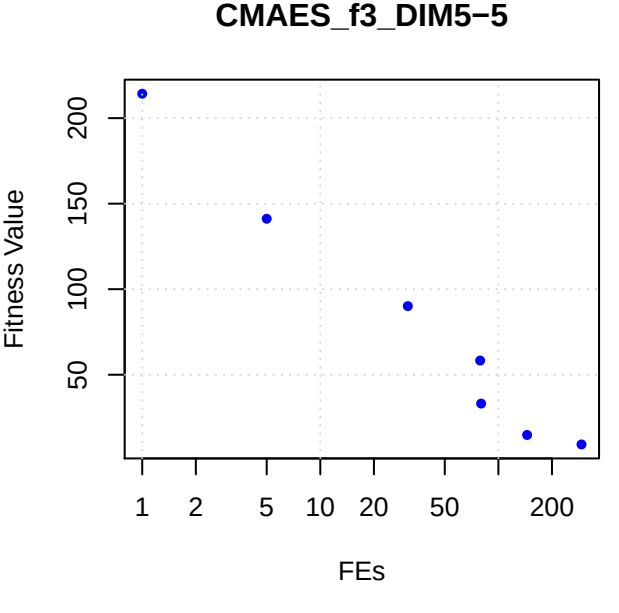
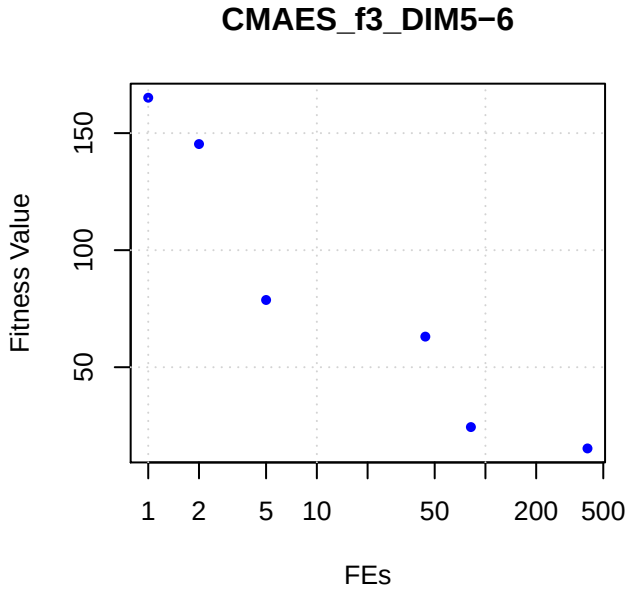
300
1
2
5
10
50
200
FEs


CMAES_f3_DIM5−4
Fitness Value
0
100
200
300
400
500
1
2
5
10
50
200
FEs


CMAES_f3_DIM5−5
Fitness Value
50
100
150
200
1
2
5
10
20
50
200
FEs


CMAES_f3_DIM5−6
Fitness Value
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100
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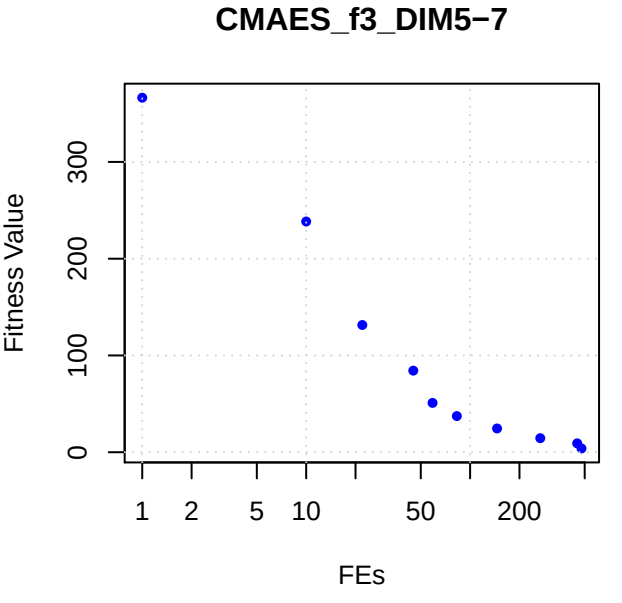
1
2
5
10
50
200
500
FEs


CMAES_f3_DIM5−7
Fitness Value
0
100
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300
1
2
5
10
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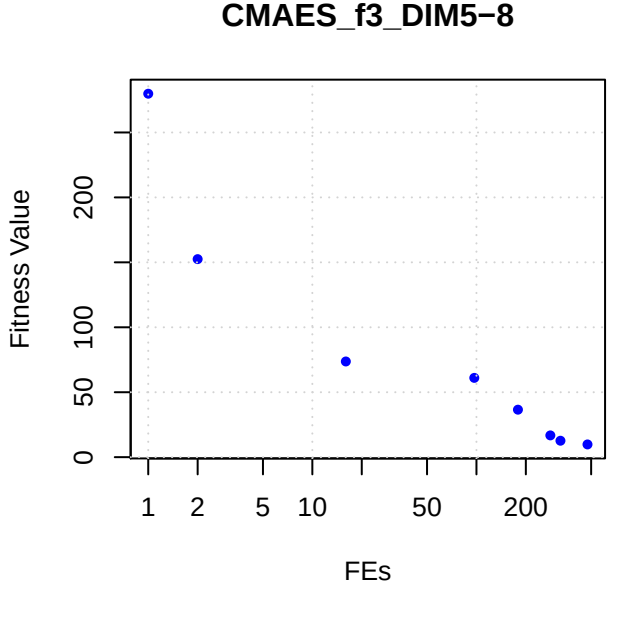
200
FEs


CMAES_f3_DIM5−8
Fitness Value
0
50
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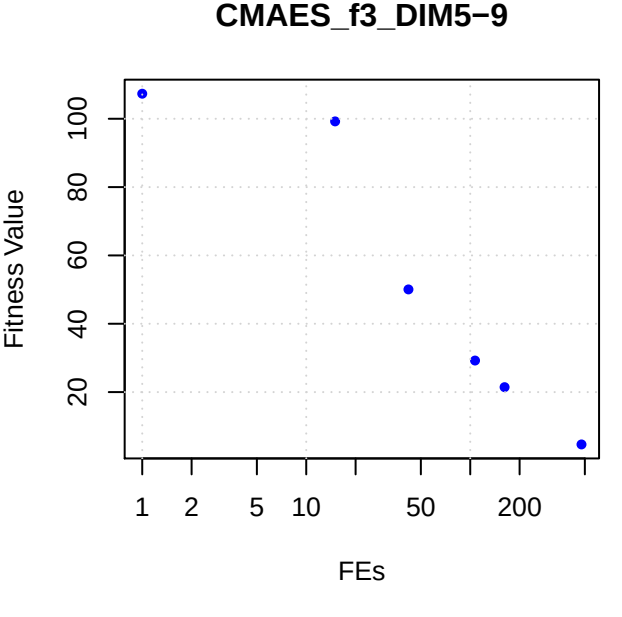
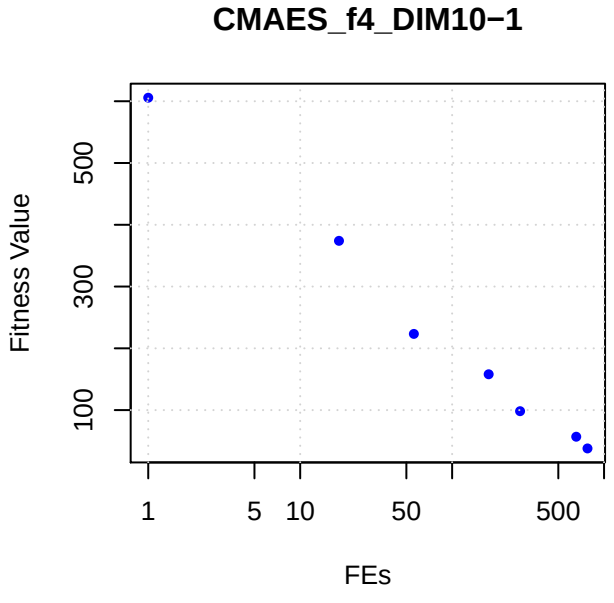
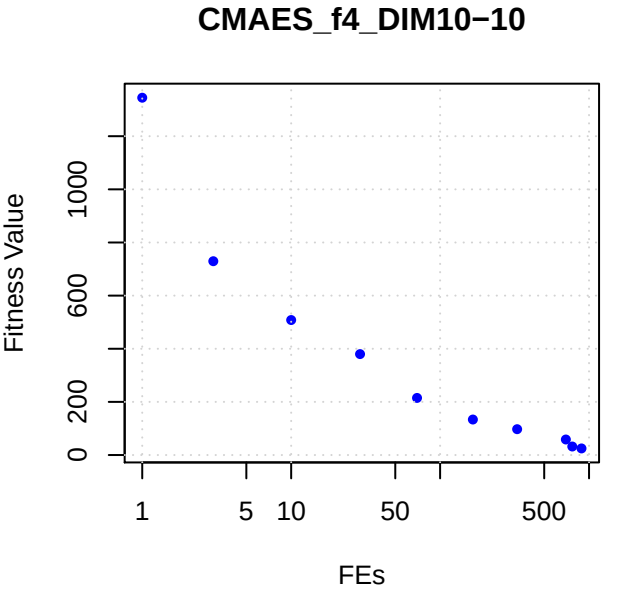
200
1
2
5
10
50
200
FEs


CMAES_f3_DIM5−9
Fitness Value
20
40
60
80
100
1
2
5
10
50
200
FEs


CMAES_f4_DIM10−1
Fitness Value
100
300
500
1
5
10
50
500
FEs


CMAES_f4_DIM10−10
Fitness Value
0
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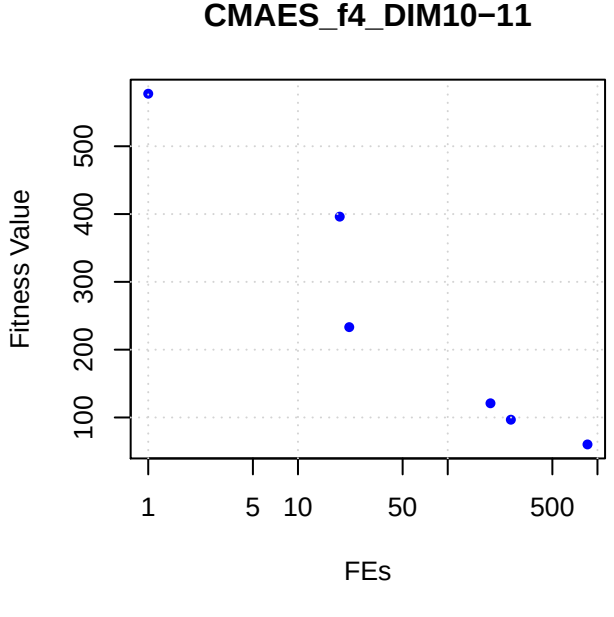
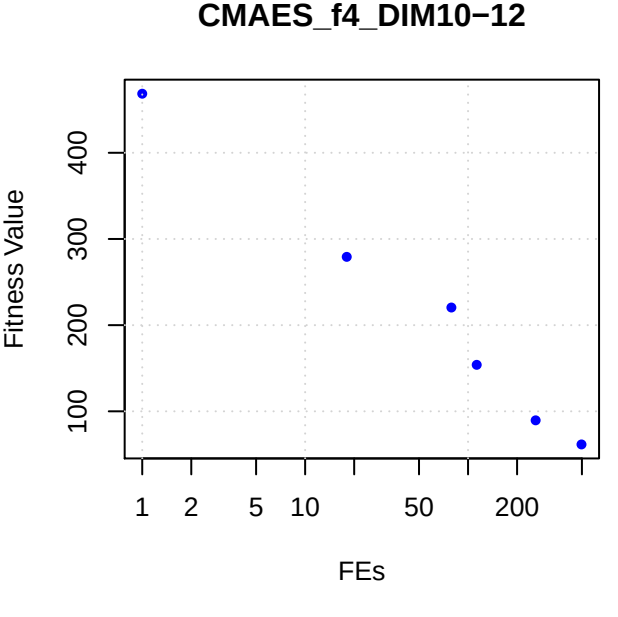
600
1000
1
5
10
50
500
FEs


CMAES_f4_DIM10−11
Fitness Value
100
200
300
400
500
1
5
10
50
500
FEs


CMAES_f4_DIM10−12
Fitness Value
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200
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400
1
2
5
10
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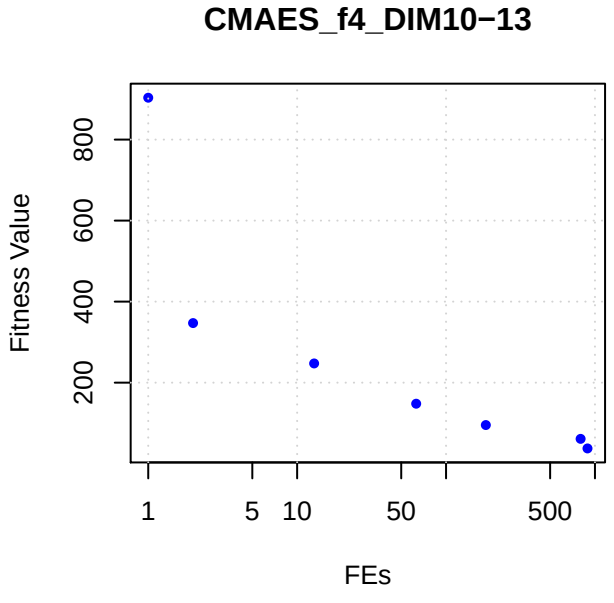
200
FEs


CMAES_f4_DIM10−13
Fitness Value
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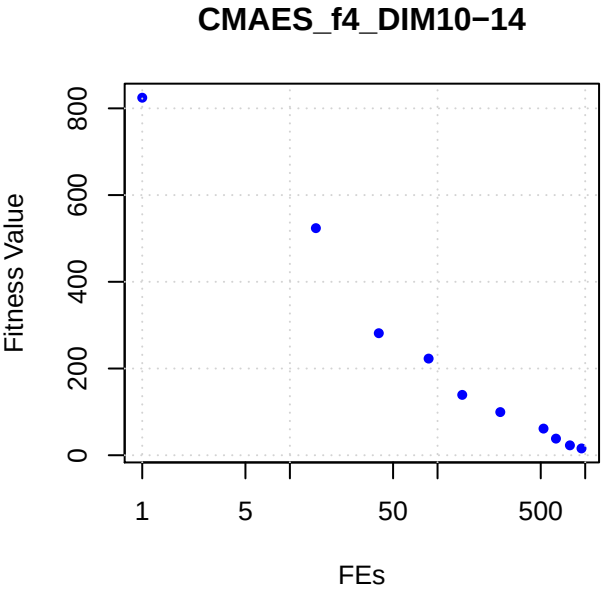
600
800
1
5
10
50
500
FEs


CMAES_f4_DIM10−14
Fitness Value
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1
5
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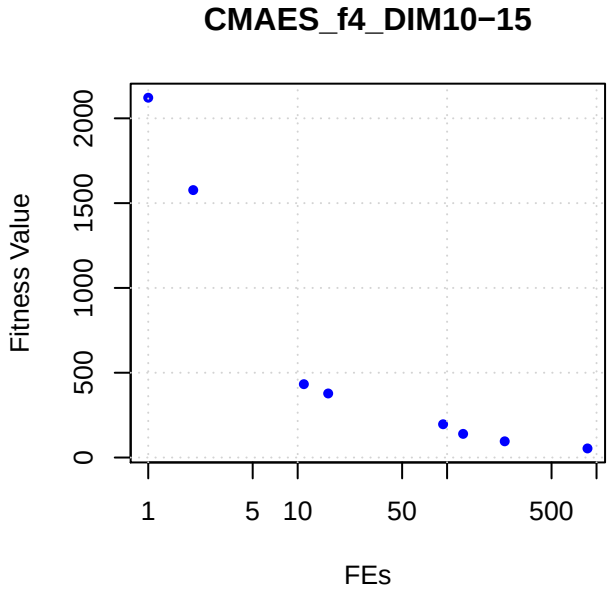
500
FEs


CMAES_f4_DIM10−15
Fitness Value
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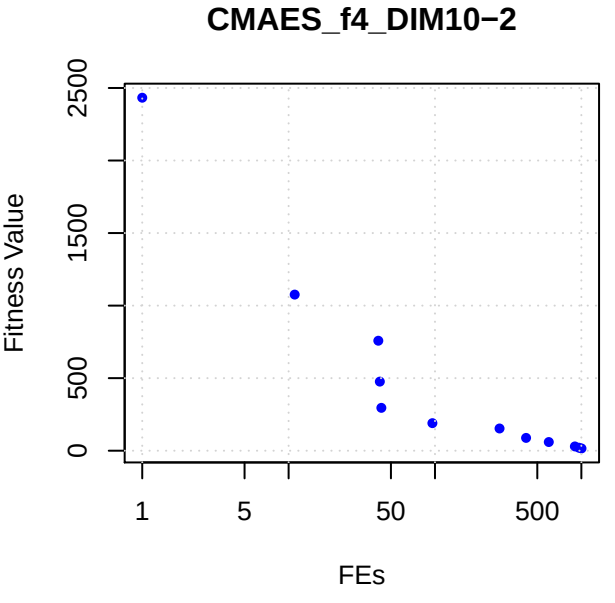
1500
2000
1
5
10
50
500
FEs


CMAES_f4_DIM10−2
Fitness Value
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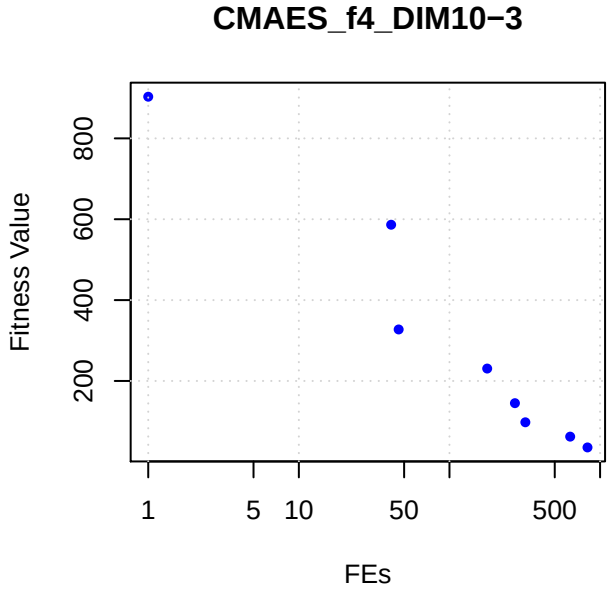
2500
1
5
50
500
FEs


CMAES_f4_DIM10−3
Fitness Value
200
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800
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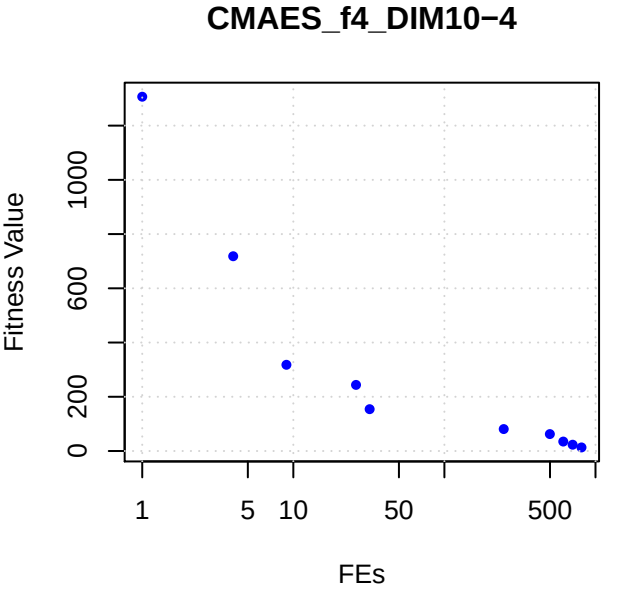
50
500
FEs


CMAES_f4_DIM10−4
Fitness Value
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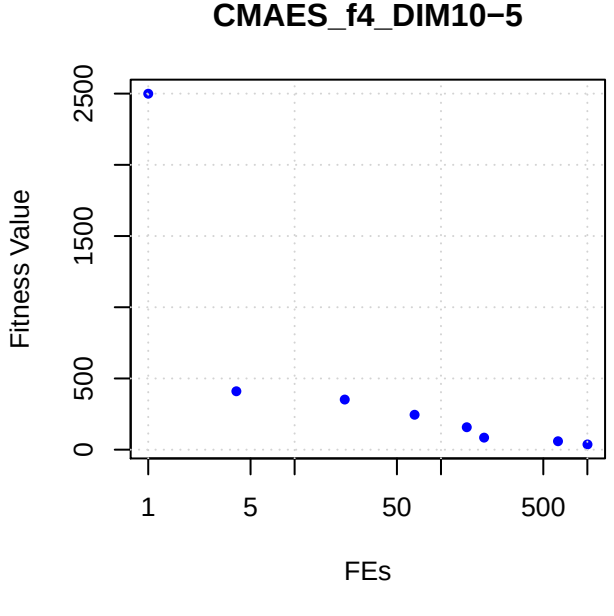
600
1000
1
5
10
50
500
FEs


CMAES_f4_DIM10−5
Fitness Value
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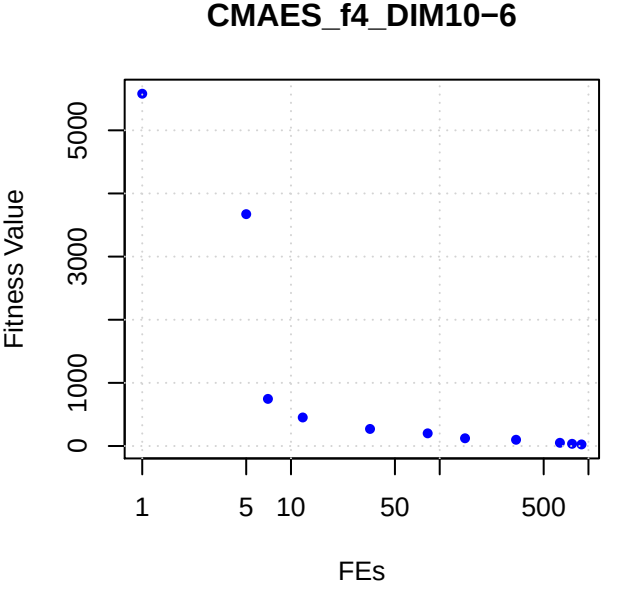
1500
2500
1
5
50
500
FEs


CMAES_f4_DIM10−6
Fitness Value
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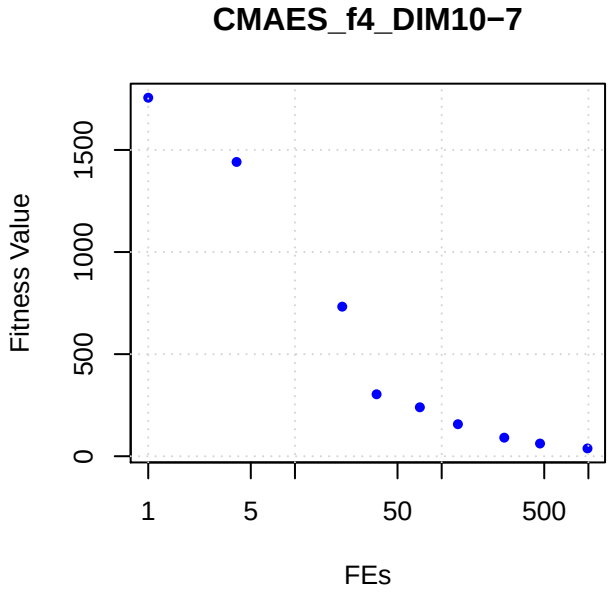
3000
5000
1
5
10
50
500
FEs


CMAES_f4_DIM10−7
Fitness Value
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1
5
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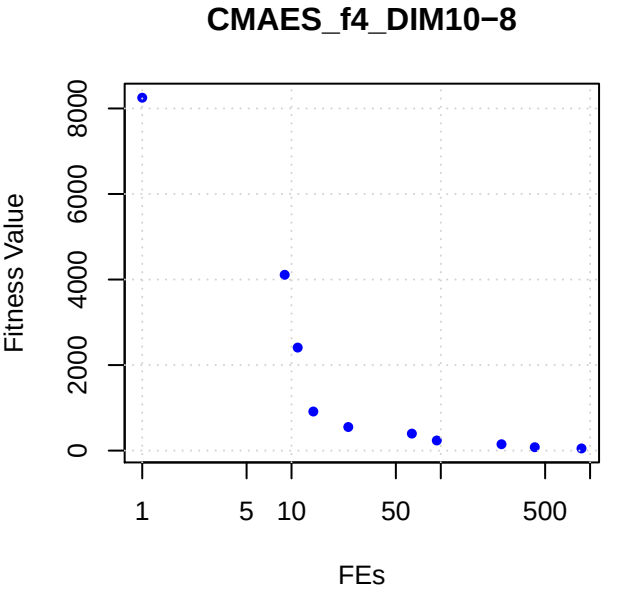
500
FEs


CMAES_f4_DIM10−8
Fitness Value
0
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6000
8000
1
5
10
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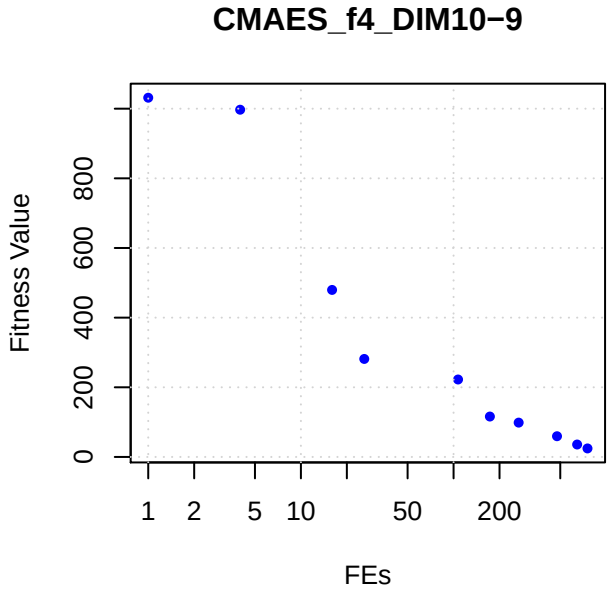
500
FEs


CMAES_f4_DIM10−9
Fitness Value
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400
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800
1
2
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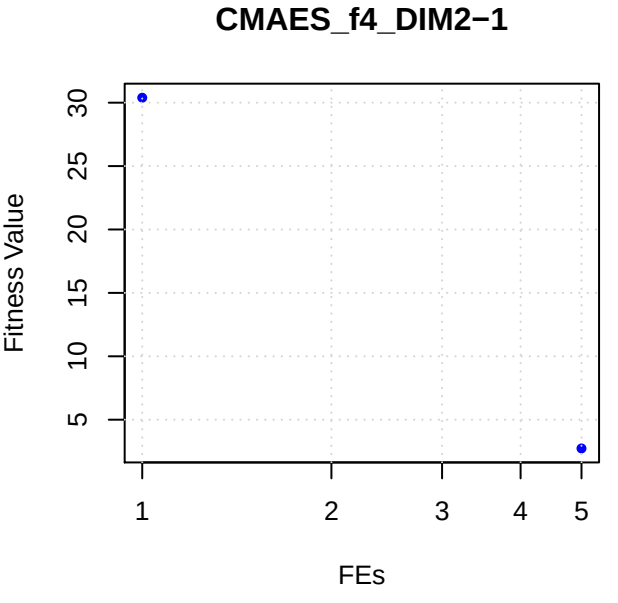
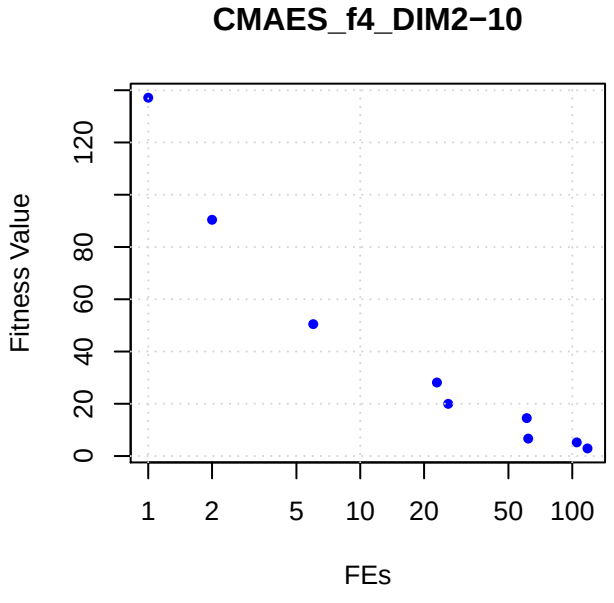
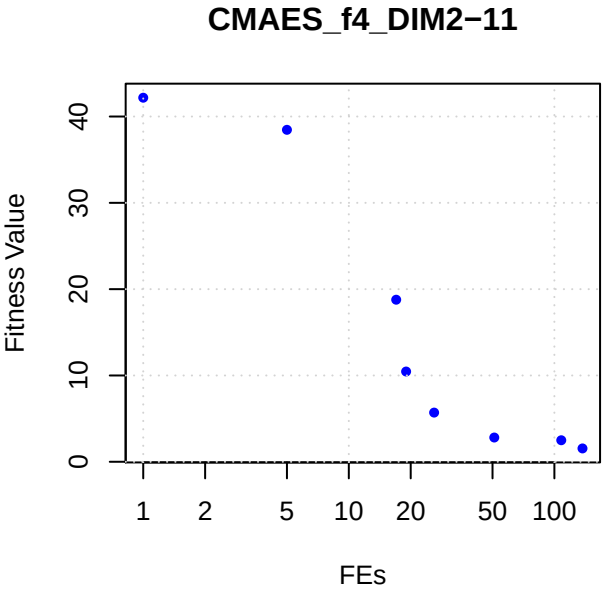
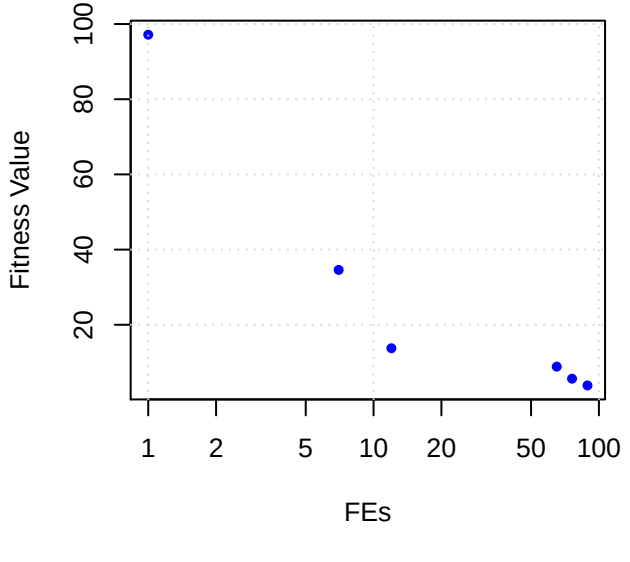
200
FEs


CMAES_f4_DIM2−1
Fitness Value
5
10
15
20
25
30
1
2
3
4
5
FEs


CMAES_f4_DIM2−10
Fitness Value
0
20
40
60
80
120
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM2−11
Fitness Value
0
10
20
30
40
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM2−12
Fitness Value
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60
80
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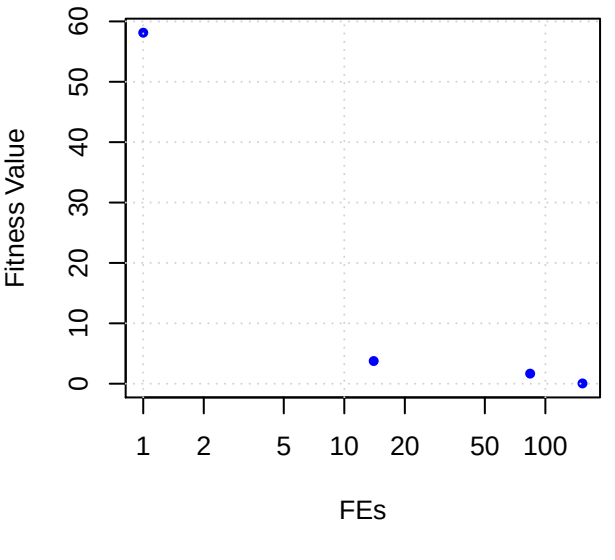
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM2−13
Fitness Value
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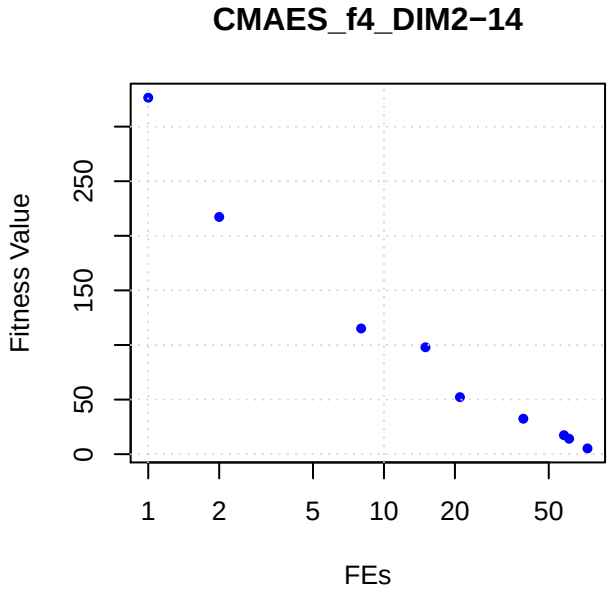
10
20
30
40
50
60
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM2−14
Fitness Value
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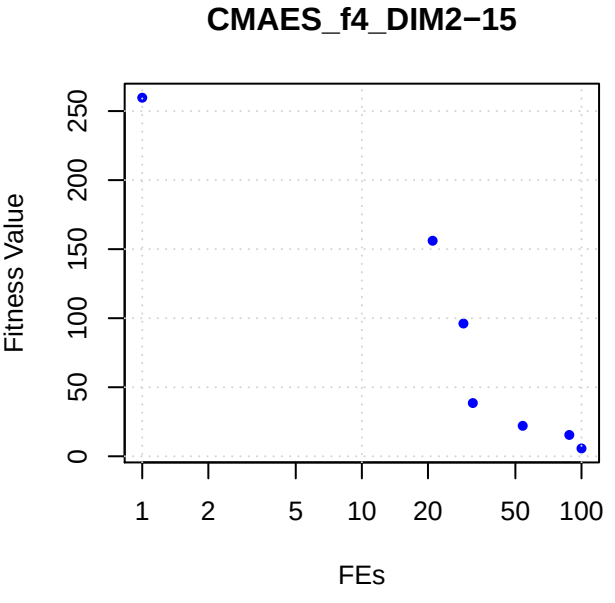
250
1
2
5
10
20
50
FEs


CMAES_f4_DIM2−15
Fitness Value
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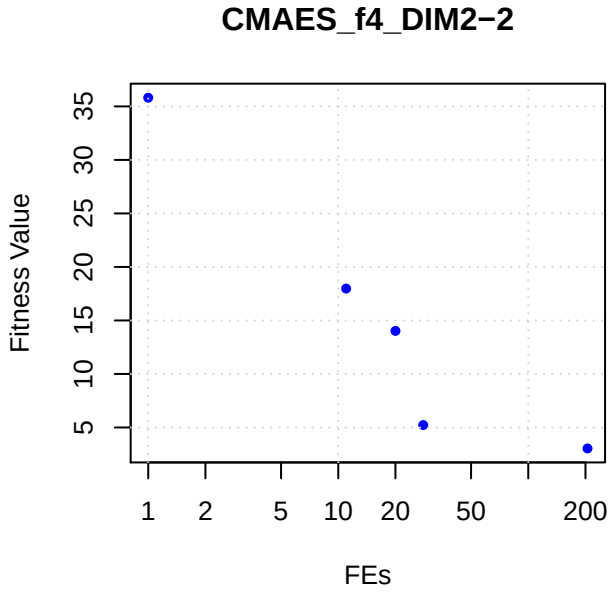
150
200
250
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM2−2
Fitness Value
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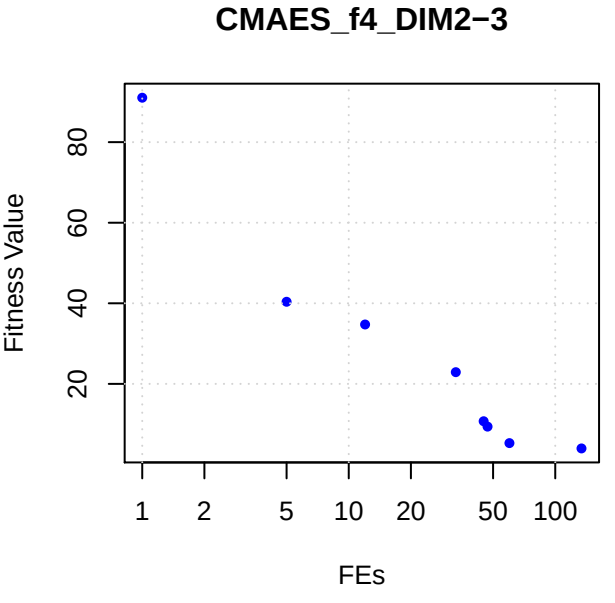
20
25
30
35
1
2
5
10
20
50
200
FEs


CMAES_f4_DIM2−3
Fitness Value
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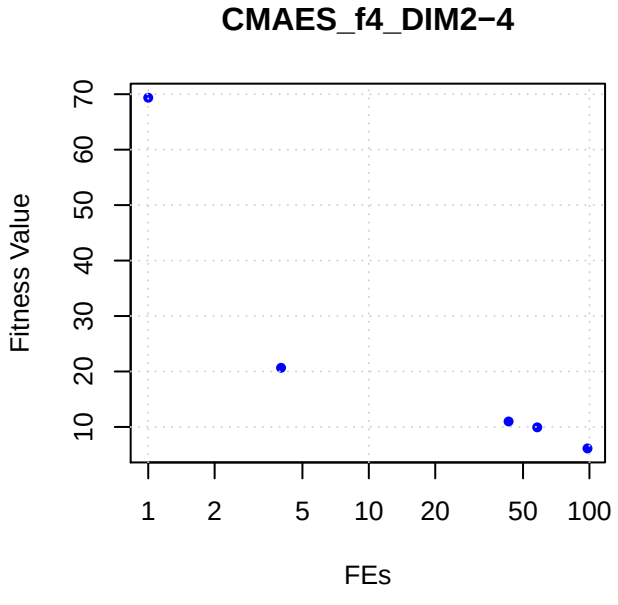
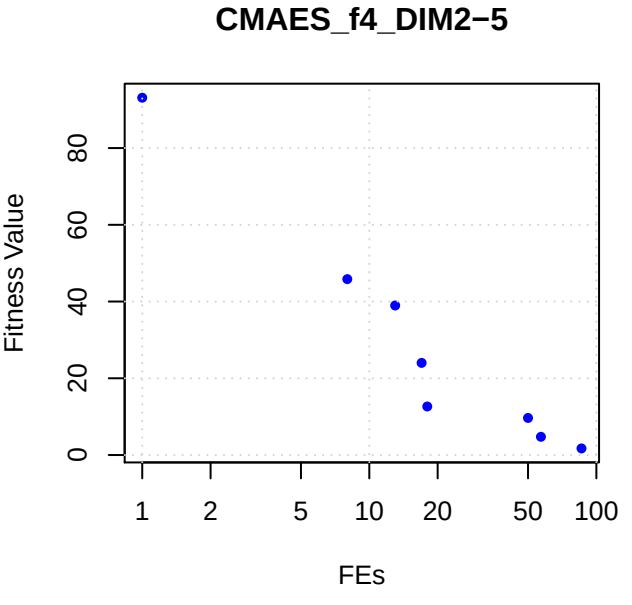
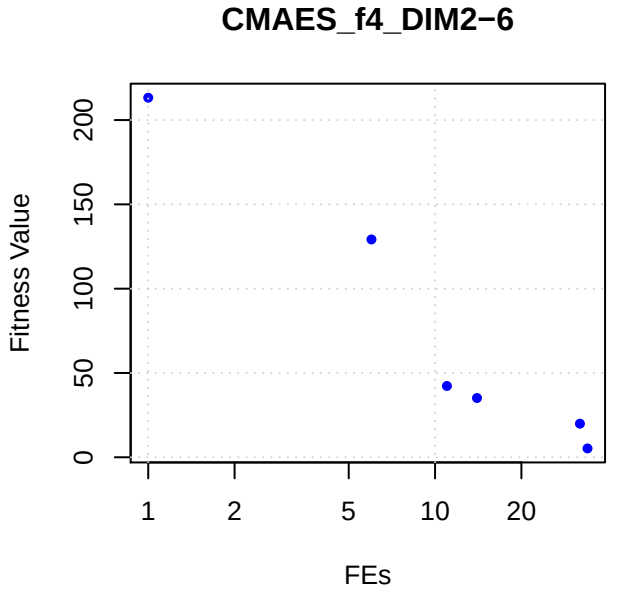
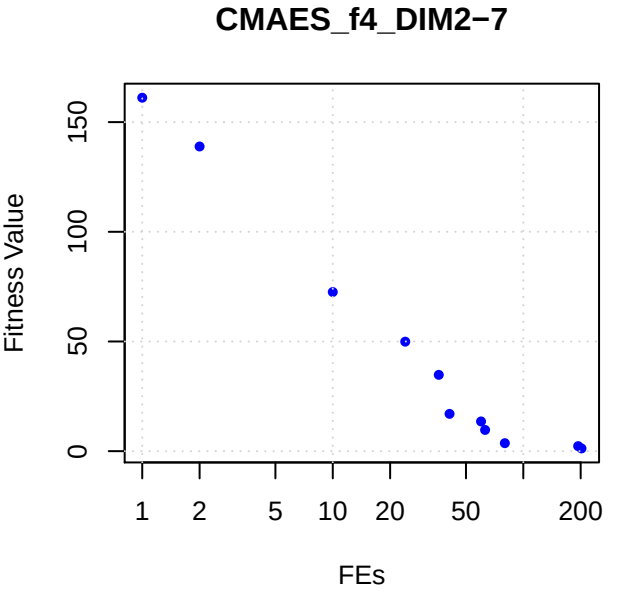
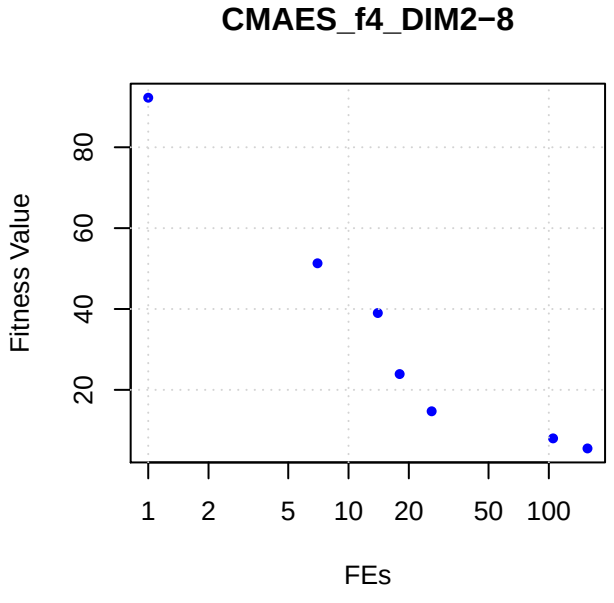
40
60
80
1
2
5
10
20
50
100
FEs

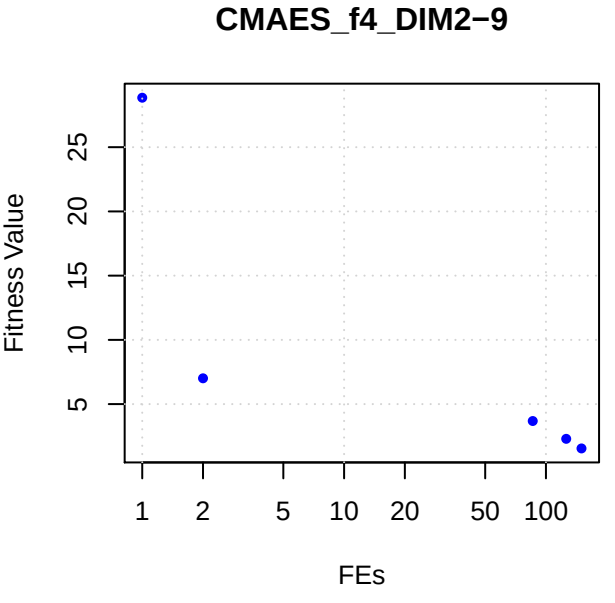

CMAES_f4_DIM2−4
Fitness Value
10
20
30
40
50
60
70
1
2
5
10
20
50
100
FEs

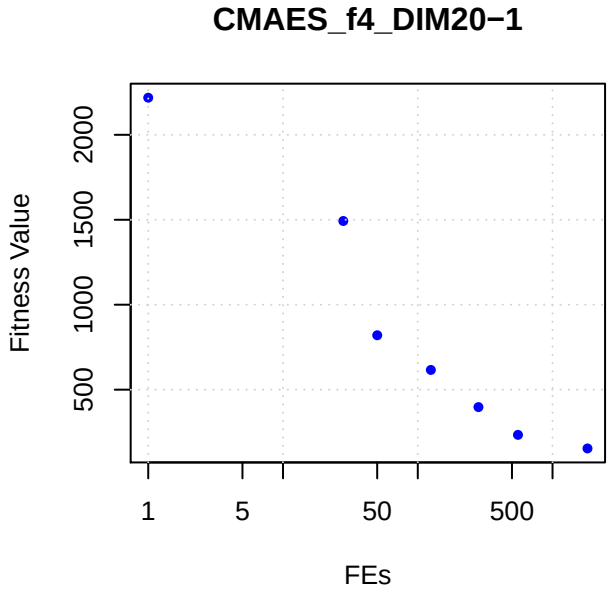

CMAES_f4_DIM2−5
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
100
FEs

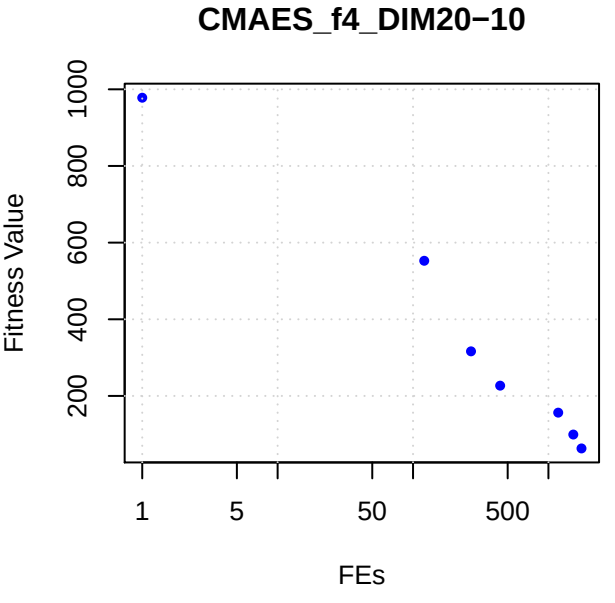

CMAES_f4_DIM2−6
Fitness Value
0
50
100
150
200
1
2
5
10
20
FEs

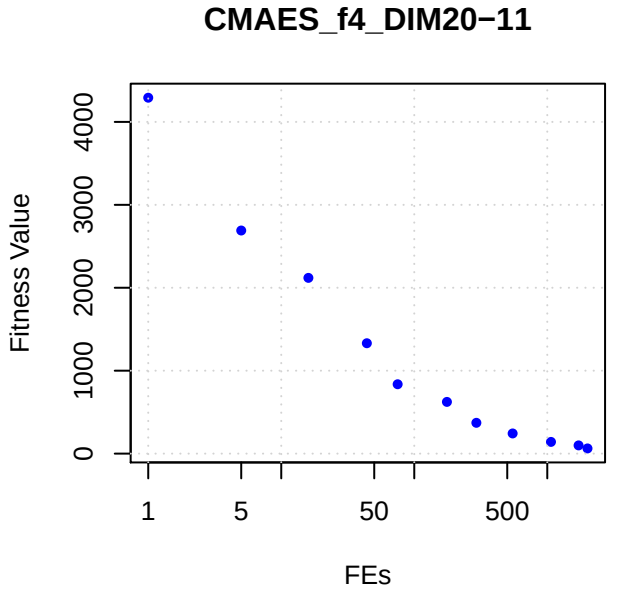

CMAES_f4_DIM2−7
Fitness Value
0
50
100
150
1
2
5
10
20
50
200
FEs

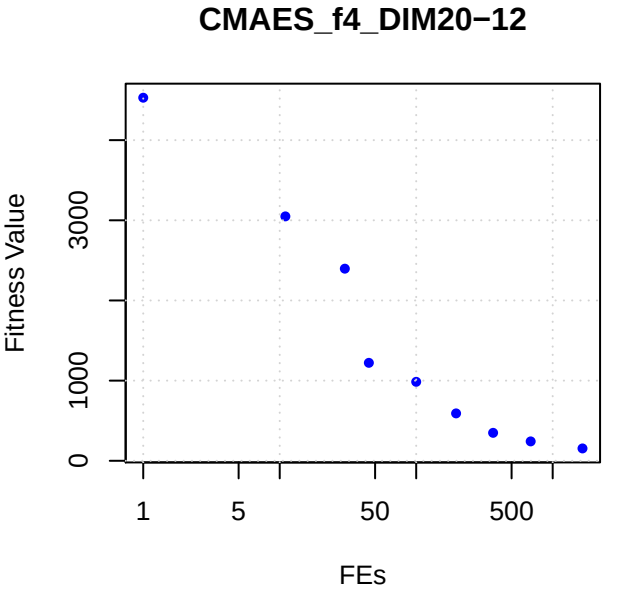

CMAES_f4_DIM2−8
Fitness Value
20
40
60
80
1
2
5
10
20
50
100
FEs

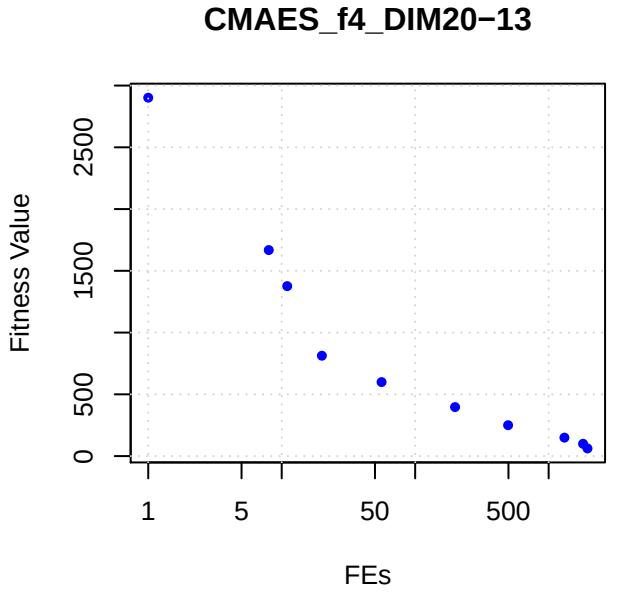

CMAES_f4_DIM2−9
Fitness Value
5
10
15
20
25
1
2
5
10
20
50
100
FEs

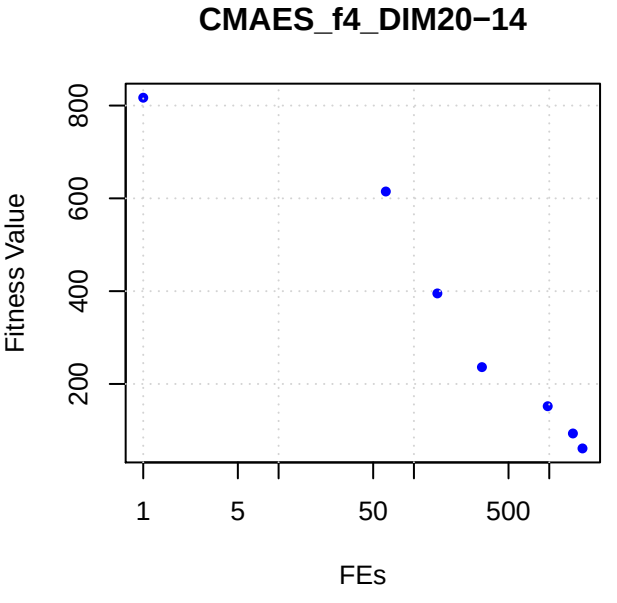

CMAES_f4_DIM20−1
Fitness Value
500
1000
1500
2000
1
5
50
500
FEs

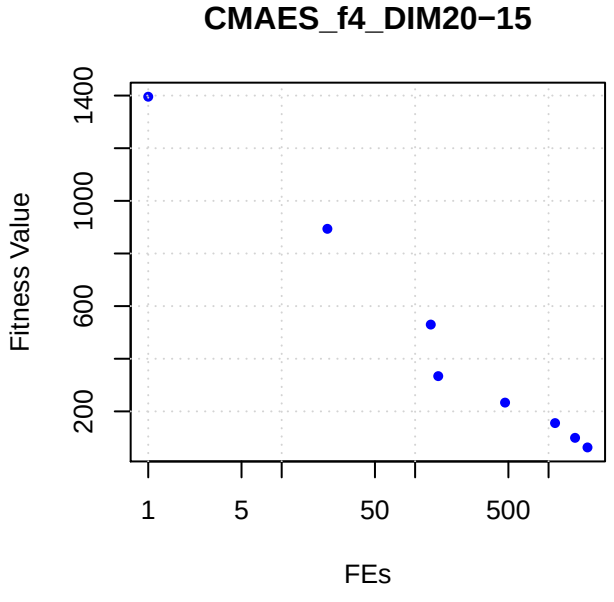

CMAES_f4_DIM20−10
Fitness Value
200
400
600
800
1000
1
5
50
500
FEs

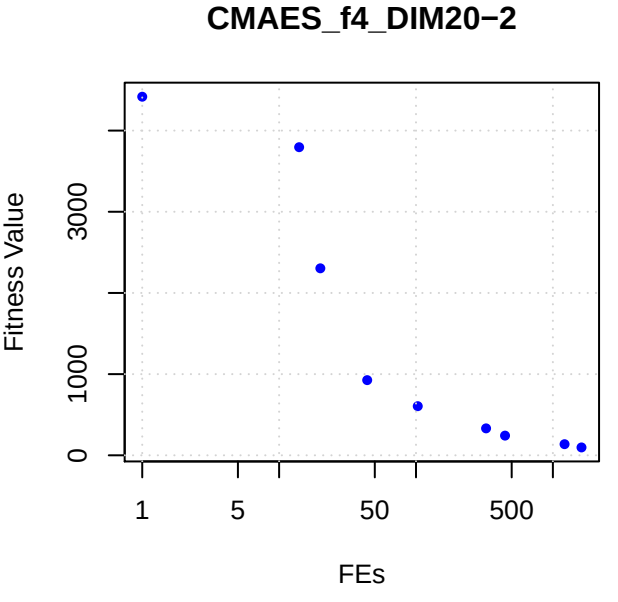

CMAES_f4_DIM20−11
Fitness Value
0
1000
2000
3000
4000
1
5
50
500
FEs

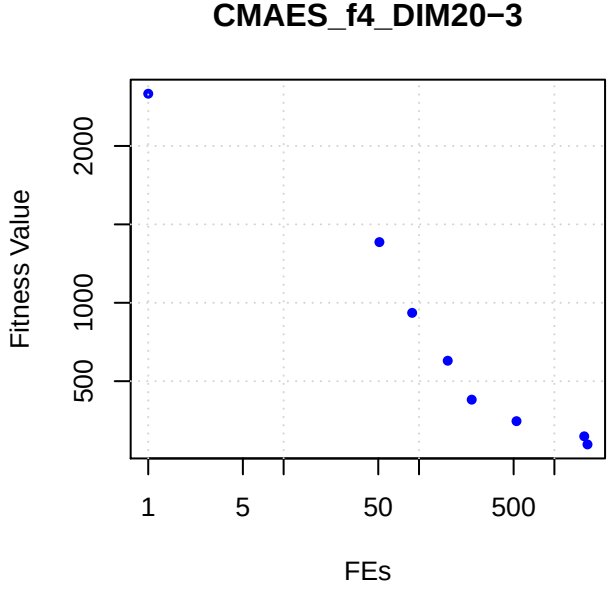

CMAES_f4_DIM20−12
Fitness Value
0
1000
3000
1
5
50
500
FEs

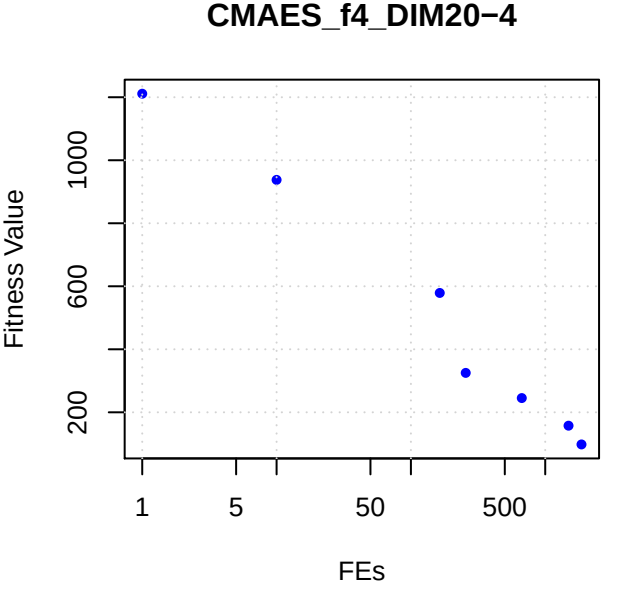

CMAES_f4_DIM20−13
Fitness Value
0
500
1500
2500
1
5
50
500
FEs

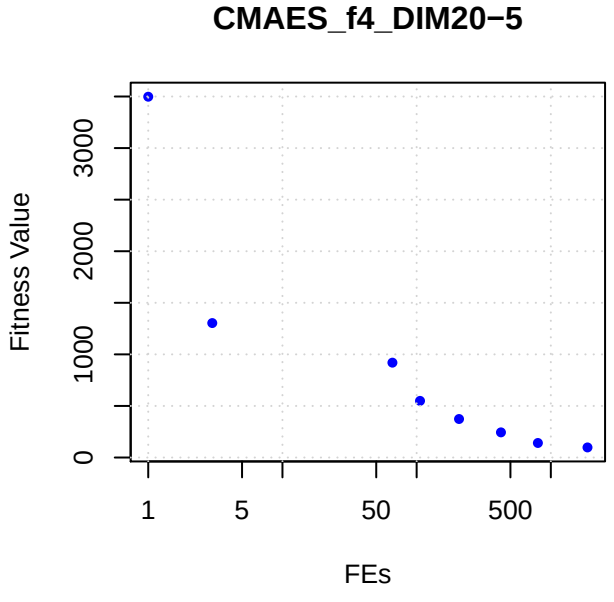

CMAES_f4_DIM20−14
Fitness Value
200
400
600
800
1
5
50
500
FEs


CMAES_f4_DIM20−15
Fitness Value
200
600
1000
1400
1
5
50
500
FEs


CMAES_f4_DIM20−2
Fitness Value
0
1000
3000
1
5
50
500
FEs


CMAES_f4_DIM20−3
Fitness Value
500
1000
2000
1
5
50
500
FEs


CMAES_f4_DIM20−4
Fitness Value
200
600
1000
1
5
50
500
FEs


CMAES_f4_DIM20−5
Fitness Value
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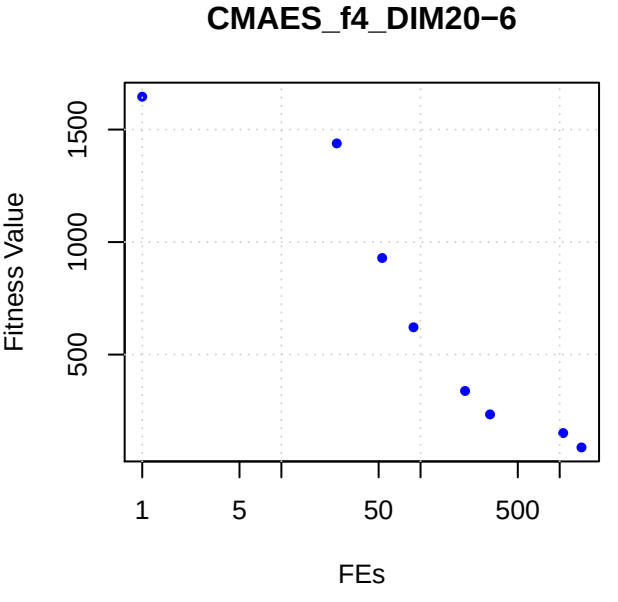
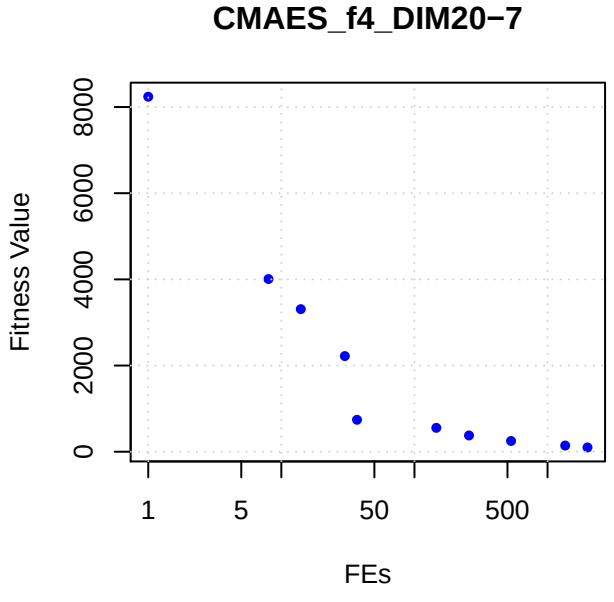
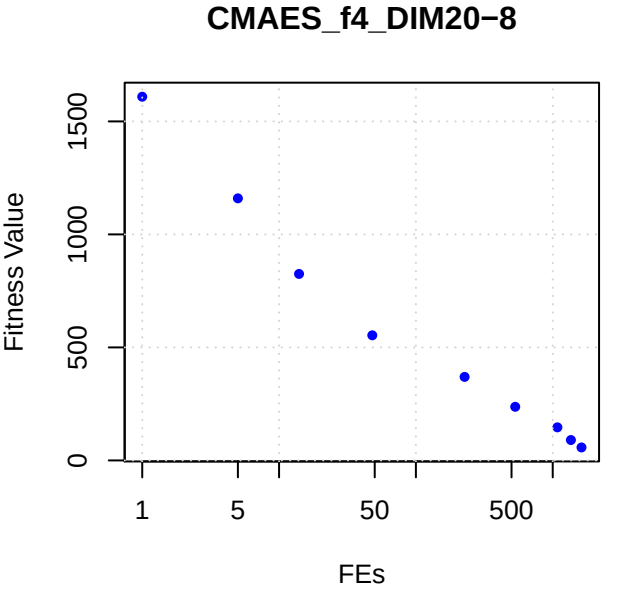
1000
2000
3000
1
5
50
500
FEs


CMAES_f4_DIM20−6
Fitness Value
500
1000
1500
1
5
50
500
FEs


CMAES_f4_DIM20−7
Fitness Value
0
2000
4000
6000
8000
1
5
50
500
FEs


CMAES_f4_DIM20−8
Fitness Value
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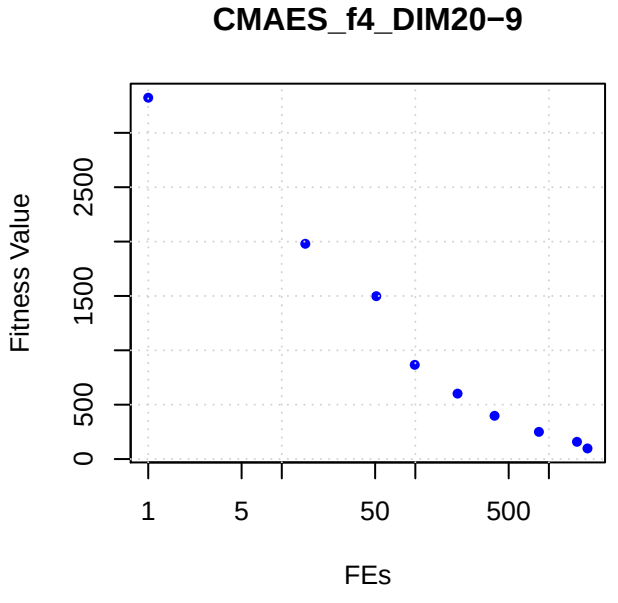
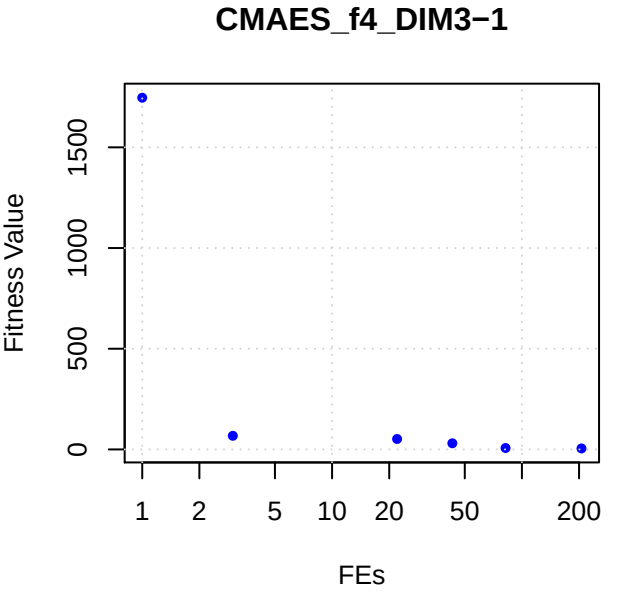
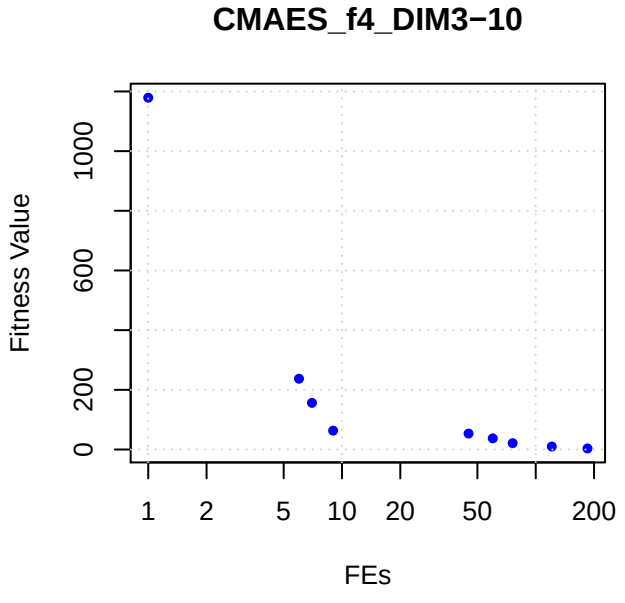
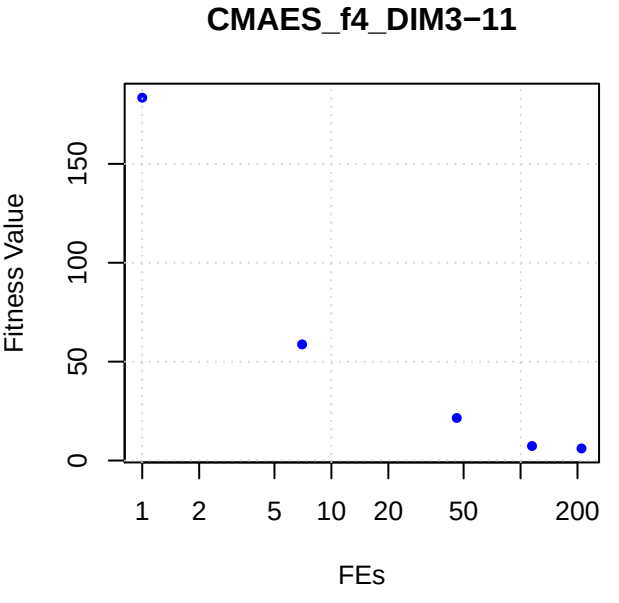
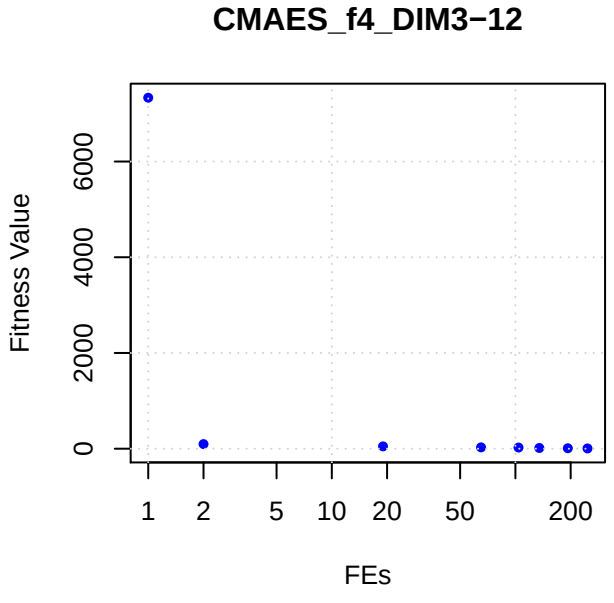
500
1000
1500
1
5
50
500
FEs

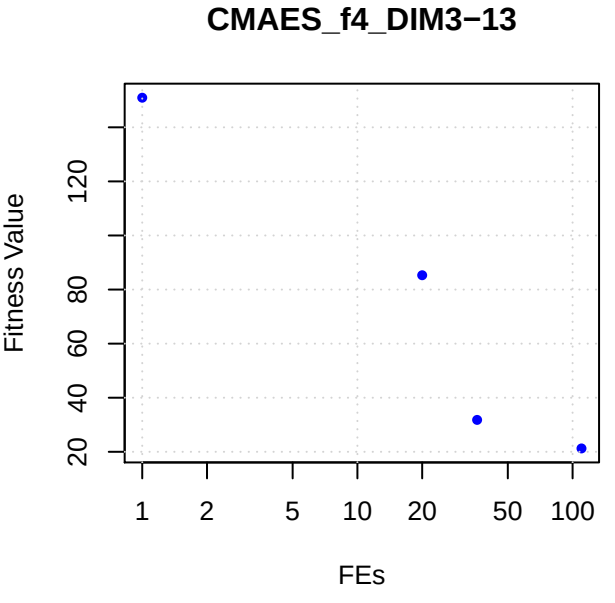

CMAES_f4_DIM20−9
Fitness Value
0
500
1500
2500
1
5
50
500
FEs

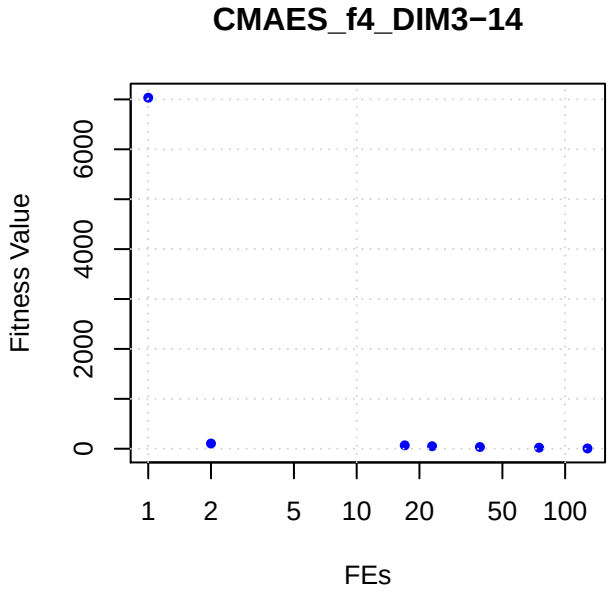

CMAES_f4_DIM3−1
Fitness Value
0
500
1000
1500
1
2
5
10
20
50
200
FEs

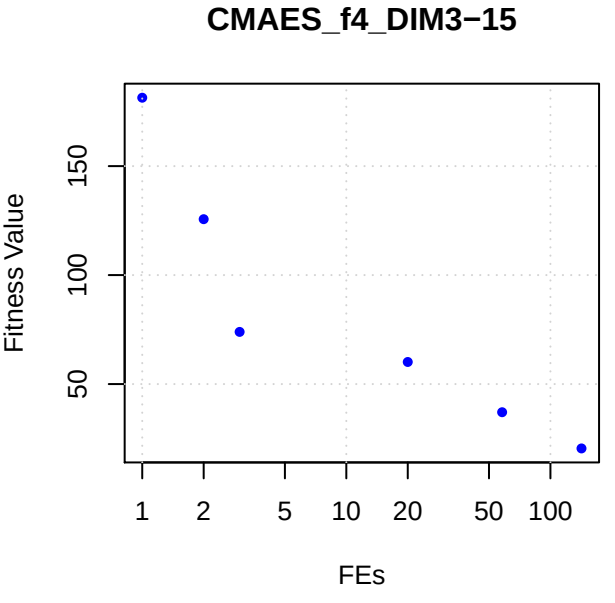

CMAES_f4_DIM3−10
Fitness Value
0
200
600
1000
1
2
5
10
20
50
200
FEs

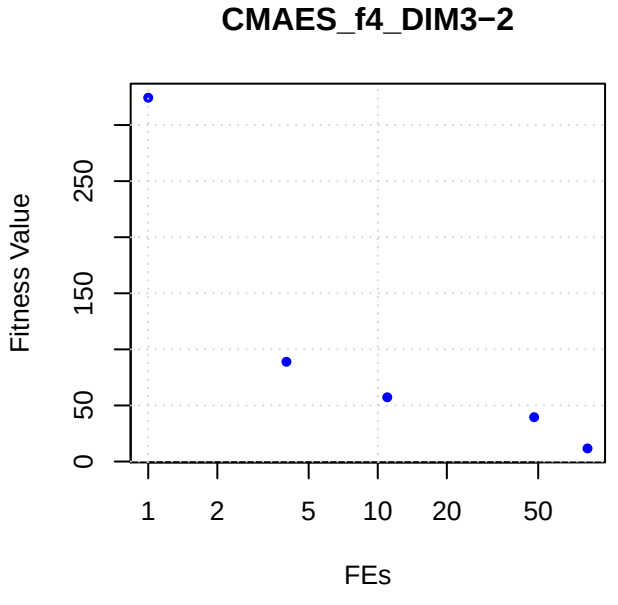

CMAES_f4_DIM3−11
Fitness Value
0
50
100
150
1
2
5
10
20
50
200
FEs


CMAES_f4_DIM3−12
Fitness Value
0
2000
4000
6000
1
2
5
10
20
50
200
FEs


CMAES_f4_DIM3−13
Fitness Value
20
40
60
80
120
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM3−14
Fitness Value
0
2000
4000
6000
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM3−15
Fitness Value
50
100
150
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM3−2
Fitness Value
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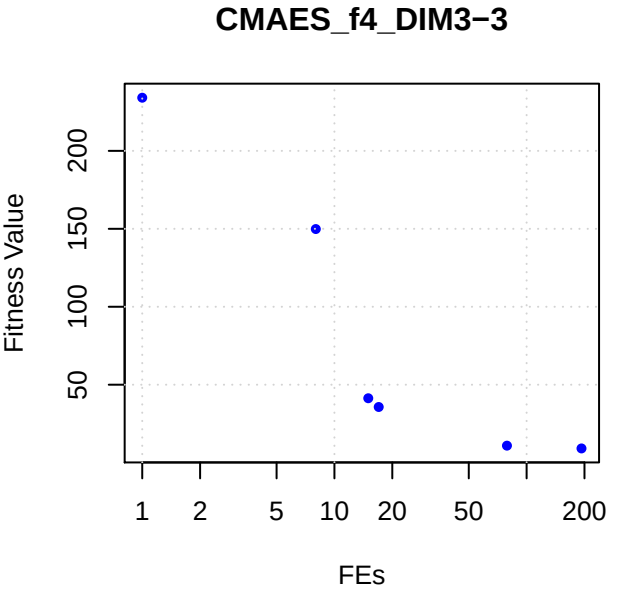
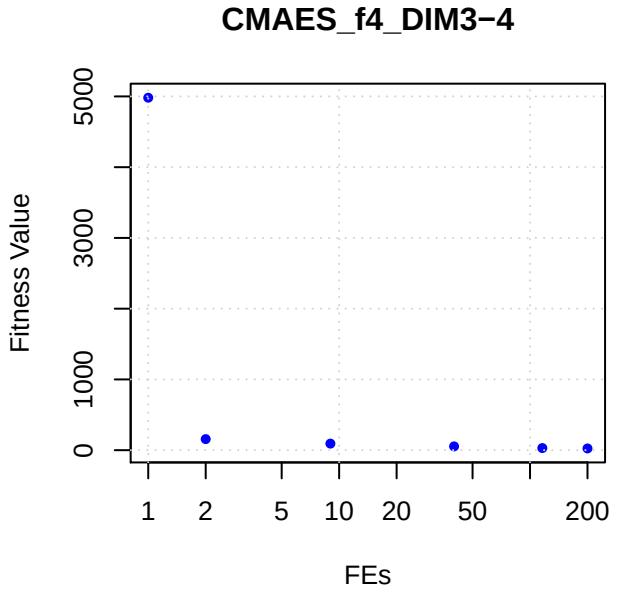
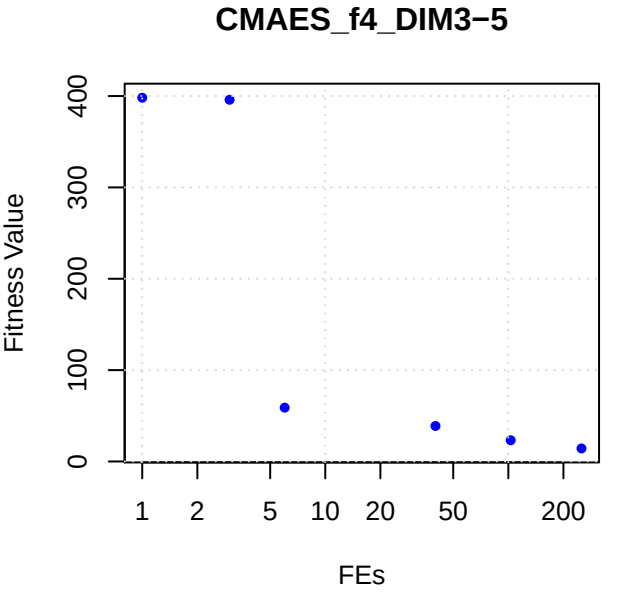
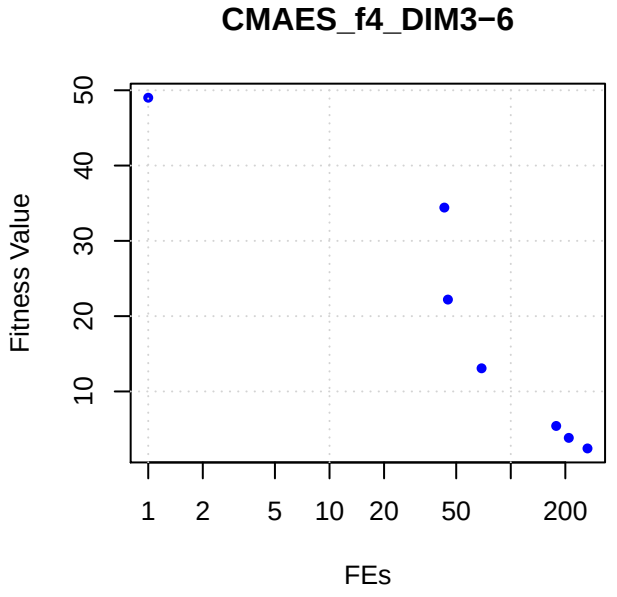
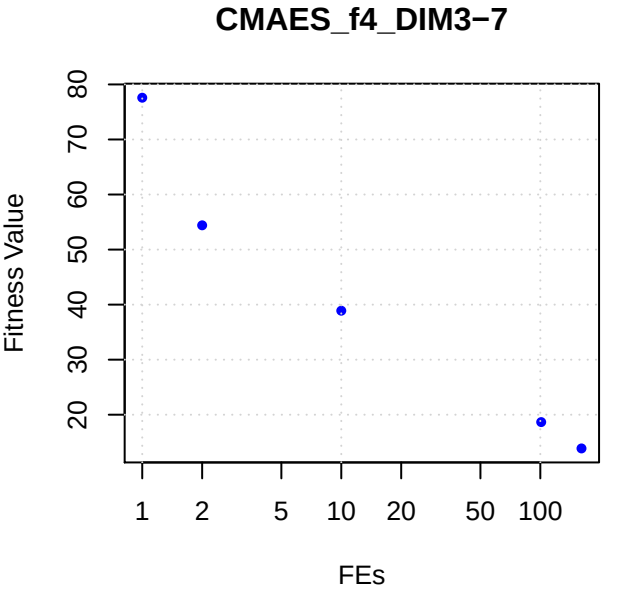
50
150
250
1
2
5
10
20
50
FEs

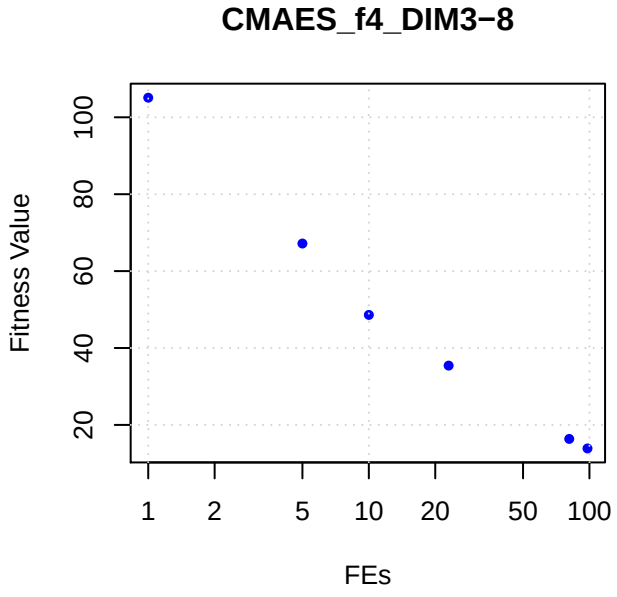

CMAES_f4_DIM3−3
Fitness Value
50
100
150
200
1
2
5
10
20
50
200
FEs

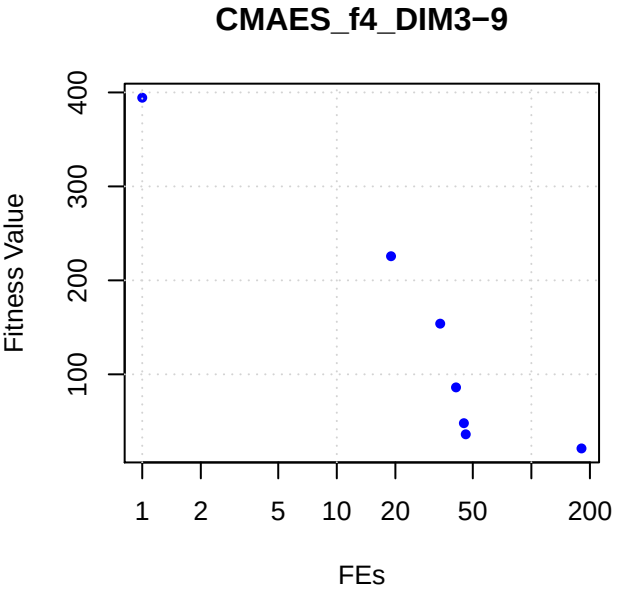

CMAES_f4_DIM3−4
Fitness Value
0
1000
3000
5000
1
2
5
10
20
50
200
FEs


CMAES_f4_DIM3−5
Fitness Value
0
100
200
300
400
1
2
5
10
20
50
200
FEs


CMAES_f4_DIM3−6
Fitness Value
10
20
30
40
50
1
2
5
10
20
50
200
FEs


CMAES_f4_DIM3−7
Fitness Value
20
30
40
50
60
70
80
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM3−8
Fitness Value
20
40
60
80
100
1
2
5
10
20
50
100
FEs


CMAES_f4_DIM3−9
Fitness Value
100
200
300
400
1
2
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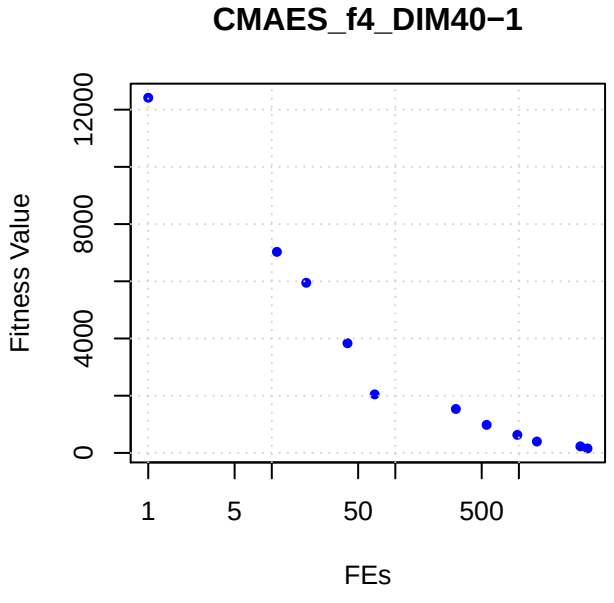
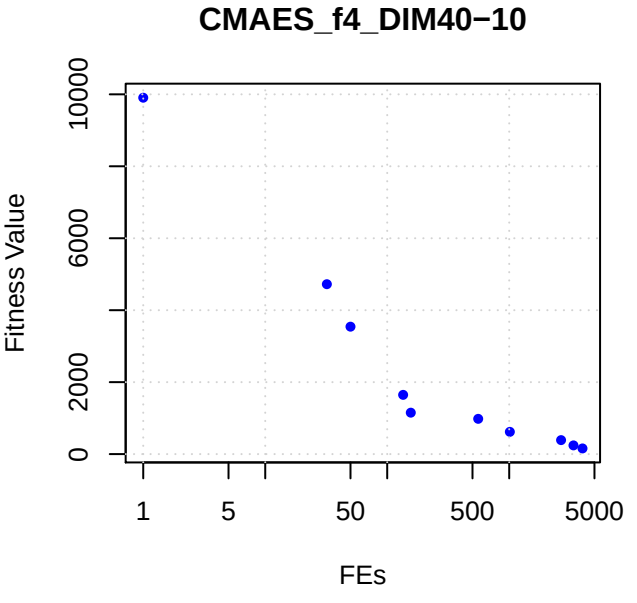
10
20
50
200
FEs


CMAES_f4_DIM40−1
Fitness Value
0
4000
8000
12000
1
5
50
500
FEs


CMAES_f4_DIM40−10
Fitness Value
0
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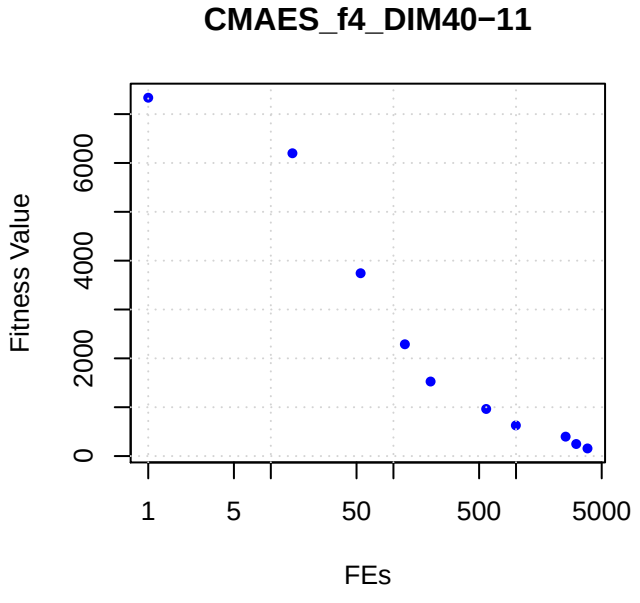
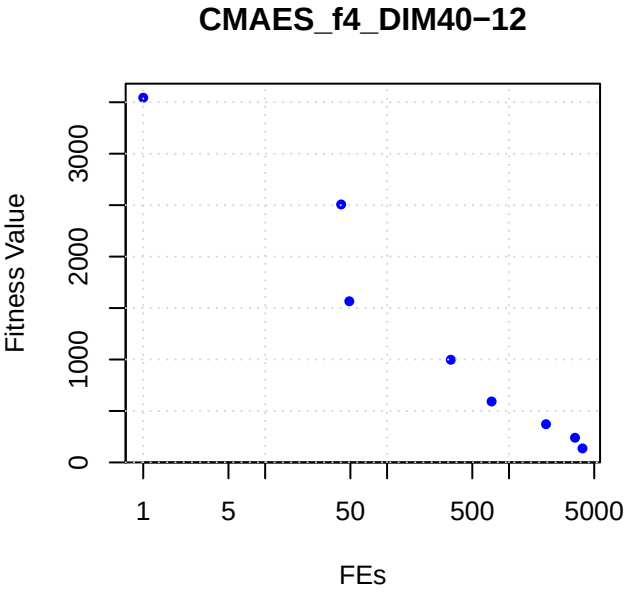
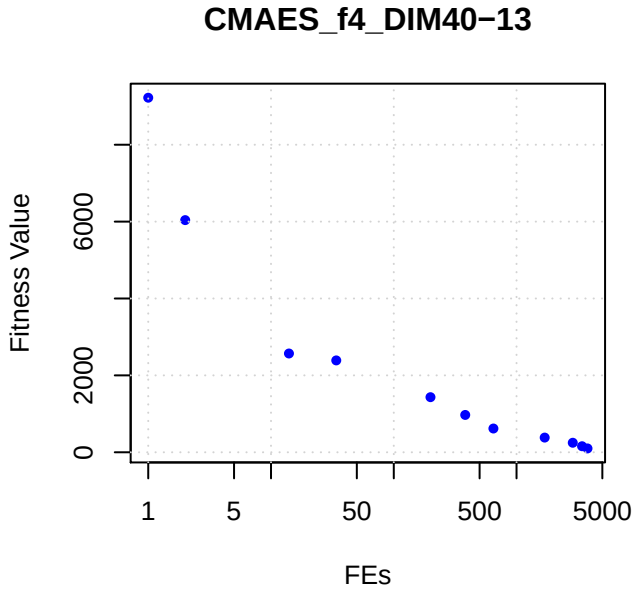
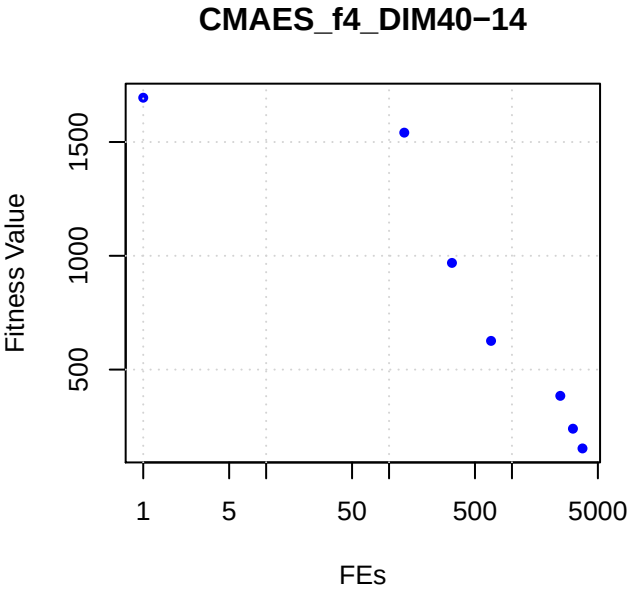
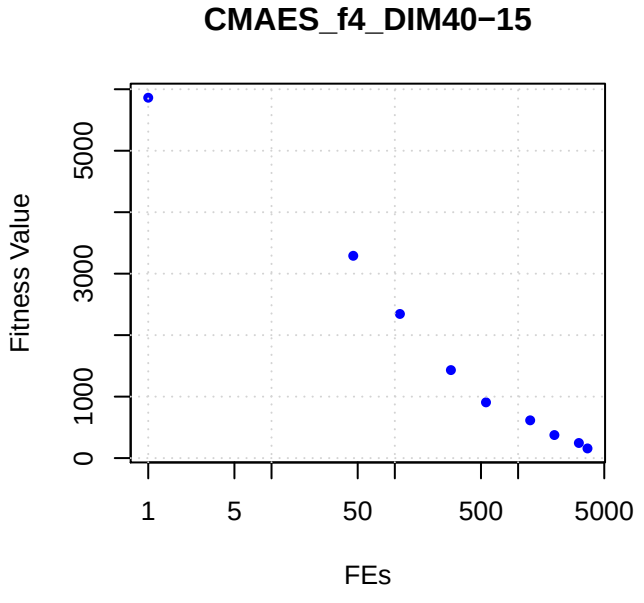
6000
10000
1
5
50
500
5000
FEs

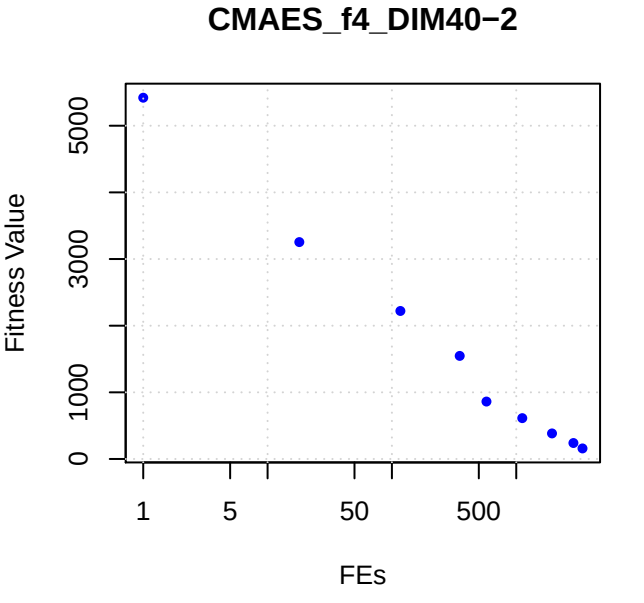

CMAES_f4_DIM40−11
Fitness Value
0
2000
4000
6000
1
5
50
500
5000
FEs


CMAES_f4_DIM40−12
Fitness Value
0
1000
2000
3000
1
5
50
500
5000
FEs


CMAES_f4_DIM40−13
Fitness Value
0
2000
6000
1
5
50
500
5000
FEs


CMAES_f4_DIM40−14
Fitness Value
500
1000
1500
1
5
50
500
5000
FEs


CMAES_f4_DIM40−15
Fitness Value
0
1000
3000
5000
1
5
50
500
5000
FEs


CMAES_f4_DIM40−2
Fitness Value
0
1000
3000
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1
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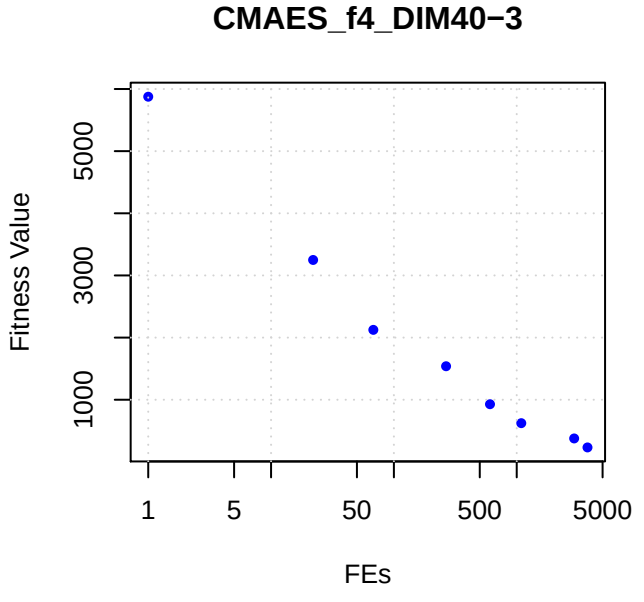
500
FEs


CMAES_f4_DIM40−3
Fitness Value
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1
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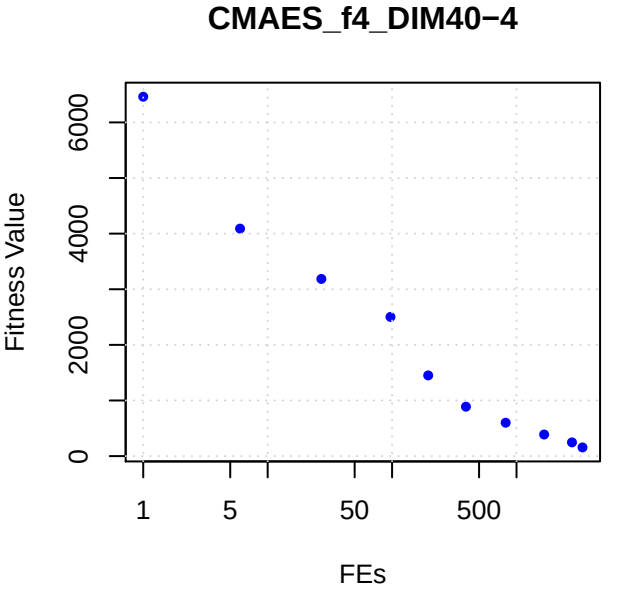
50
500
5000
FEs


CMAES_f4_DIM40−4
Fitness Value
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6000
1
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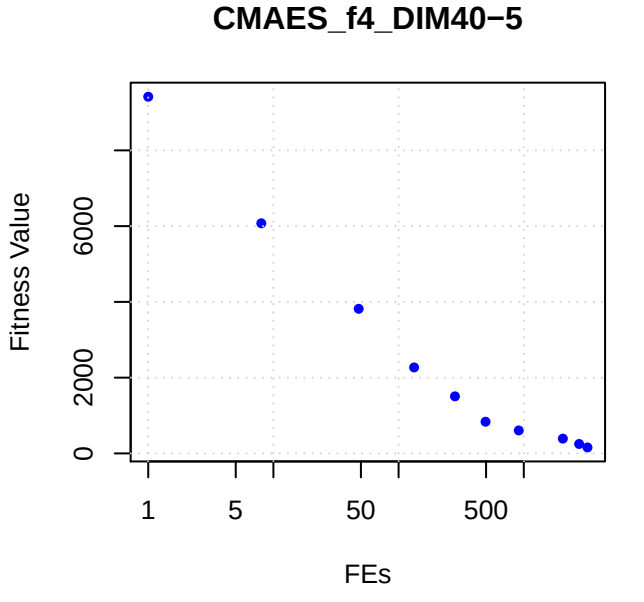
50
500
FEs


CMAES_f4_DIM40−5
Fitness Value
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1
5
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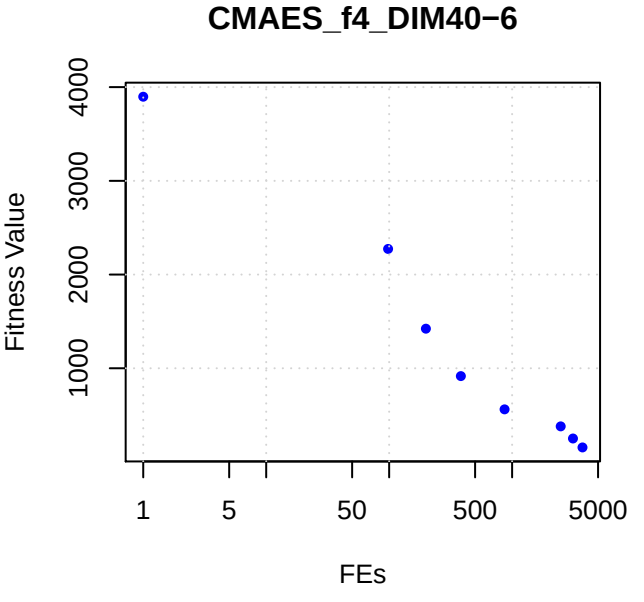
500
FEs


CMAES_f4_DIM40−6
Fitness Value
1000
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3000
4000
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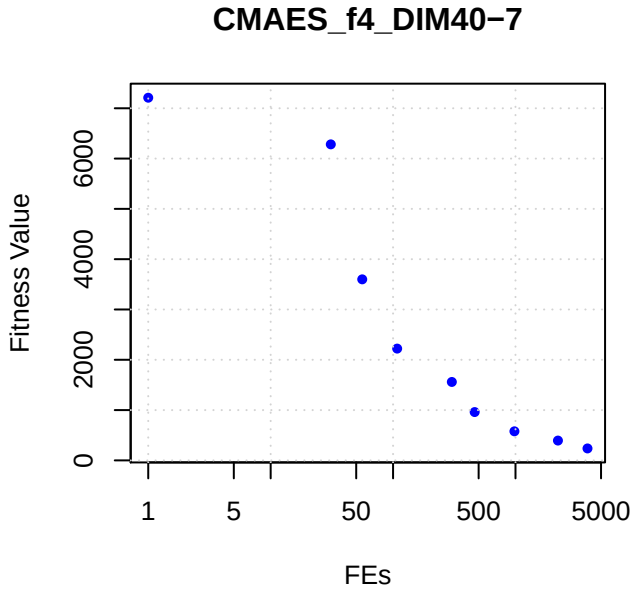
50
500
5000
FEs


CMAES_f4_DIM40−7
Fitness Value
0
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4000
6000
1
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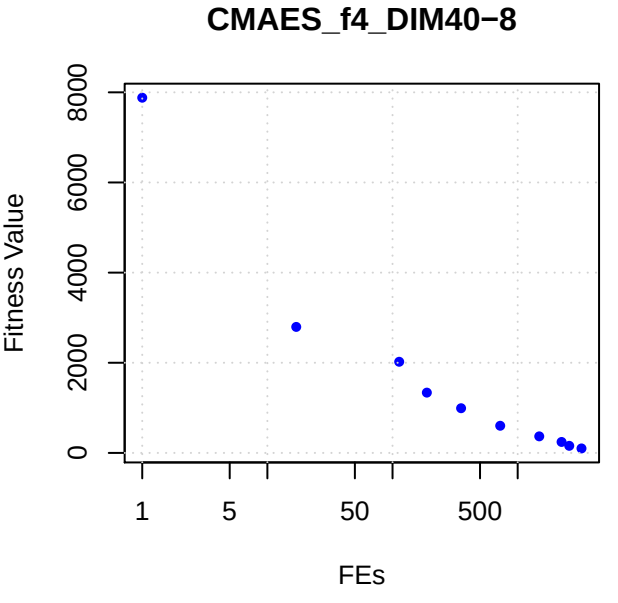
50
500
5000
FEs


CMAES_f4_DIM40−8
Fitness Value
0
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8000
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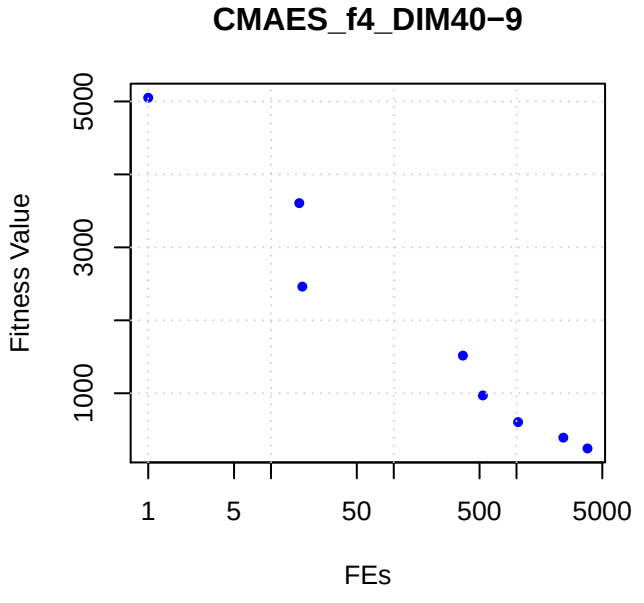
FEs


CMAES_f4_DIM40−9
Fitness Value
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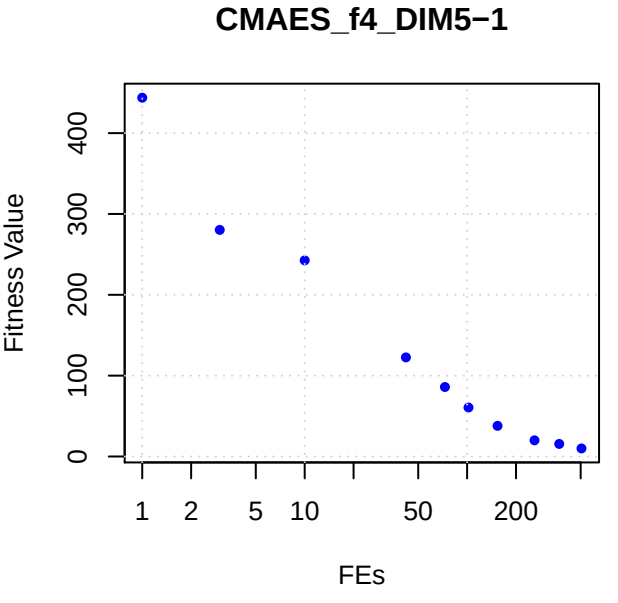
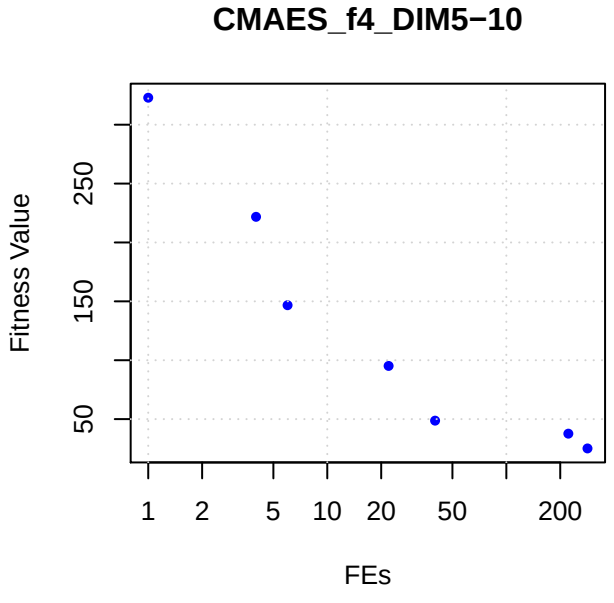
3000
5000
1
5
50
500
5000
FEs


CMAES_f4_DIM5−1
Fitness Value
0
100
200
300
400
1
2
5
10
50
200
FEs


CMAES_f4_DIM5−10
Fitness Value
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150
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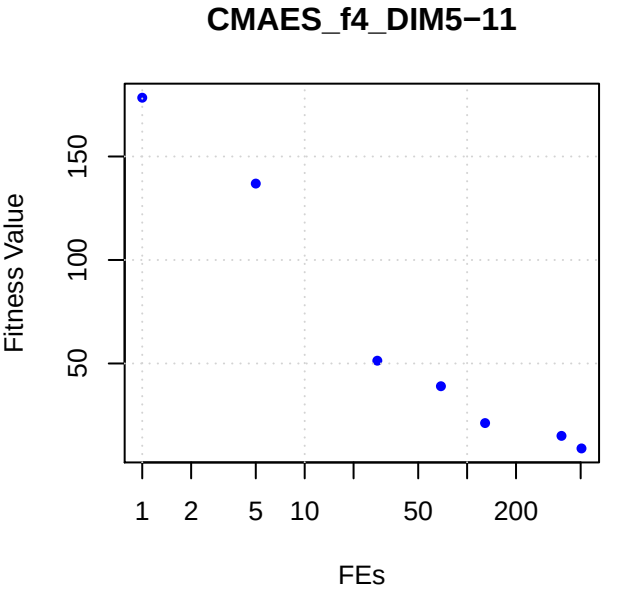
1
2
5
10
20
50
200
FEs


CMAES_f4_DIM5−11
Fitness Value
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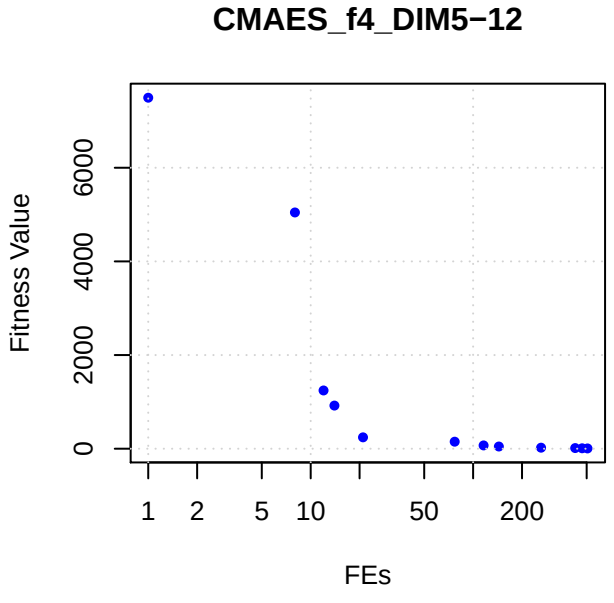
150
1
2
5
10
50
200
FEs


CMAES_f4_DIM5−12
Fitness Value
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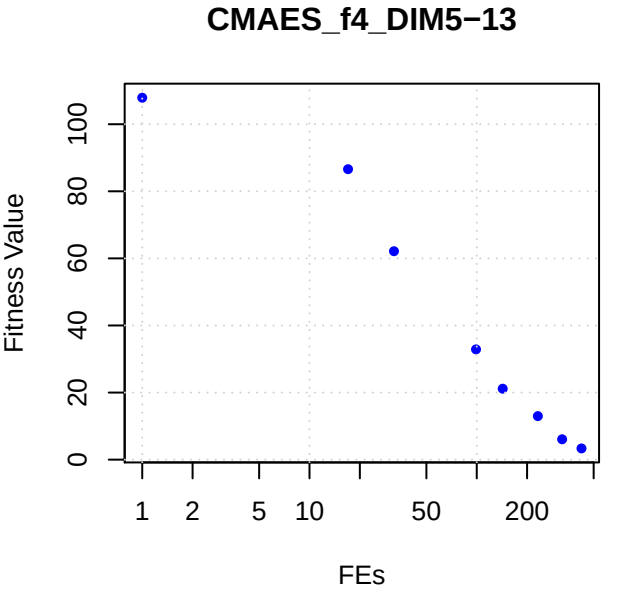
6000
1
2
5
10
50
200
FEs


CMAES_f4_DIM5−13
Fitness Value
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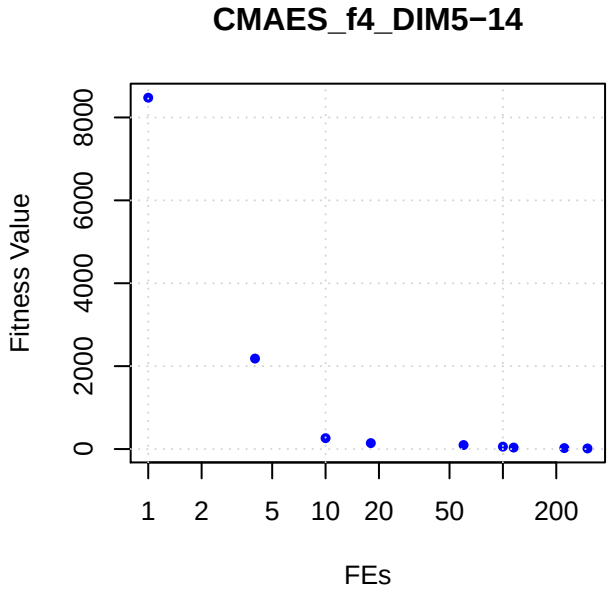
20
40
60
80
100
1
2
5
10
50
200
FEs


CMAES_f4_DIM5−14
Fitness Value
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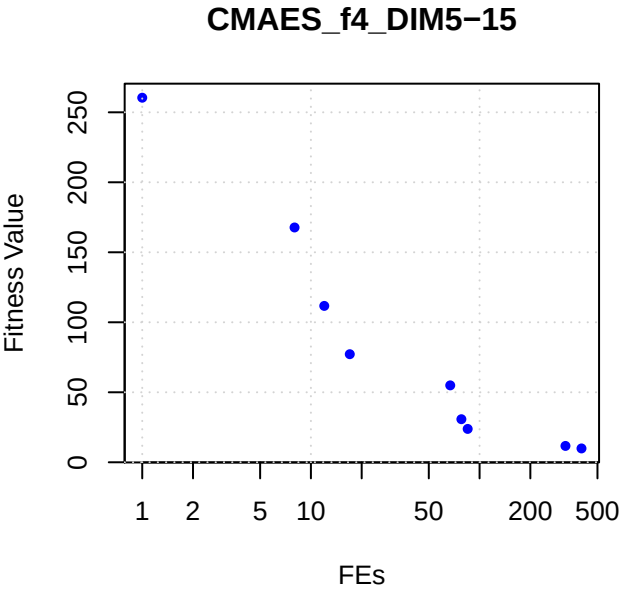
2000
4000
6000
8000
1
2
5
10
20
50
200
FEs


CMAES_f4_DIM5−15
Fitness Value
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200
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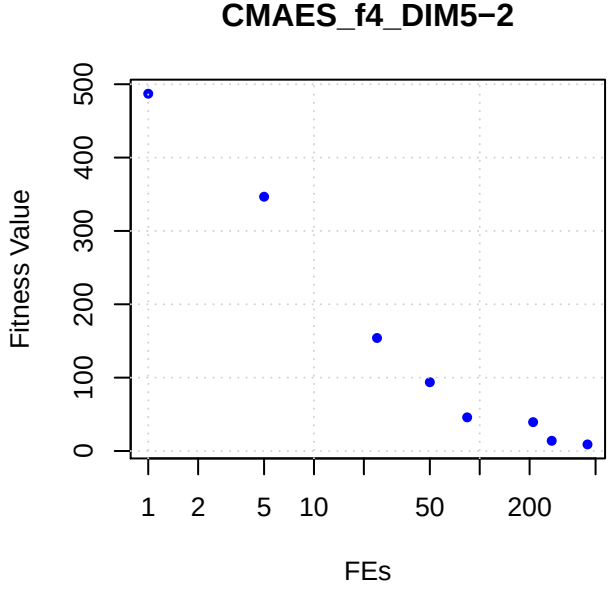
1
2
5
10
50
200
500
FEs


CMAES_f4_DIM5−2
Fitness Value
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300
400
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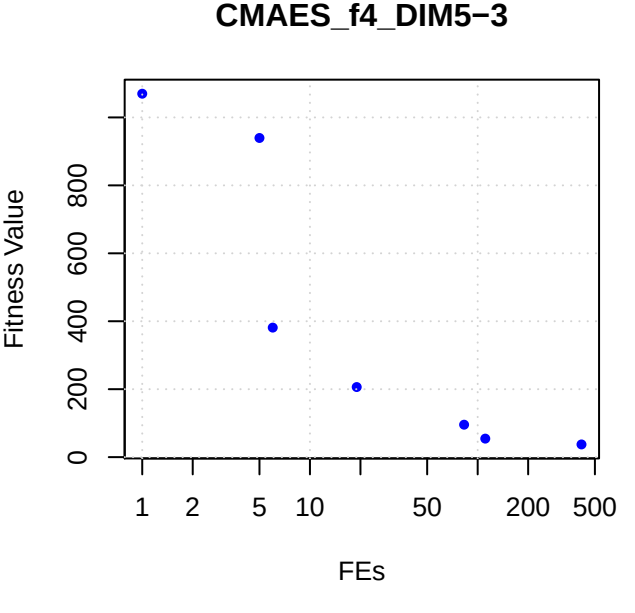
1
2
5
10
50
200
FEs


CMAES_f4_DIM5−3
Fitness Value
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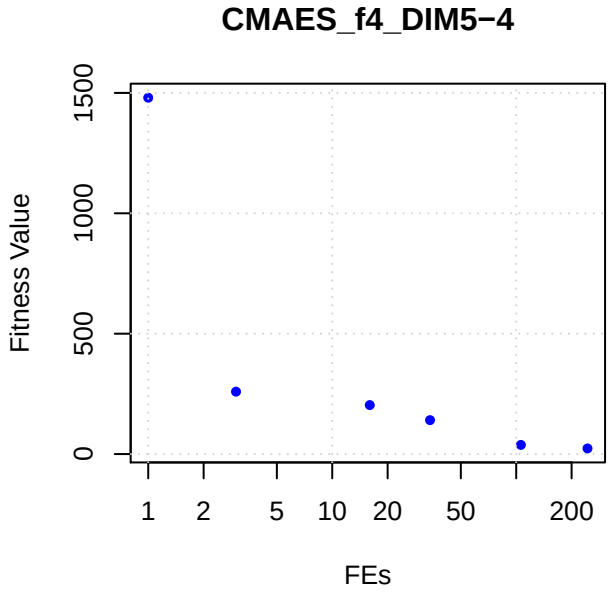
200
400
600
800
1
2
5
10
50
200
500
FEs


CMAES_f4_DIM5−4
Fitness Value
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1000
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1
2
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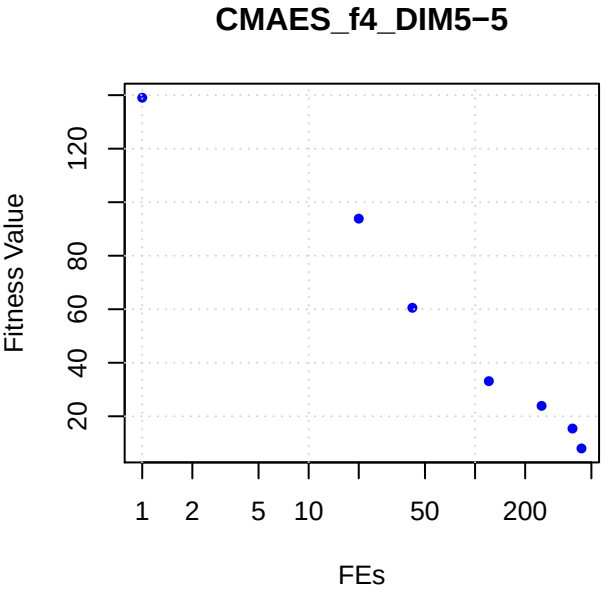
10
20
50
200
FEs


CMAES_f4_DIM5−5
Fitness Value
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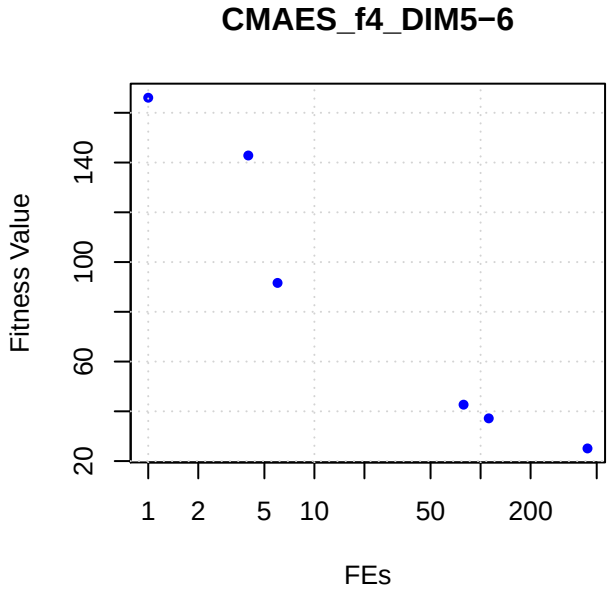
60
80
120
1
2
5
10
50
200
FEs


CMAES_f4_DIM5−6
Fitness Value
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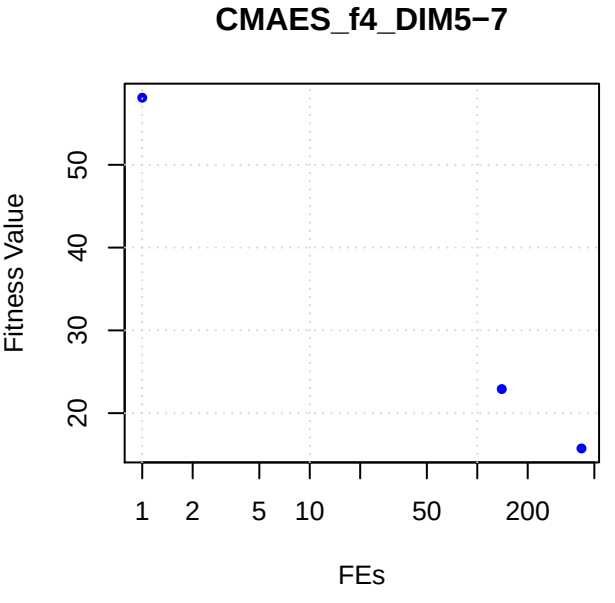
60
100
140
1
2
5
10
50
200
FEs


CMAES_f4_DIM5−7
Fitness Value
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30
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1
2
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10
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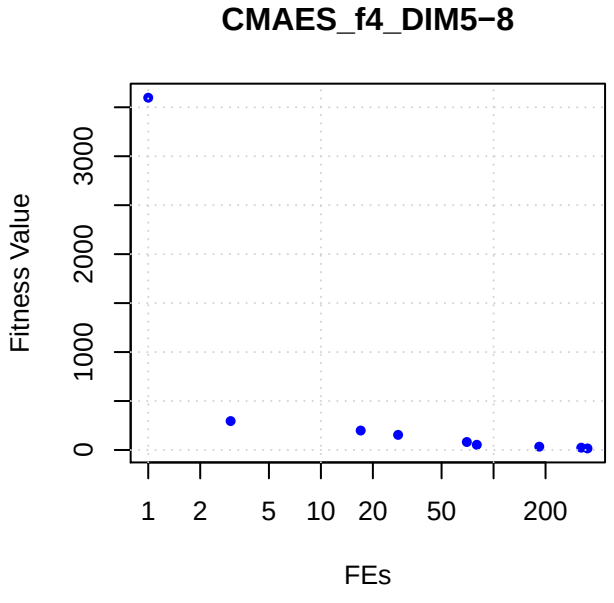
FEs


CMAES_f4_DIM5−8
Fitness Value
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1
2
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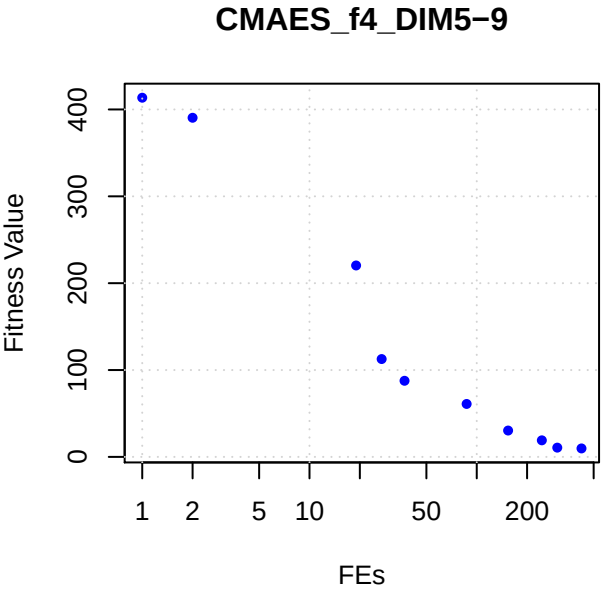
200
FEs


CMAES_f4_DIM5−9
Fitness Value
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1
2
5
10
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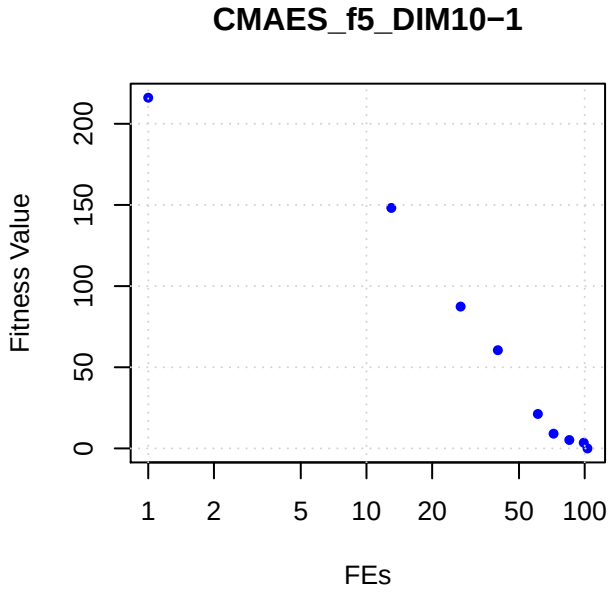
200
FEs


CMAES_f5_DIM10−1
Fitness Value
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100
150
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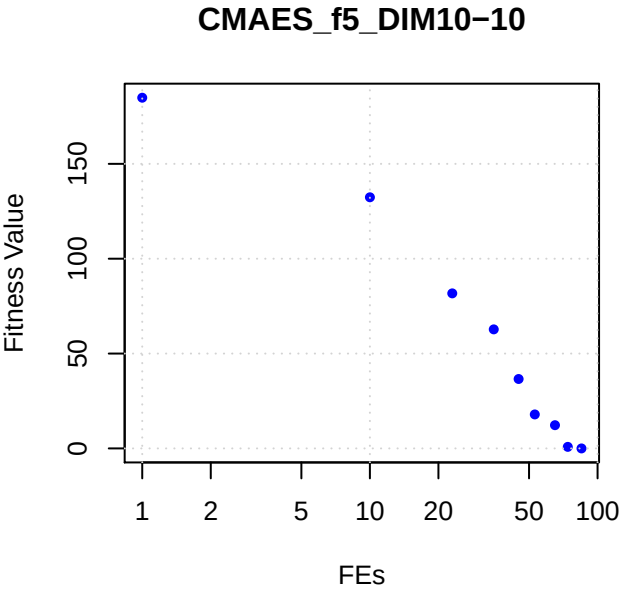
1
2
5
10
20
50
100
FEs


CMAES_f5_DIM10−10
Fitness Value
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100
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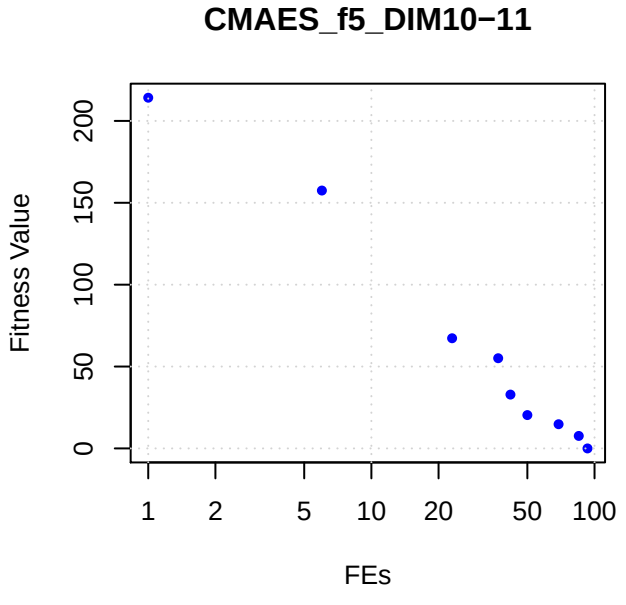
1
2
5
10
20
50
100
FEs


CMAES_f5_DIM10−11
Fitness Value
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1
2
5
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20
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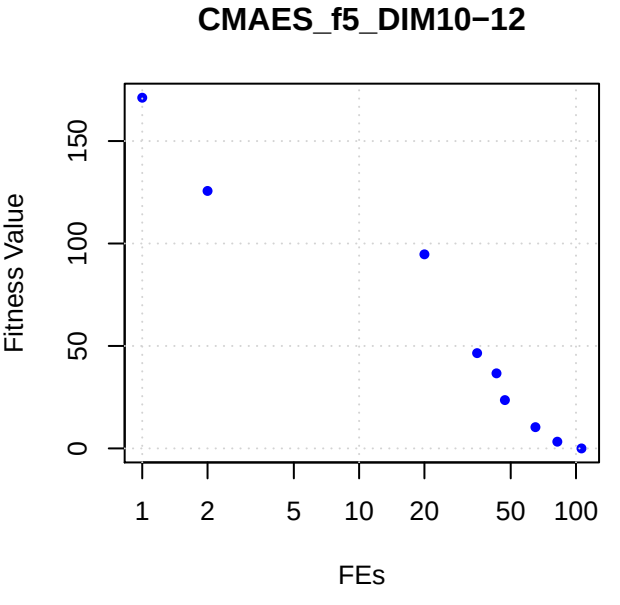
100
FEs


CMAES_f5_DIM10−12
Fitness Value
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10
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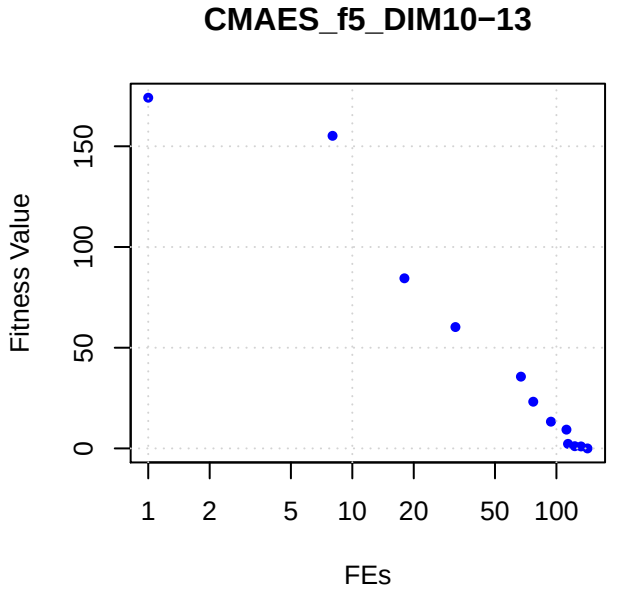
100
FEs


CMAES_f5_DIM10−13
Fitness Value
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2
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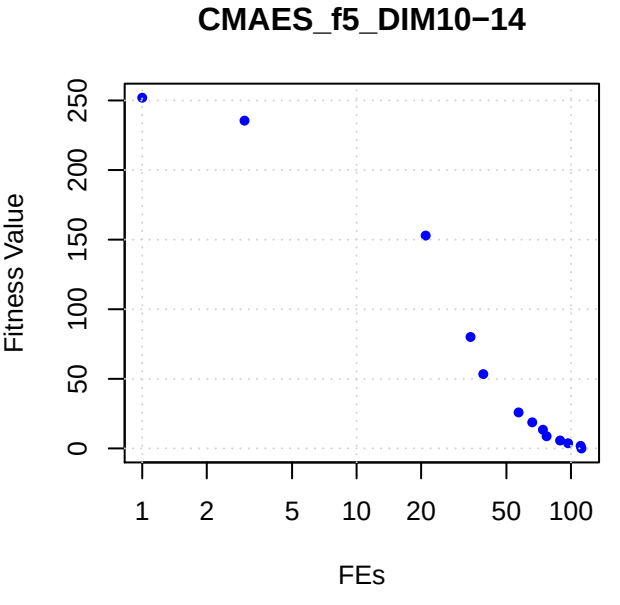
100
FEs


CMAES_f5_DIM10−14
Fitness Value
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100
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200
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1
2
5
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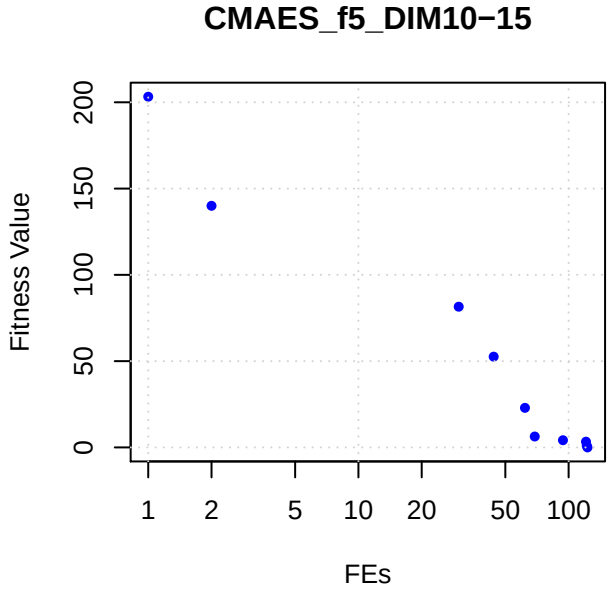
50
100
FEs


CMAES_f5_DIM10−15
Fitness Value
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1
2
5
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20
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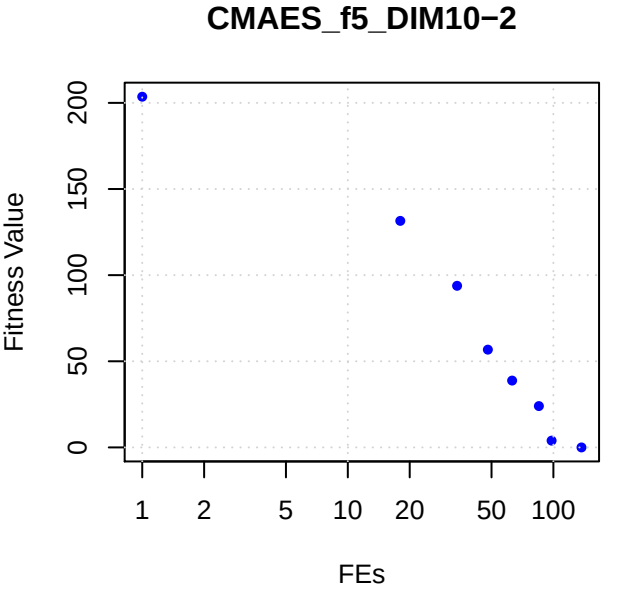
100
FEs


CMAES_f5_DIM10−2
Fitness Value
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150
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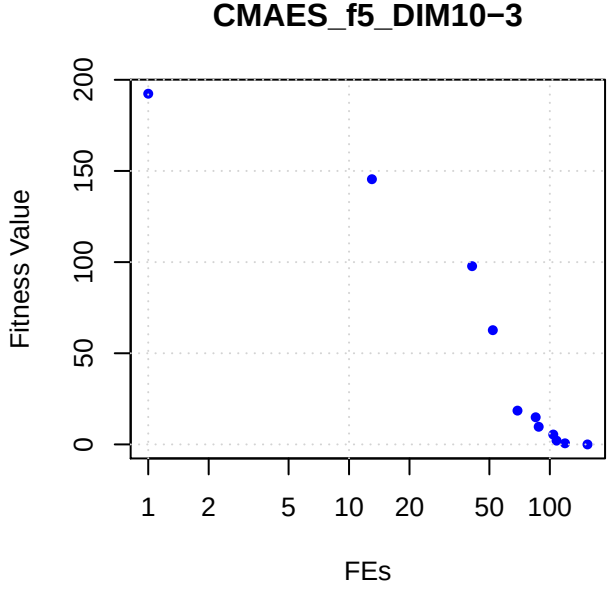
1
2
5
10
20
50
100
FEs


CMAES_f5_DIM10−3
Fitness Value
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1
2
5
10
20
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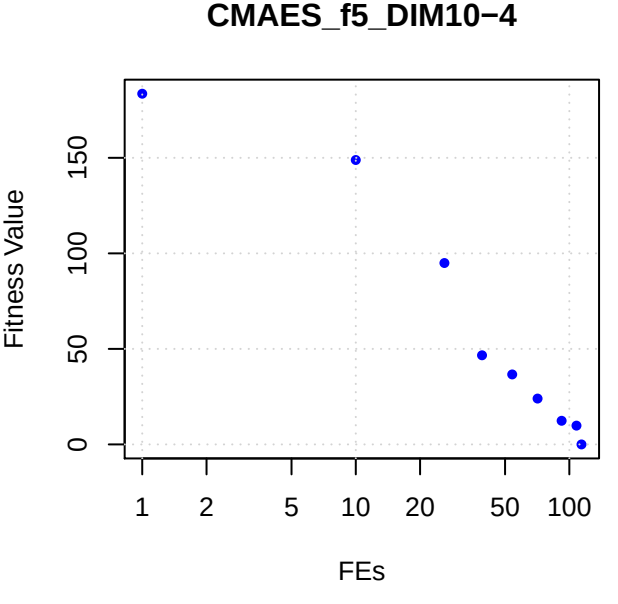
100
FEs


CMAES_f5_DIM10−4
Fitness Value
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1
2
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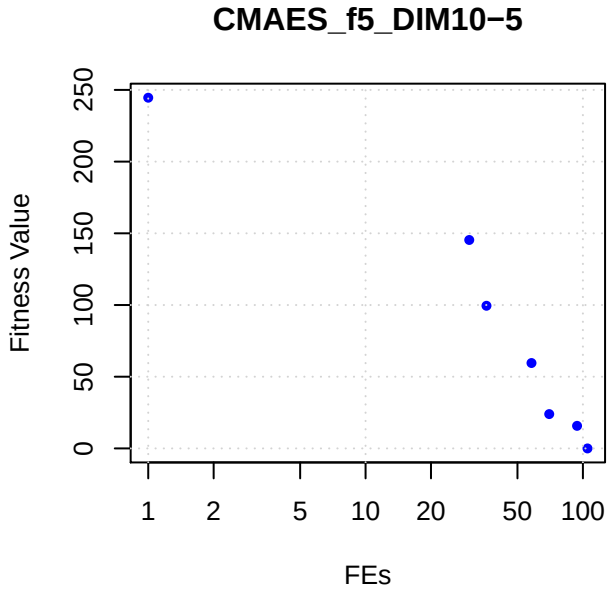
10
20
50
100
FEs


CMAES_f5_DIM10−5
Fitness Value
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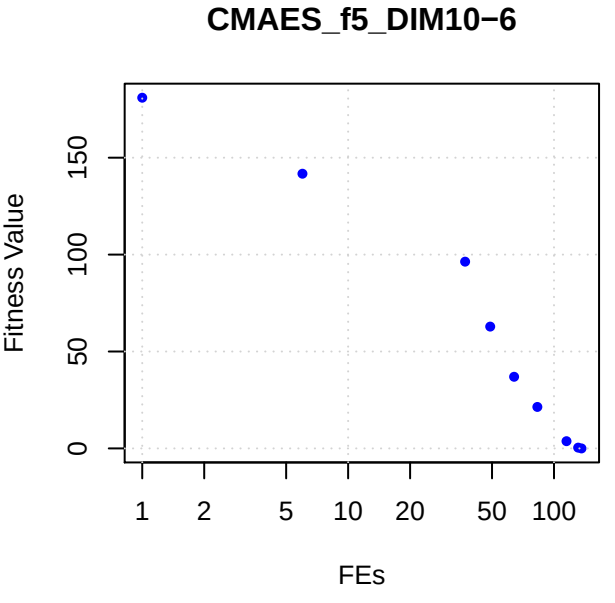
100
150
200
250
1
2
5
10
20
50
100
FEs


CMAES_f5_DIM10−6
Fitness Value
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100
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1
2
5
10
20
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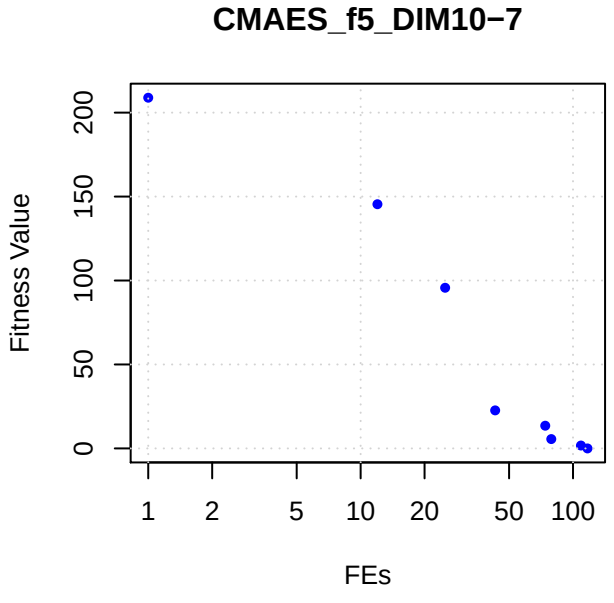
100
FEs


CMAES_f5_DIM10−7
Fitness Value
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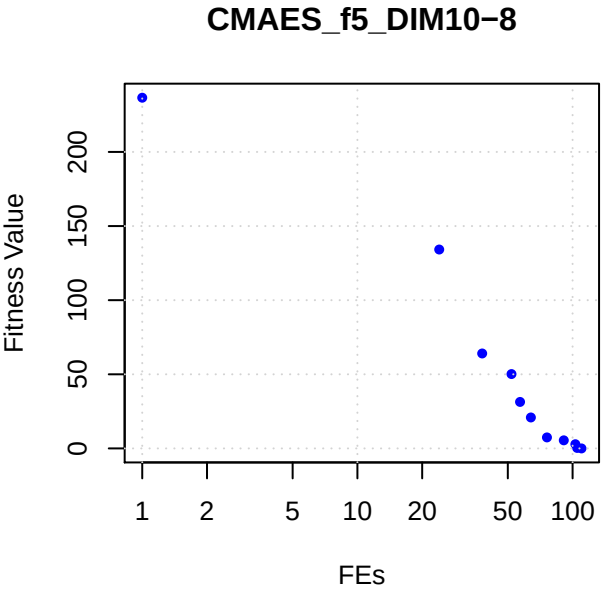
100
150
200
1
2
5
10
20
50
100
FEs


CMAES_f5_DIM10−8
Fitness Value
0
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150
200
1
2
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10
20
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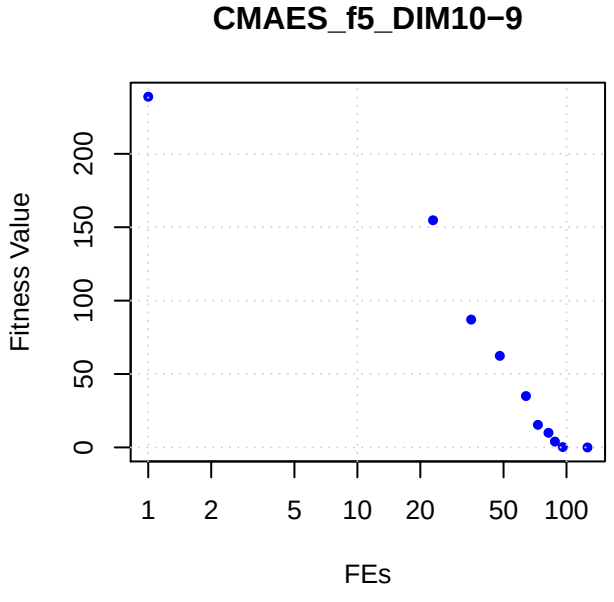
100
FEs


CMAES_f5_DIM10−9
Fitness Value
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150
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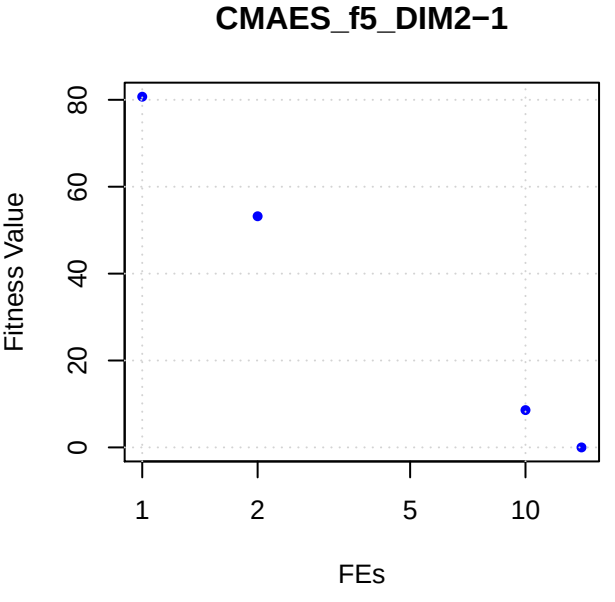
1
2
5
10
20
50
100
FEs


CMAES_f5_DIM2−1
Fitness Value
0
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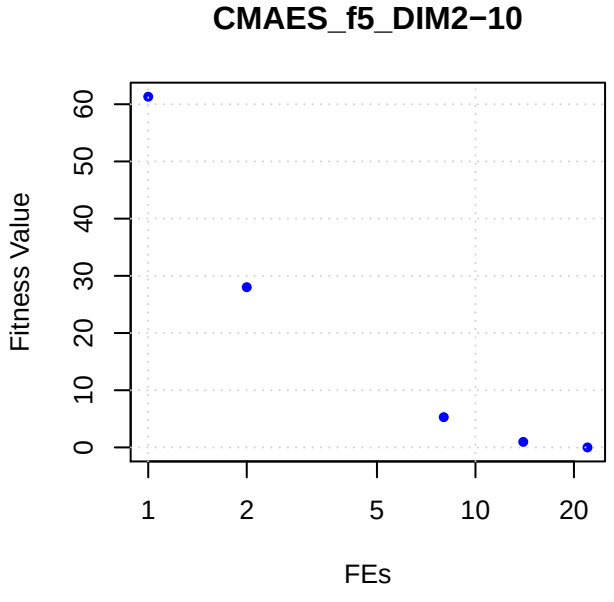
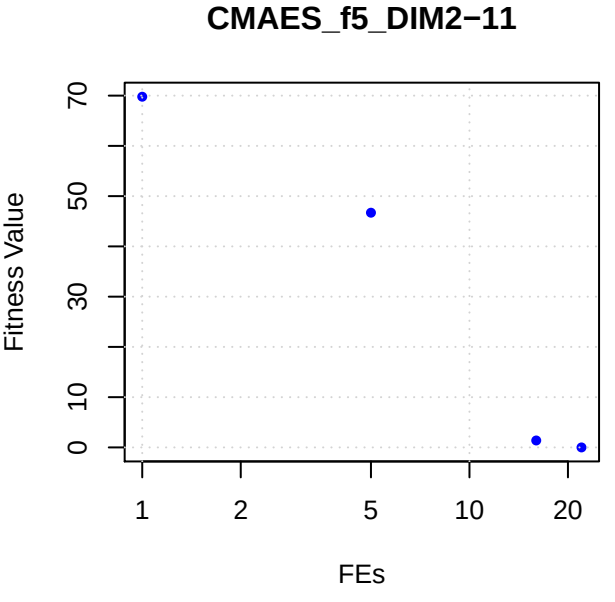
40
60
80
1
2
5
10
FEs


CMAES_f5_DIM2−10
Fitness Value
0
10
20
30
40
50
60
1
2
5
10
20
FEs


CMAES_f5_DIM2−11
Fitness Value
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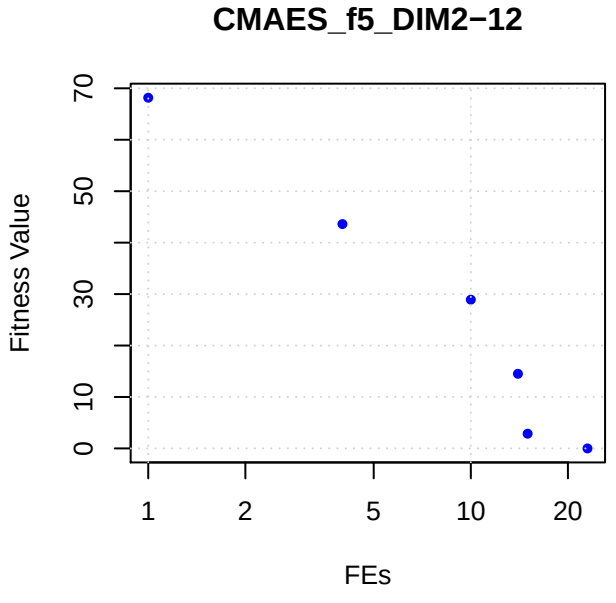
50
70
1
2
5
10
20
FEs


CMAES_f5_DIM2−12
Fitness Value
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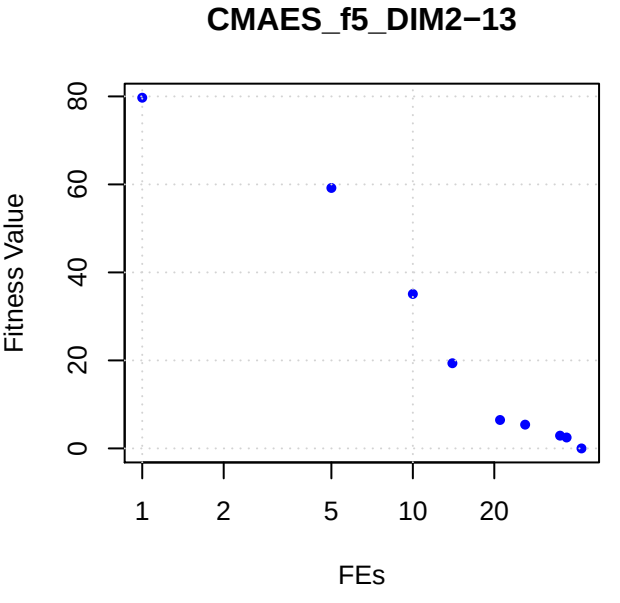
FEs


CMAES_f5_DIM2−13
Fitness Value
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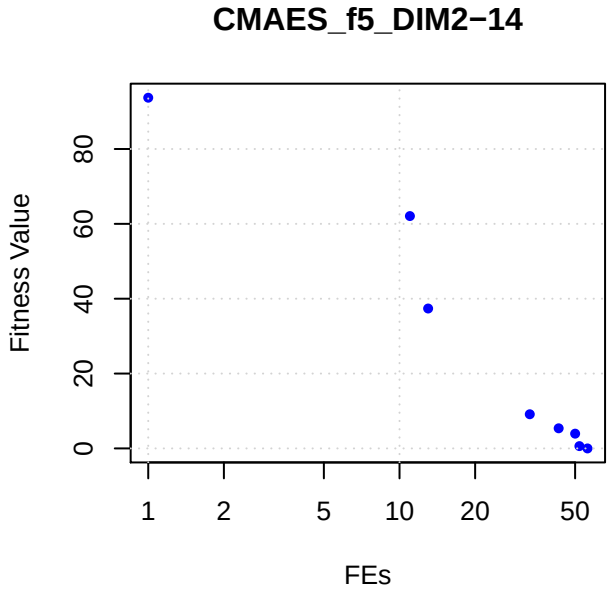
FEs


CMAES_f5_DIM2−14
Fitness Value
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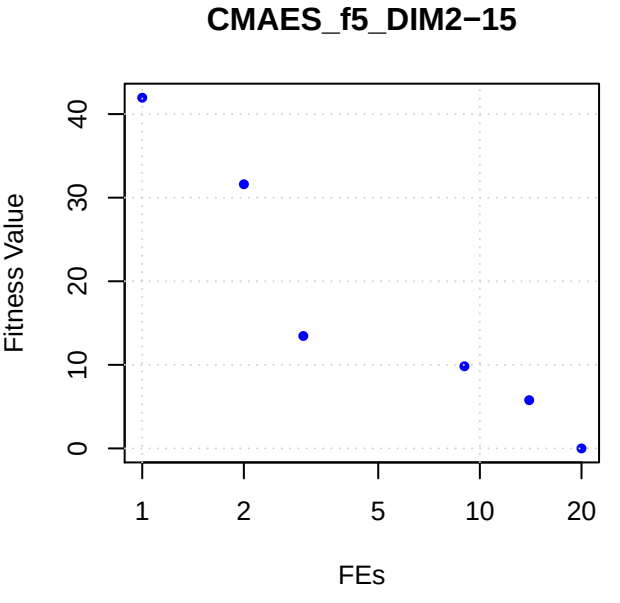
FEs


CMAES_f5_DIM2−15
Fitness Value
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20
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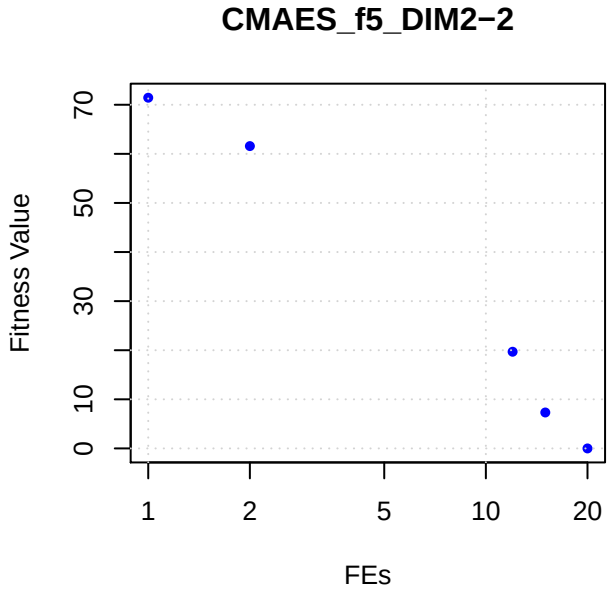
CMAES_f5_DIM2−2
Fitness Value
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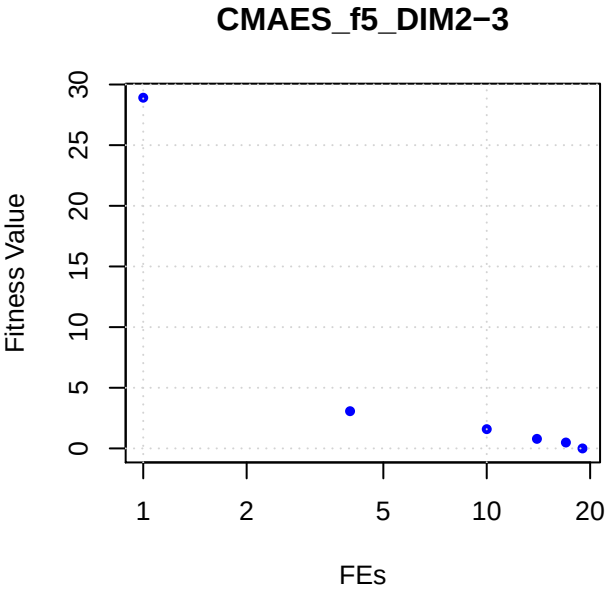
FEs


CMAES_f5_DIM2−3
Fitness Value
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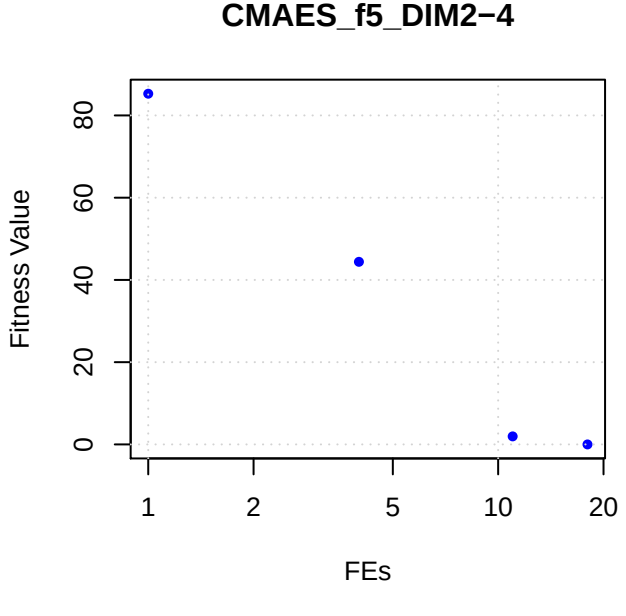
CMAES_f5_DIM2−4
Fitness Value
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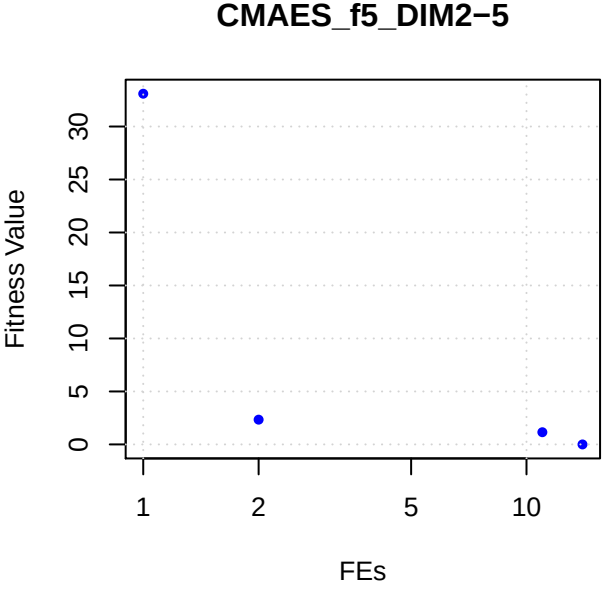
FEs


CMAES_f5_DIM2−5
Fitness Value
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20
25
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2
5
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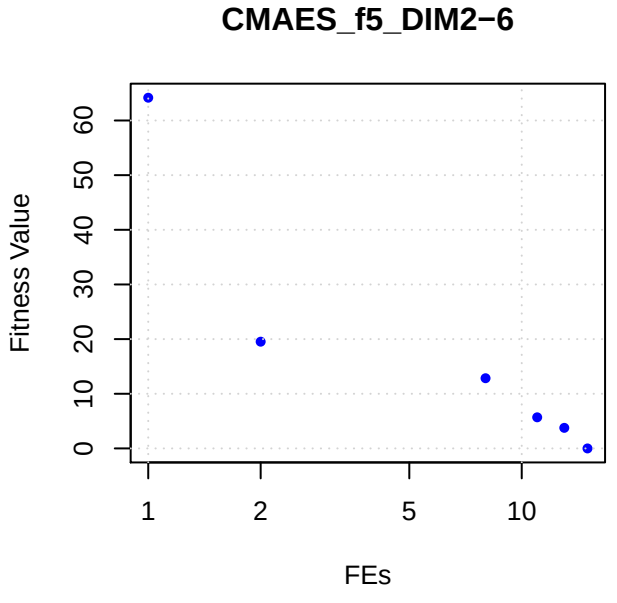
FEs


CMAES_f5_DIM2−6
Fitness Value
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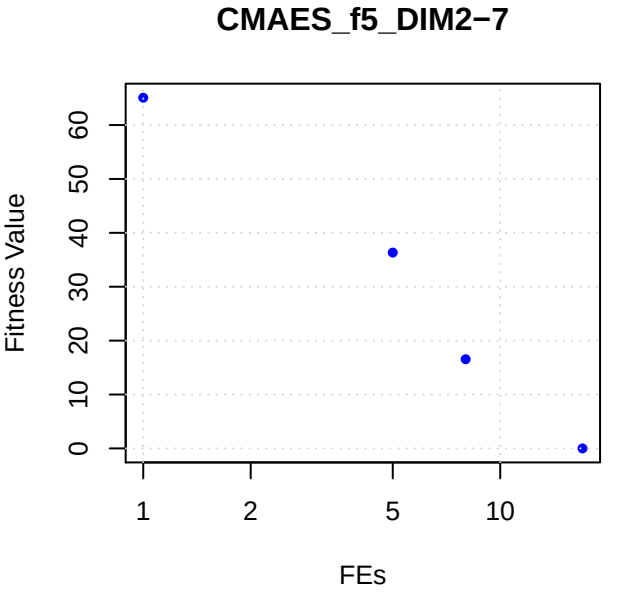
CMAES_f5_DIM2−7
Fitness Value
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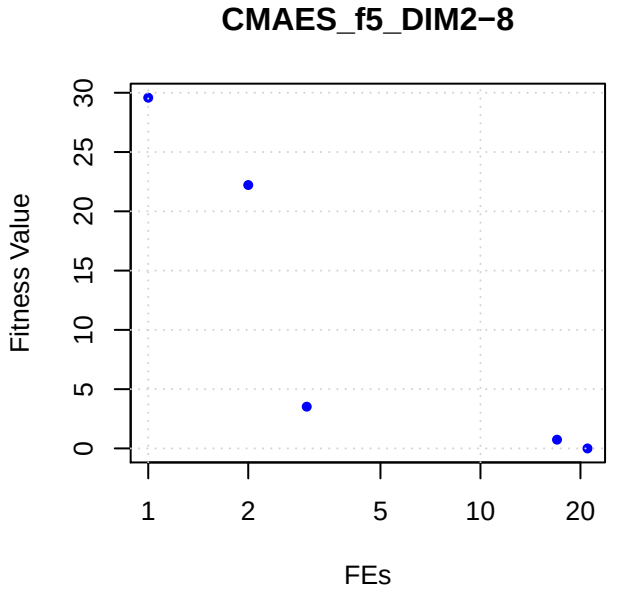
CMAES_f5_DIM2−8
Fitness Value
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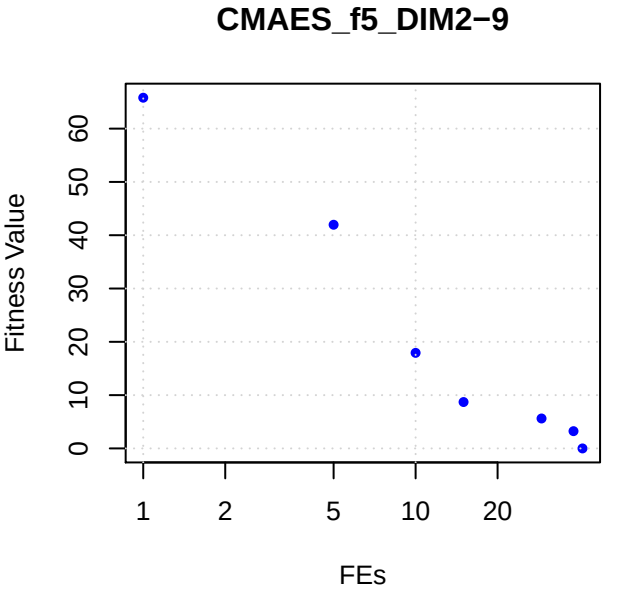
CMAES_f5_DIM2−9
Fitness Value
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1
2
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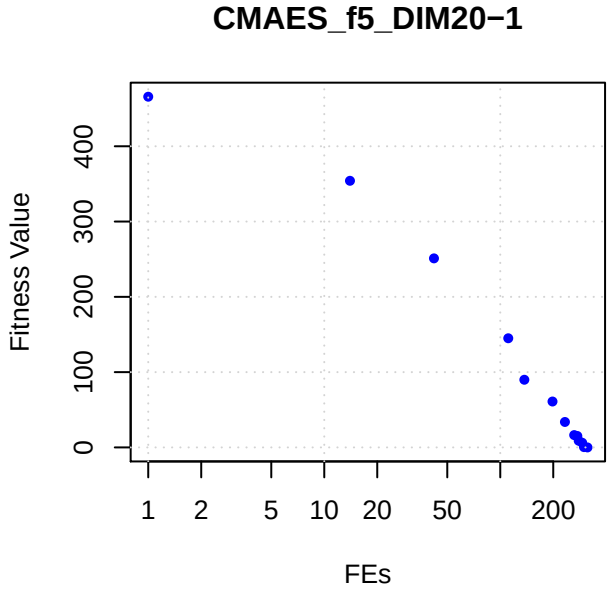
FEs


CMAES_f5_DIM20−1
Fitness Value
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2
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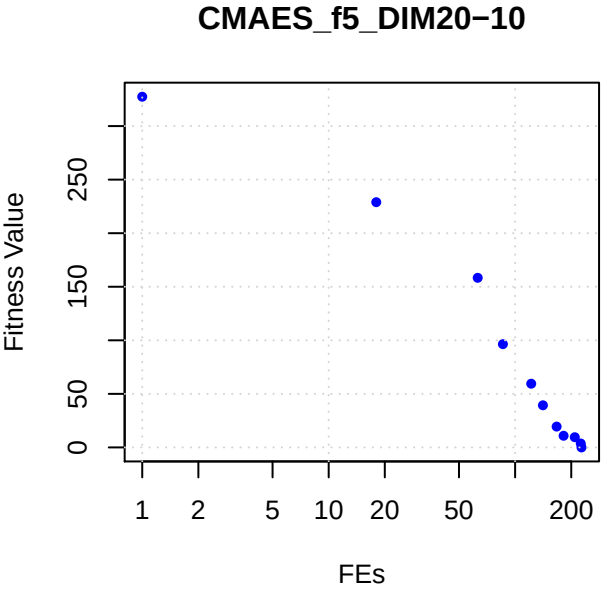
200
FEs


CMAES_f5_DIM20−10
Fitness Value
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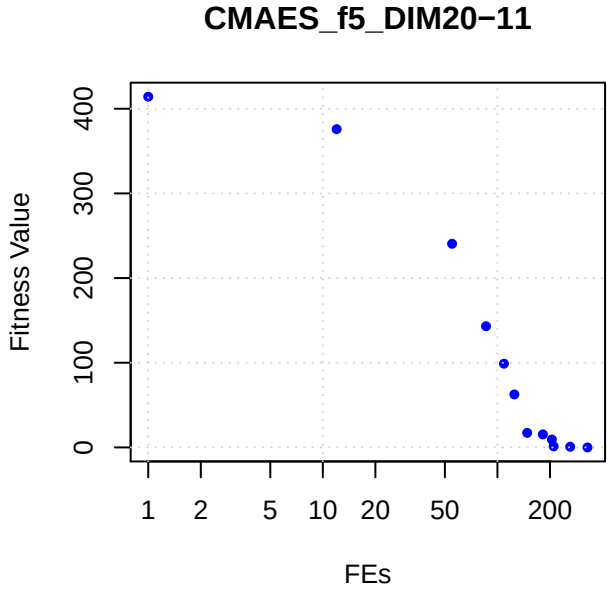
200
FEs


CMAES_f5_DIM20−11
Fitness Value
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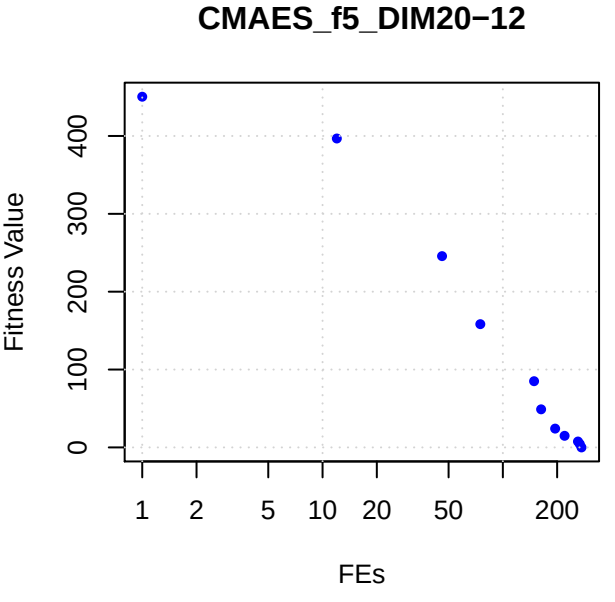
FEs


CMAES_f5_DIM20−12
Fitness Value
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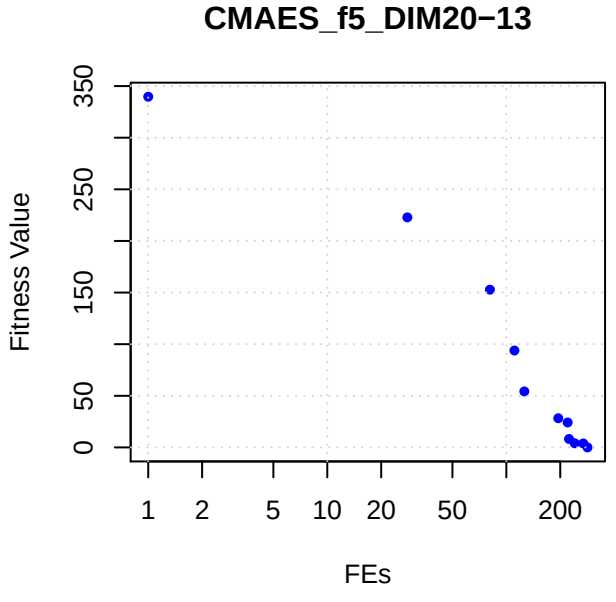
FEs


CMAES_f5_DIM20−13
Fitness Value
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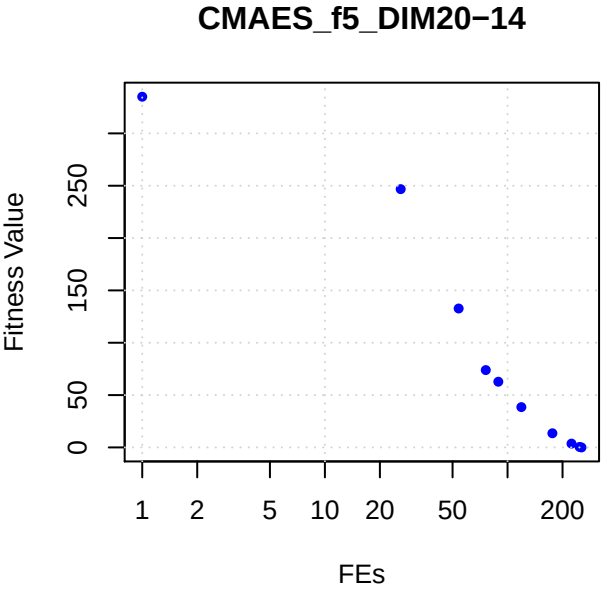
FEs


CMAES_f5_DIM20−14
Fitness Value
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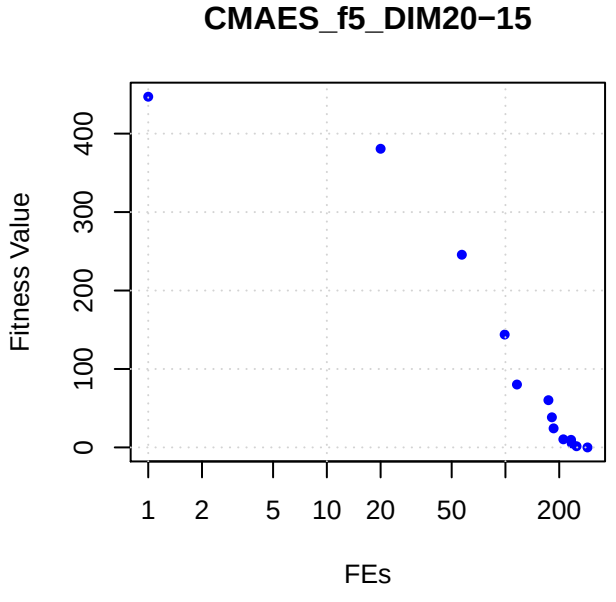
FEs


CMAES_f5_DIM20−15
Fitness Value
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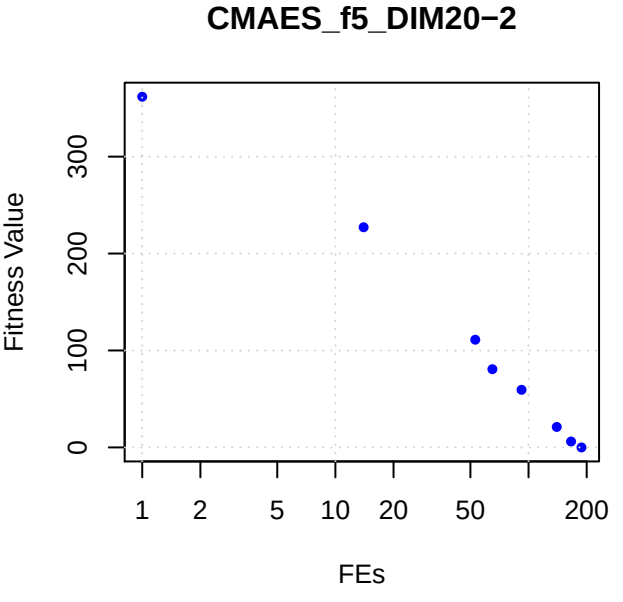
FEs


CMAES_f5_DIM20−2
Fitness Value
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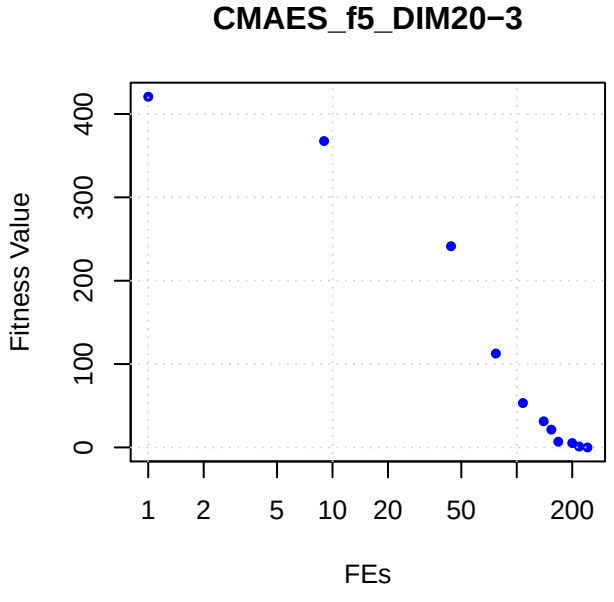
FEs


CMAES_f5_DIM20−3
Fitness Value
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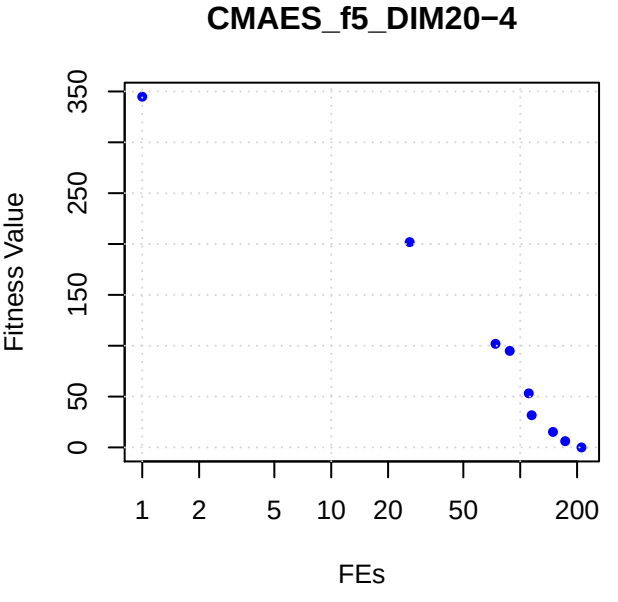
FEs


CMAES_f5_DIM20−4
Fitness Value
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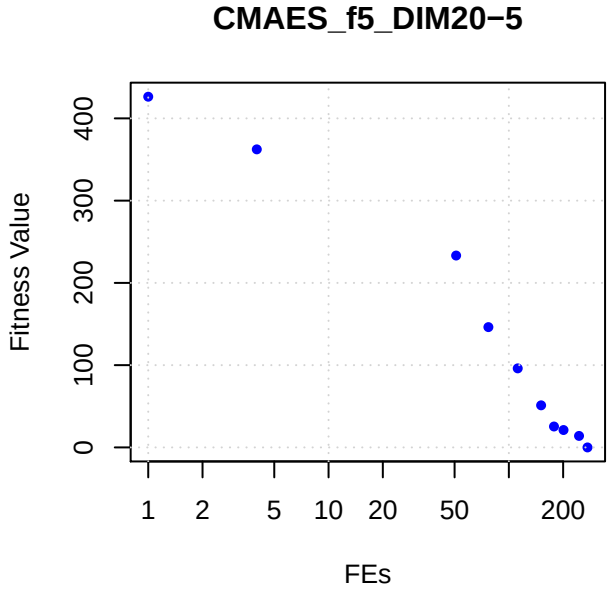
FEs


CMAES_f5_DIM20−5
Fitness Value
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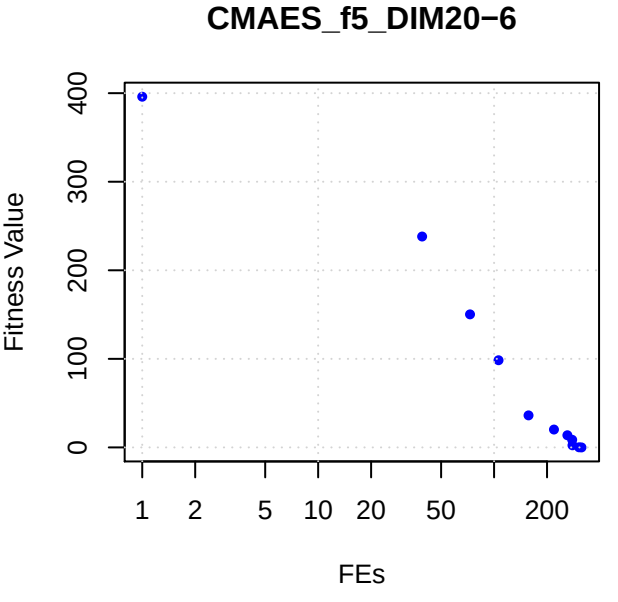
200
FEs


CMAES_f5_DIM20−6
Fitness Value
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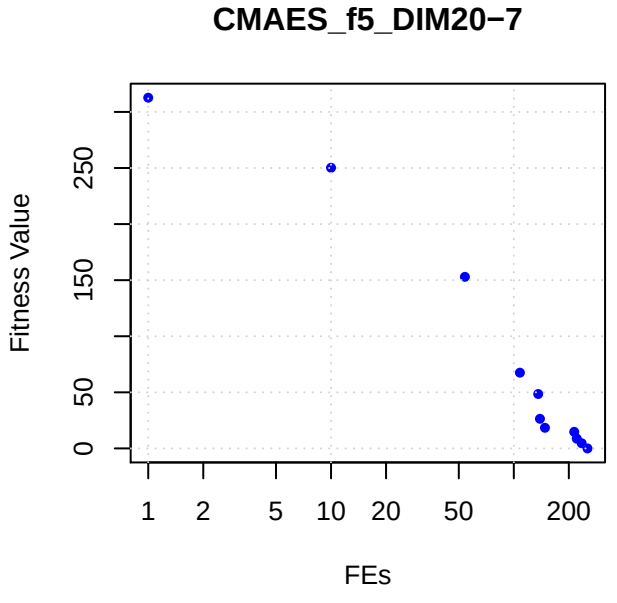
FEs


CMAES_f5_DIM20−7
Fitness Value
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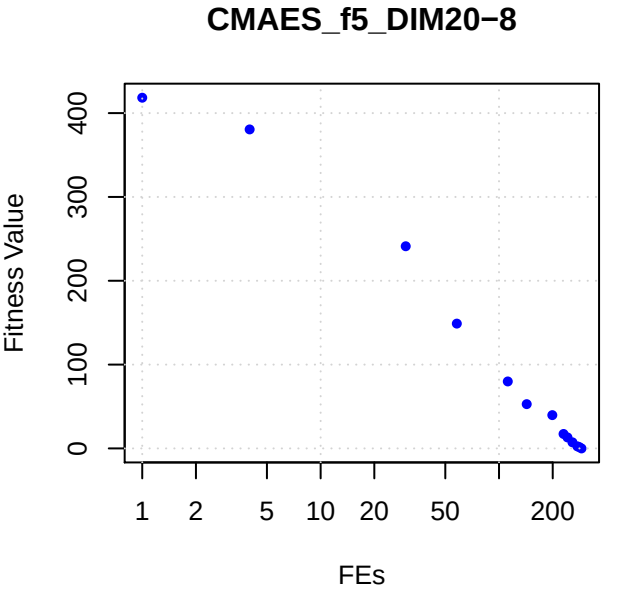
FEs


CMAES_f5_DIM20−8
Fitness Value
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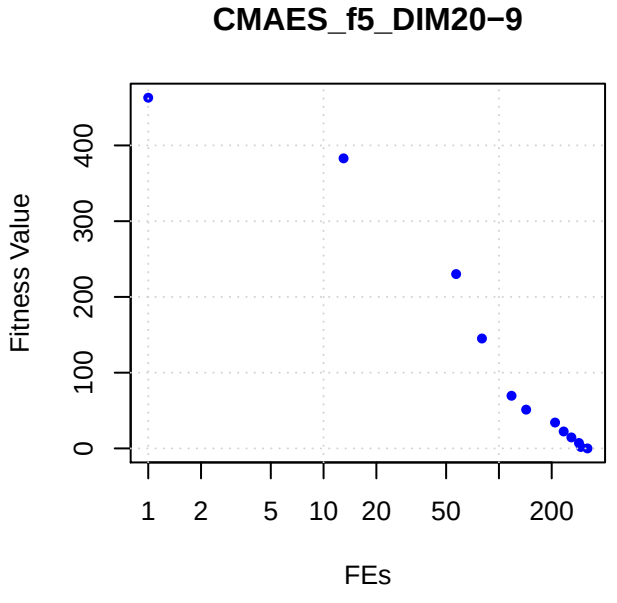
CMAES_f5_DIM20−9
Fitness Value
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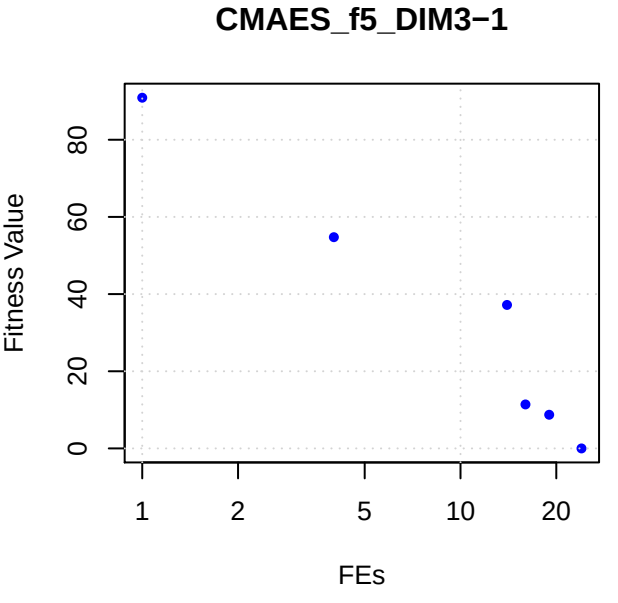
CMAES_f5_DIM3−1
Fitness Value
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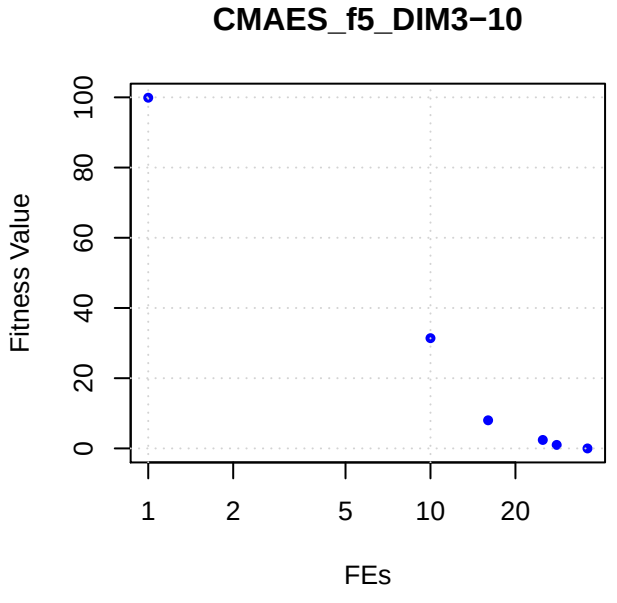
20
FEs


CMAES_f5_DIM3−10
Fitness Value
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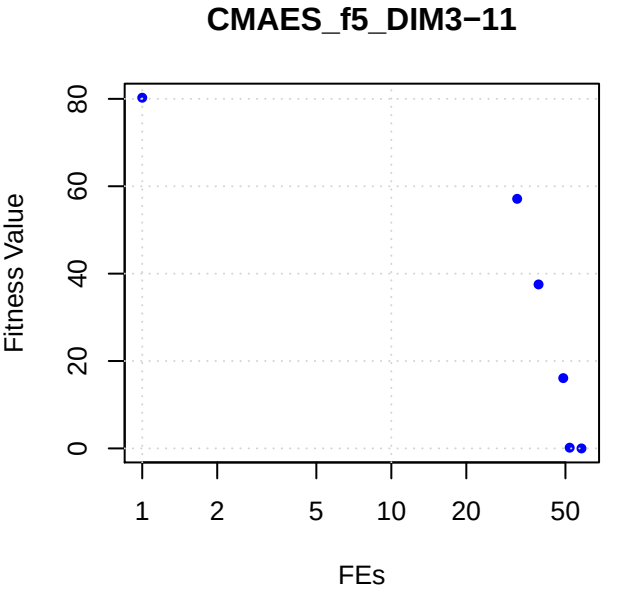
FEs


CMAES_f5_DIM3−11
Fitness Value
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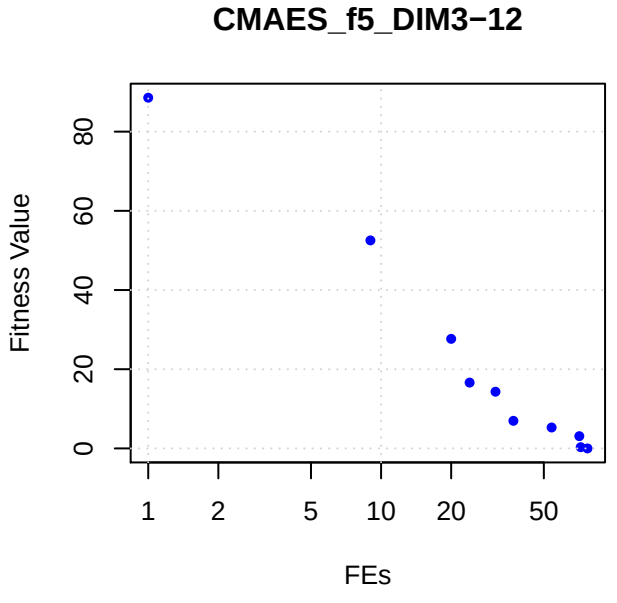
CMAES_f5_DIM3−12
Fitness Value
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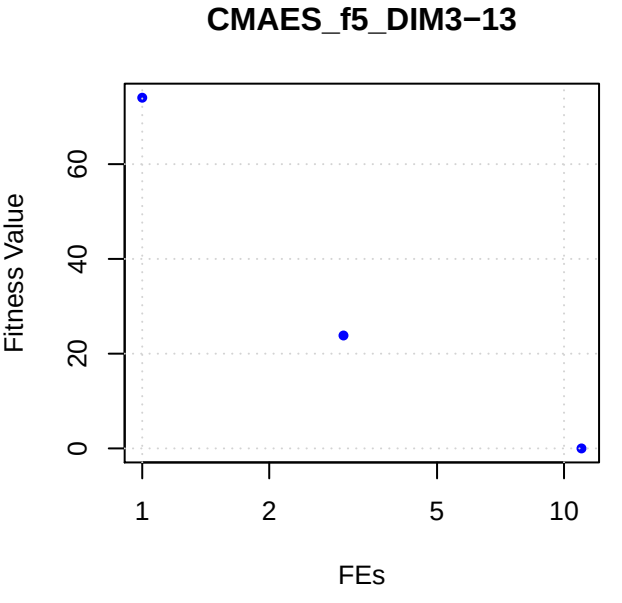
FEs


CMAES_f5_DIM3−13
Fitness Value
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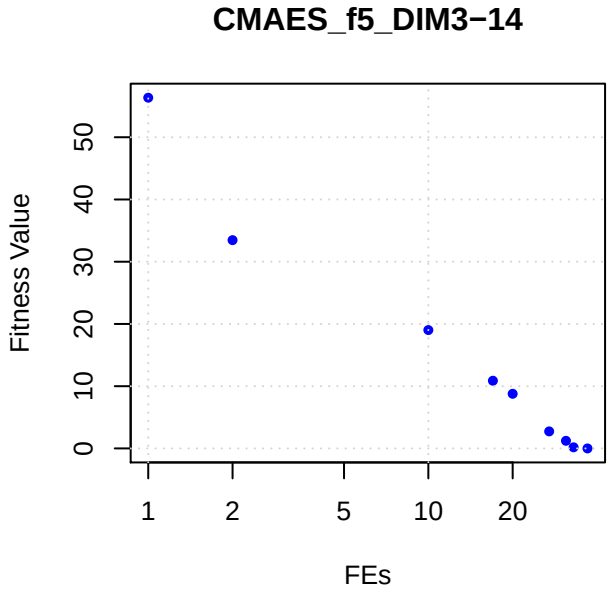
CMAES_f5_DIM3−14
Fitness Value
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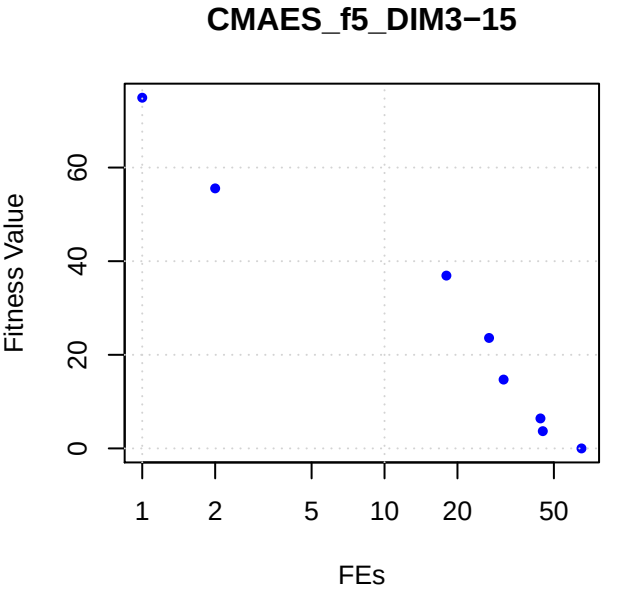
CMAES_f5_DIM3−15
Fitness Value
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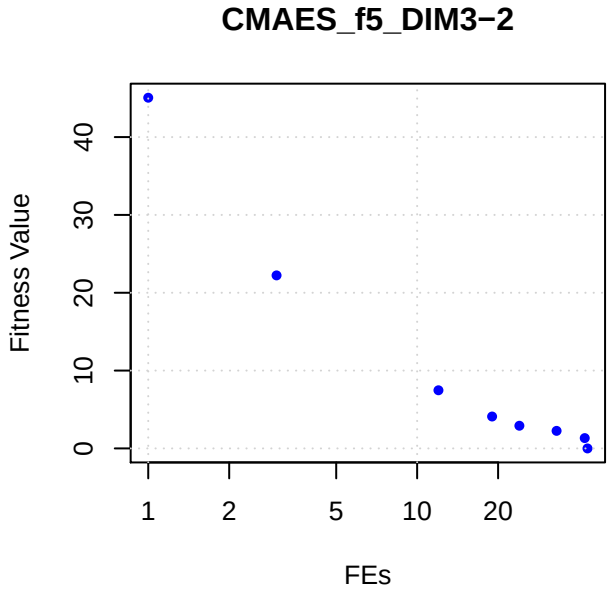
FEs


CMAES_f5_DIM3−2
Fitness Value
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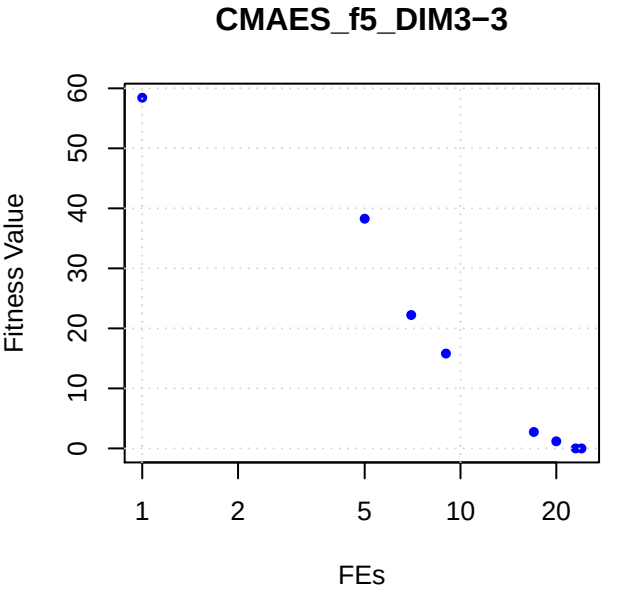
FEs


CMAES_f5_DIM3−3
Fitness Value
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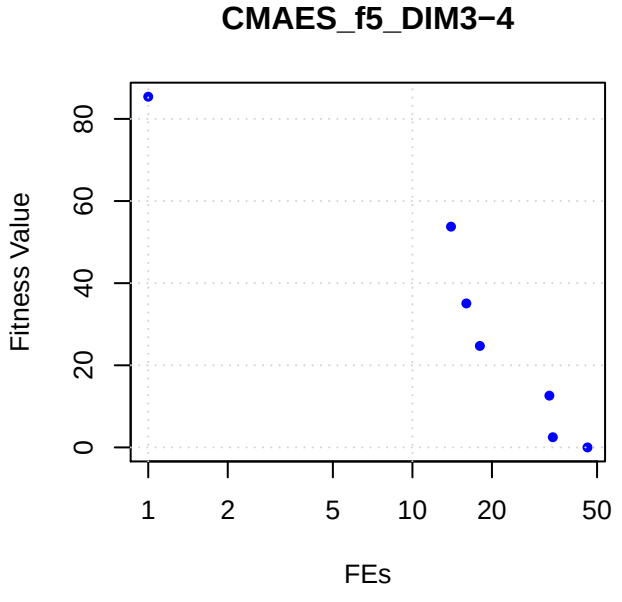
FEs


CMAES_f5_DIM3−4
Fitness Value
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1
2
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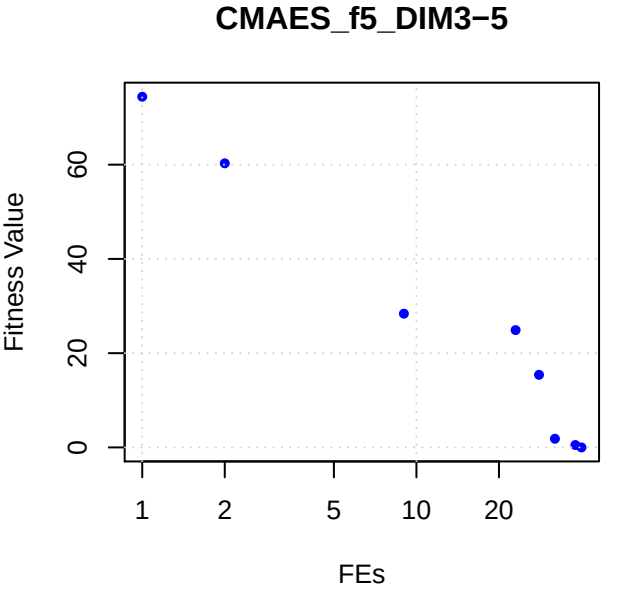
FEs


CMAES_f5_DIM3−5
Fitness Value
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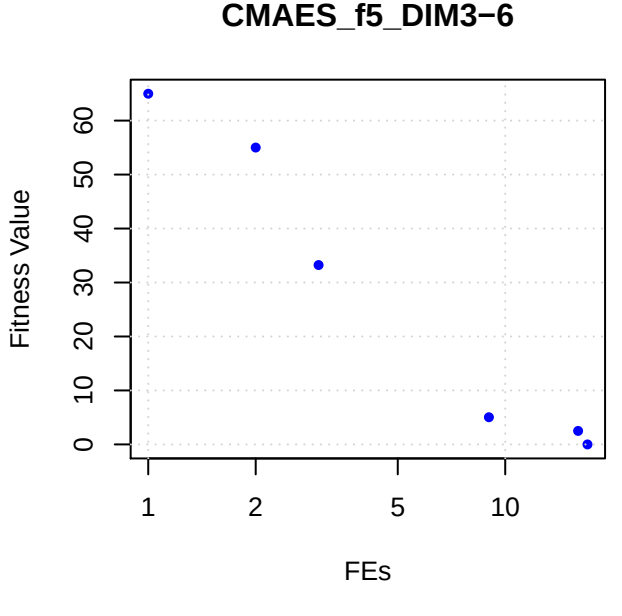
FEs


CMAES_f5_DIM3−6
Fitness Value
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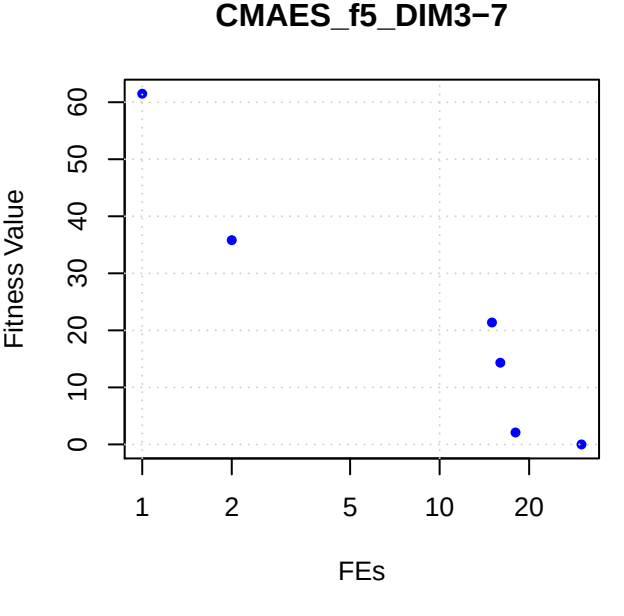
FEs


CMAES_f5_DIM3−7
Fitness Value
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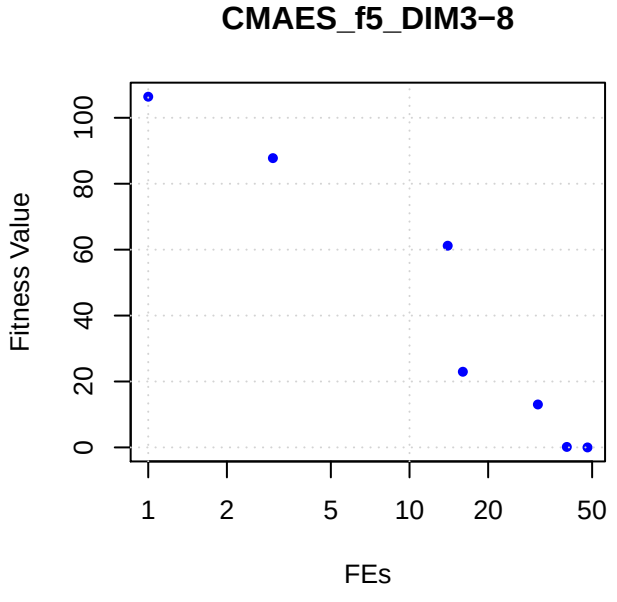
FEs


CMAES_f5_DIM3−8
Fitness Value
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1
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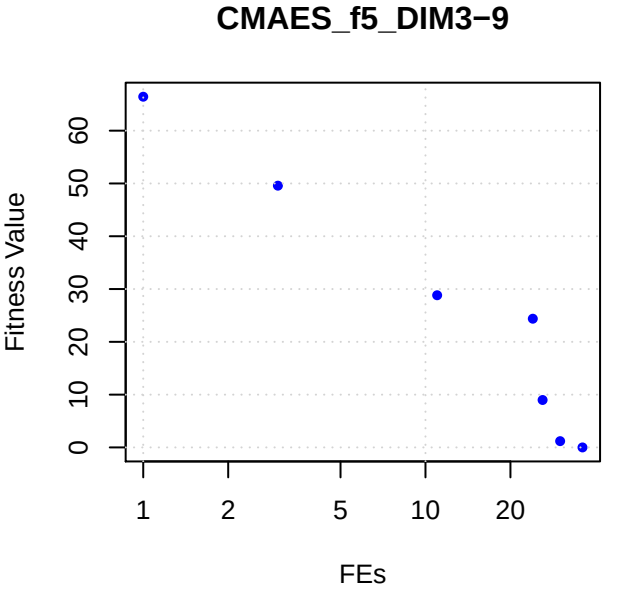
20
50
FEs


CMAES_f5_DIM3−9
Fitness Value
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10
20
30
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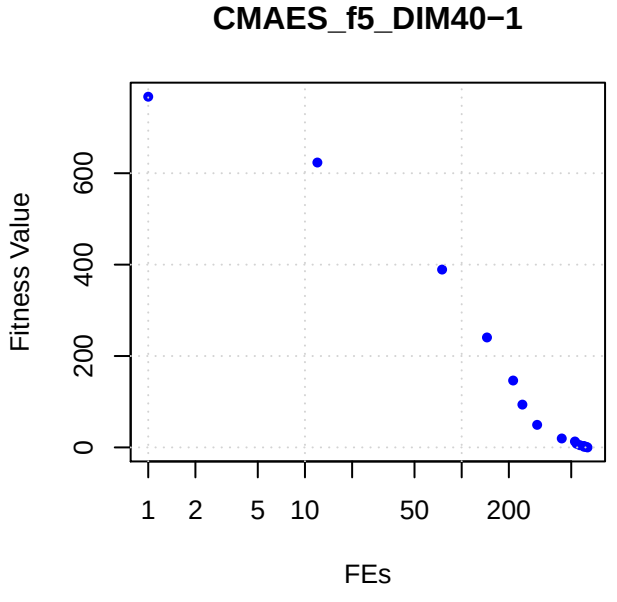
20
FEs


CMAES_f5_DIM40−1
Fitness Value
0
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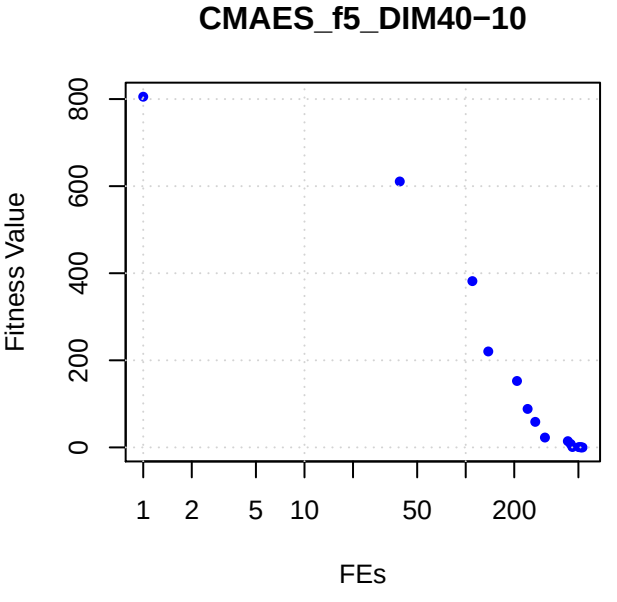
200
FEs


CMAES_f5_DIM40−10
Fitness Value
0
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400
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800
1
2
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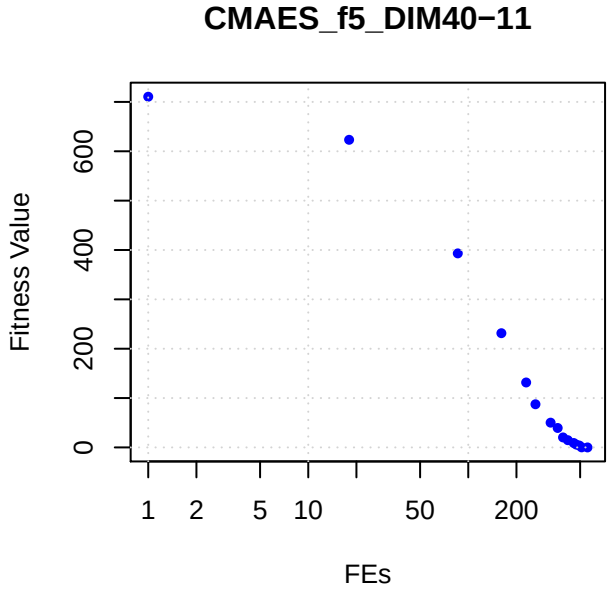
200
FEs


CMAES_f5_DIM40−11
Fitness Value
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200
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600
1
2
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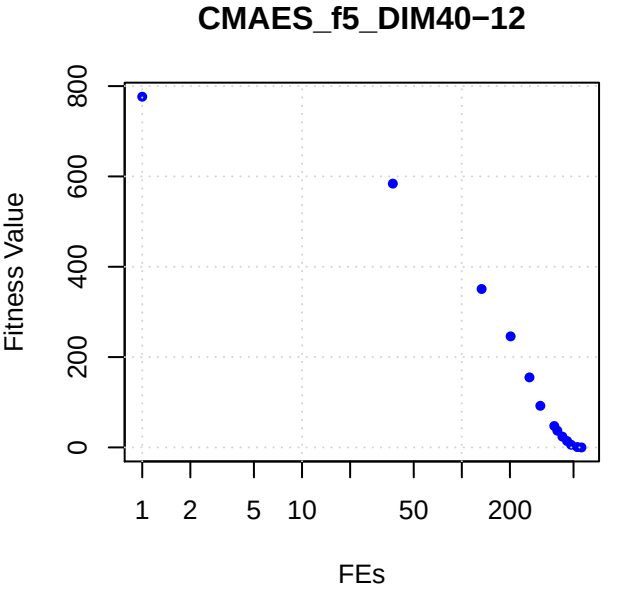
200
FEs


CMAES_f5_DIM40−12
Fitness Value
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1
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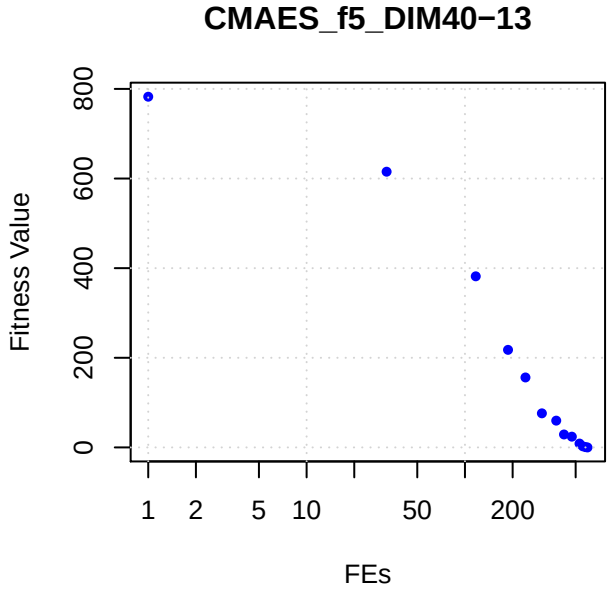
200
FEs


CMAES_f5_DIM40−13
Fitness Value
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800
1
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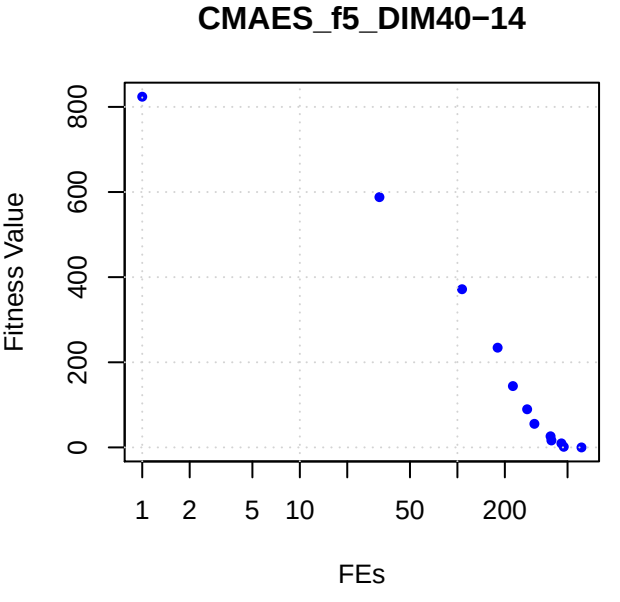
200
FEs


CMAES_f5_DIM40−14
Fitness Value
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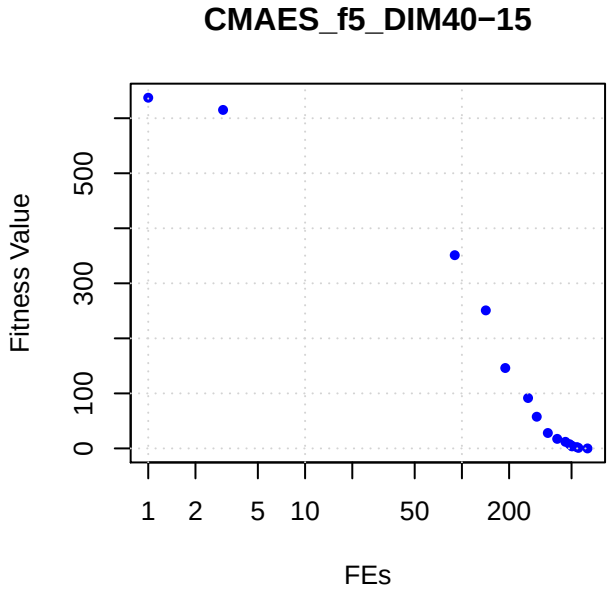
FEs


CMAES_f5_DIM40−15
Fitness Value
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100
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500
1
2
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10
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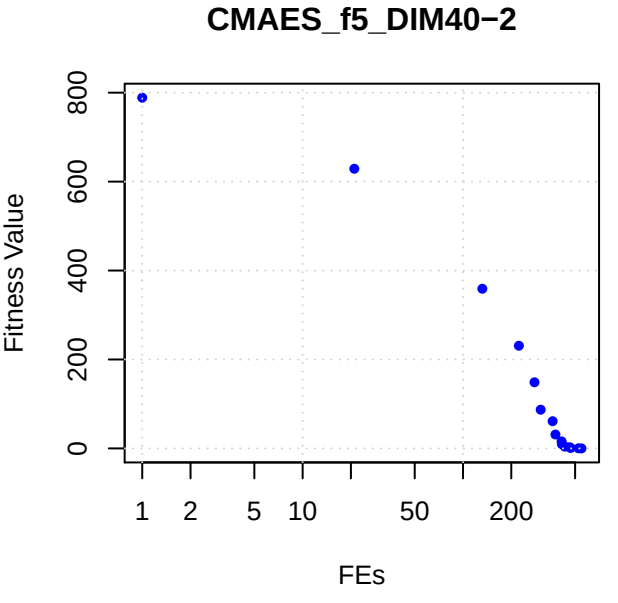
200
FEs


CMAES_f5_DIM40−2
Fitness Value
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400
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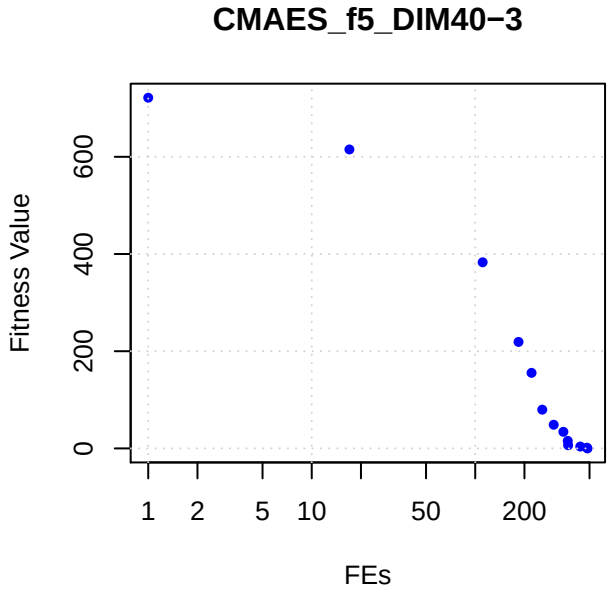
800
1
2
5
10
50
200
FEs


CMAES_f5_DIM40−3
Fitness Value
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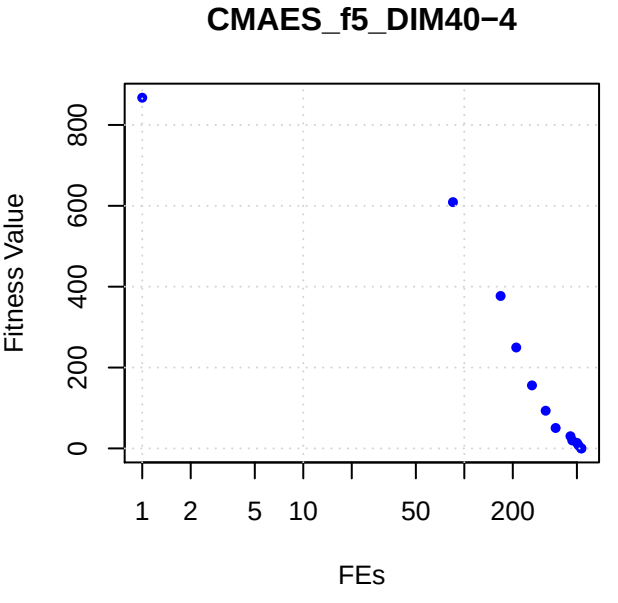
FEs


CMAES_f5_DIM40−4
Fitness Value
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1
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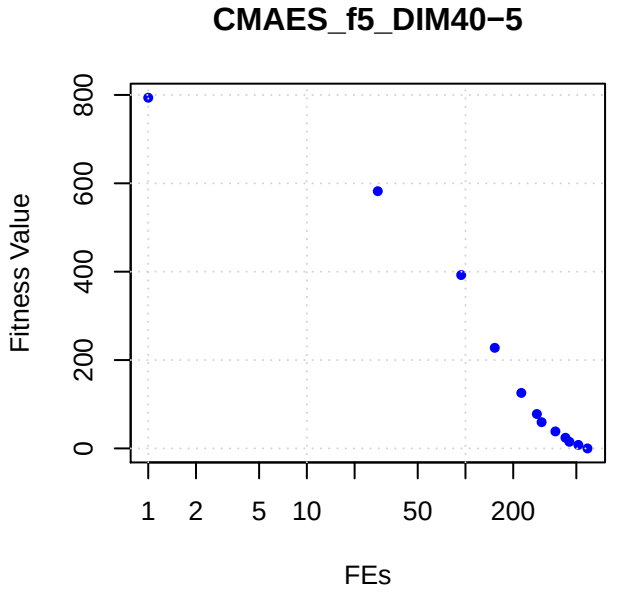
FEs


CMAES_f5_DIM40−5
Fitness Value
0
200
400
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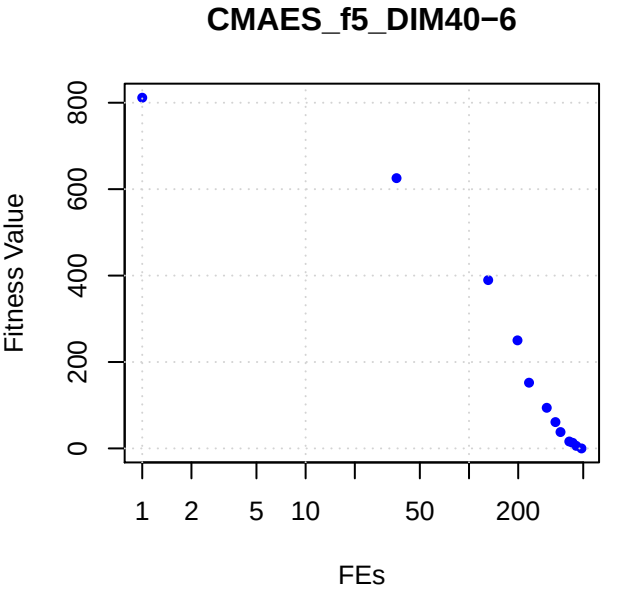
800
1
2
5
10
50
200
FEs


CMAES_f5_DIM40−6
Fitness Value
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400
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800
1
2
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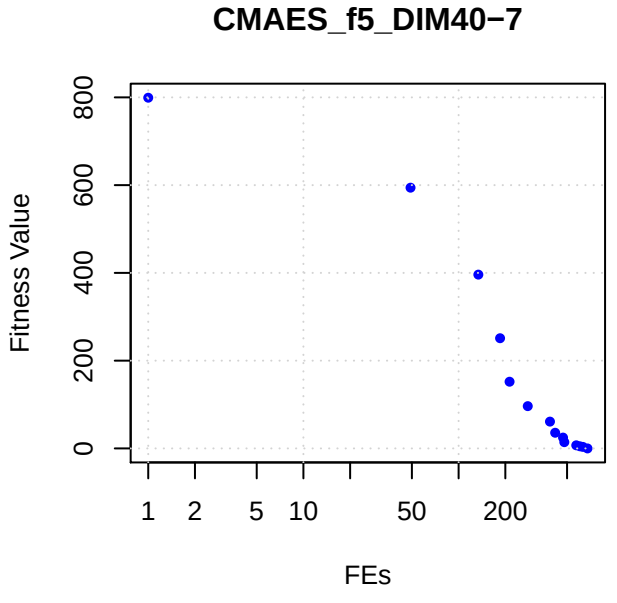
200
FEs


CMAES_f5_DIM40−7
Fitness Value
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800
1
2
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10
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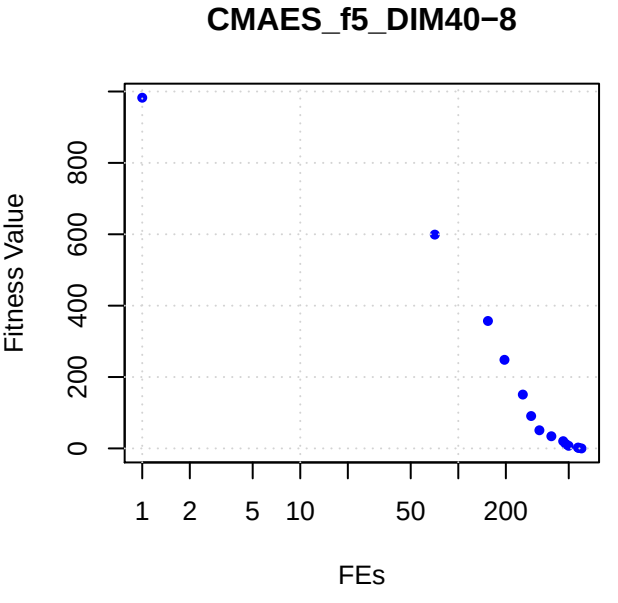
200
FEs


CMAES_f5_DIM40−8
Fitness Value
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800
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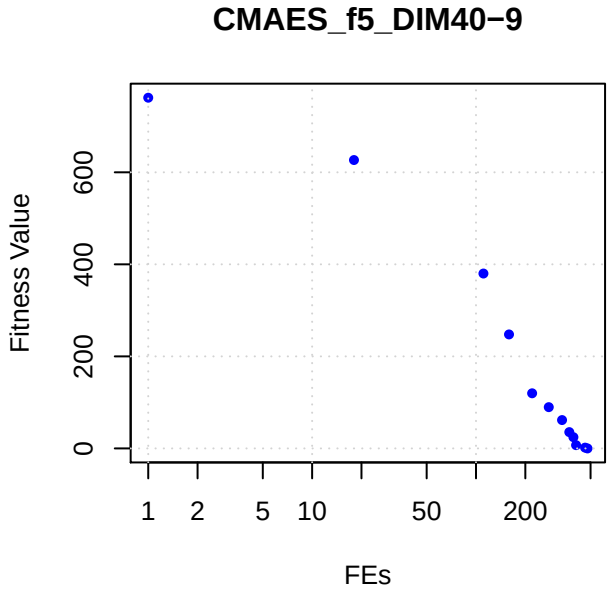
200
FEs


CMAES_f5_DIM40−9
Fitness Value
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600
1
2
5
10
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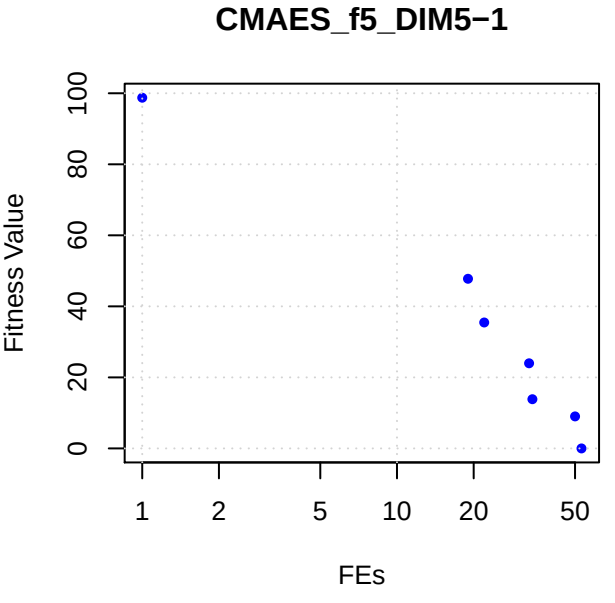
200
FEs


CMAES_f5_DIM5−1
Fitness Value
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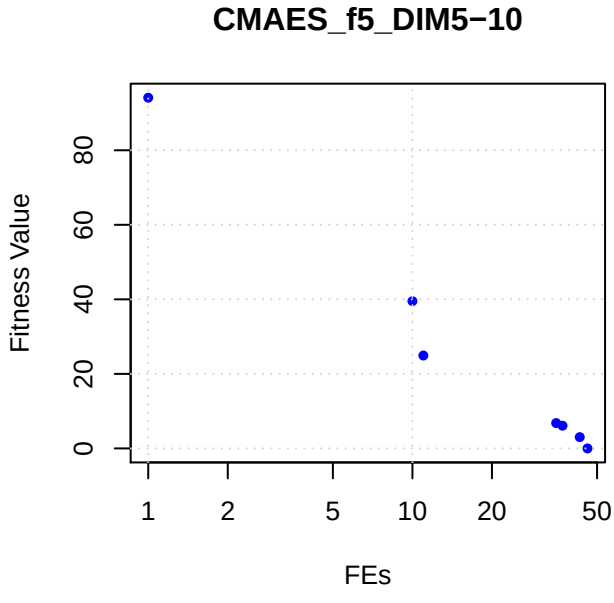
100
1
2
5
10
20
50
FEs


CMAES_f5_DIM5−10
Fitness Value
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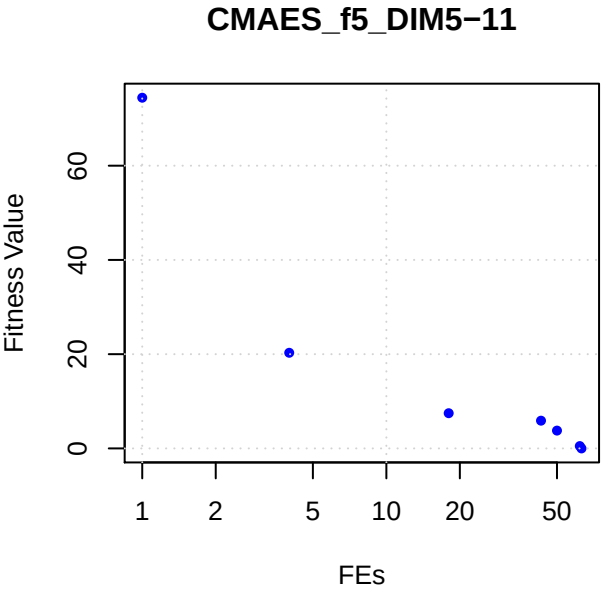
80
1
2
5
10
20
50
FEs


CMAES_f5_DIM5−11
Fitness Value
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1
2
5
10
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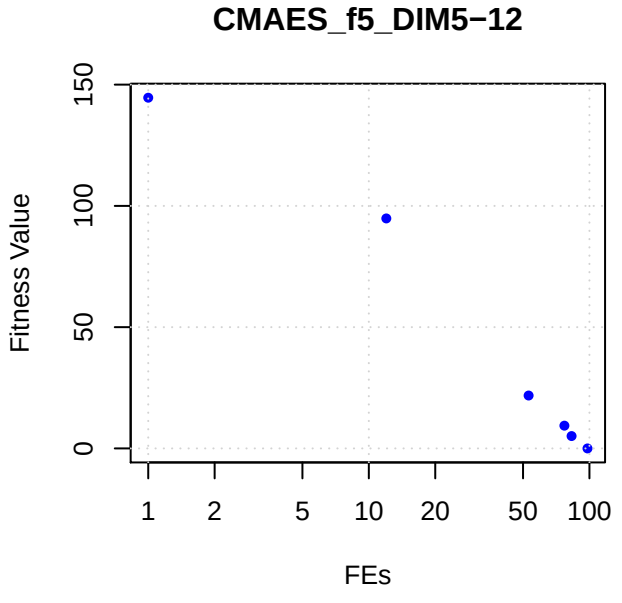
50
FEs


CMAES_f5_DIM5−12
Fitness Value
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100
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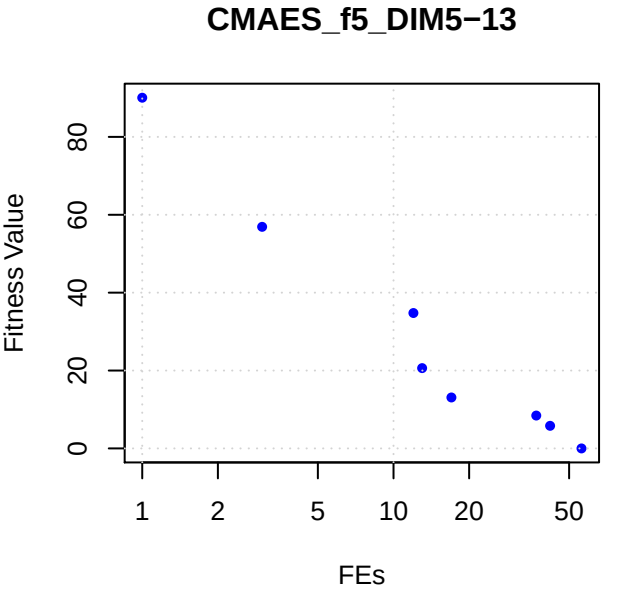
1
2
5
10
20
50
100
FEs


CMAES_f5_DIM5−13
Fitness Value
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80
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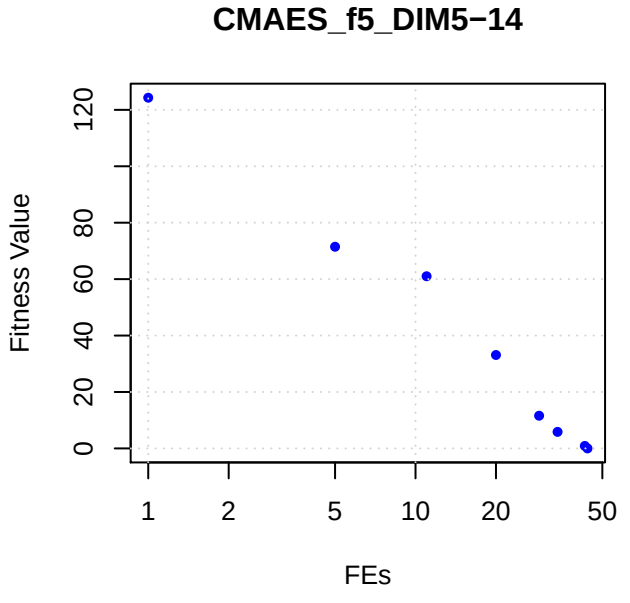
2
5
10
20
50
FEs


CMAES_f5_DIM5−14
Fitness Value
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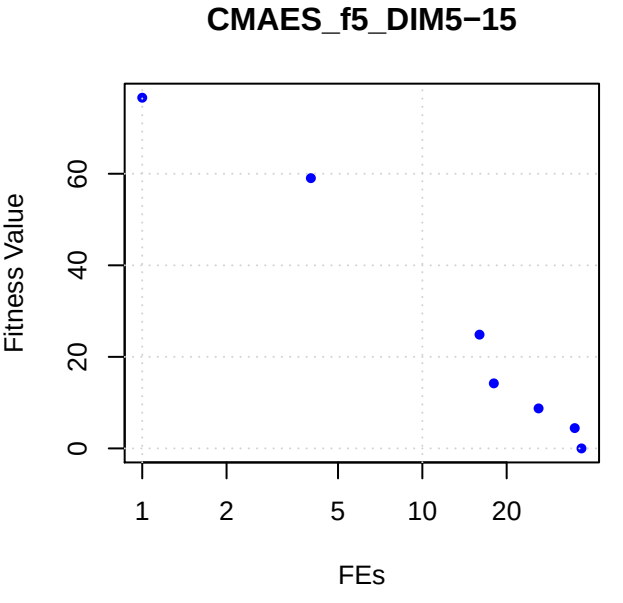
2
5
10
20
50
FEs


CMAES_f5_DIM5−15
Fitness Value
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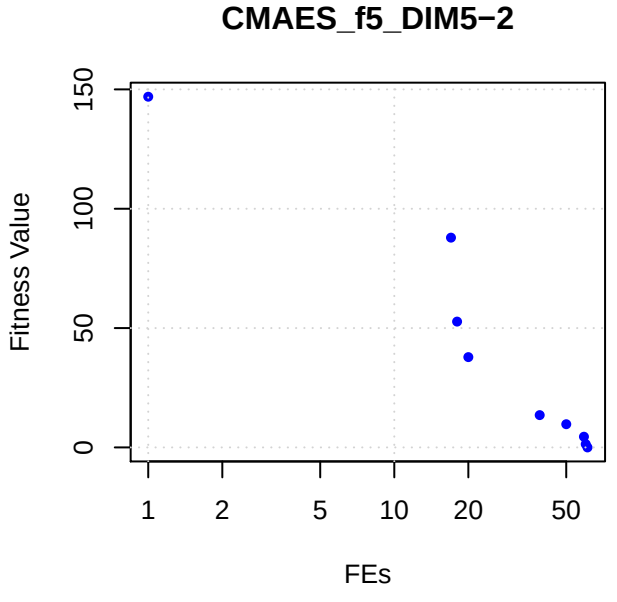
60
1
2
5
10
20
FEs


CMAES_f5_DIM5−2
Fitness Value
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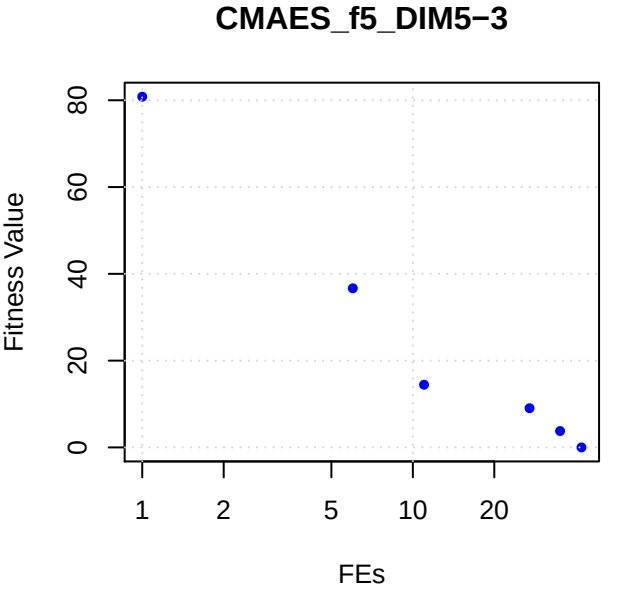
100
150
1
2
5
10
20
50
FEs


CMAES_f5_DIM5−3
Fitness Value
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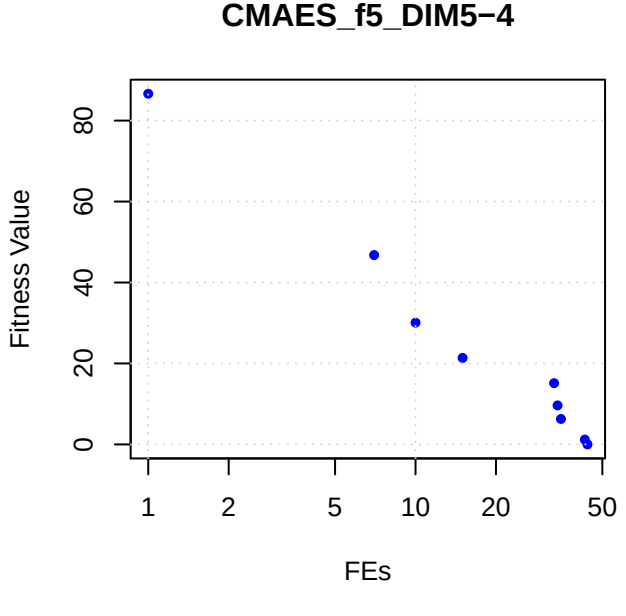
80
1
2
5
10
20
FEs


CMAES_f5_DIM5−4
Fitness Value
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1
2
5
10
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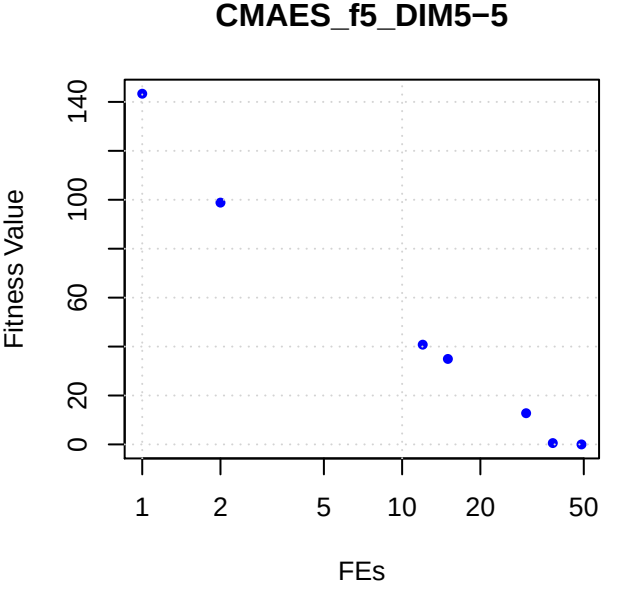
FEs


CMAES_f5_DIM5−5
Fitness Value
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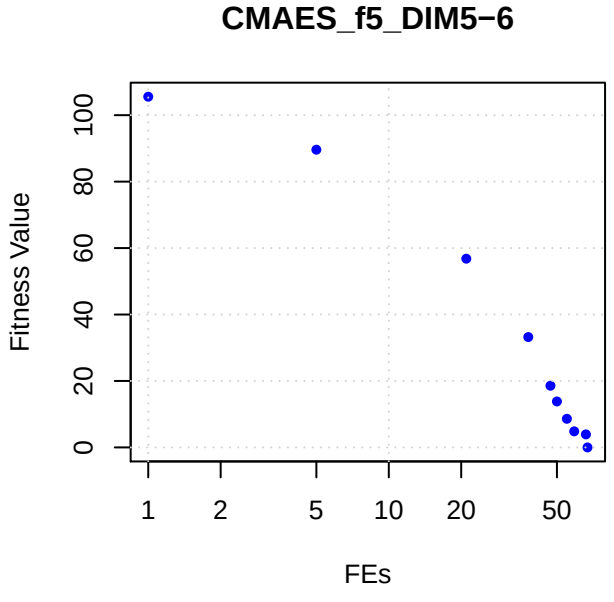
140
1
2
5
10
20
50
FEs


CMAES_f5_DIM5−6
Fitness Value
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100
1
2
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10
20
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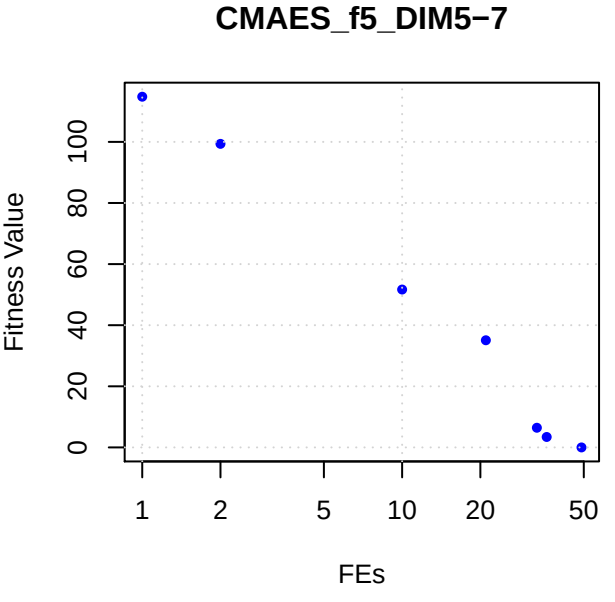
FEs


CMAES_f5_DIM5−7
Fitness Value
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100
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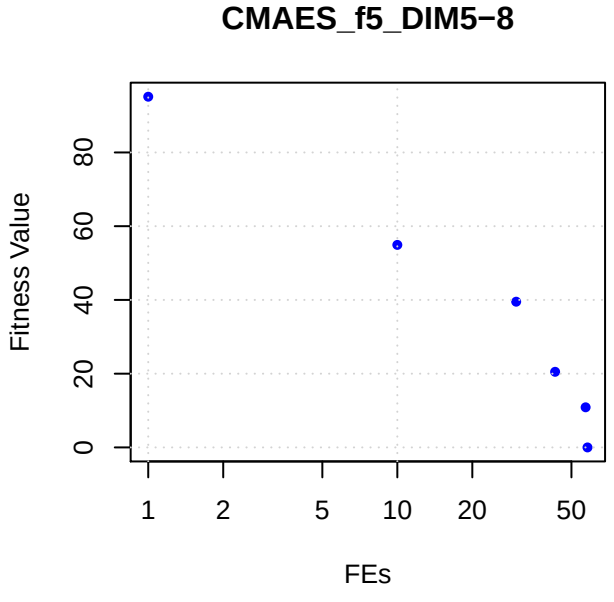
FEs


CMAES_f5_DIM5−8
Fitness Value
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80
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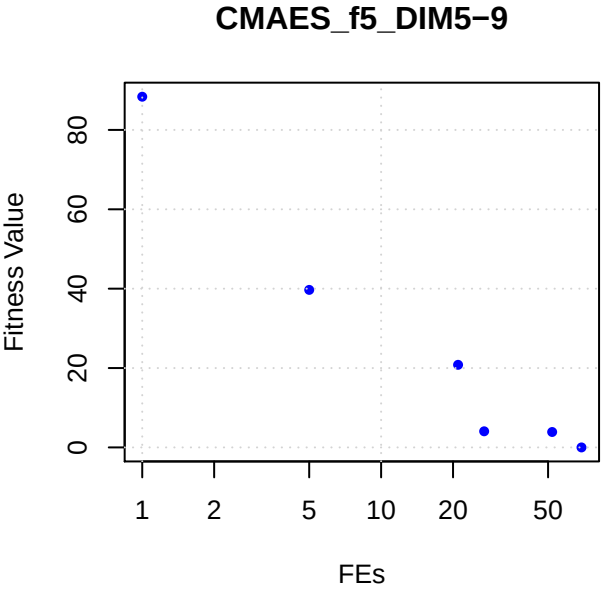
FEs


CMAES_f5_DIM5−9
Fitness Value
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1
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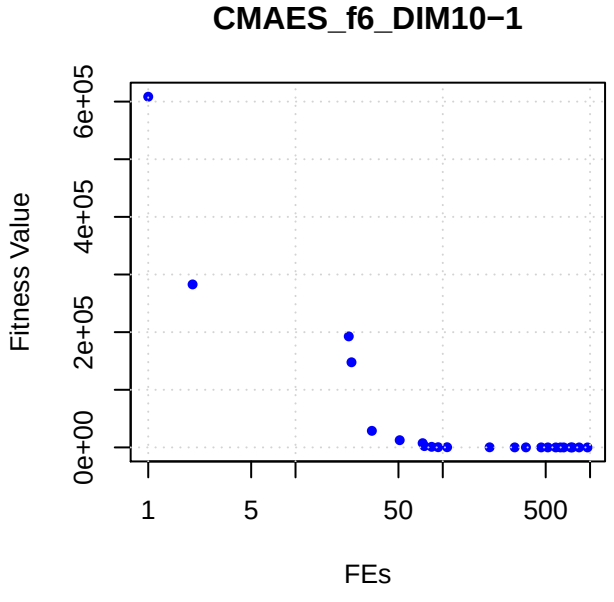
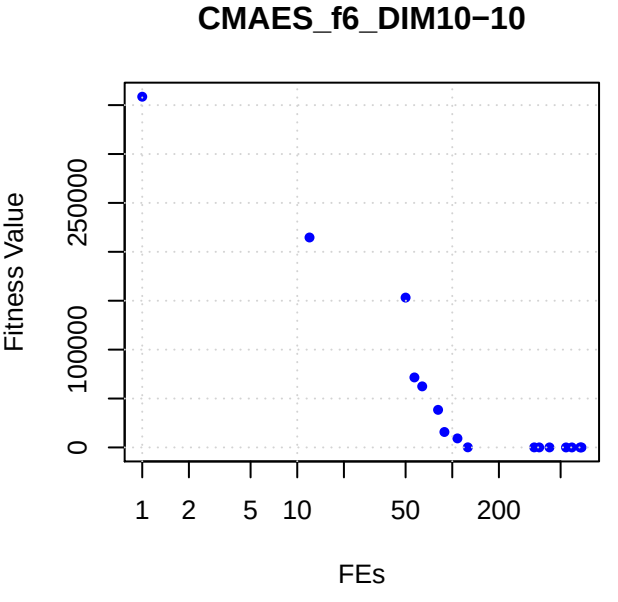
FEs


CMAES_f6_DIM10−1
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
5
50
500
FEs


CMAES_f6_DIM10−10
Fitness Value
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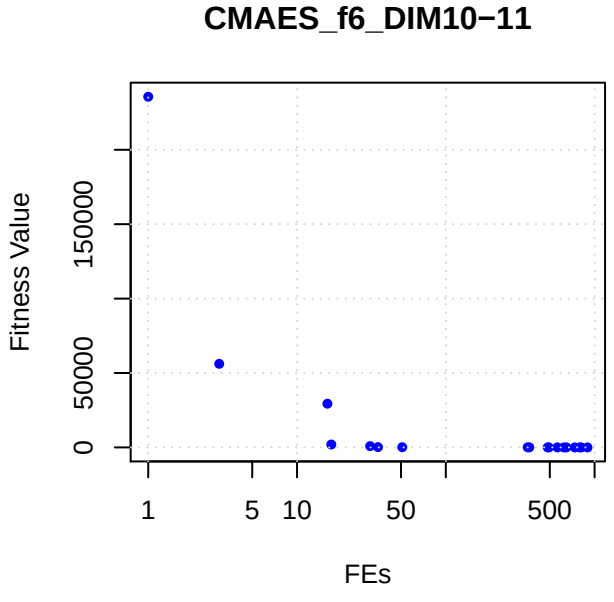
250000
1
2
5
10
50
200
FEs


CMAES_f6_DIM10−11
Fitness Value
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150000
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10
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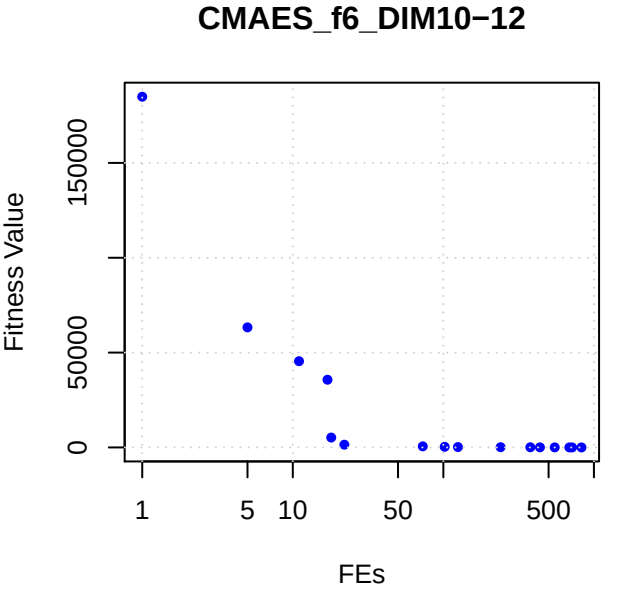
FEs


CMAES_f6_DIM10−12
Fitness Value
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150000
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5
10
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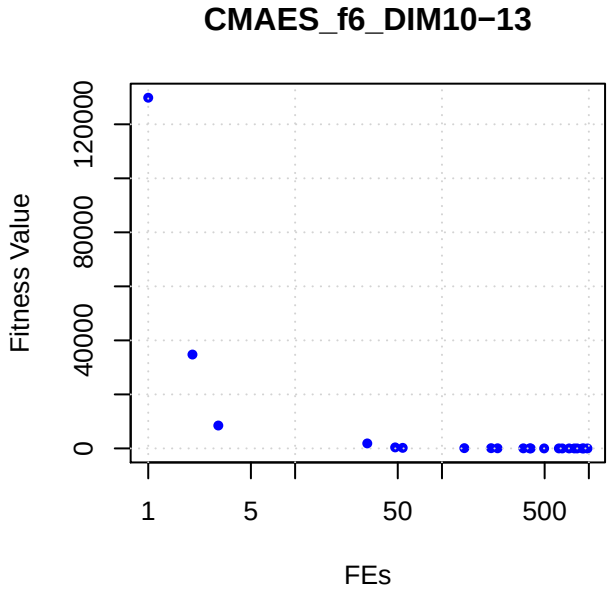
500
FEs


CMAES_f6_DIM10−13
Fitness Value
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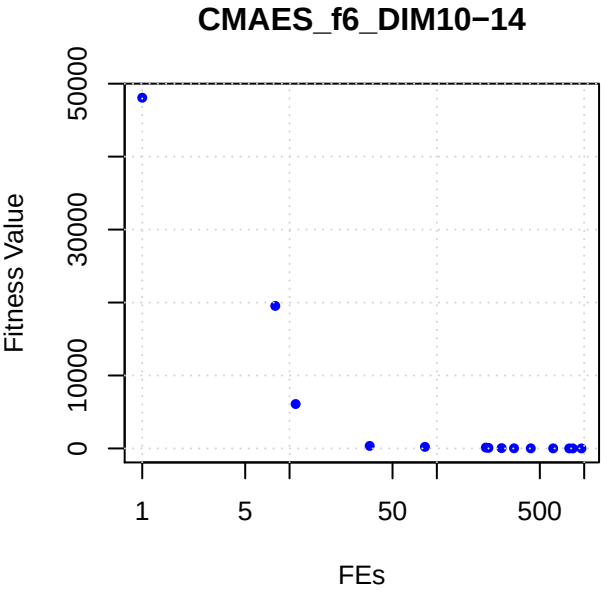
80000
120000
1
5
50
500
FEs


CMAES_f6_DIM10−14
Fitness Value
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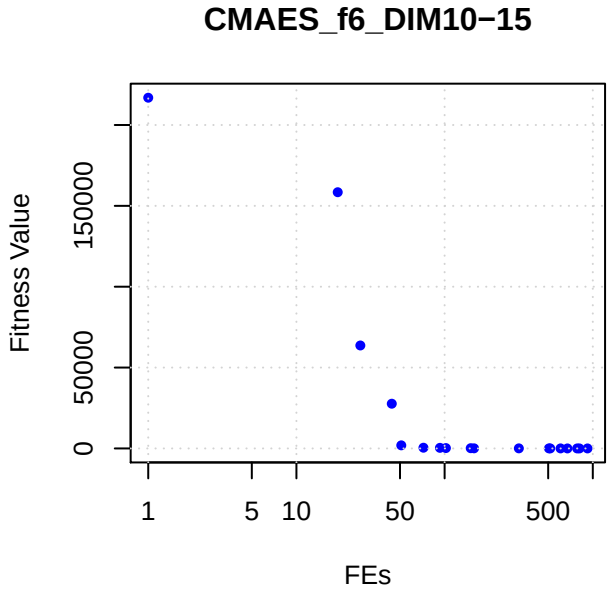
30000
50000
1
5
50
500
FEs


CMAES_f6_DIM10−15
Fitness Value
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150000
1
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10
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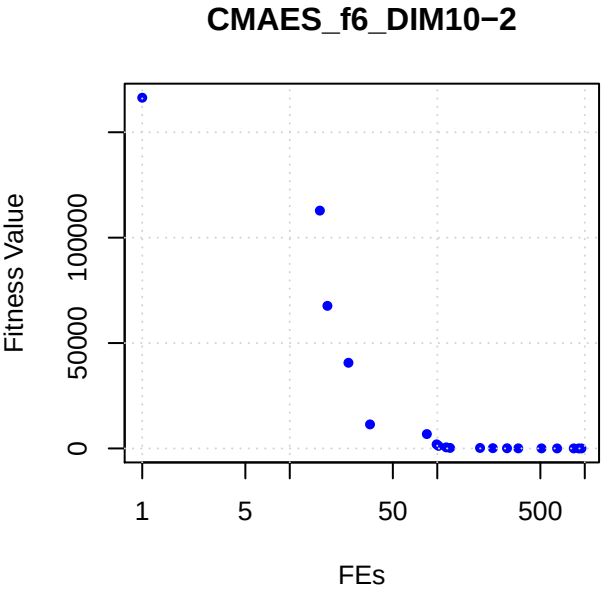
500
FEs


CMAES_f6_DIM10−2
Fitness Value
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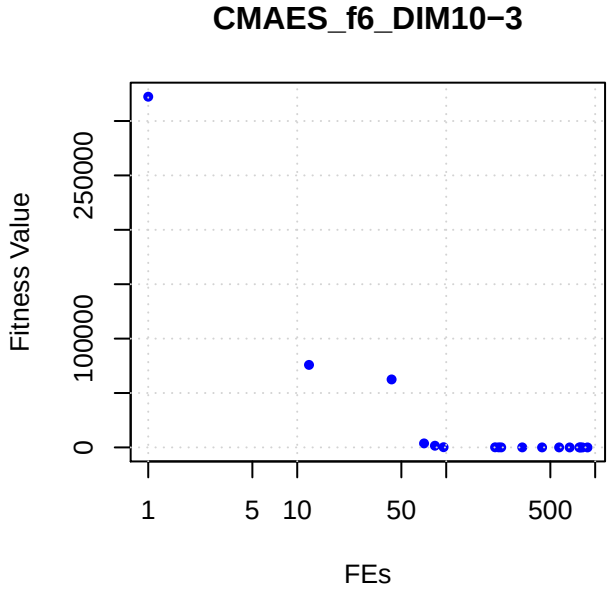
1
5
50
500
FEs


CMAES_f6_DIM10−3
Fitness Value
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250000
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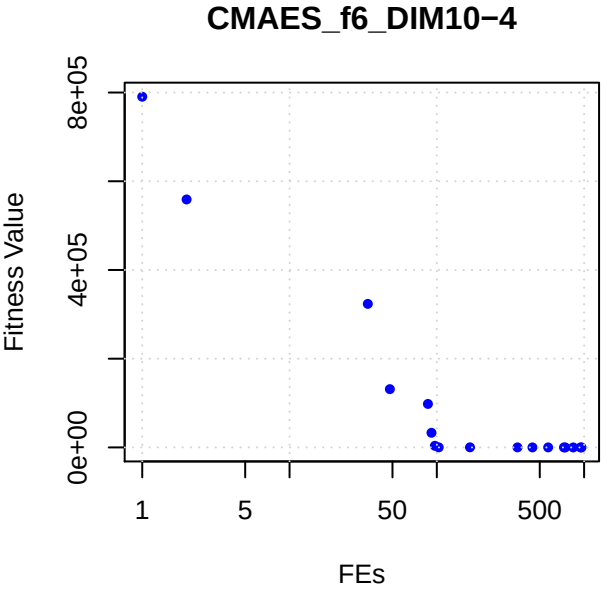
10
50
500
FEs


CMAES_f6_DIM10−4
Fitness Value
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8e+05
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5
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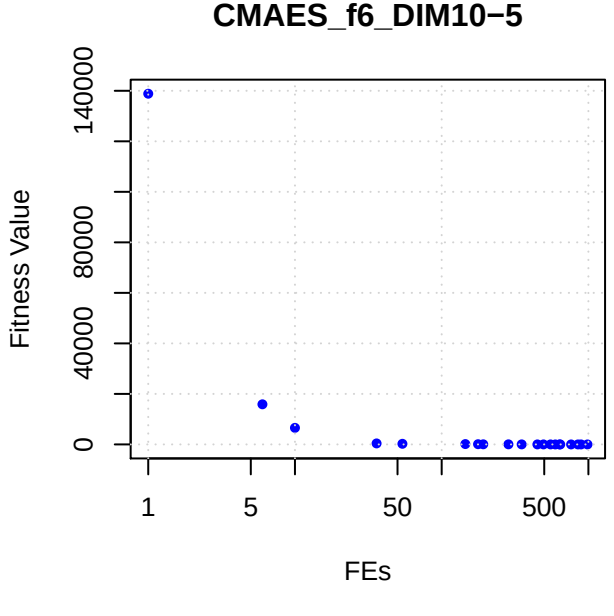
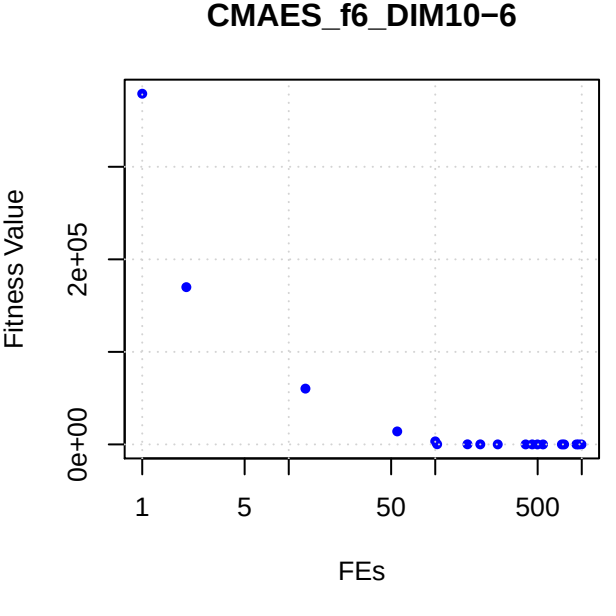
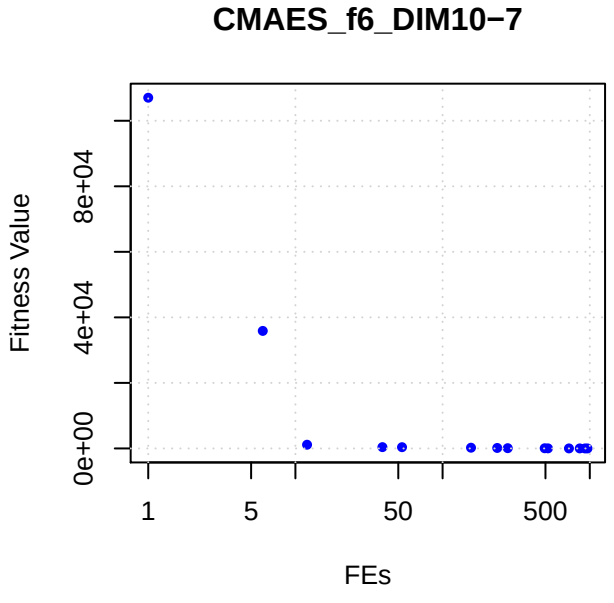
500
FEs


CMAES_f6_DIM10−5
Fitness Value
0
40000
80000
140000
1
5
50
500
FEs


CMAES_f6_DIM10−6
Fitness Value
0e+00
2e+05
1
5
50
500
FEs


CMAES_f6_DIM10−7
Fitness Value
0e+00
4e+04
8e+04
1
5
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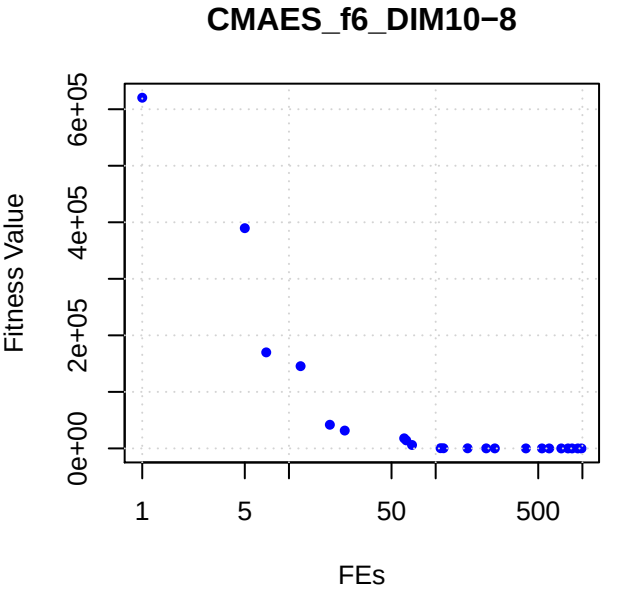
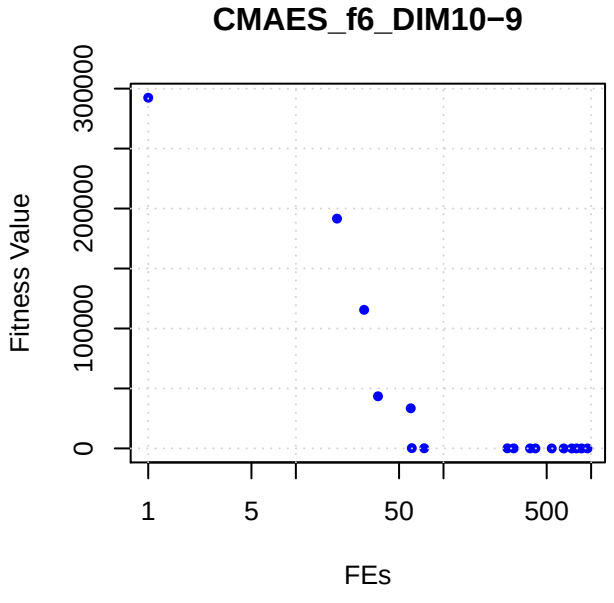
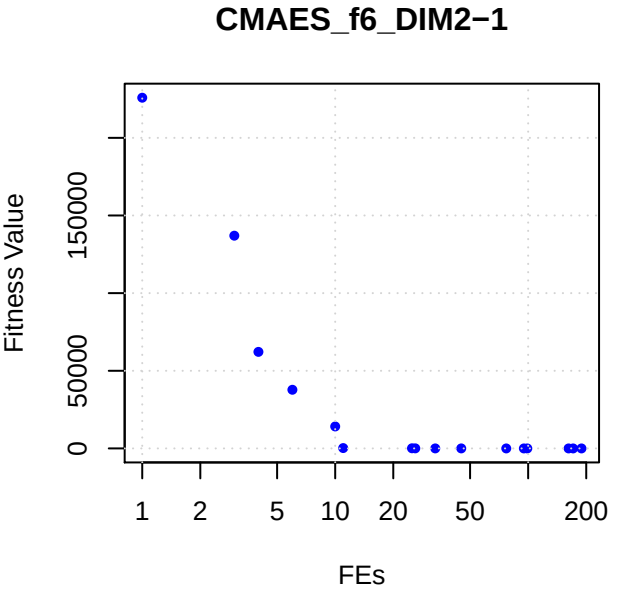
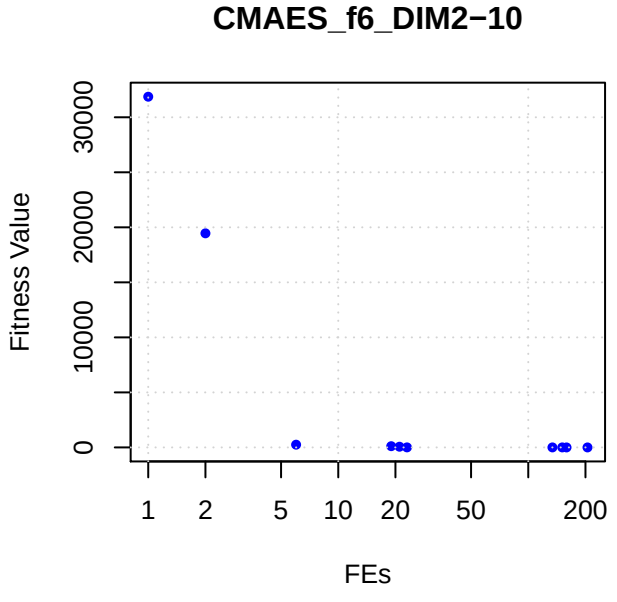
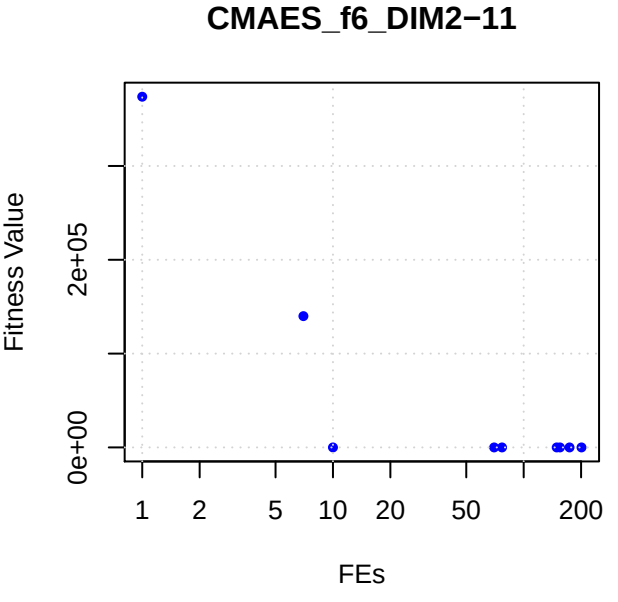
500
FEs

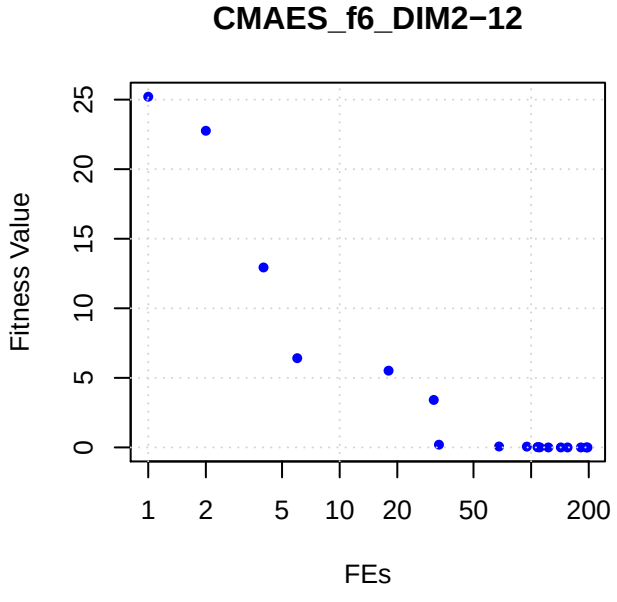

CMAES_f6_DIM10−8
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
5
50
500
FEs

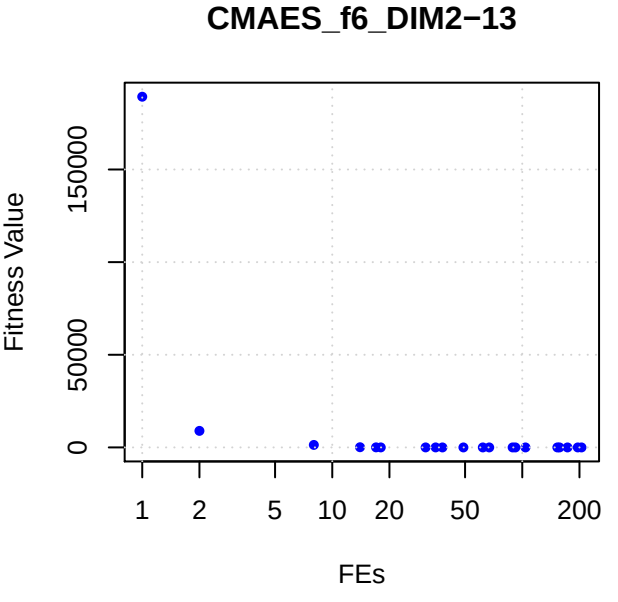

CMAES_f6_DIM10−9
Fitness Value
0
100000
200000
300000
1
5
50
500
FEs

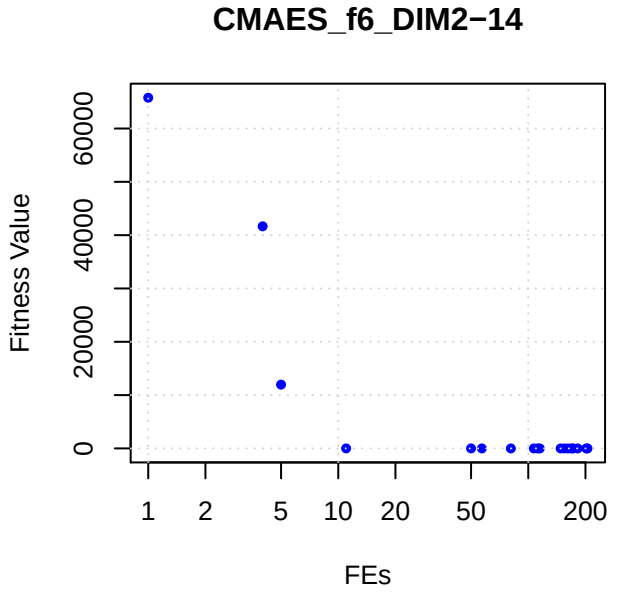

CMAES_f6_DIM2−1
Fitness Value
0
50000
150000
1
2
5
10
20
50
200
FEs

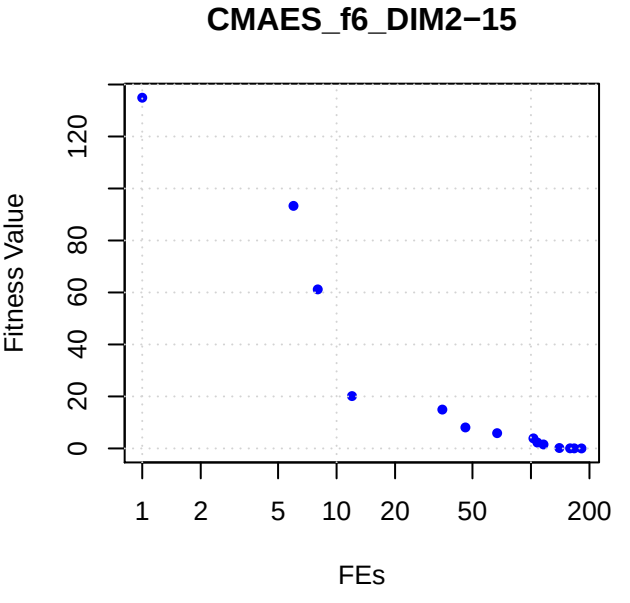

CMAES_f6_DIM2−10
Fitness Value
0
10000
20000
30000
1
2
5
10
20
50
200
FEs

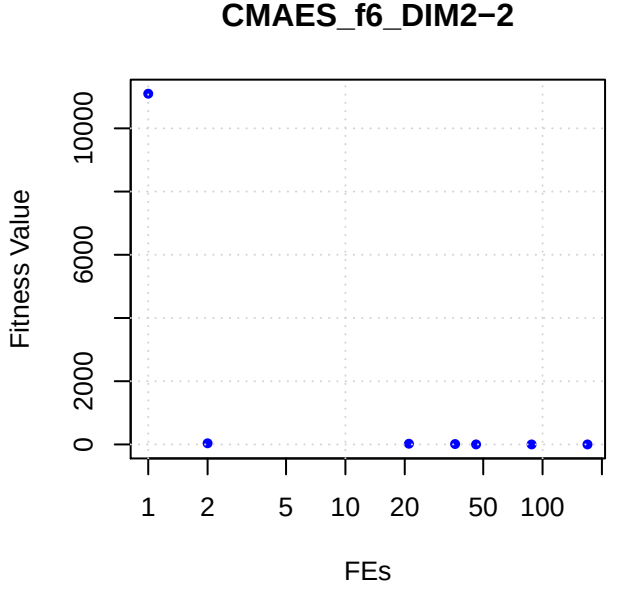

CMAES_f6_DIM2−11
Fitness Value
0e+00
2e+05
1
2
5
10
20
50
200
FEs

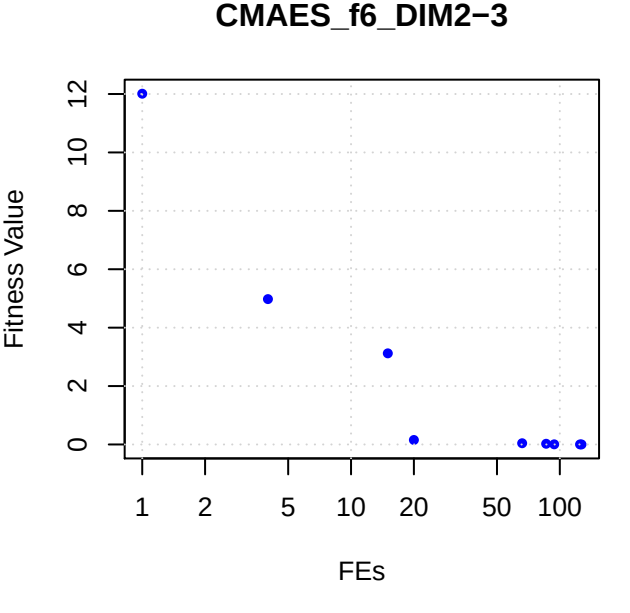

CMAES_f6_DIM2−12
Fitness Value
0
5
10
15
20
25
1
2
5
10
20
50
200
FEs

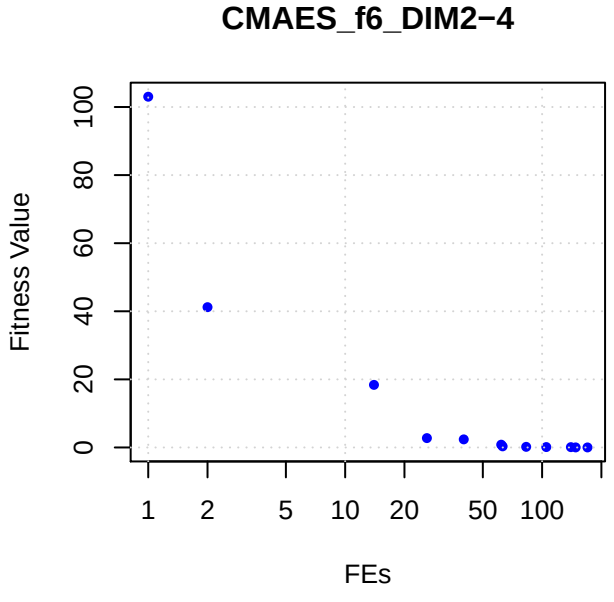

CMAES_f6_DIM2−13
Fitness Value
0
50000
150000
1
2
5
10
20
50
200
FEs

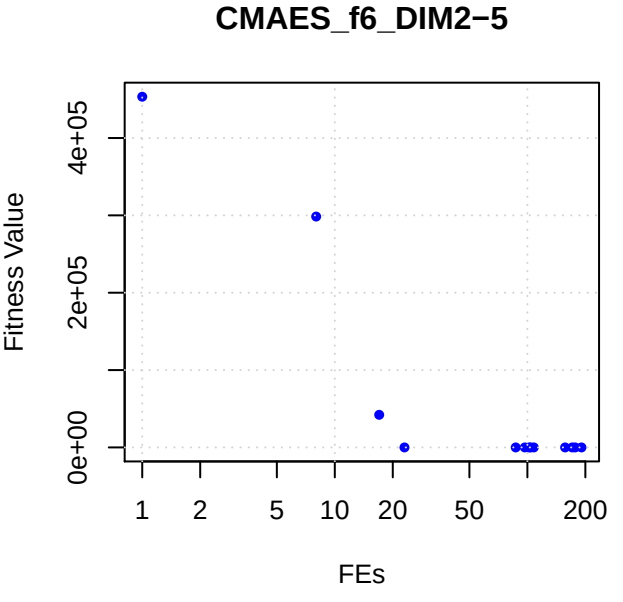

CMAES_f6_DIM2−14
Fitness Value
0
20000
40000
60000
1
2
5
10
20
50
200
FEs

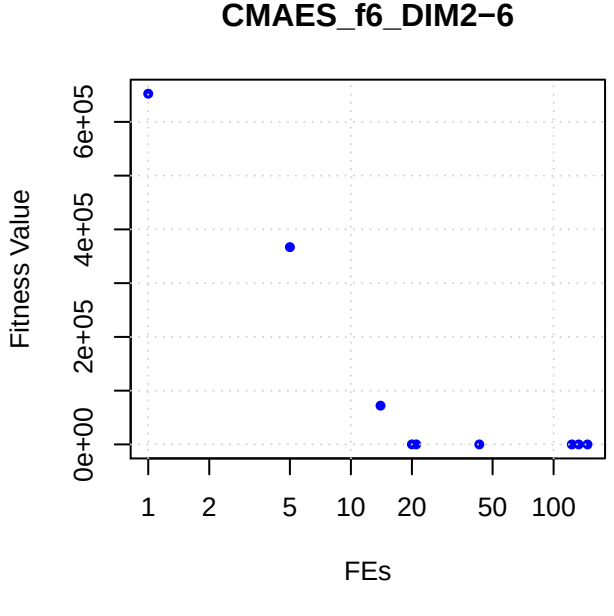

CMAES_f6_DIM2−15
Fitness Value
0
20
40
60
80
120
1
2
5
10
20
50
200
FEs

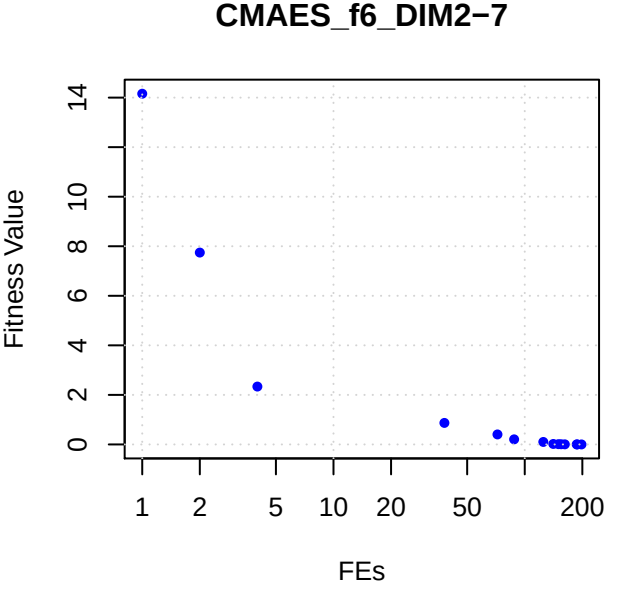

CMAES_f6_DIM2−2
Fitness Value
0
2000
6000
10000
1
2
5
10
20
50
100
FEs

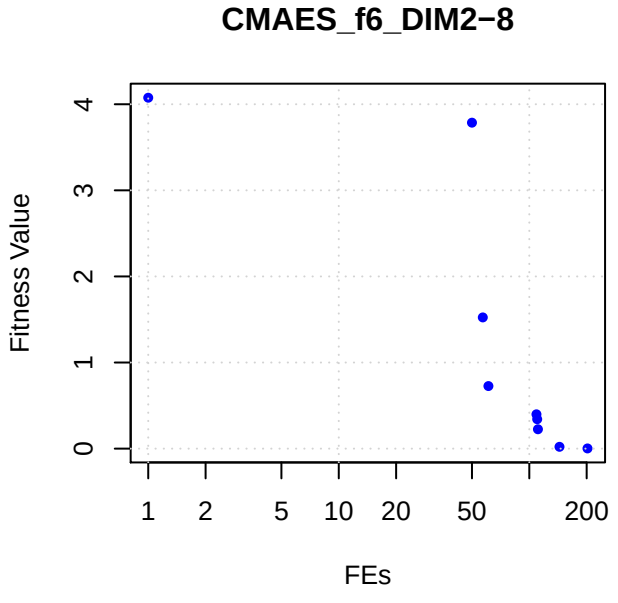

CMAES_f6_DIM2−3
Fitness Value
0
2
4
6
8
10
12
1
2
5
10
20
50
100
FEs

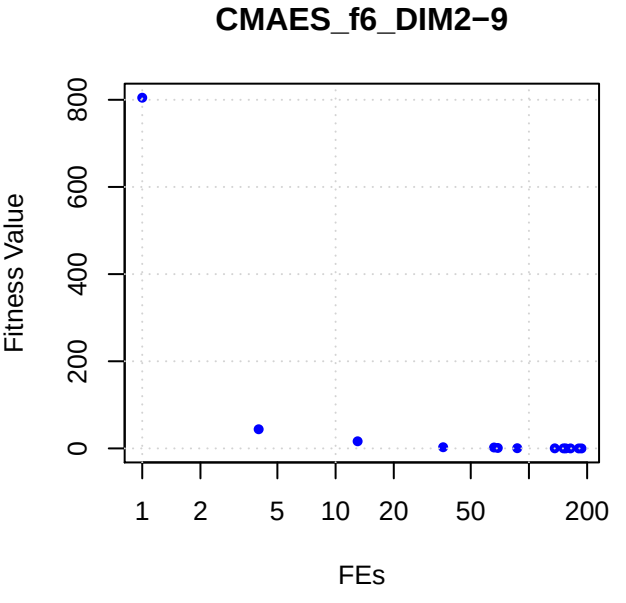

CMAES_f6_DIM2−4
Fitness Value
0
20
40
60
80
100
1
2
5
10
20
50
100
FEs


CMAES_f6_DIM2−5
Fitness Value
0e+00
2e+05
4e+05
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM2−6
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
50
100
FEs


CMAES_f6_DIM2−7
Fitness Value
0
2
4
6
8
10
14
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM2−8
Fitness Value
0
1
2
3
4
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM2−9
Fitness Value
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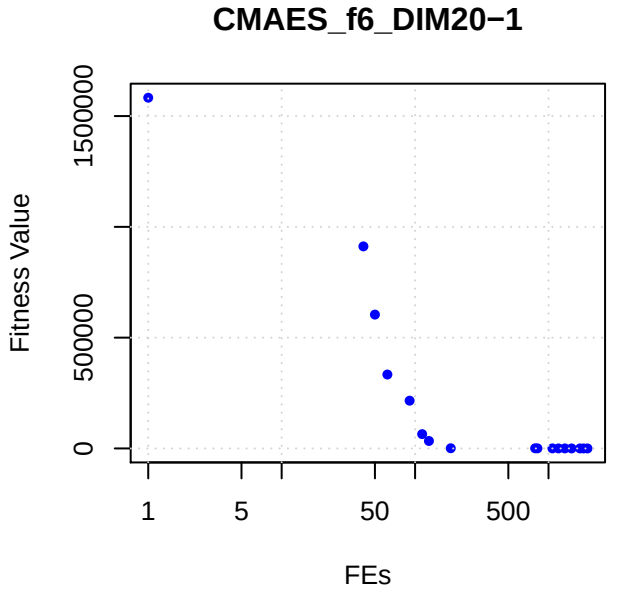
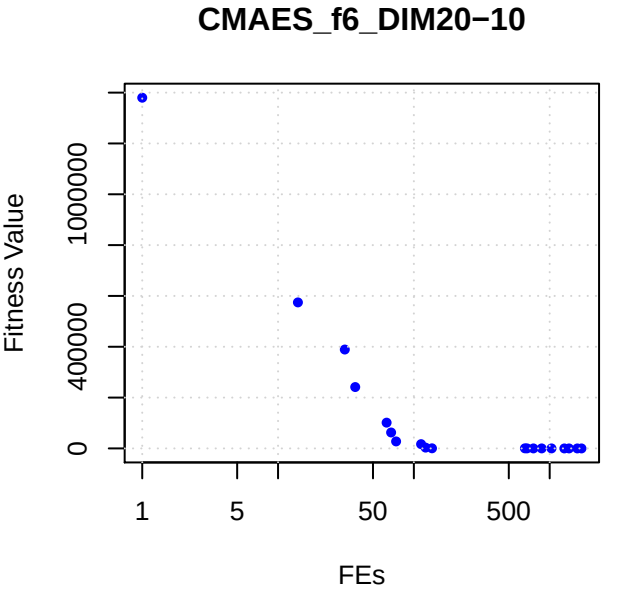
200
400
600
800
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM20−1
Fitness Value
0
500000
1500000
1
5
50
500
FEs


CMAES_f6_DIM20−10
Fitness Value
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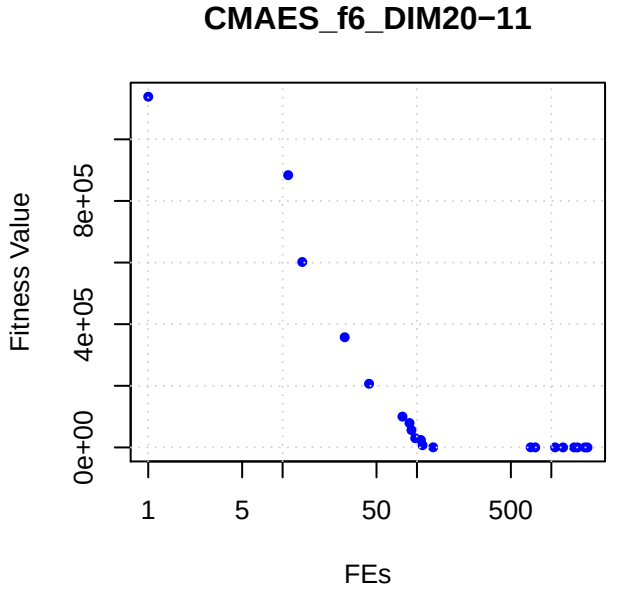
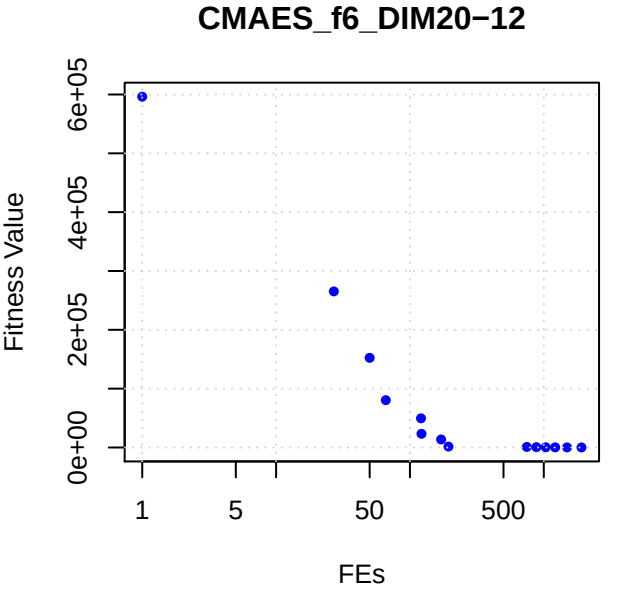
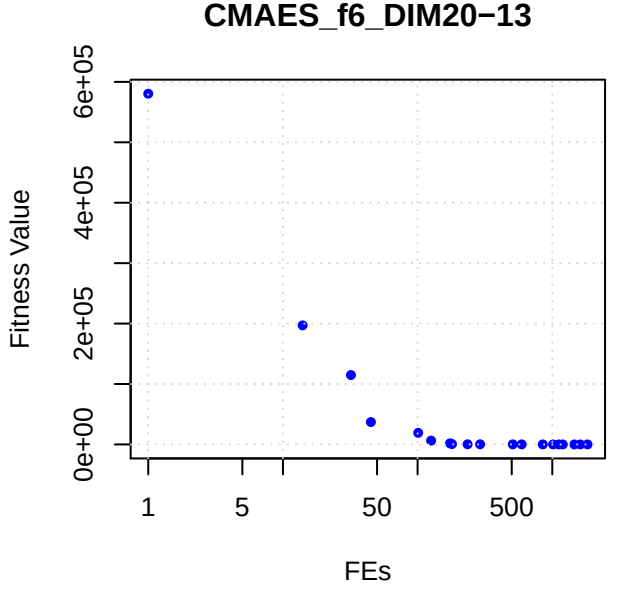
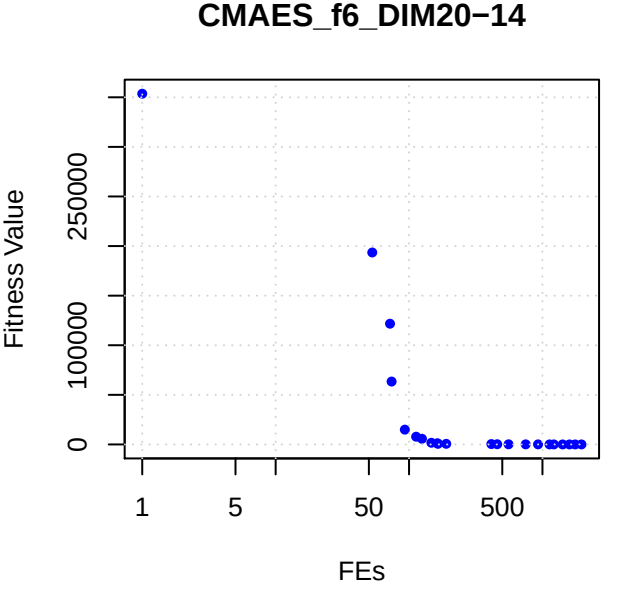
400000
1000000
1
5
50
500
FEs


CMAES_f6_DIM20−11
Fitness Value
0e+00
4e+05
8e+05
1
5
50
500
FEs


CMAES_f6_DIM20−12
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
5
50
500
FEs


CMAES_f6_DIM20−13
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
5
50
500
FEs


CMAES_f6_DIM20−14
Fitness Value
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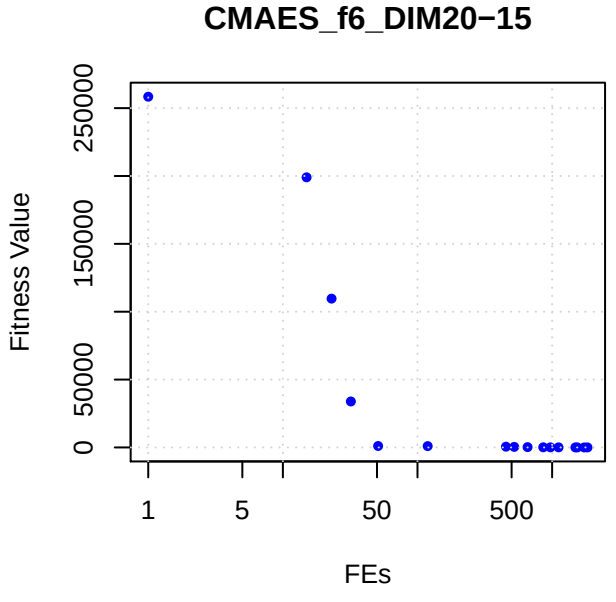
100000
250000
1
5
50
500
FEs


CMAES_f6_DIM20−15
Fitness Value
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150000
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5
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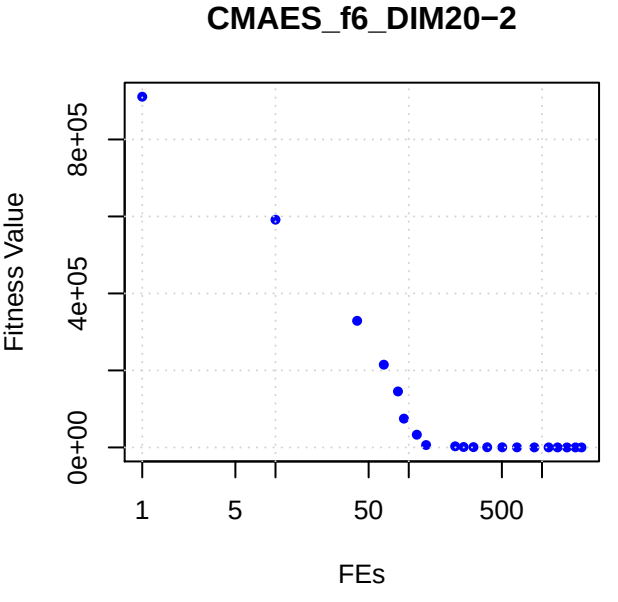
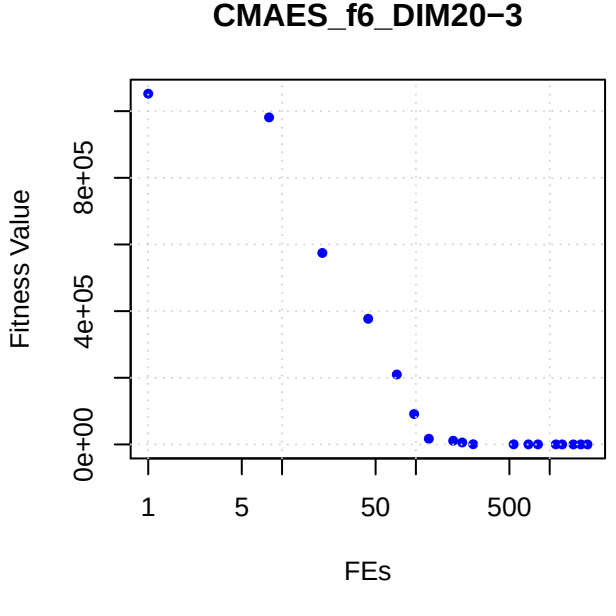
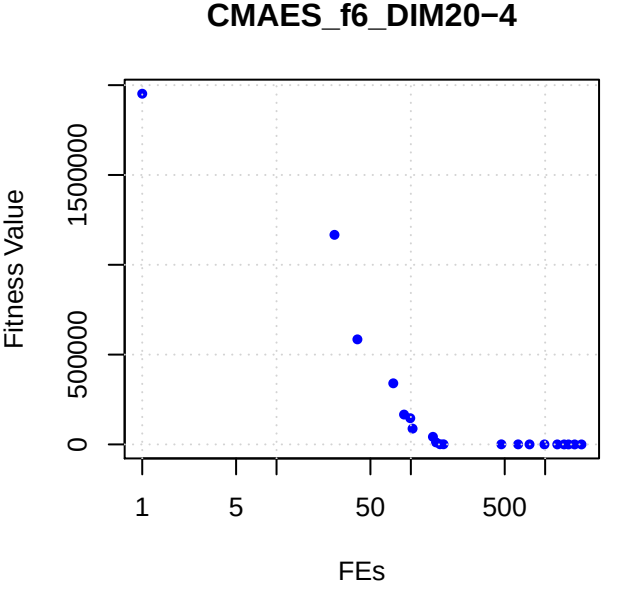
500
FEs


CMAES_f6_DIM20−2
Fitness Value
0e+00
4e+05
8e+05
1
5
50
500
FEs


CMAES_f6_DIM20−3
Fitness Value
0e+00
4e+05
8e+05
1
5
50
500
FEs


CMAES_f6_DIM20−4
Fitness Value
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500000
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1
5
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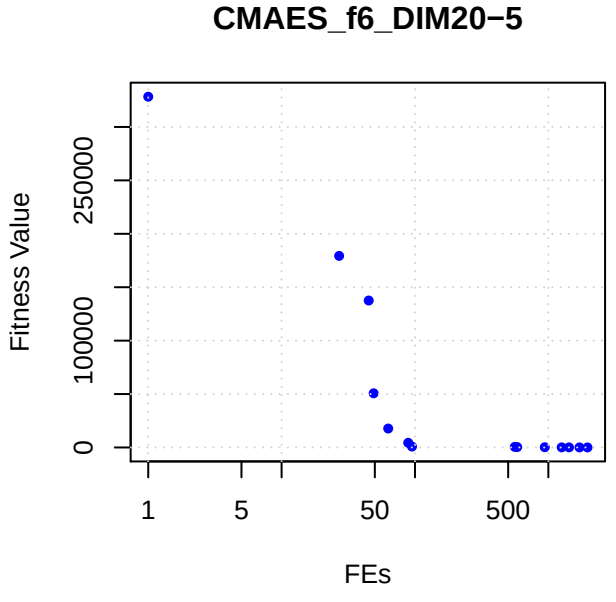
500
FEs


CMAES_f6_DIM20−5
Fitness Value
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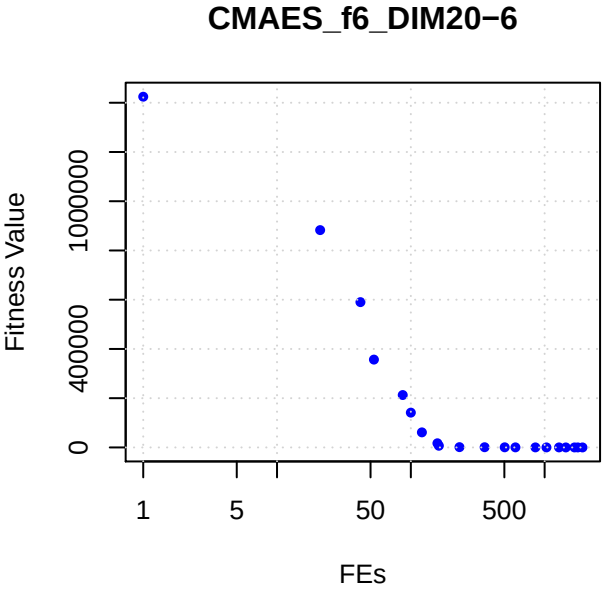
250000
1
5
50
500
FEs


CMAES_f6_DIM20−6
Fitness Value
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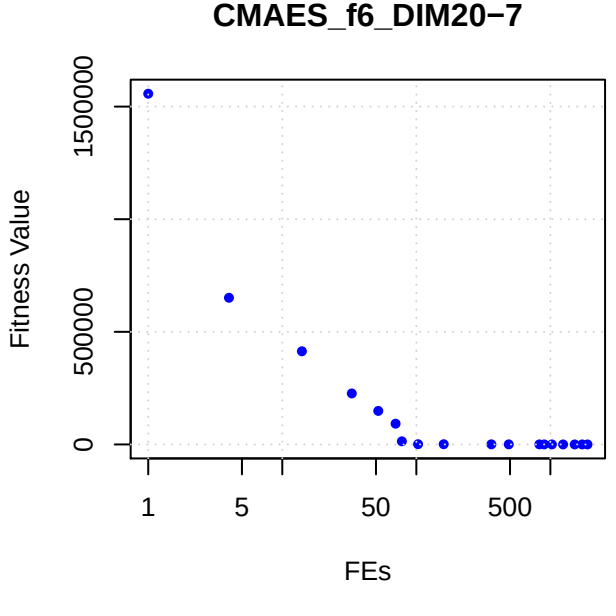
400000
1000000
1
5
50
500
FEs


CMAES_f6_DIM20−7
Fitness Value
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500000
1500000
1
5
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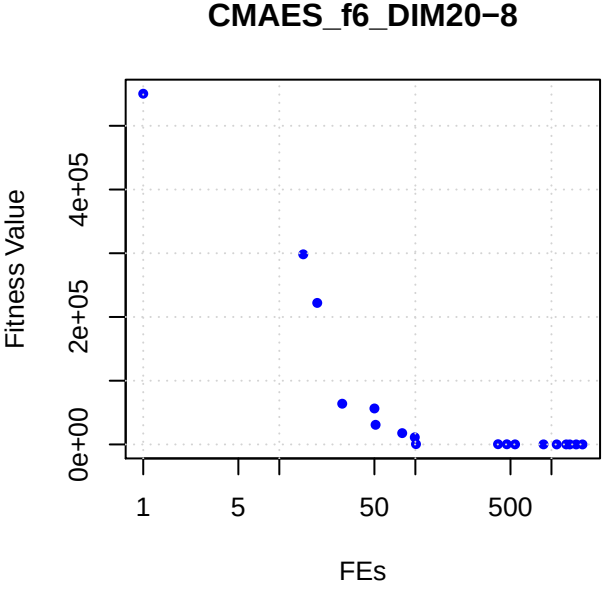
500
FEs


CMAES_f6_DIM20−8
Fitness Value
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2e+05
4e+05
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5
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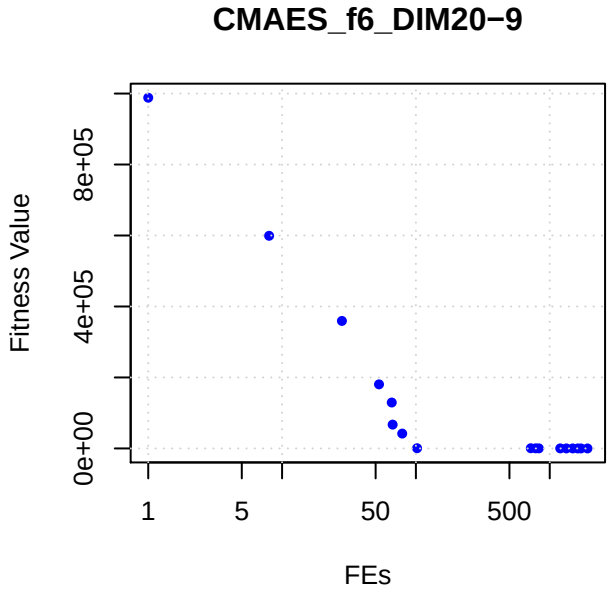
500
FEs


CMAES_f6_DIM20−9
Fitness Value
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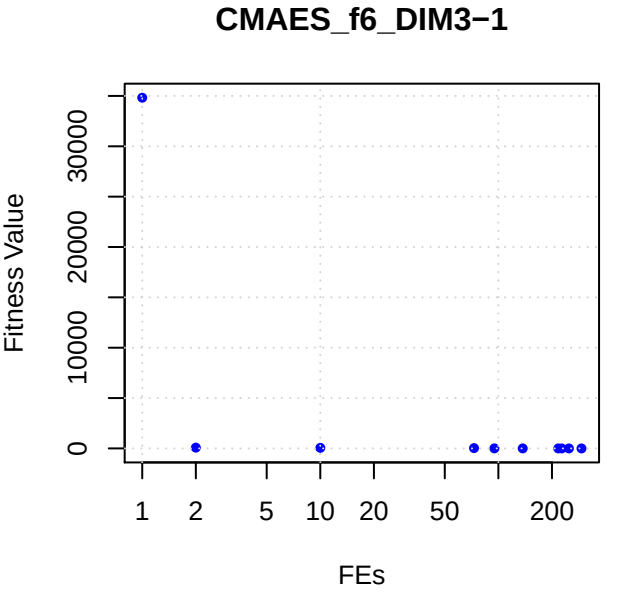
4e+05
8e+05
1
5
50
500
FEs


CMAES_f6_DIM3−1
Fitness Value
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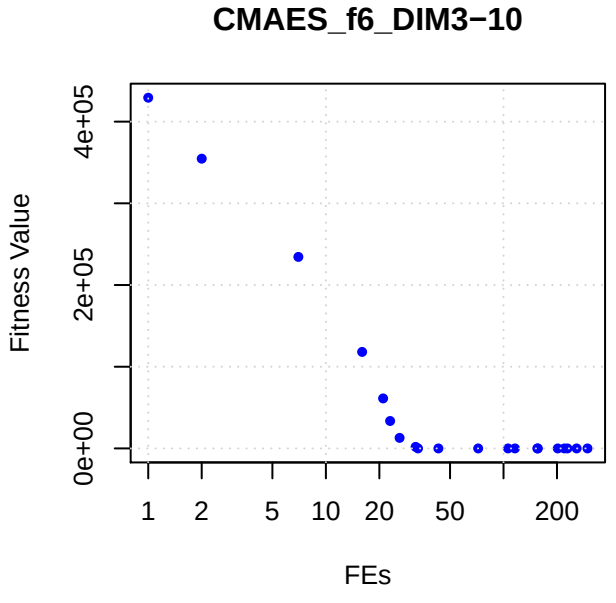
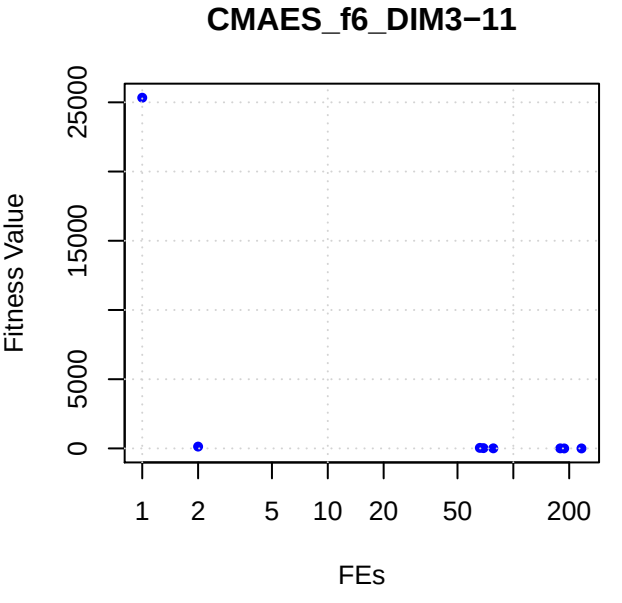
10000
20000
30000
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−10
Fitness Value
0e+00
2e+05
4e+05
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−11
Fitness Value
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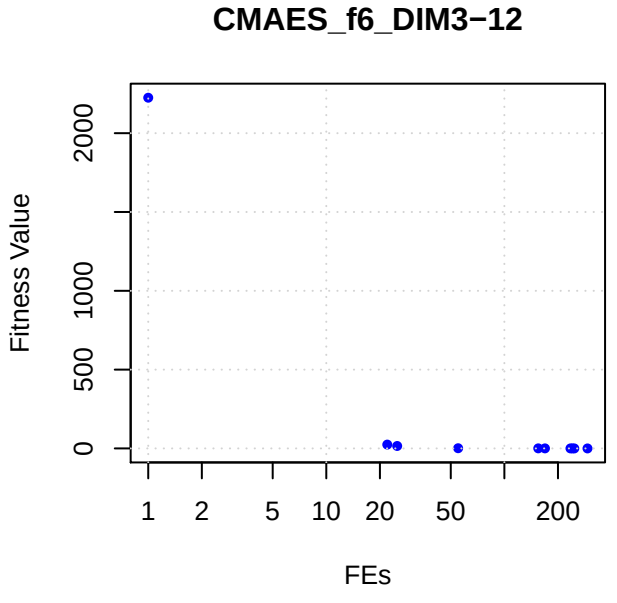
5000
15000
25000
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−12
Fitness Value
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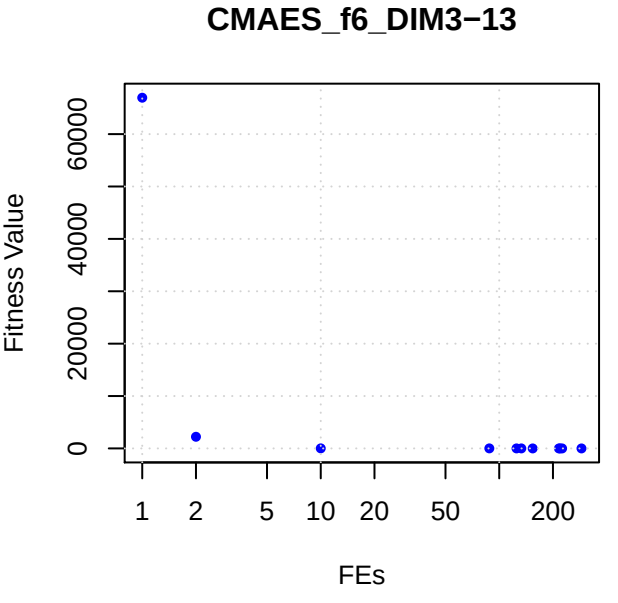
500
1000
2000
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−13
Fitness Value
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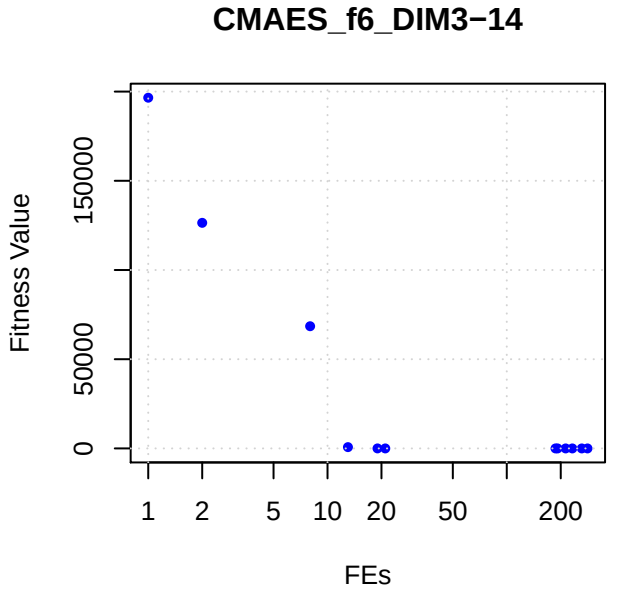
20000
40000
60000
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−14
Fitness Value
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50000
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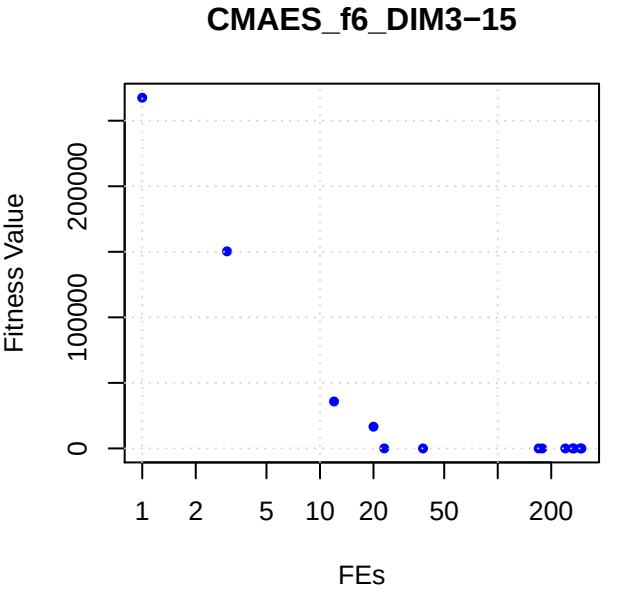
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−15
Fitness Value
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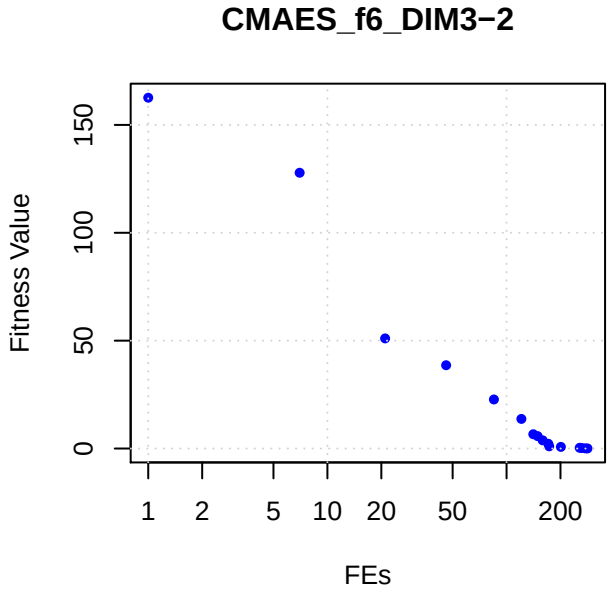
100000
200000
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−2
Fitness Value
0
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100
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1
2
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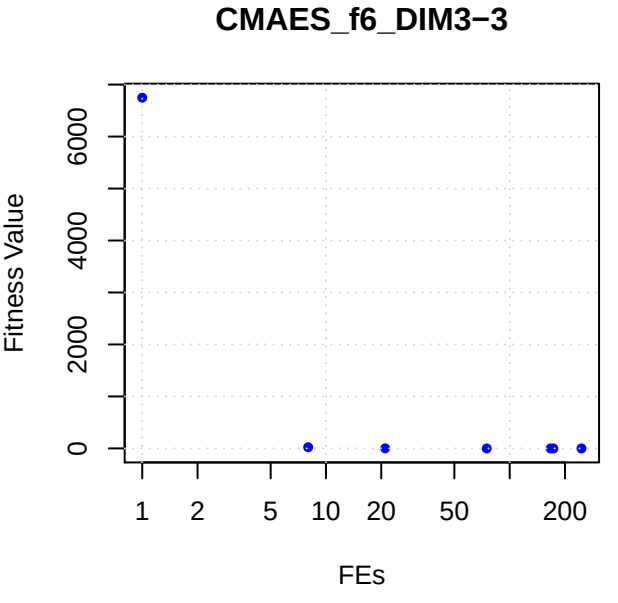
10
20
50
200
FEs


CMAES_f6_DIM3−3
Fitness Value
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2000
4000
6000
1
2
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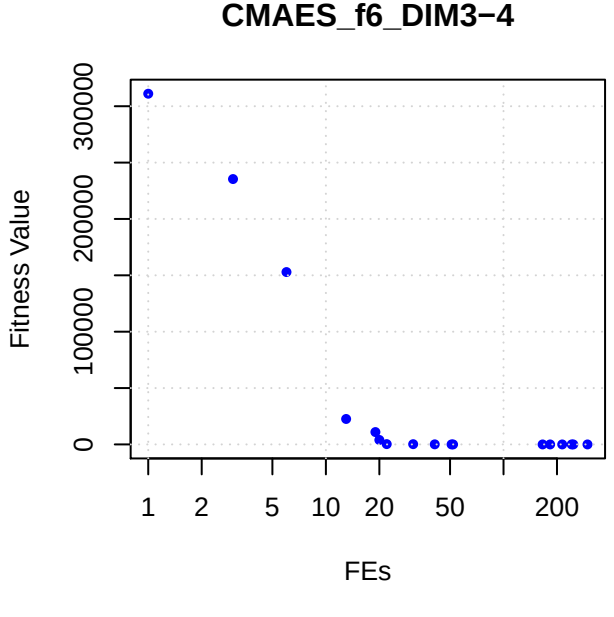
10
20
50
200
FEs


CMAES_f6_DIM3−4
Fitness Value
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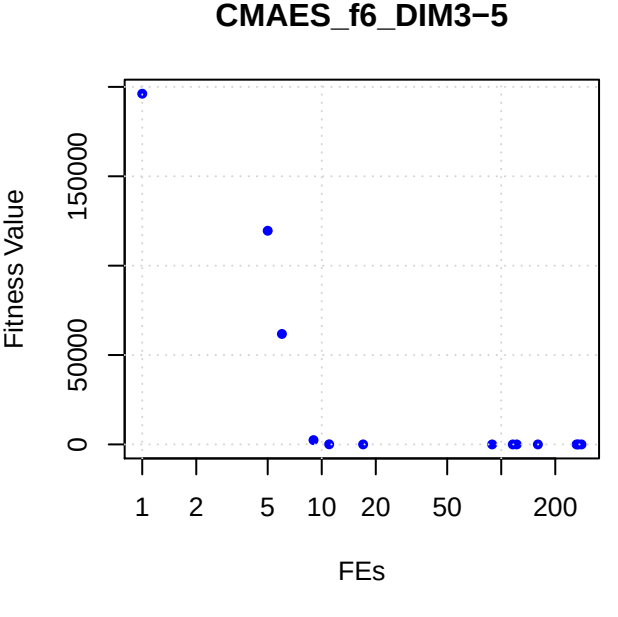
100000
200000
300000
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−5
Fitness Value
0
50000
150000
1
2
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10
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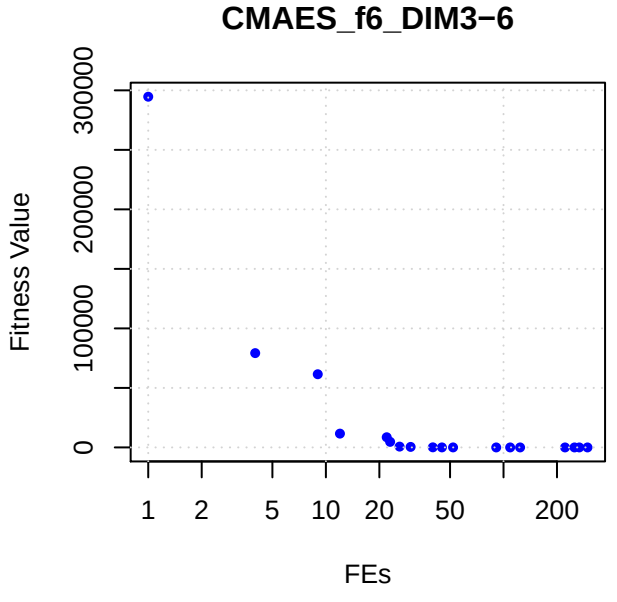
200
FEs


CMAES_f6_DIM3−6
Fitness Value
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100000
200000
300000
1
2
5
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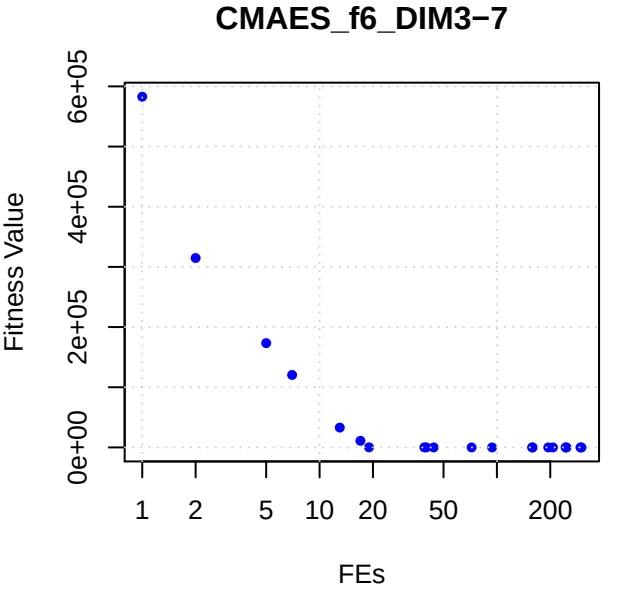
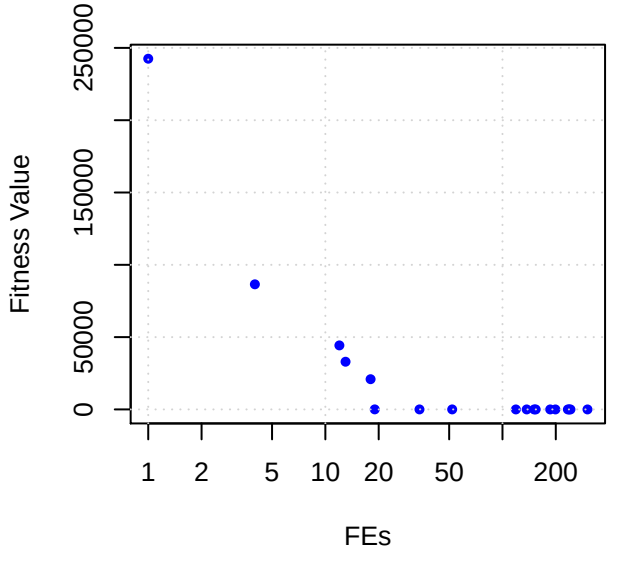
20
50
200
FEs


CMAES_f6_DIM3−7
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
20
50
200
FEs


CMAES_f6_DIM3−8
Fitness Value
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50000
150000
250000
1
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5
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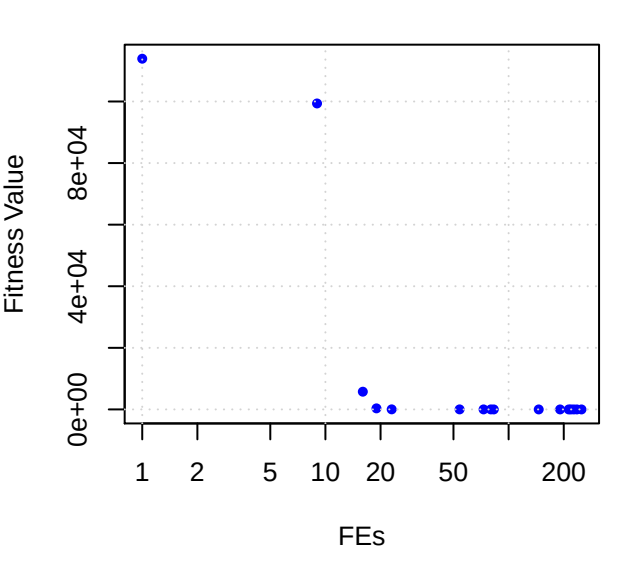
20
50
200
FEs


CMAES_f6_DIM3−9
Fitness Value
0e+00
4e+04
8e+04
1
2
5
10
20
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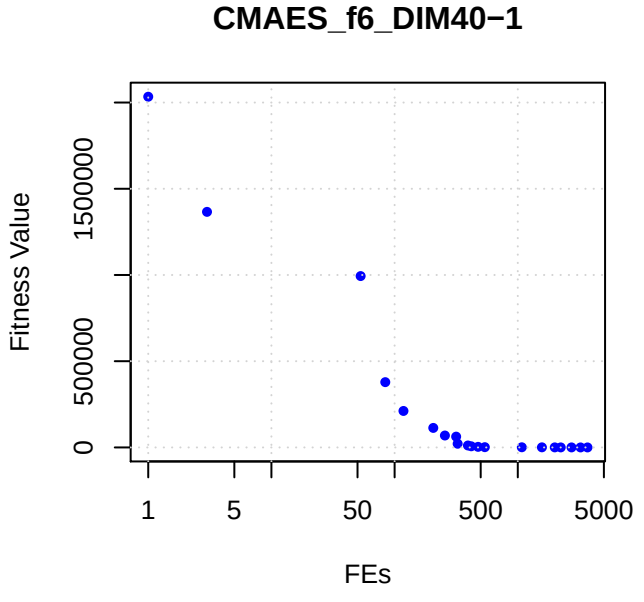
200
FEs


CMAES_f6_DIM40−1
Fitness Value
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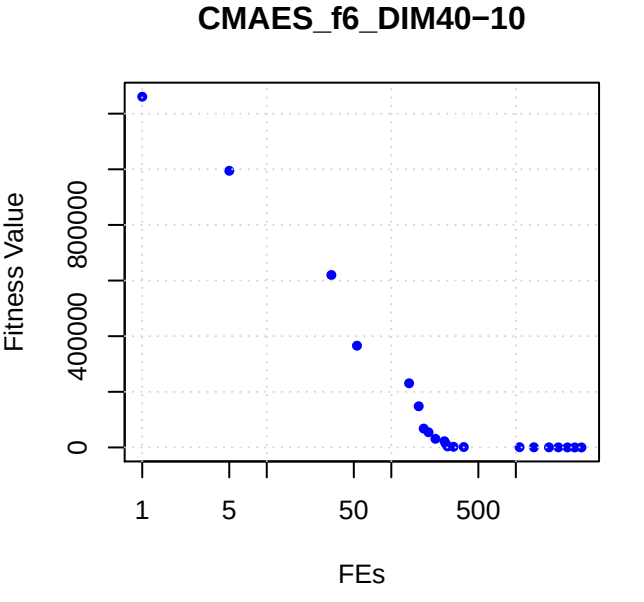
500000
1500000
1
5
50
500
5000
FEs


CMAES_f6_DIM40−10
Fitness Value
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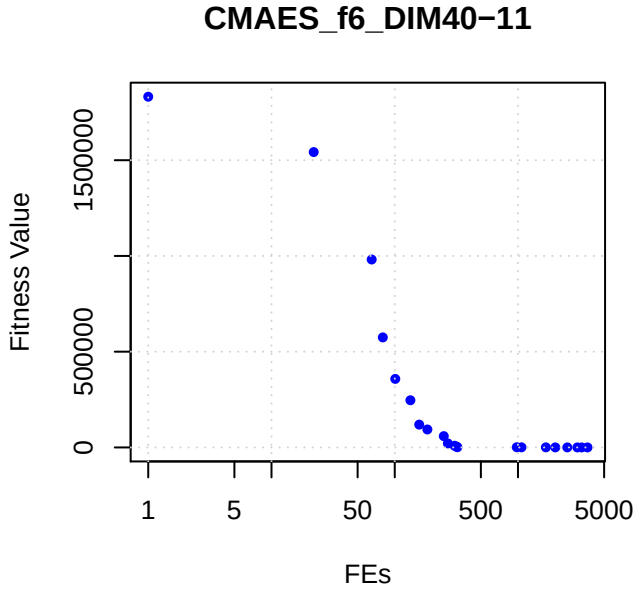
400000
800000
1
5
50
500
FEs


CMAES_f6_DIM40−11
Fitness Value
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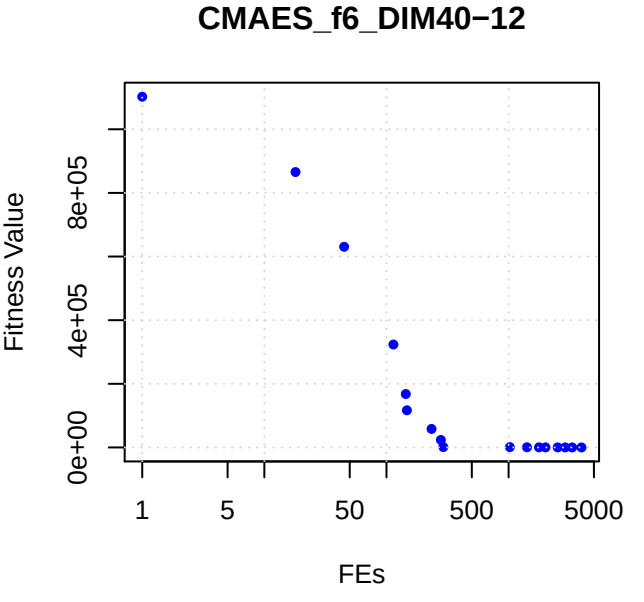
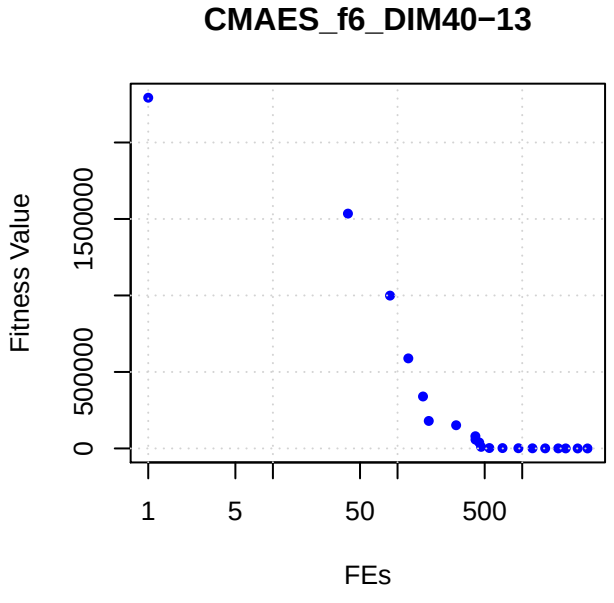
1500000
1
5
50
500
5000
FEs


CMAES_f6_DIM40−12
Fitness Value
0e+00
4e+05
8e+05
1
5
50
500
5000
FEs


CMAES_f6_DIM40−13
Fitness Value
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500000
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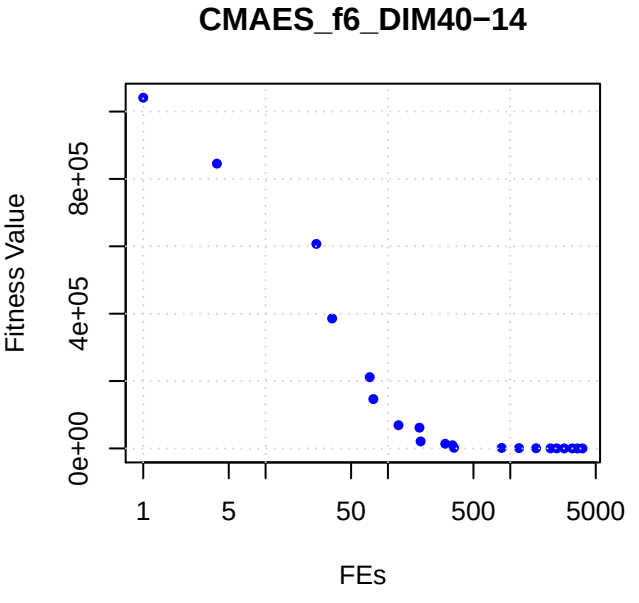
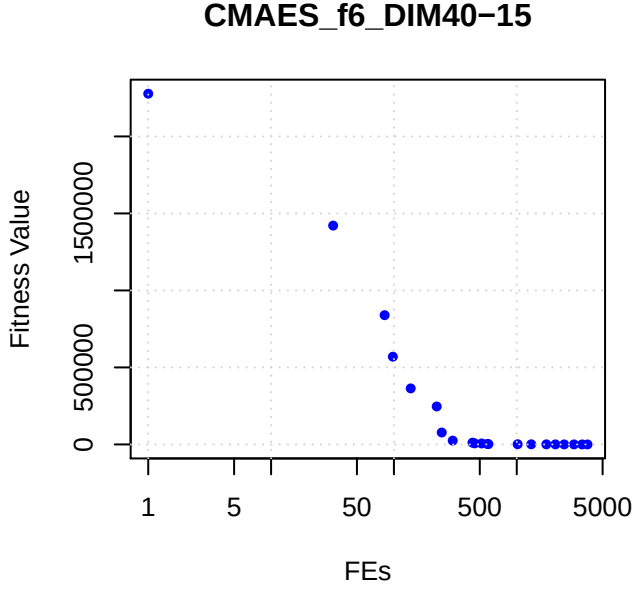
1
5
50
500
FEs


CMAES_f6_DIM40−14
Fitness Value
0e+00
4e+05
8e+05
1
5
50
500
5000
FEs


CMAES_f6_DIM40−15
Fitness Value
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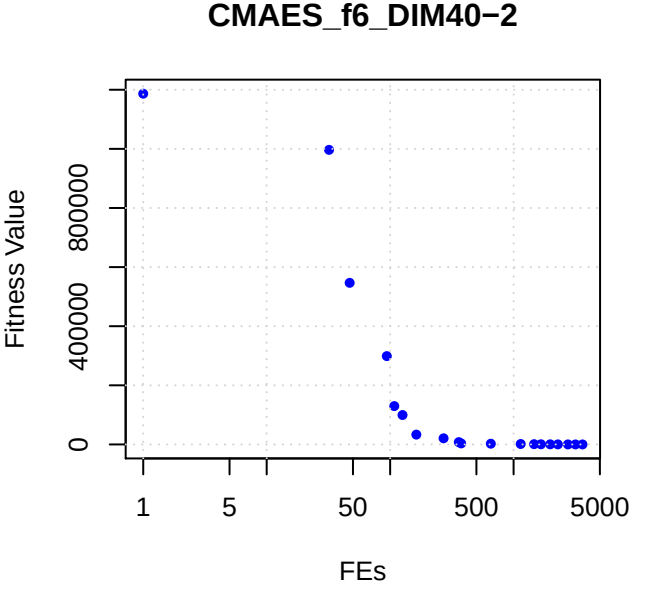
1500000
1
5
50
500
5000
FEs


CMAES_f6_DIM40−2
Fitness Value
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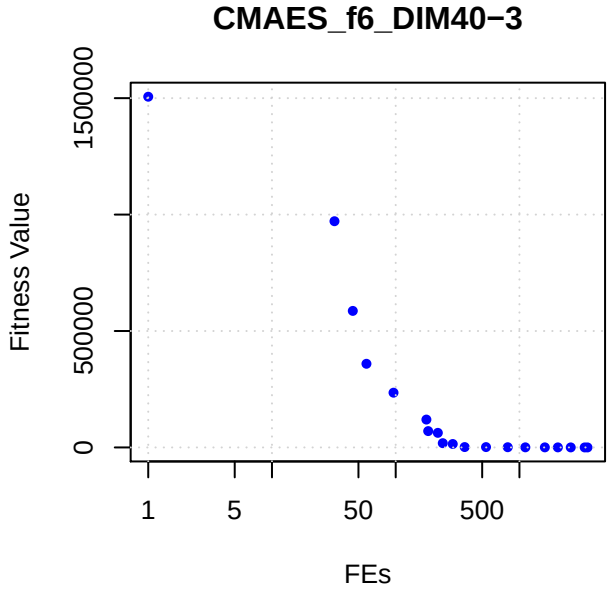
800000
1
5
50
500
5000
FEs


CMAES_f6_DIM40−3
Fitness Value
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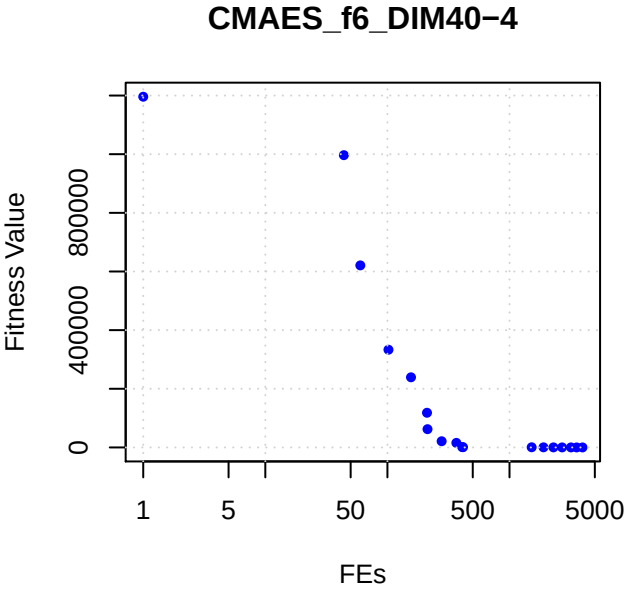
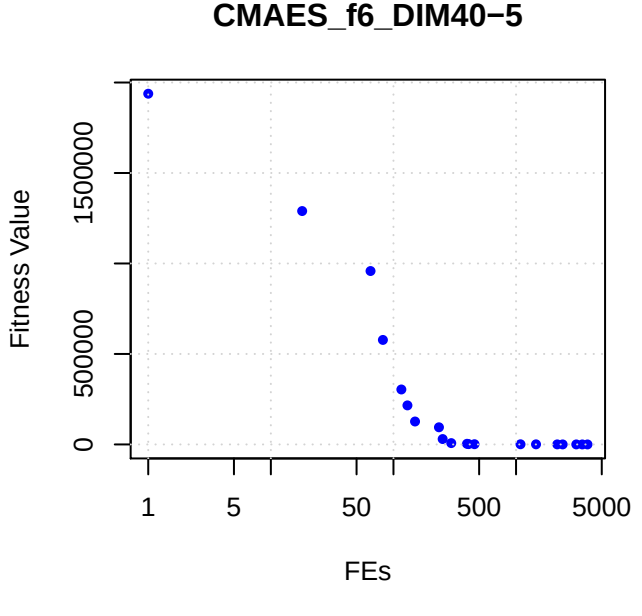
500000
1500000
1
5
50
500
FEs


CMAES_f6_DIM40−4
Fitness Value
0
400000
800000
1
5
50
500
5000
FEs


CMAES_f6_DIM40−5
Fitness Value
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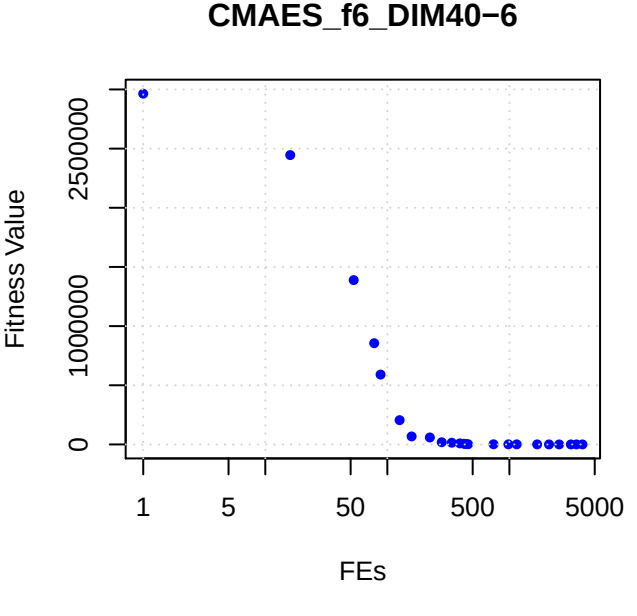
500000
1500000
1
5
50
500
5000
FEs


CMAES_f6_DIM40−6
Fitness Value
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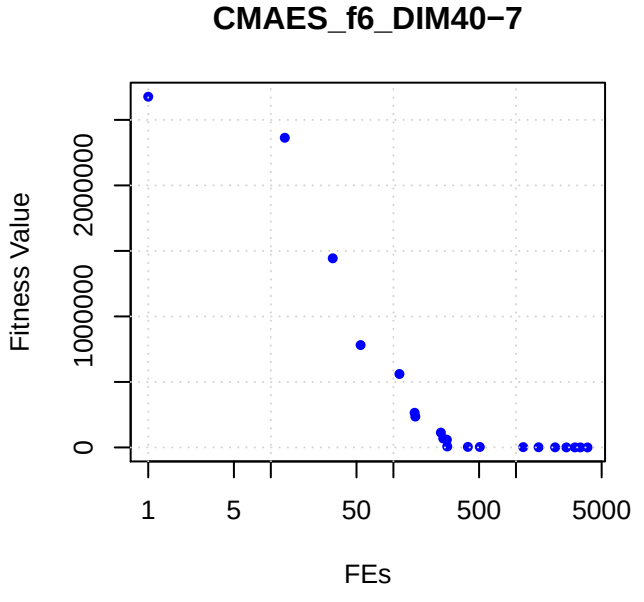
2500000
1
5
50
500
5000
FEs


CMAES_f6_DIM40−7
Fitness Value
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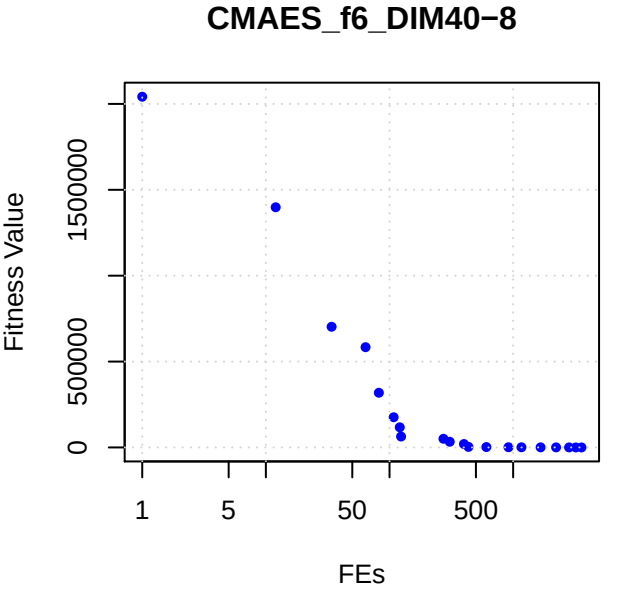
2000000
1
5
50
500
5000
FEs


CMAES_f6_DIM40−8
Fitness Value
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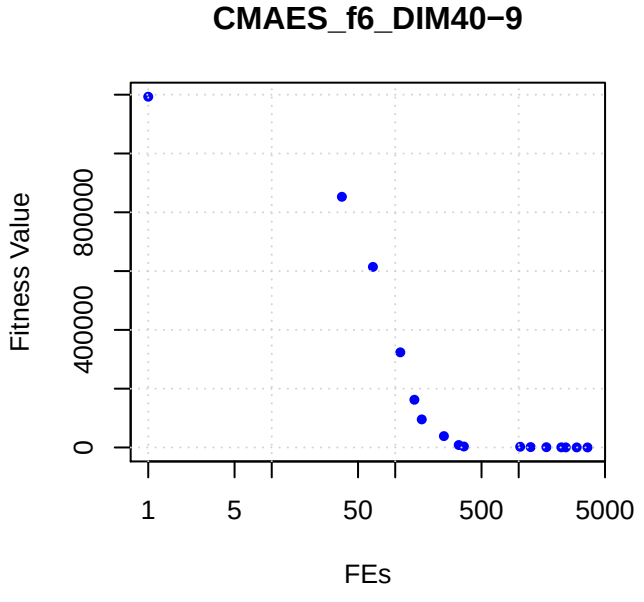
1
5
50
500
FEs


CMAES_f6_DIM40−9
Fitness Value
0
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800000
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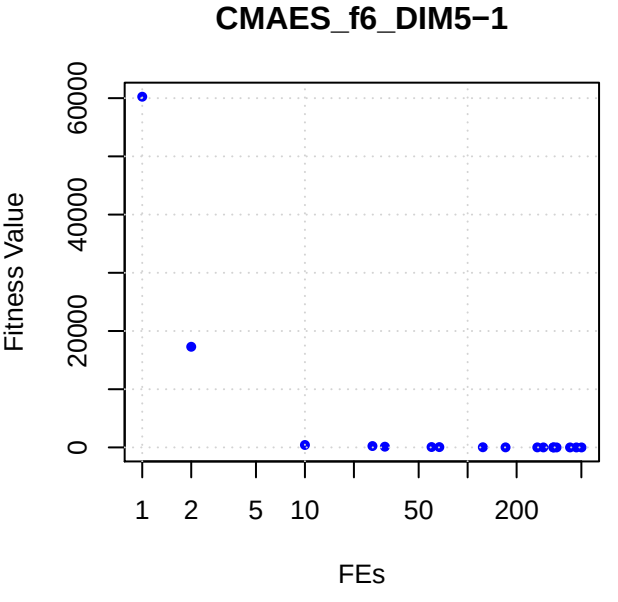
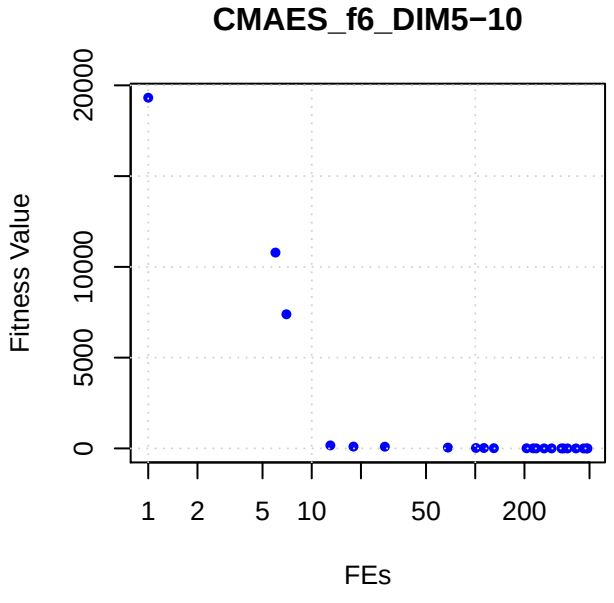
50
500
5000
FEs


CMAES_f6_DIM5−1
Fitness Value
0
20000
40000
60000
1
2
5
10
50
200
FEs


CMAES_f6_DIM5−10
Fitness Value
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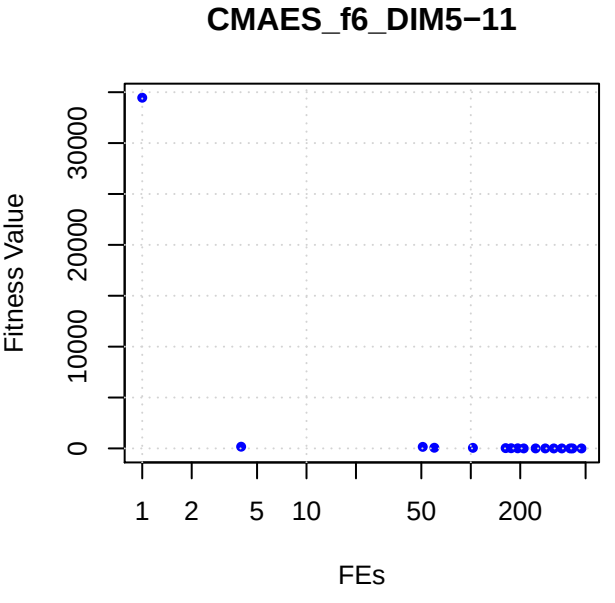
5000
10000
20000
1
2
5
10
50
200
FEs


CMAES_f6_DIM5−11
Fitness Value
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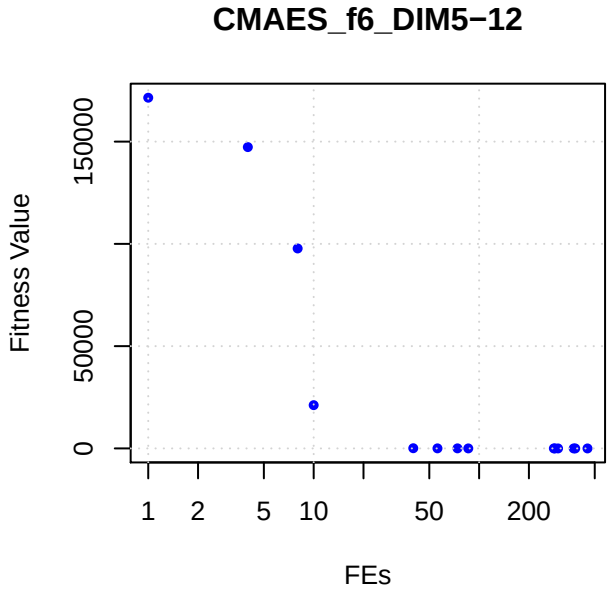
20000
30000
1
2
5
10
50
200
FEs


CMAES_f6_DIM5−12
Fitness Value
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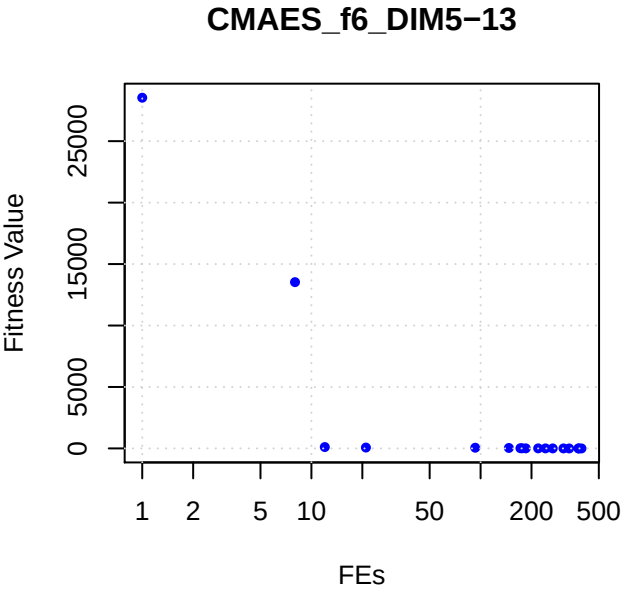
150000
1
2
5
10
50
200
FEs


CMAES_f6_DIM5−13
Fitness Value
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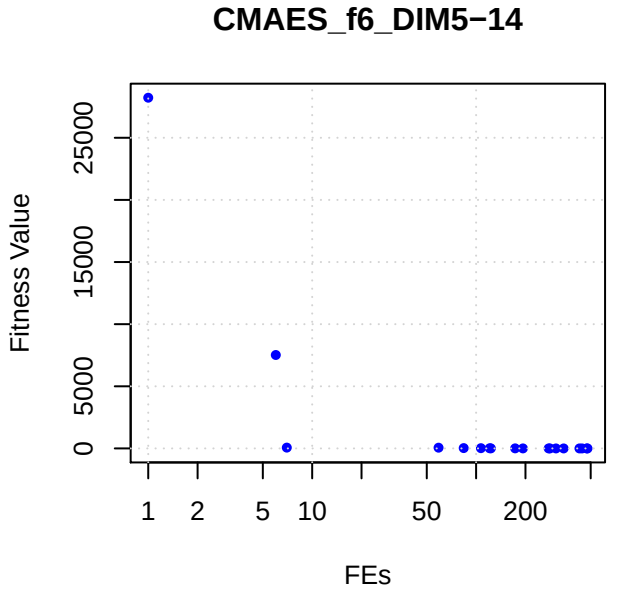
5000
15000
25000
1
2
5
10
50
200
500
FEs


CMAES_f6_DIM5−14
Fitness Value
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25000
1
2
5
10
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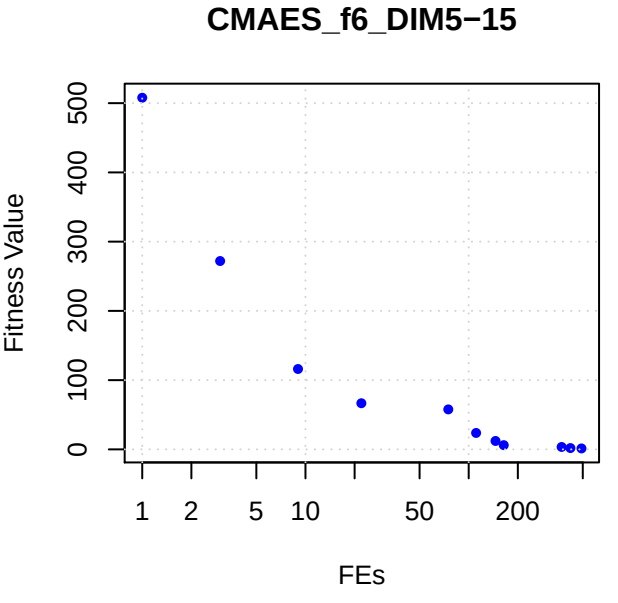
200
FEs


CMAES_f6_DIM5−15
Fitness Value
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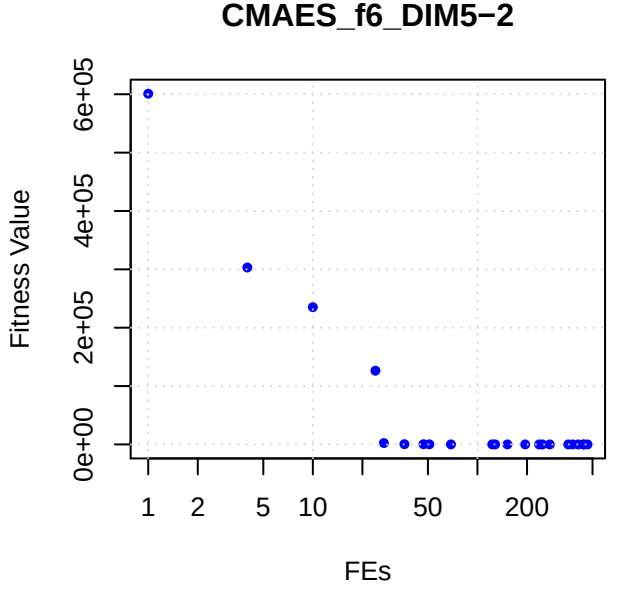
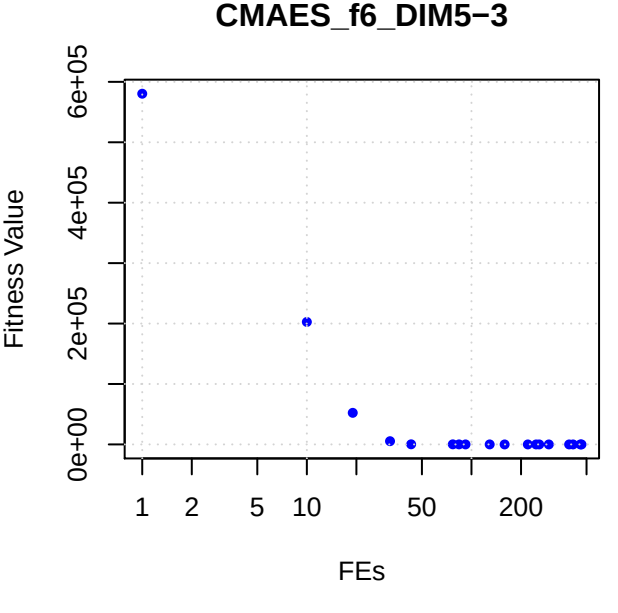
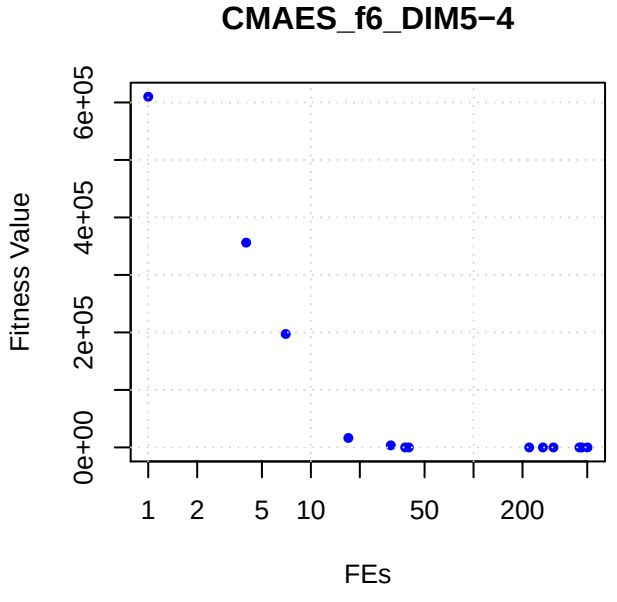
100
200
300
400
500
1
2
5
10
50
200
FEs


CMAES_f6_DIM5−2
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
50
200
FEs


CMAES_f6_DIM5−3
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
2
5
10
50
200
FEs


CMAES_f6_DIM5−4
Fitness Value
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2e+05
4e+05
6e+05
1
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5
10
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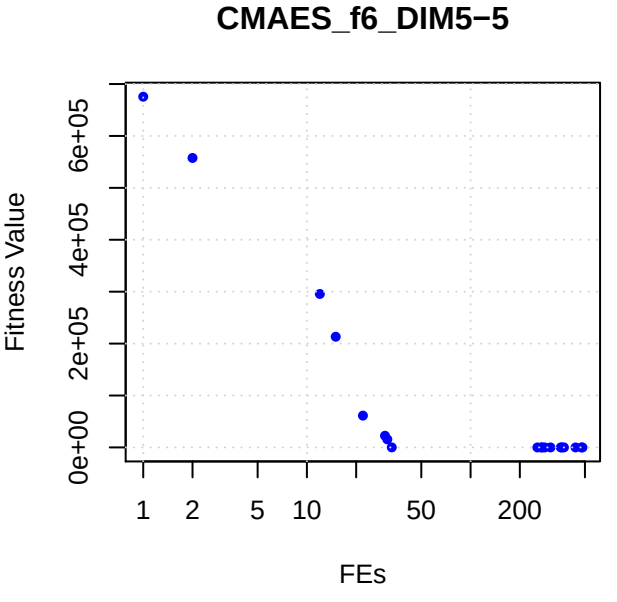
FEs


CMAES_f6_DIM5−5
Fitness Value
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2e+05
4e+05
6e+05
1
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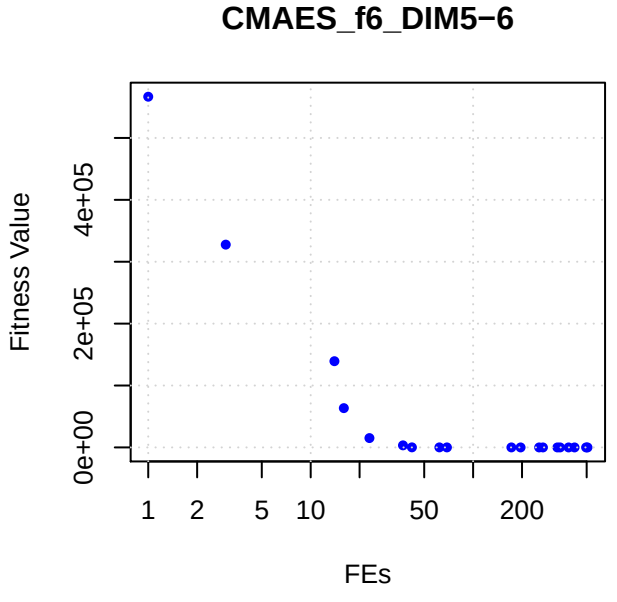
10
50
200
FEs


CMAES_f6_DIM5−6
Fitness Value
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2e+05
4e+05
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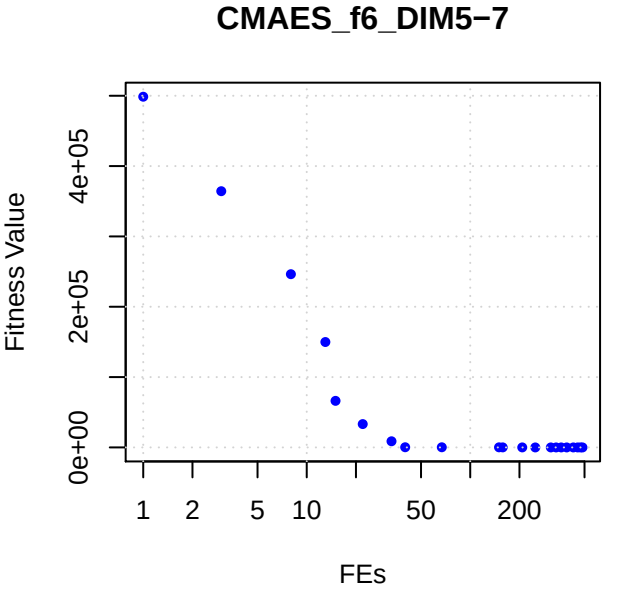
200
FEs


CMAES_f6_DIM5−7
Fitness Value
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2e+05
4e+05
1
2
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10
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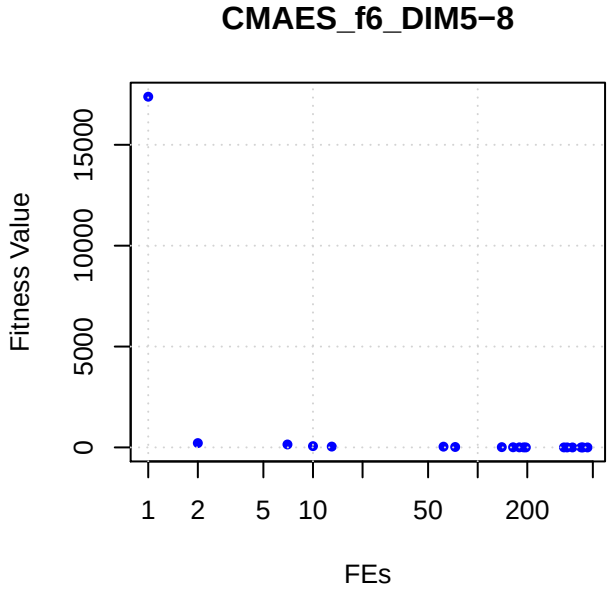
200
FEs


CMAES_f6_DIM5−8
Fitness Value
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10000
15000
1
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10
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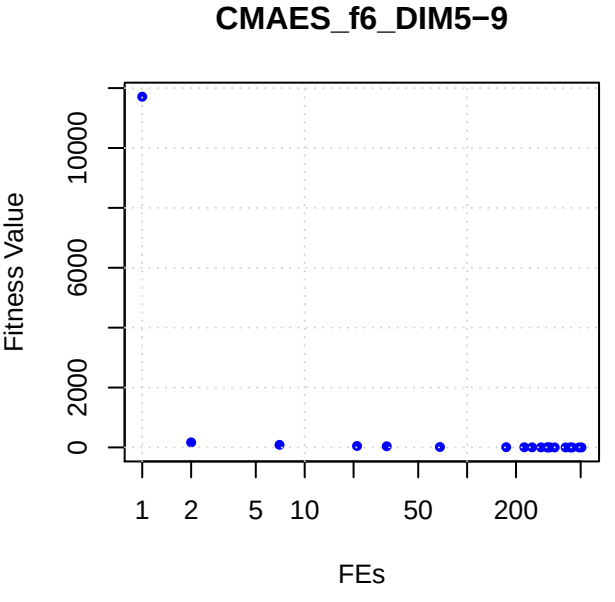
200
FEs


CMAES_f6_DIM5−9
Fitness Value
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10000
1
2
5
10
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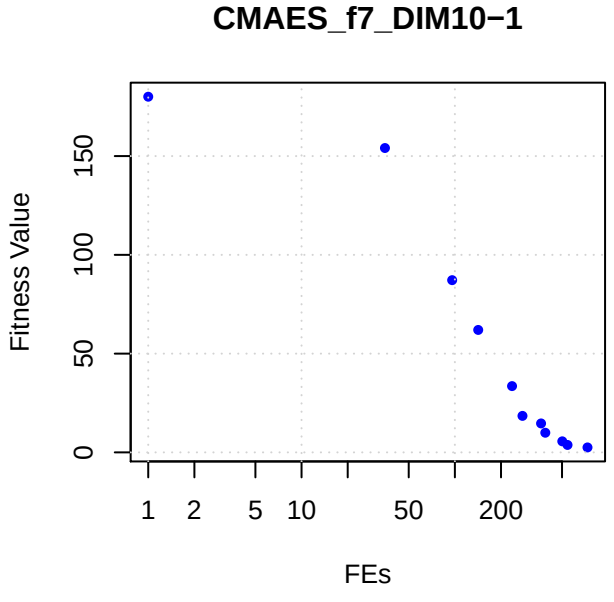
200
FEs


CMAES_f7_DIM10−1
Fitness Value
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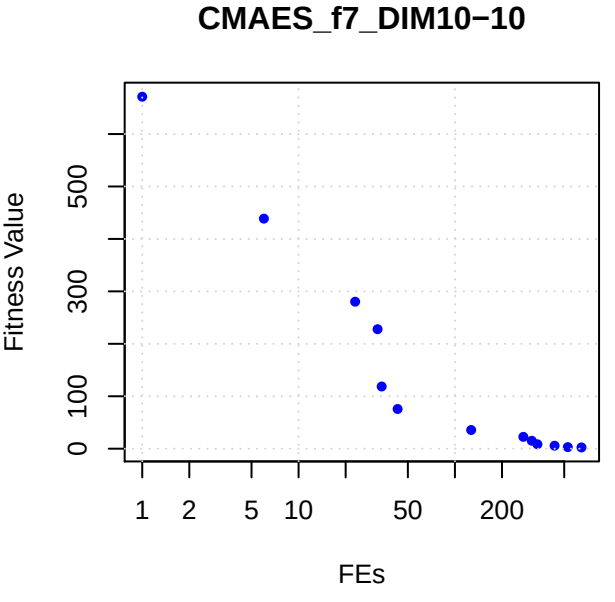
50
100
150
1
2
5
10
50
200
FEs


CMAES_f7_DIM10−10
Fitness Value
0
100
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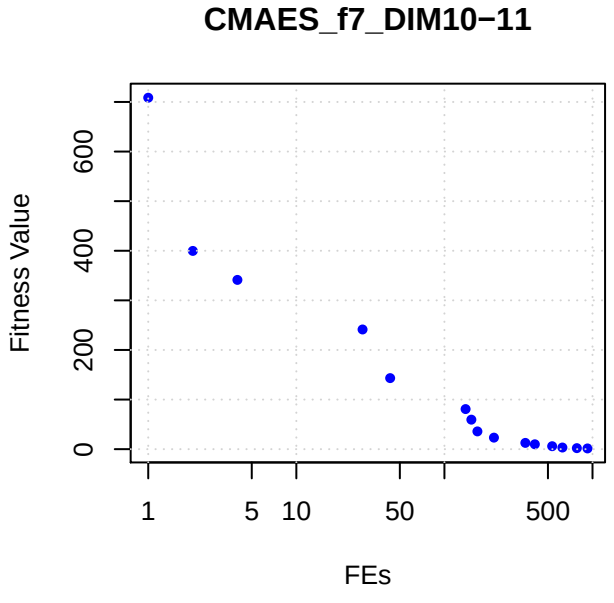
500
1
2
5
10
50
200
FEs


CMAES_f7_DIM10−11
Fitness Value
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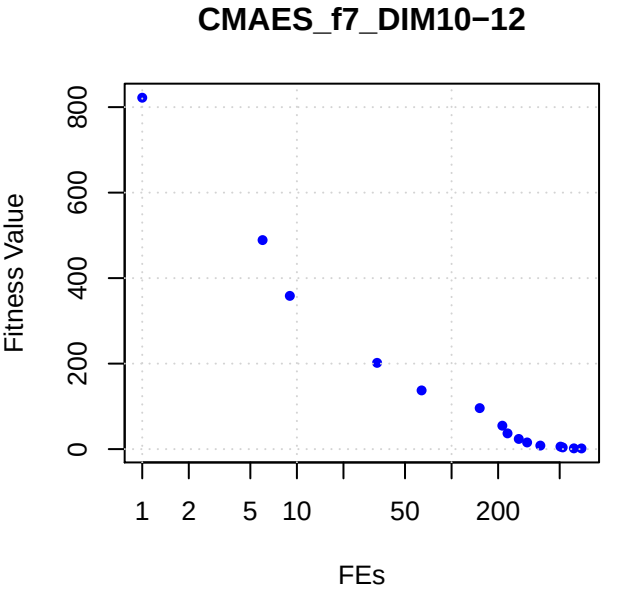
400
600
1
5
10
50
500
FEs


CMAES_f7_DIM10−12
Fitness Value
0
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400
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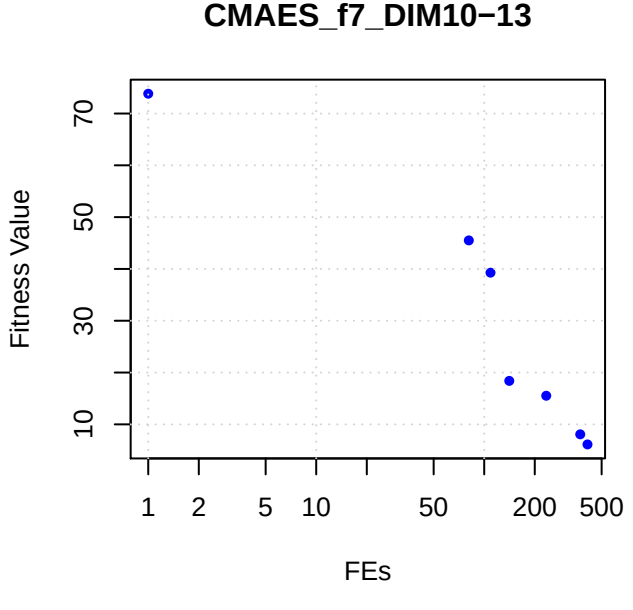
800
1
2
5
10
50
200
FEs


CMAES_f7_DIM10−13
Fitness Value
10
30
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1
2
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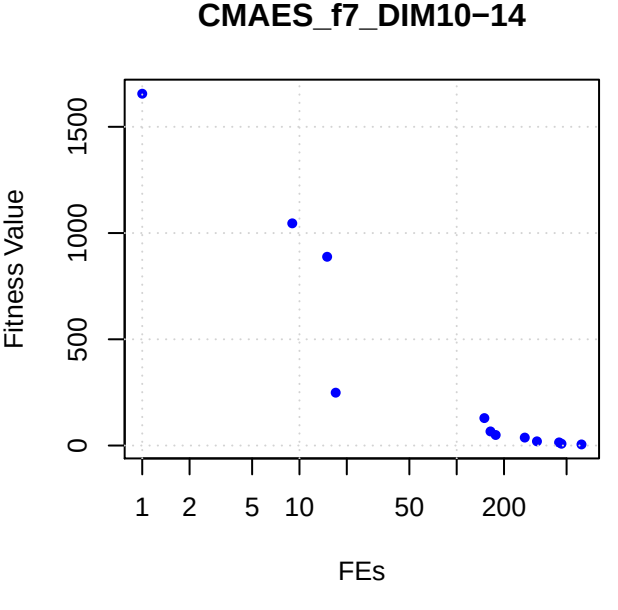
500
FEs


CMAES_f7_DIM10−14
Fitness Value
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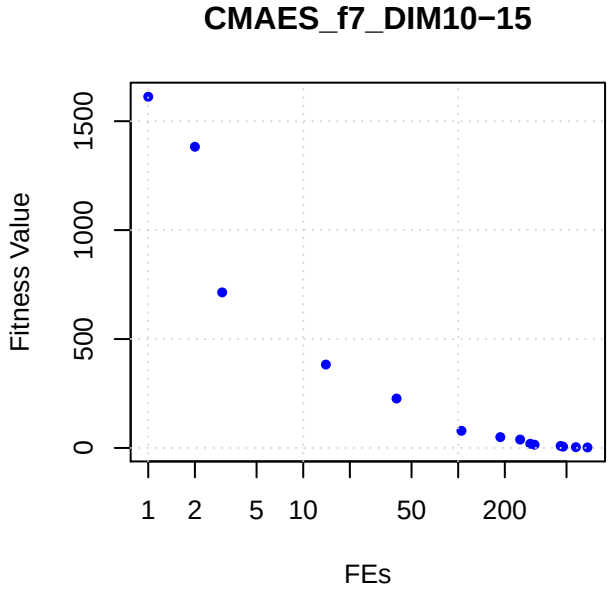
CMAES_f7_DIM10−15
Fitness Value
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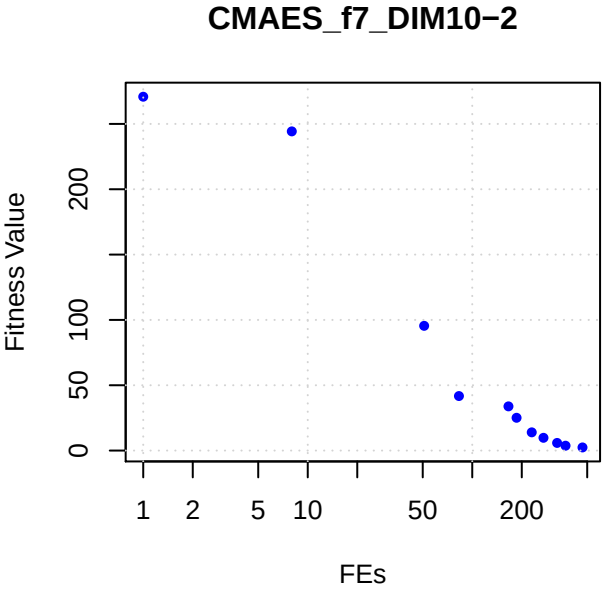
FEs


CMAES_f7_DIM10−2
Fitness Value
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1
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10
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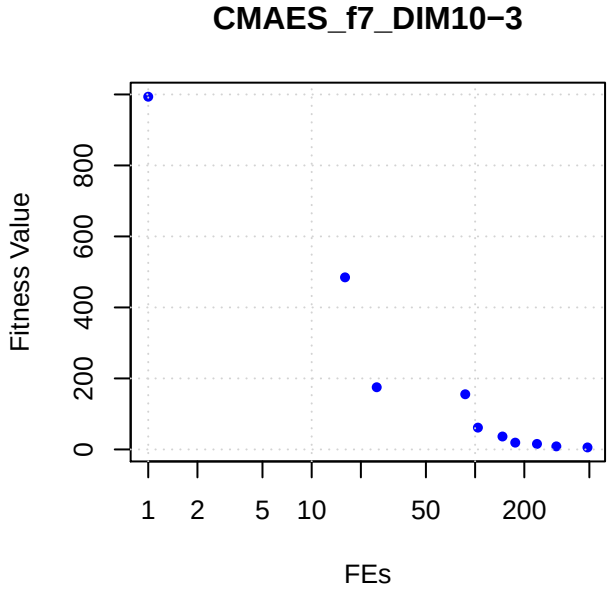
200
FEs


CMAES_f7_DIM10−3
Fitness Value
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800
1
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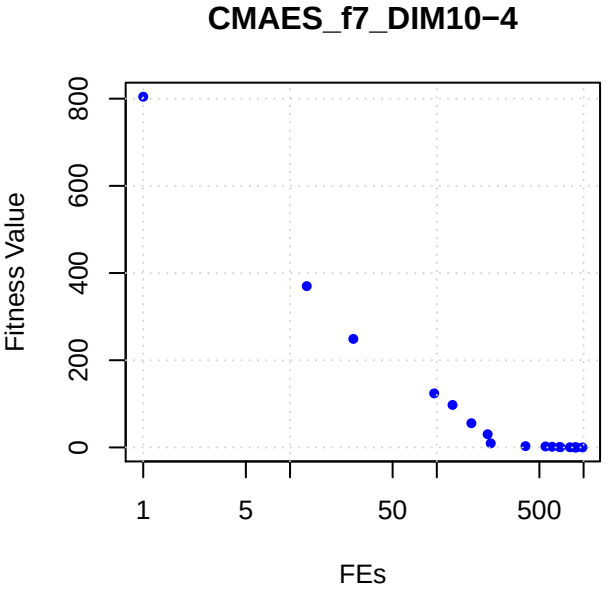
FEs


CMAES_f7_DIM10−4
Fitness Value
0
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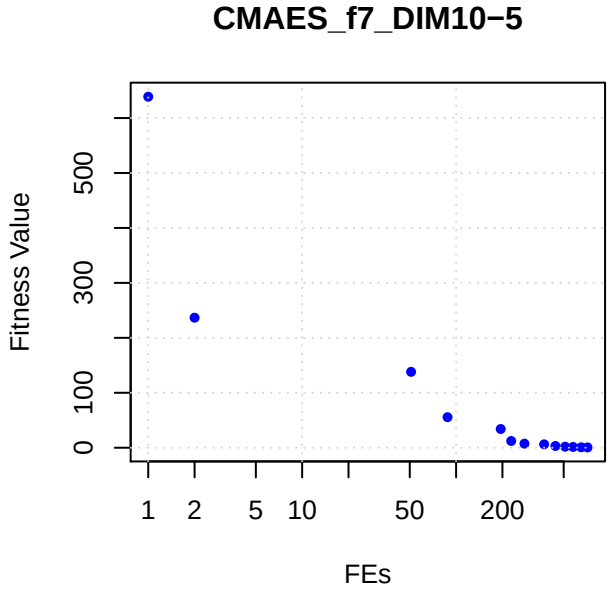
FEs


CMAES_f7_DIM10−5
Fitness Value
0
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500
1
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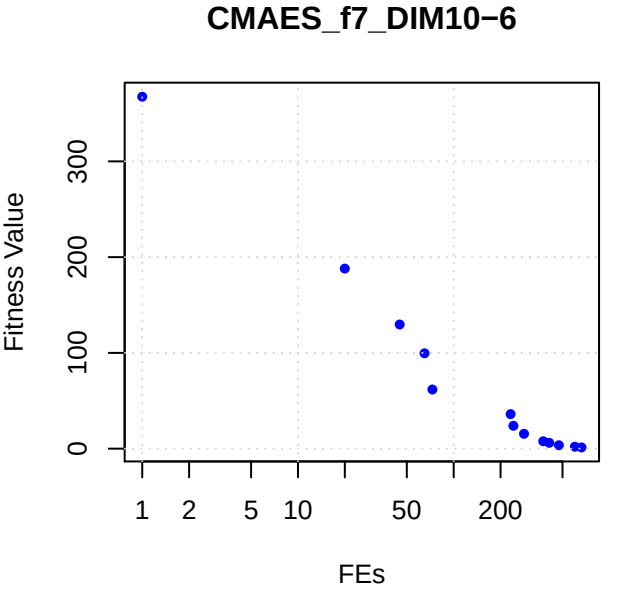
200
FEs


CMAES_f7_DIM10−6
Fitness Value
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100
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300
1
2
5
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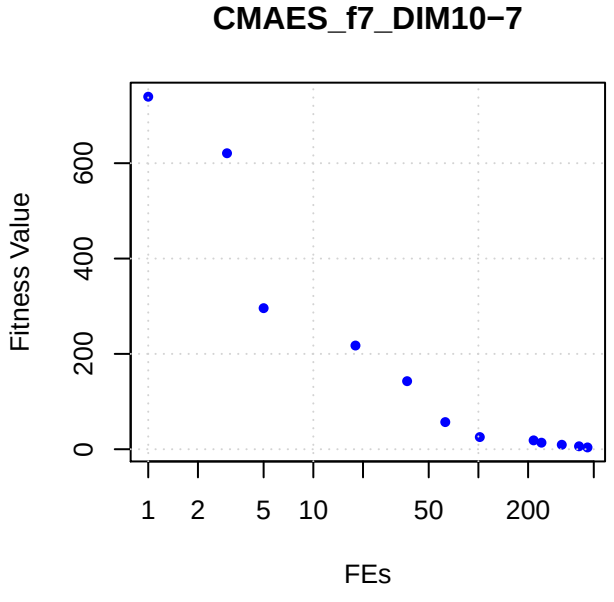
200
FEs


CMAES_f7_DIM10−7
Fitness Value
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1
2
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10
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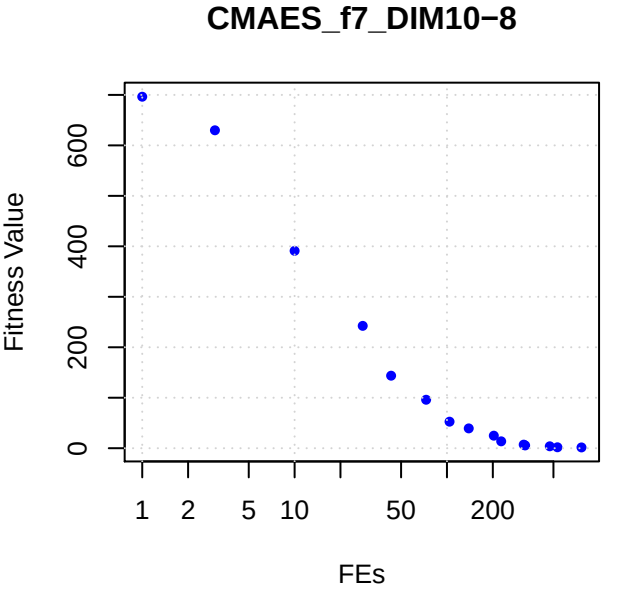
200
FEs


CMAES_f7_DIM10−8
Fitness Value
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1
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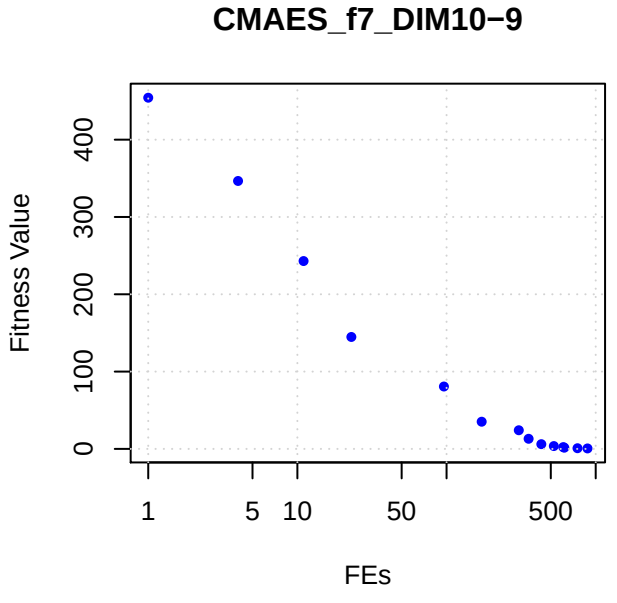
FEs


CMAES_f7_DIM10−9
Fitness Value
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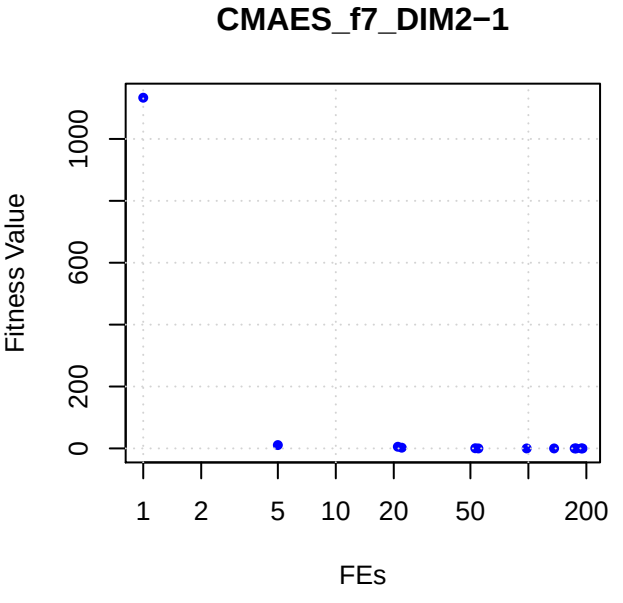
FEs


CMAES_f7_DIM2−1
Fitness Value
0
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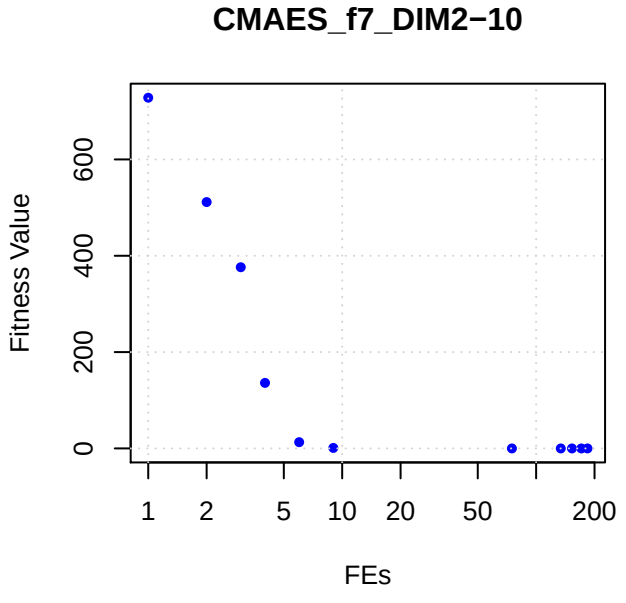
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM2−10
Fitness Value
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1
2
5
10
20
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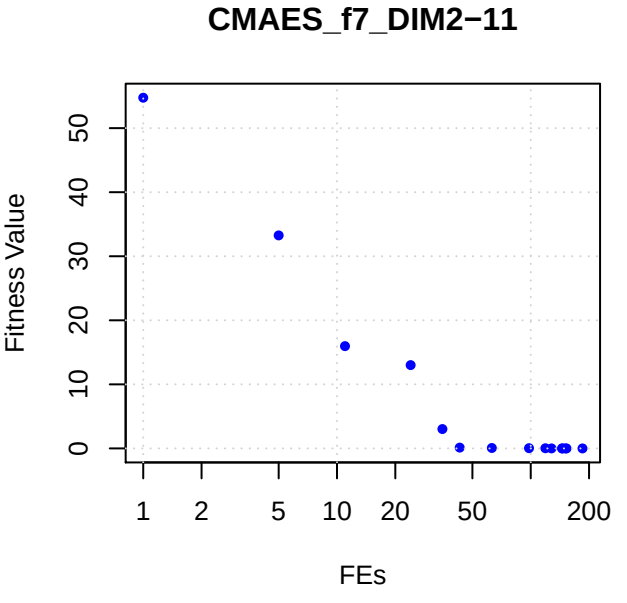
200
FEs


CMAES_f7_DIM2−11
Fitness Value
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40
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1
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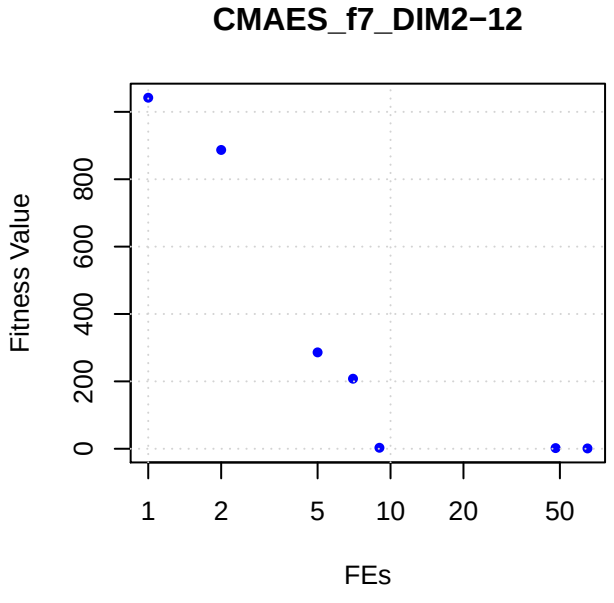
200
FEs


CMAES_f7_DIM2−12
Fitness Value
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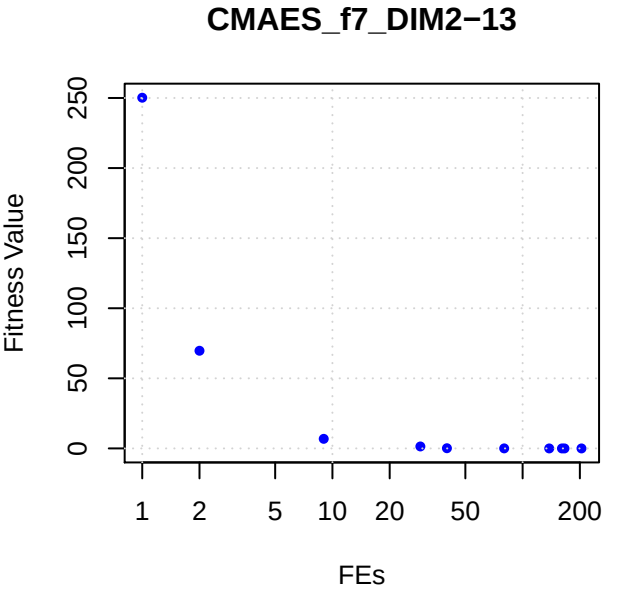
FEs


CMAES_f7_DIM2−13
Fitness Value
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200
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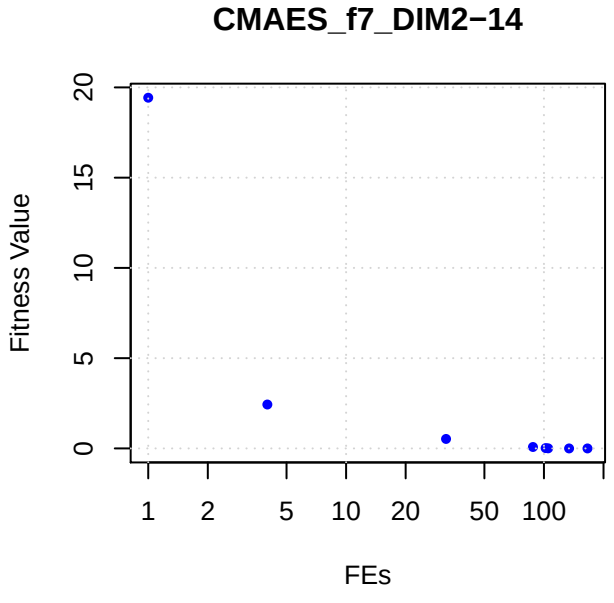
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM2−14
Fitness Value
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5
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15
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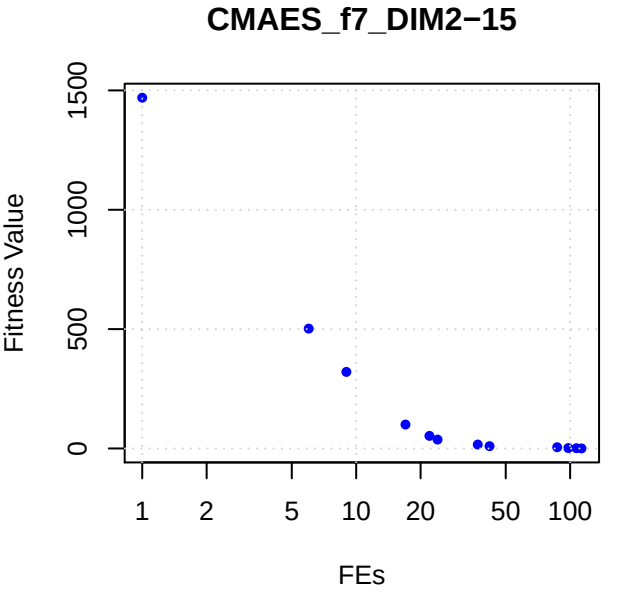
1
2
5
10
20
50
100
FEs


CMAES_f7_DIM2−15
Fitness Value
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1000
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1
2
5
10
20
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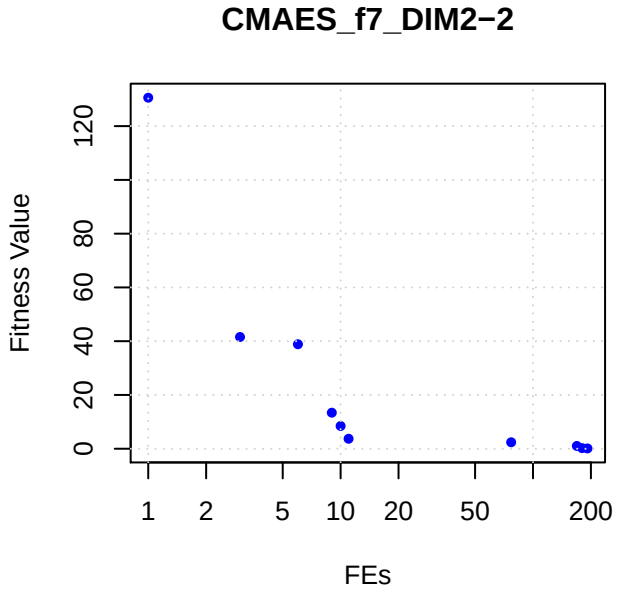
100
FEs


CMAES_f7_DIM2−2
Fitness Value
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80
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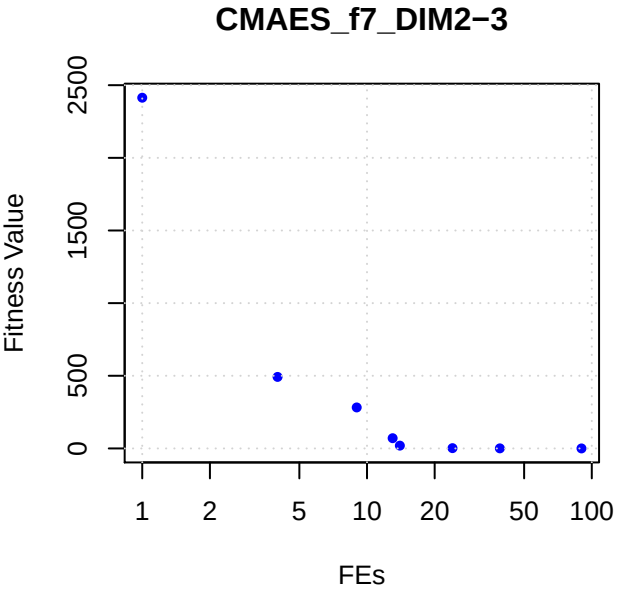
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM2−3
Fitness Value
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1500
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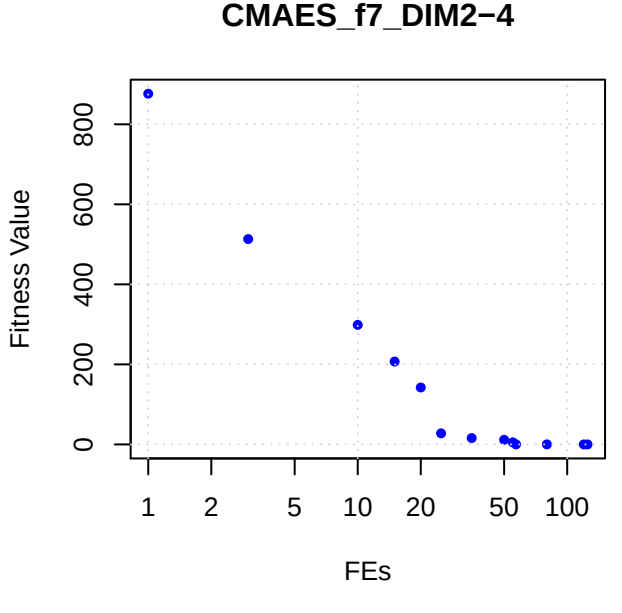
1
2
5
10
20
50
100
FEs


CMAES_f7_DIM2−4
Fitness Value
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1
2
5
10
20
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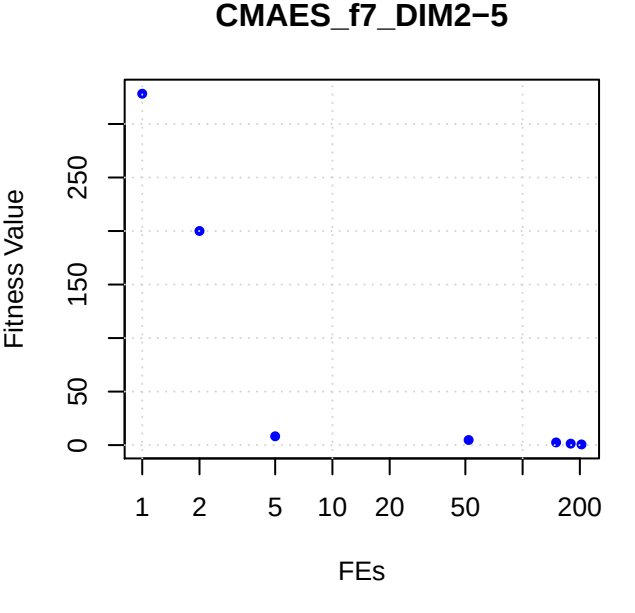
100
FEs


CMAES_f7_DIM2−5
Fitness Value
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150
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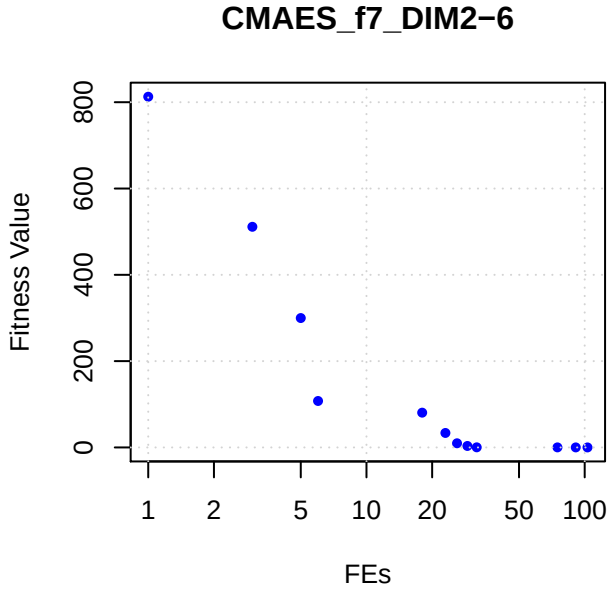
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM2−6
Fitness Value
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600
800
1
2
5
10
20
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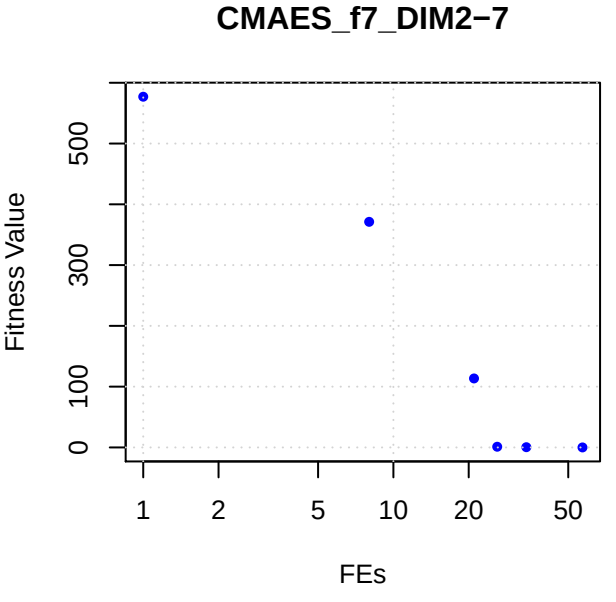
100
FEs


CMAES_f7_DIM2−7
Fitness Value
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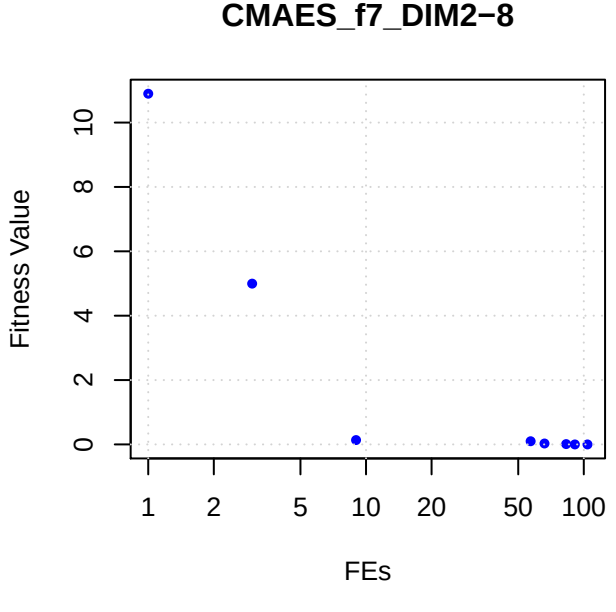
10
20
50
FEs


CMAES_f7_DIM2−8
Fitness Value
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8
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1
2
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20
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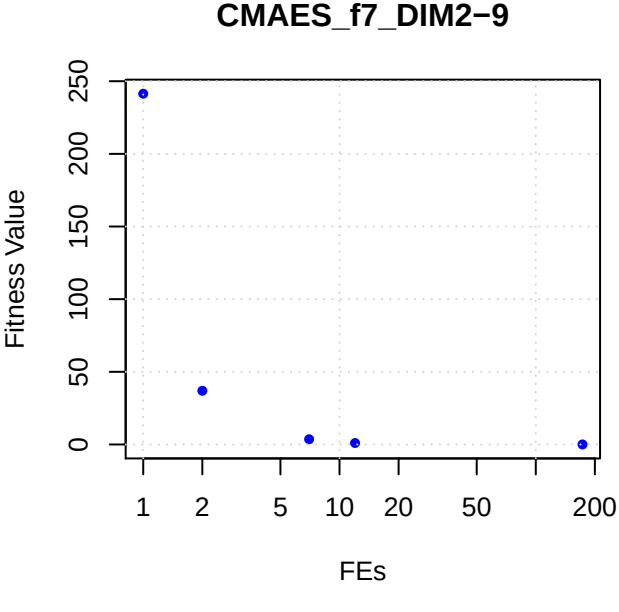
100
FEs


CMAES_f7_DIM2−9
Fitness Value
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2
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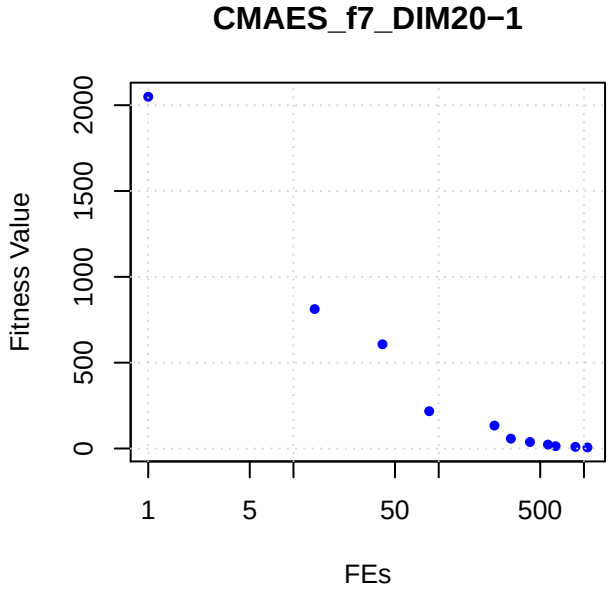
200
FEs


CMAES_f7_DIM20−1
Fitness Value
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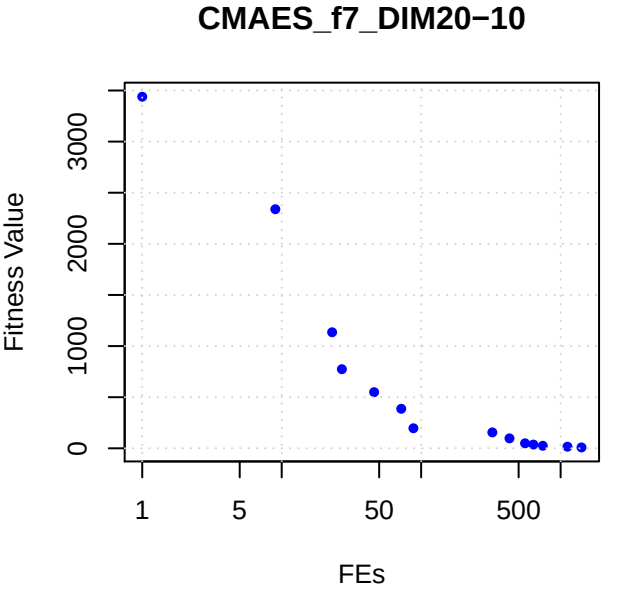
500
FEs


CMAES_f7_DIM20−10
Fitness Value
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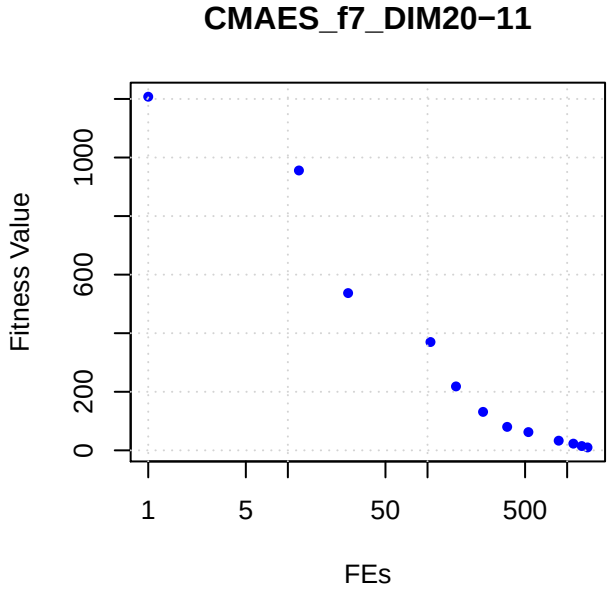
3000
1
5
50
500
FEs


CMAES_f7_DIM20−11
Fitness Value
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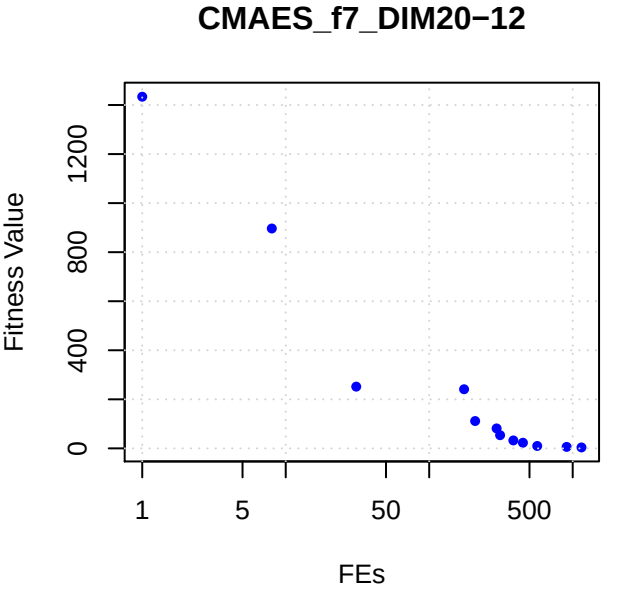
FEs


CMAES_f7_DIM20−12
Fitness Value
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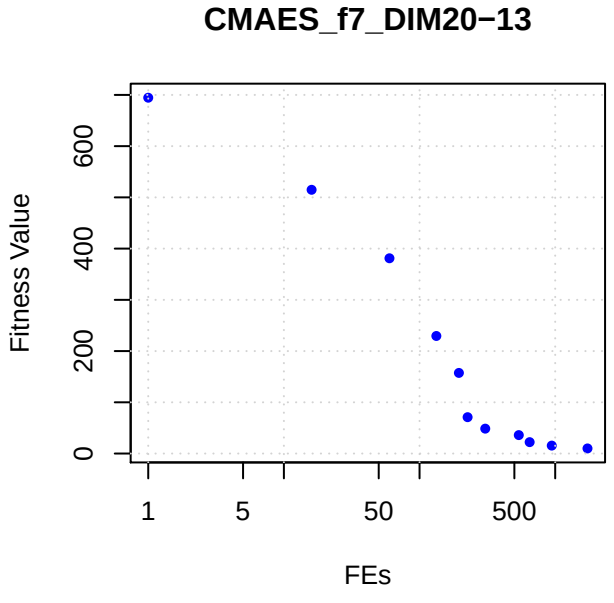
1
5
50
500
FEs


CMAES_f7_DIM20−13
Fitness Value
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5
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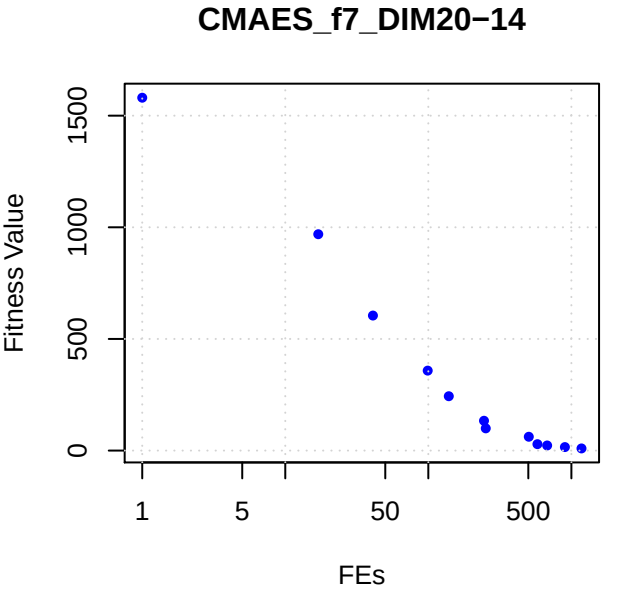
500
FEs


CMAES_f7_DIM20−14
Fitness Value
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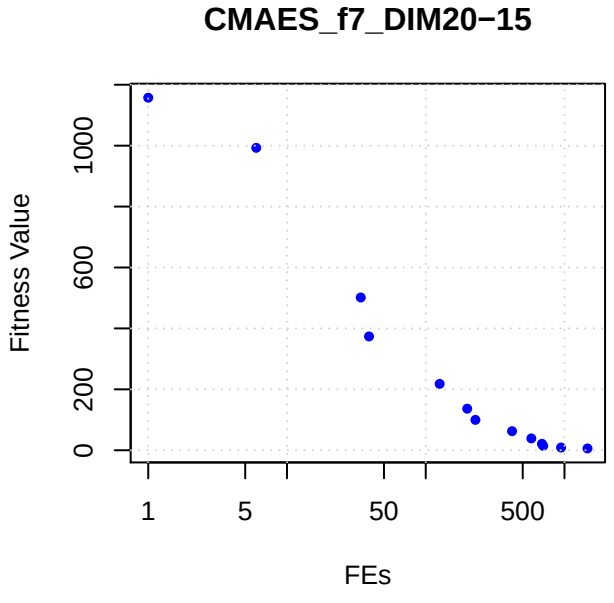
FEs


CMAES_f7_DIM20−15
Fitness Value
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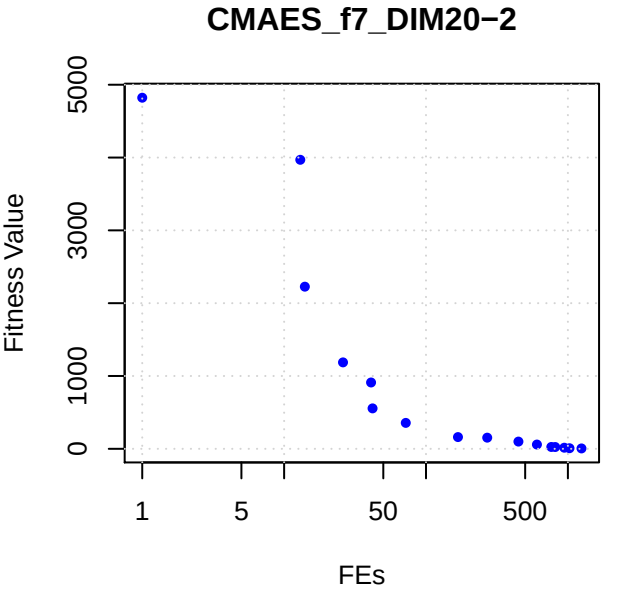
FEs


CMAES_f7_DIM20−2
Fitness Value
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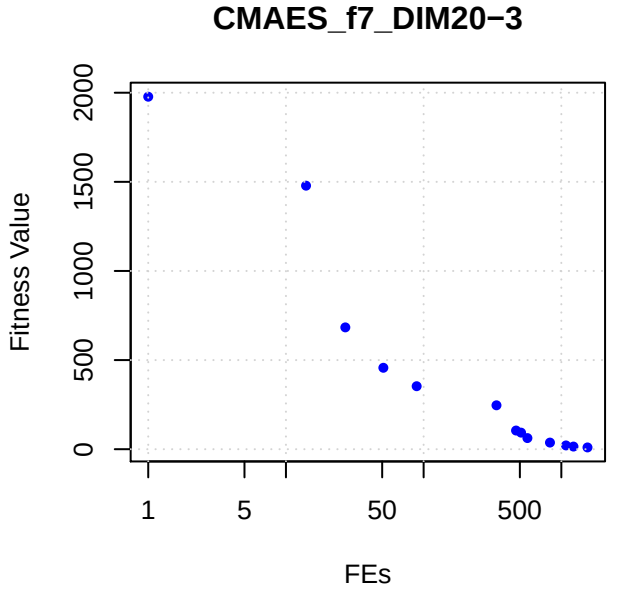
1
5
50
500
FEs


CMAES_f7_DIM20−3
Fitness Value
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1
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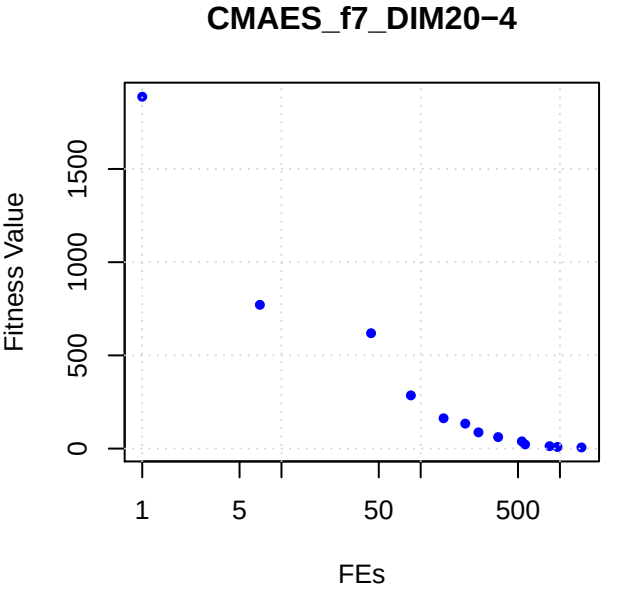
50
500
FEs


CMAES_f7_DIM20−4
Fitness Value
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1
5
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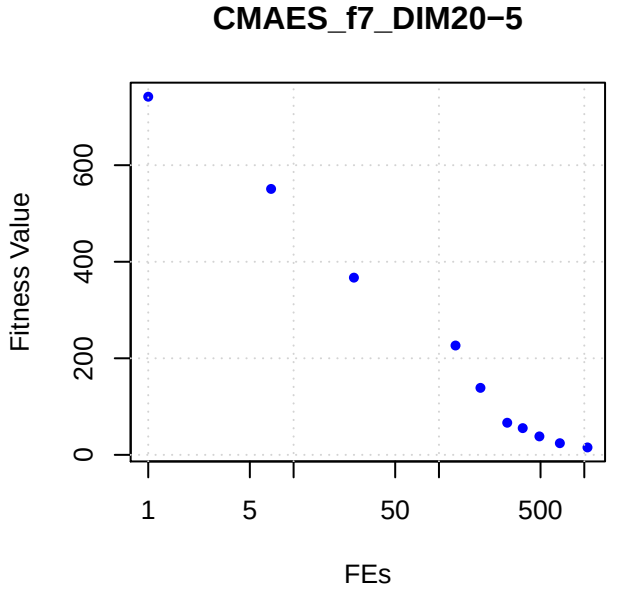
500
FEs


CMAES_f7_DIM20−5
Fitness Value
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1
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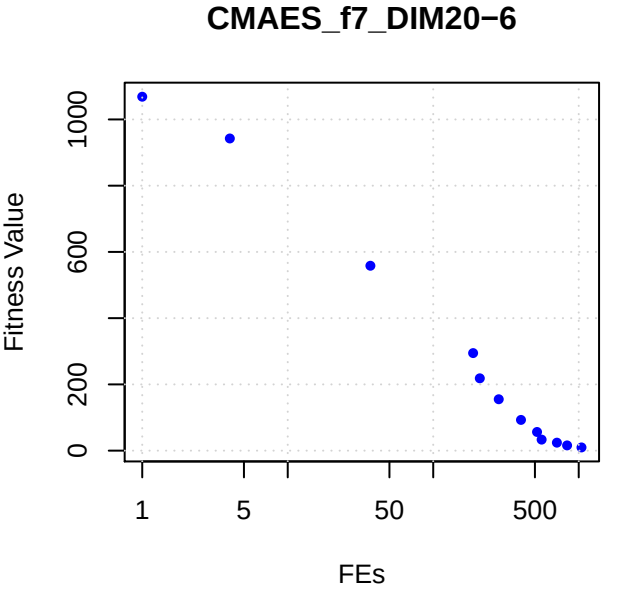
50
500
FEs


CMAES_f7_DIM20−6
Fitness Value
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1000
1
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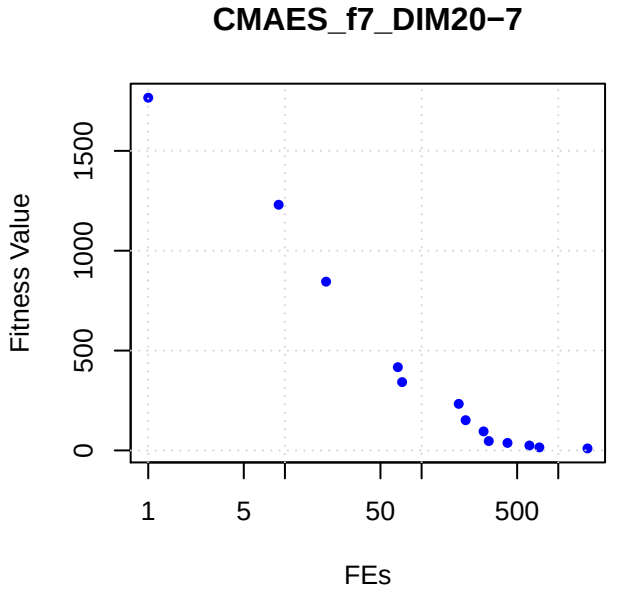
500
FEs


CMAES_f7_DIM20−7
Fitness Value
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1
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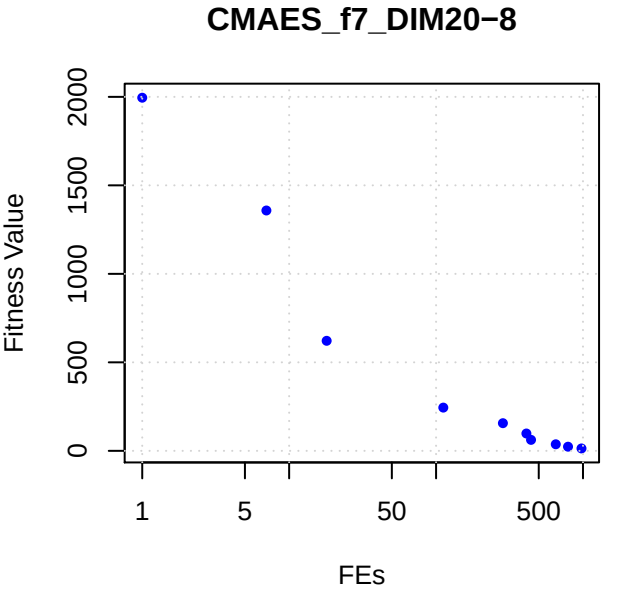
50
500
FEs


CMAES_f7_DIM20−8
Fitness Value
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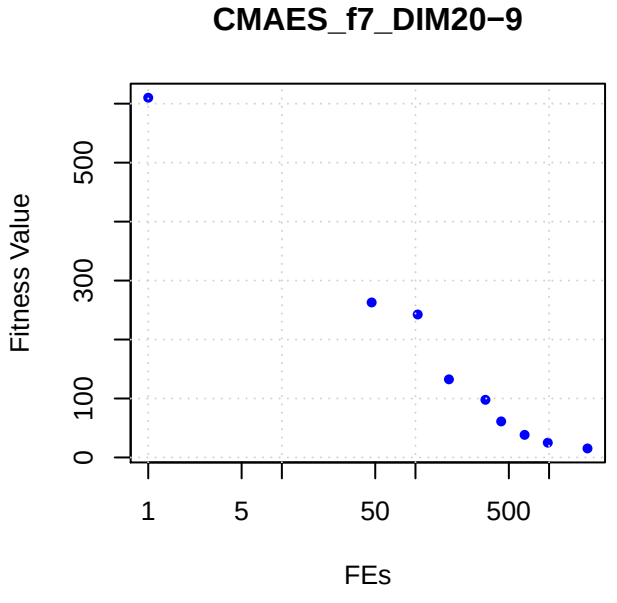
FEs


CMAES_f7_DIM20−9
Fitness Value
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1
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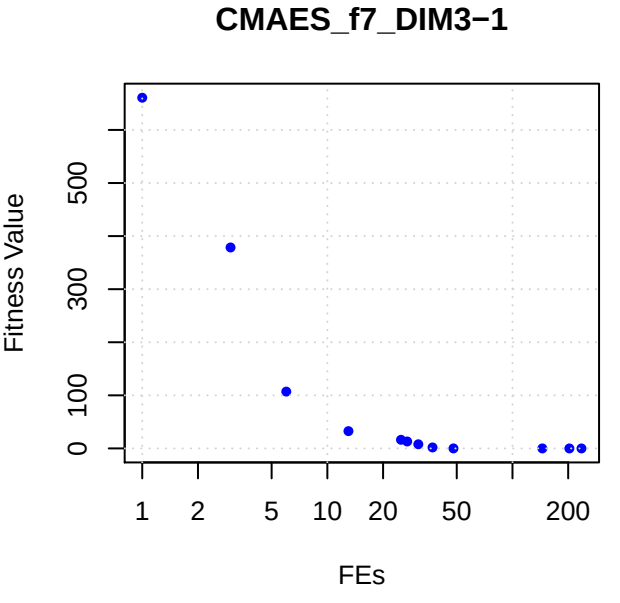
500
FEs


CMAES_f7_DIM3−1
Fitness Value
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300
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1
2
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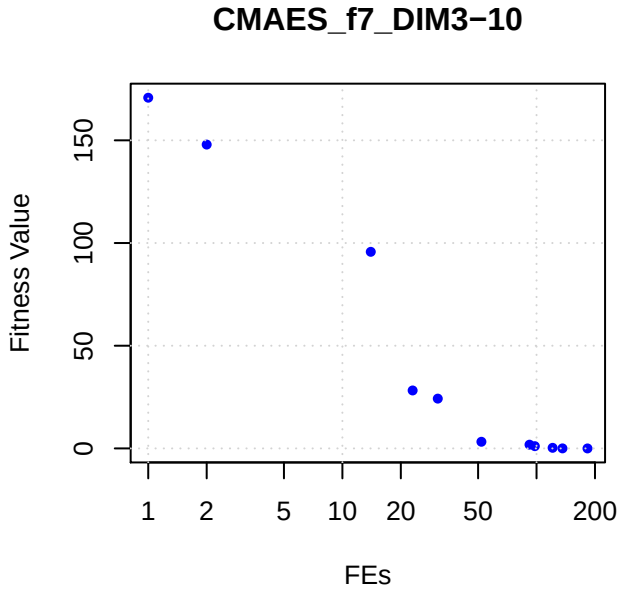
10
20
50
200
FEs


CMAES_f7_DIM3−10
Fitness Value
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100
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1
2
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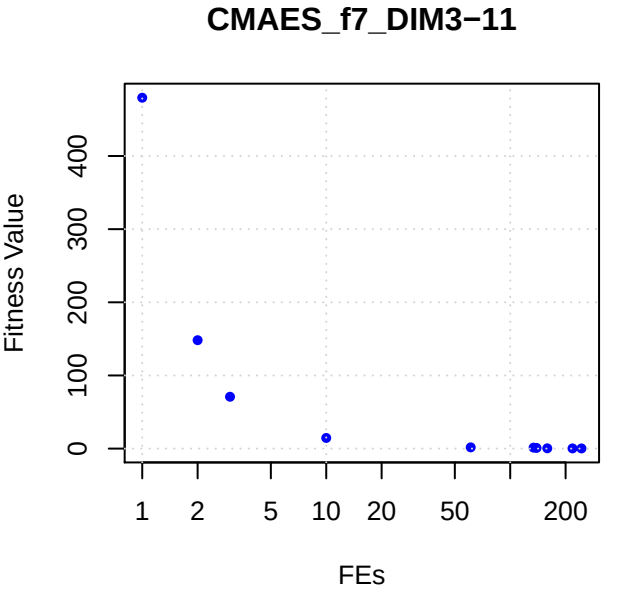
50
200
FEs


CMAES_f7_DIM3−11
Fitness Value
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300
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1
2
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20
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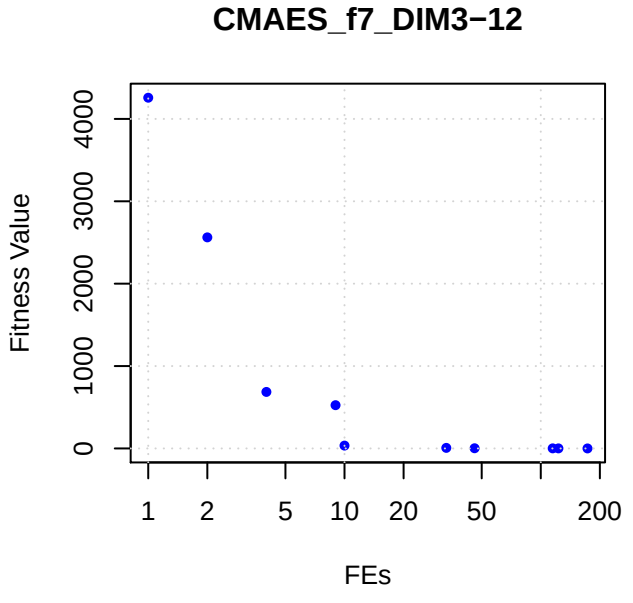
200
FEs


CMAES_f7_DIM3−12
Fitness Value
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2000
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1
2
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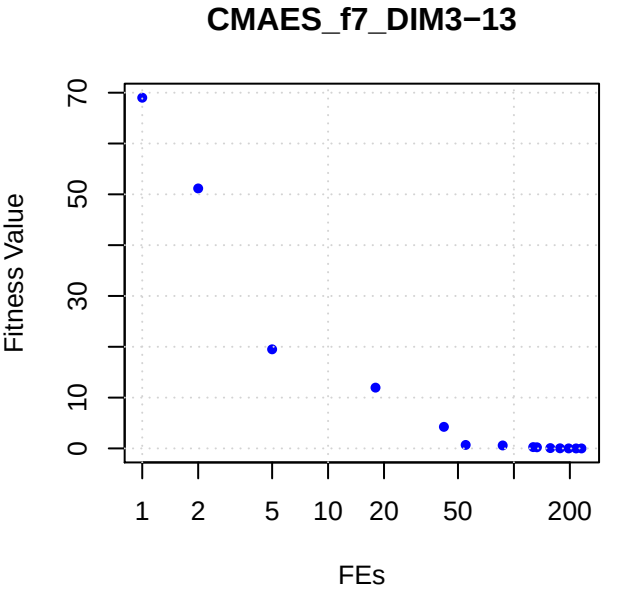
10
20
50
200
FEs


CMAES_f7_DIM3−13
Fitness Value
0
10
30
50
70
1
2
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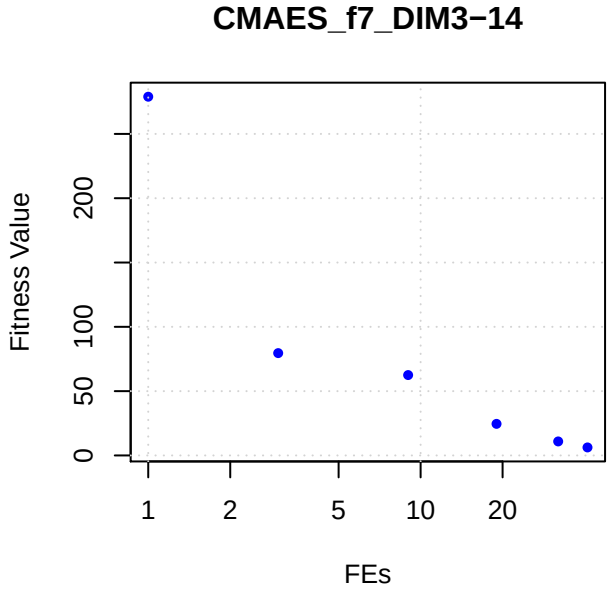
10
20
50
200
FEs


CMAES_f7_DIM3−14
Fitness Value
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100
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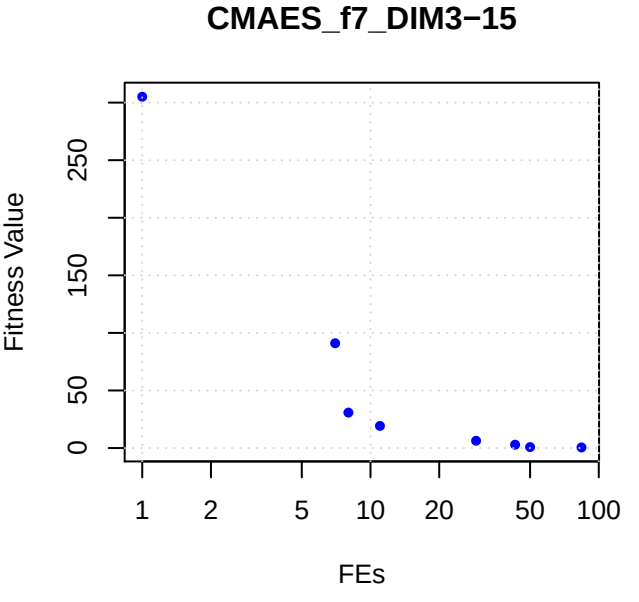
1
2
5
10
20
FEs


CMAES_f7_DIM3−15
Fitness Value
0
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150
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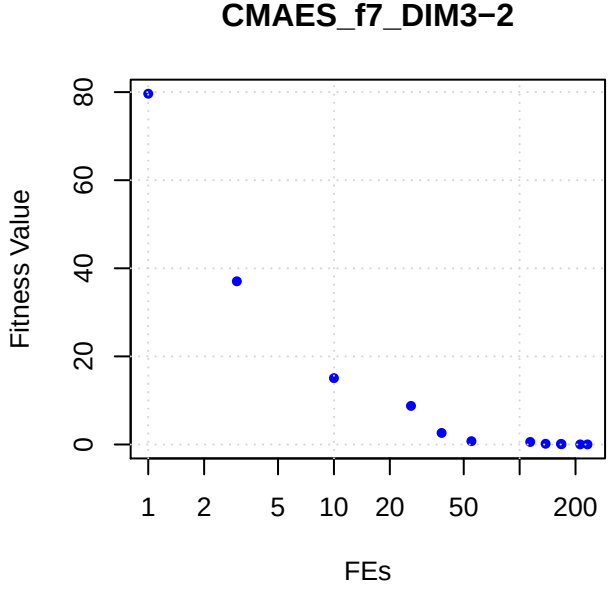
1
2
5
10
20
50
100
FEs


CMAES_f7_DIM3−2
Fitness Value
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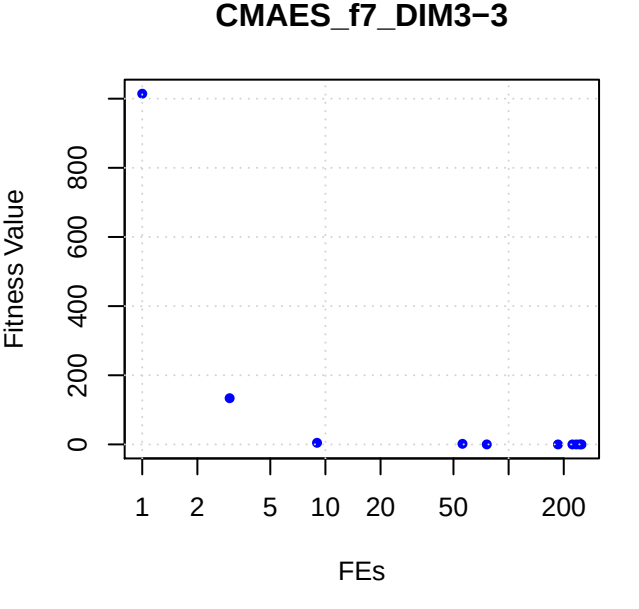
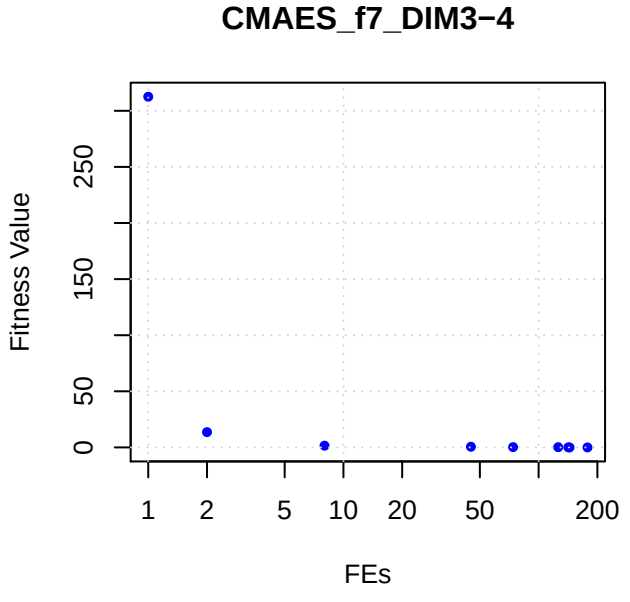
60
80
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM3−3
Fitness Value
0
200
400
600
800
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM3−4
Fitness Value
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150
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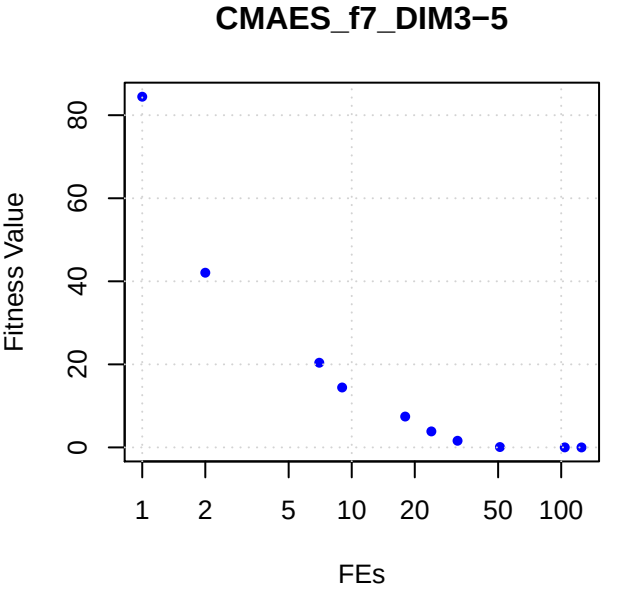
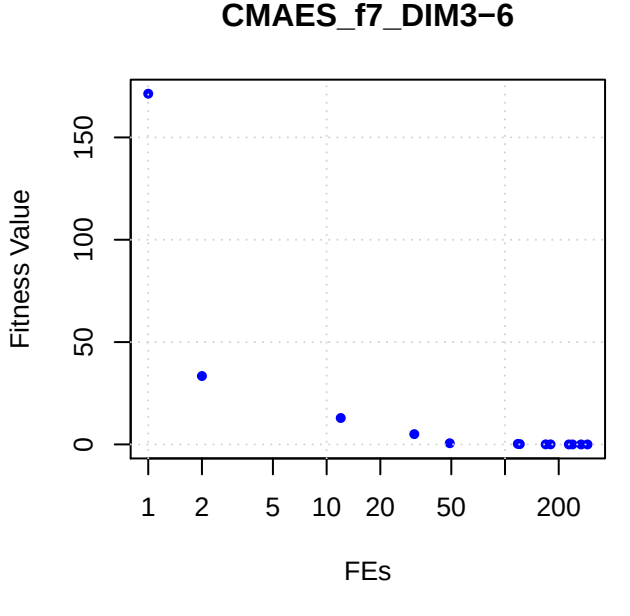
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM3−5
Fitness Value
0
20
40
60
80
1
2
5
10
20
50
100
FEs


CMAES_f7_DIM3−6
Fitness Value
0
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100
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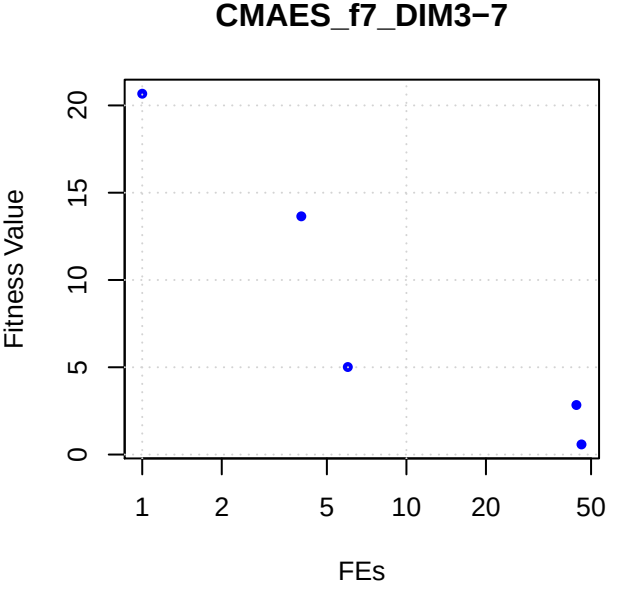
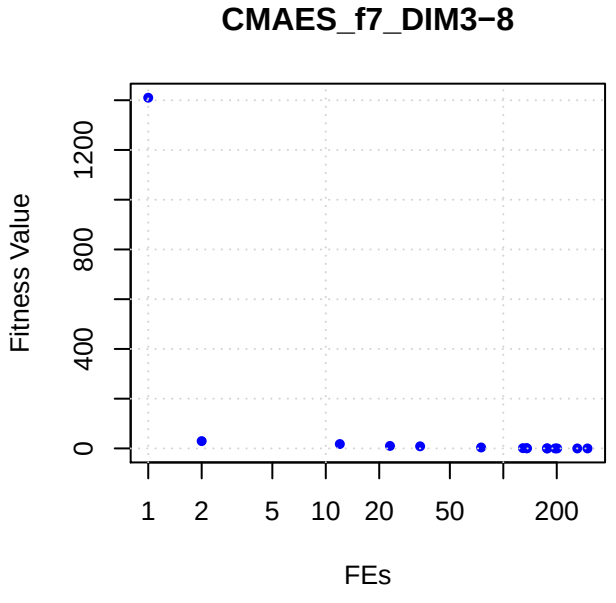
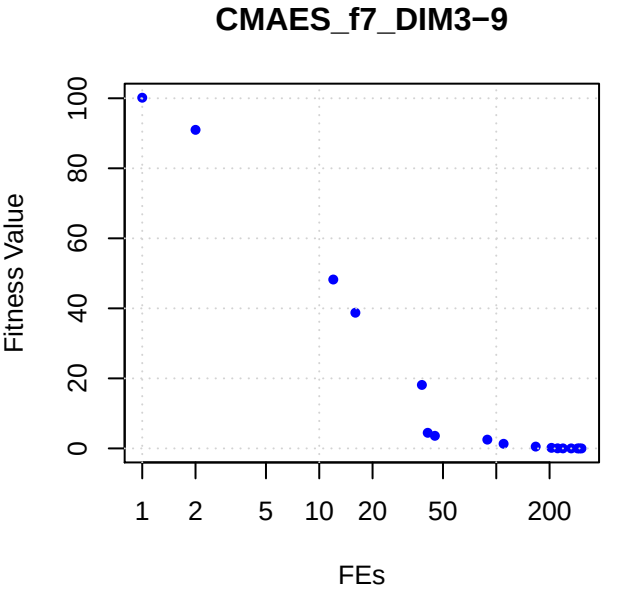
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM3−7
Fitness Value
0
5
10
15
20
1
2
5
10
20
50
FEs


CMAES_f7_DIM3−8
Fitness Value
0
400
800
1200
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM3−9
Fitness Value
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40
60
80
100
1
2
5
10
20
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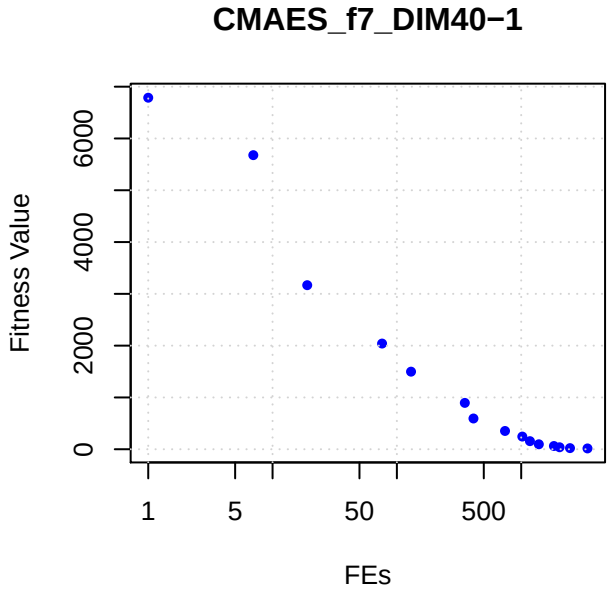
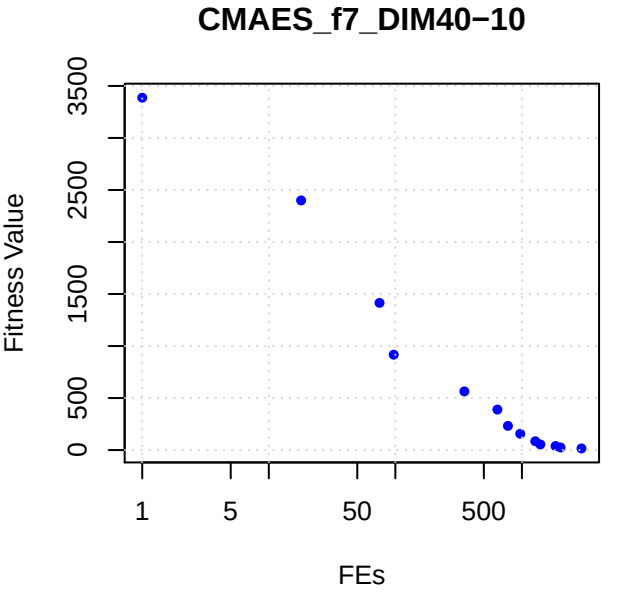
200
FEs


CMAES_f7_DIM40−1
Fitness Value
0
2000
4000
6000
1
5
50
500
FEs


CMAES_f7_DIM40−10
Fitness Value
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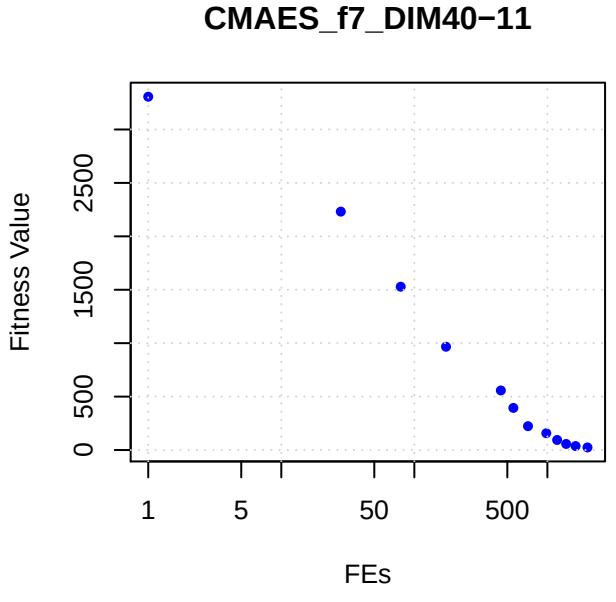
1500
2500
3500
1
5
50
500
FEs


CMAES_f7_DIM40−11
Fitness Value
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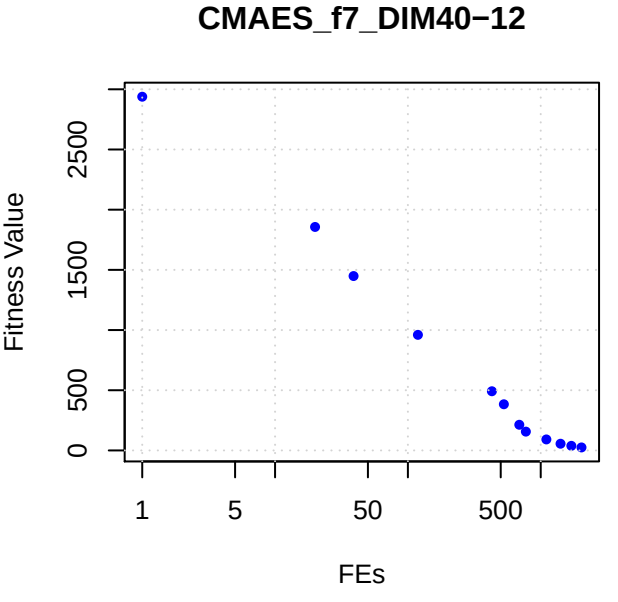
1500
2500
1
5
50
500
FEs


CMAES_f7_DIM40−12
Fitness Value
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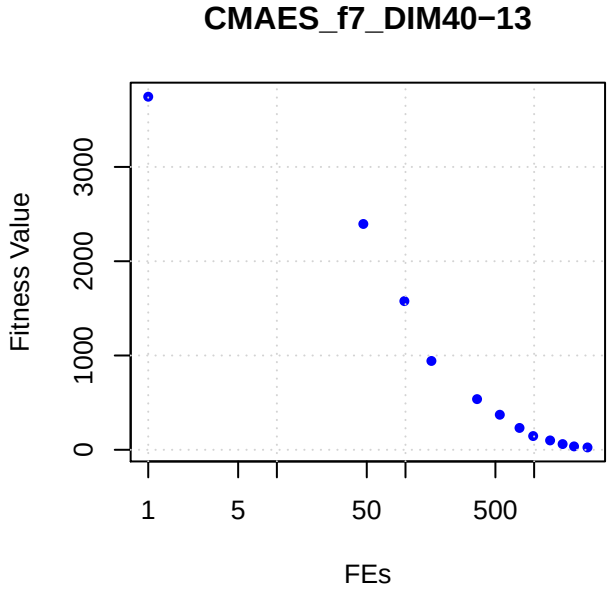
1500
2500
1
5
50
500
FEs


CMAES_f7_DIM40−13
Fitness Value
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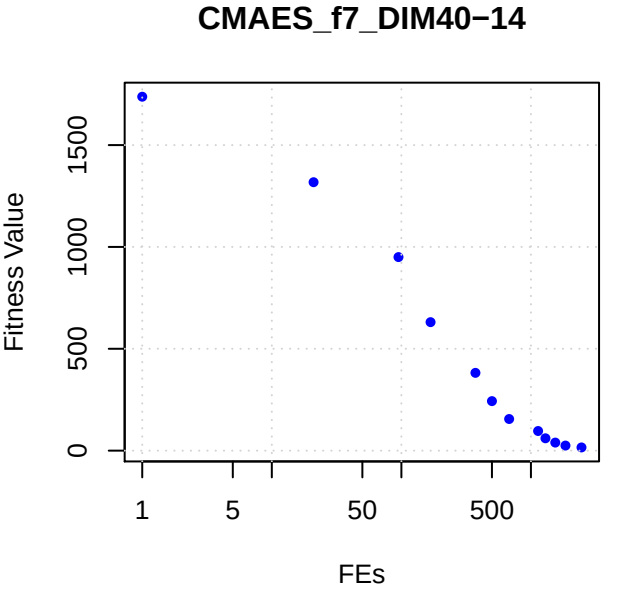
1
5
50
500
FEs


CMAES_f7_DIM40−14
Fitness Value
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1500
1
5
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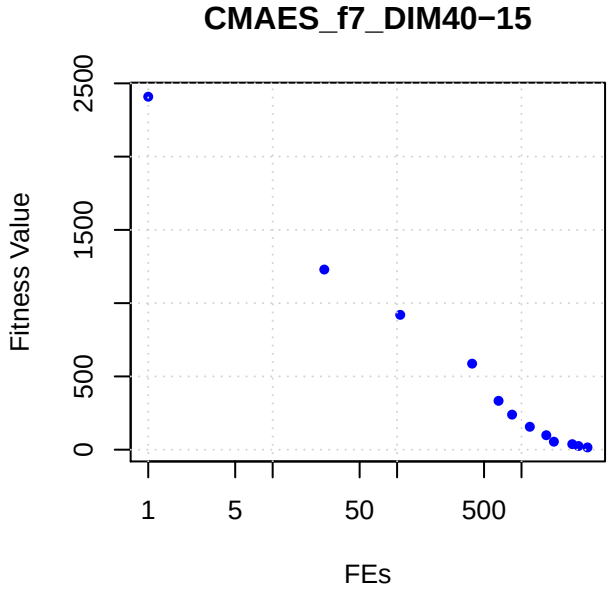
500
FEs


CMAES_f7_DIM40−15
Fitness Value
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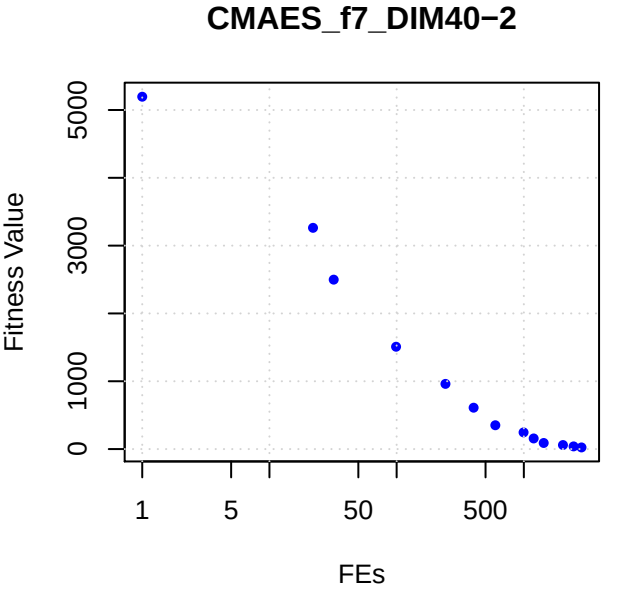
5
50
500
FEs


CMAES_f7_DIM40−2
Fitness Value
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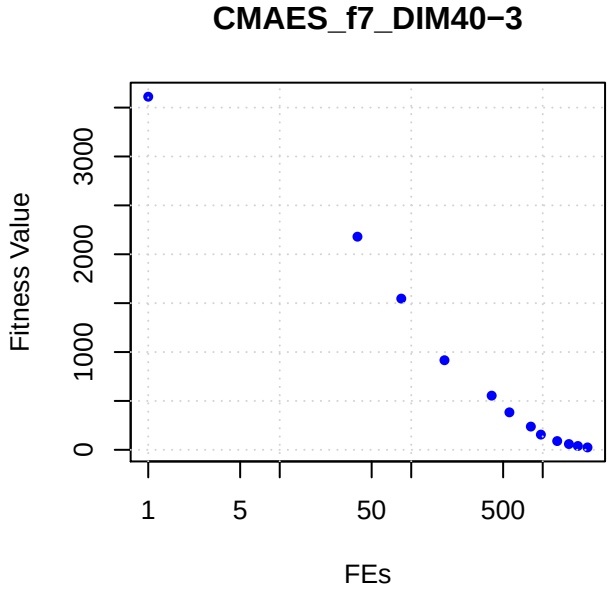
1
5
50
500
FEs


CMAES_f7_DIM40−3
Fitness Value
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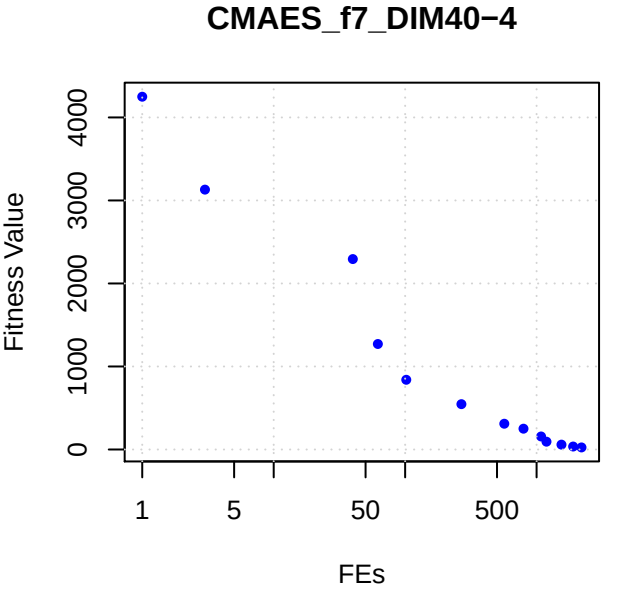
500
FEs


CMAES_f7_DIM40−4
Fitness Value
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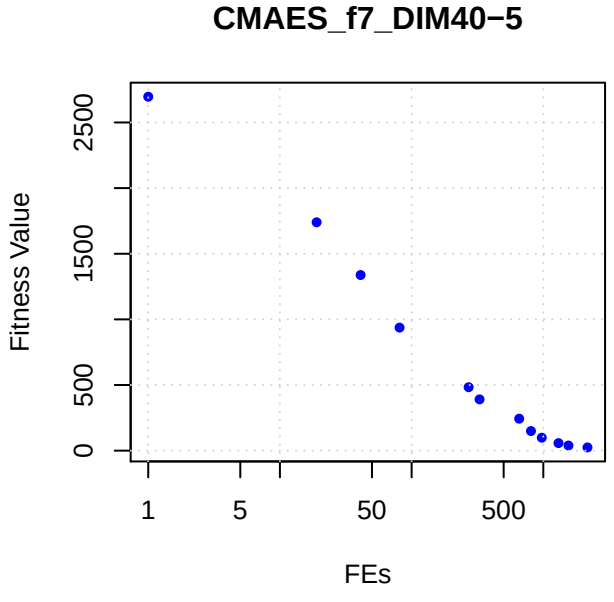
4000
1
5
50
500
FEs


CMAES_f7_DIM40−5
Fitness Value
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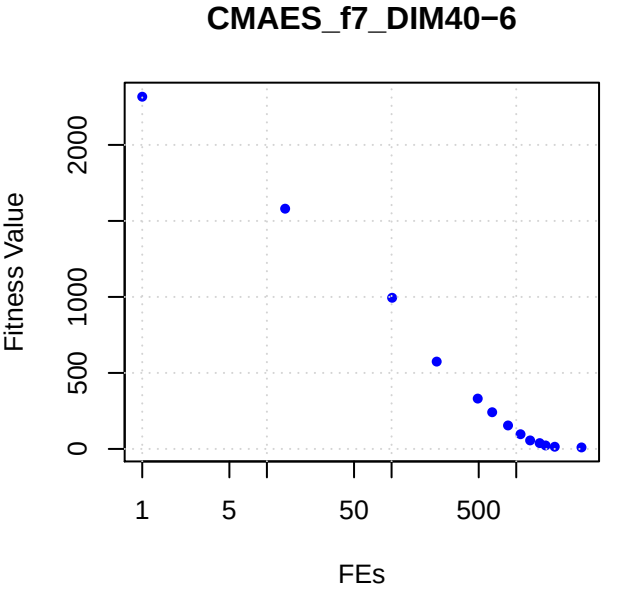
2500
1
5
50
500
FEs


CMAES_f7_DIM40−6
Fitness Value
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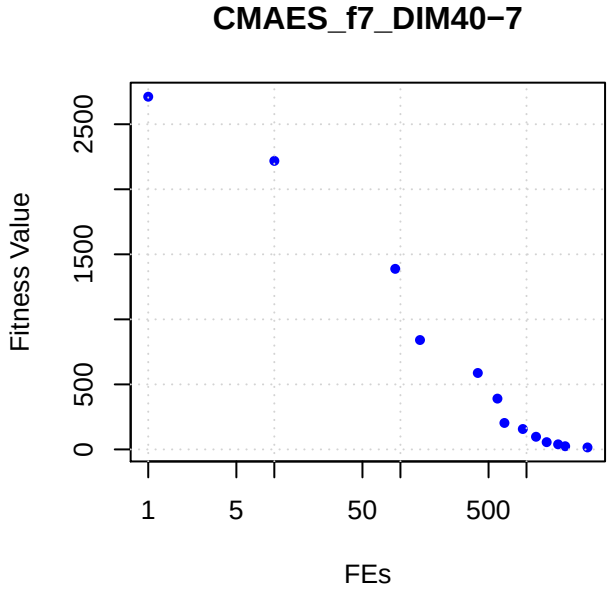
5
50
500
FEs


CMAES_f7_DIM40−7
Fitness Value
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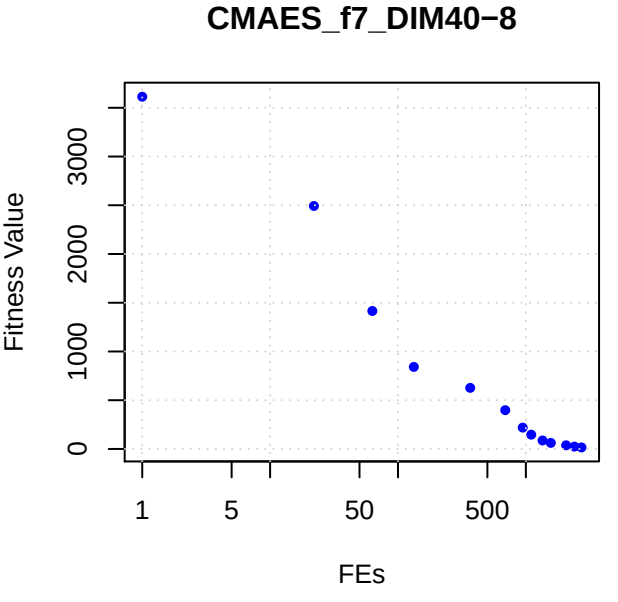
2500
1
5
50
500
FEs


CMAES_f7_DIM40−8
Fitness Value
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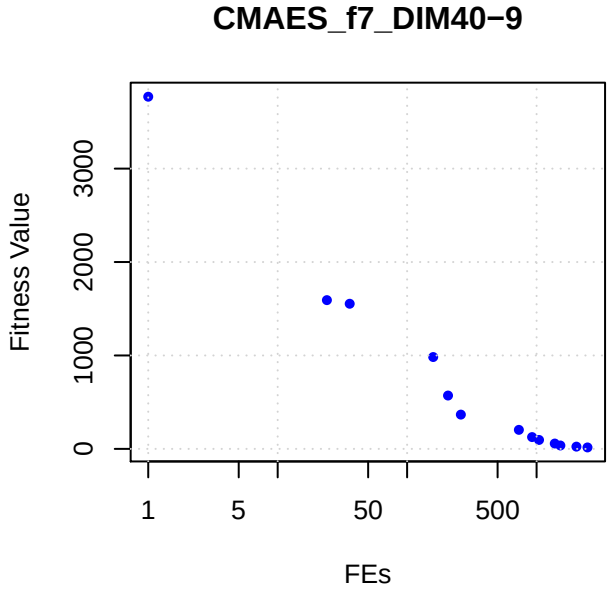
500
FEs


CMAES_f7_DIM40−9
Fitness Value
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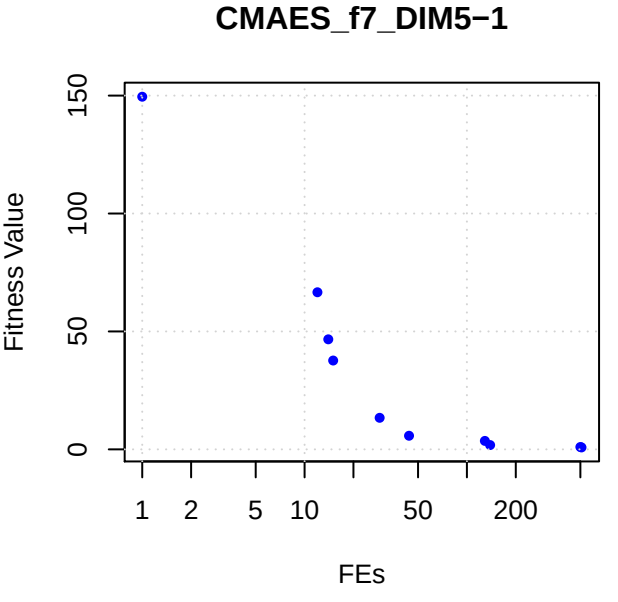
500
FEs


CMAES_f7_DIM5−1
Fitness Value
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1
2
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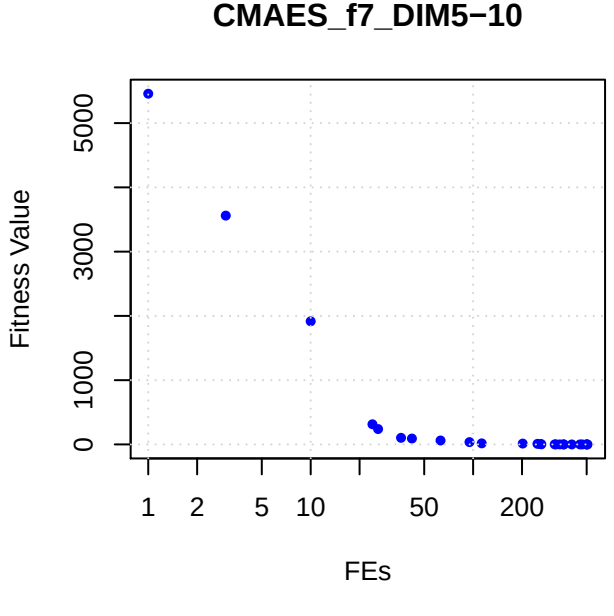
10
50
200
FEs


CMAES_f7_DIM5−10
Fitness Value
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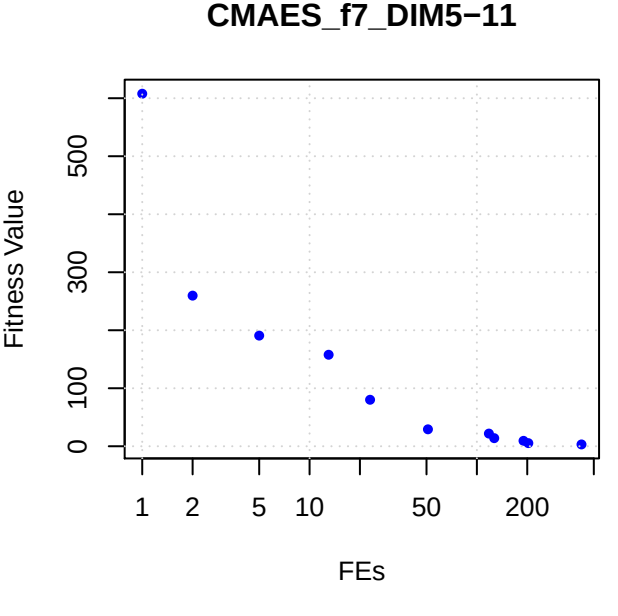
1
2
5
10
50
200
FEs


CMAES_f7_DIM5−11
Fitness Value
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2
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10
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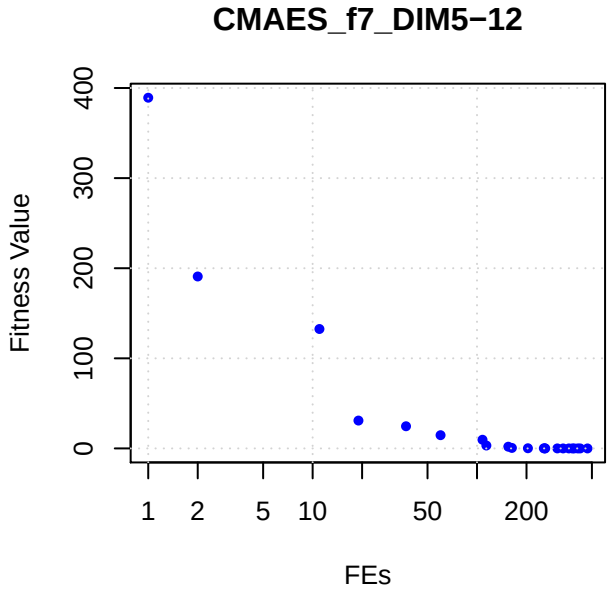
200
FEs


CMAES_f7_DIM5−12
Fitness Value
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1
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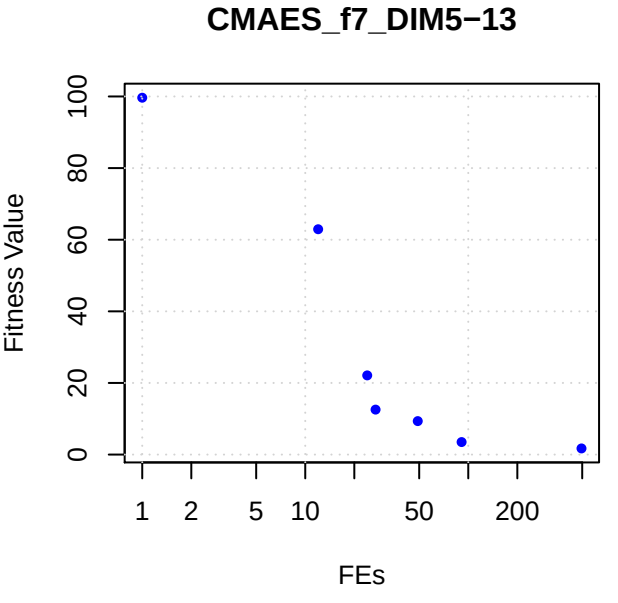
10
50
200
FEs


CMAES_f7_DIM5−13
Fitness Value
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100
1
2
5
10
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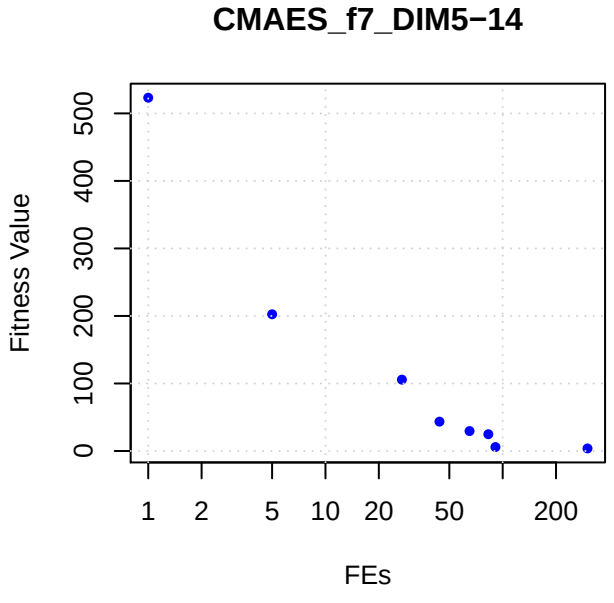
200
FEs


CMAES_f7_DIM5−14
Fitness Value
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400
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1
2
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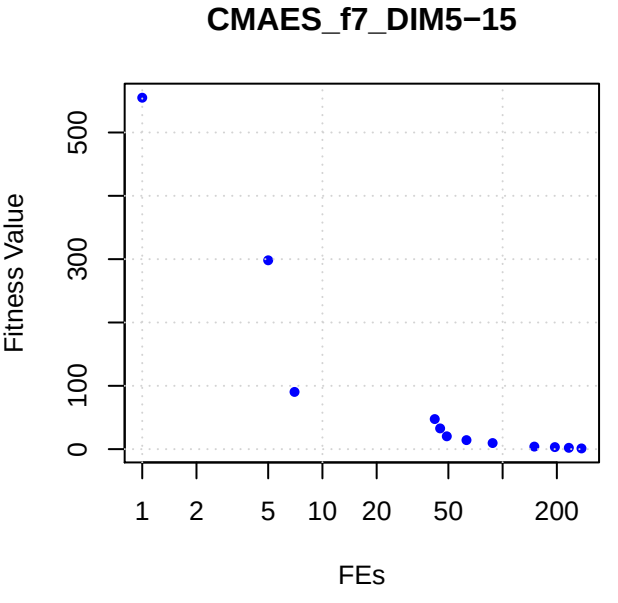
200
FEs


CMAES_f7_DIM5−15
Fitness Value
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1
2
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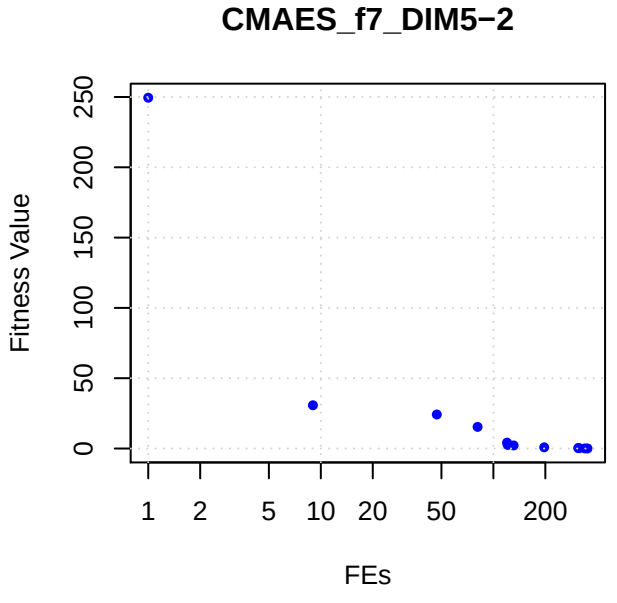
200
FEs


CMAES_f7_DIM5−2
Fitness Value
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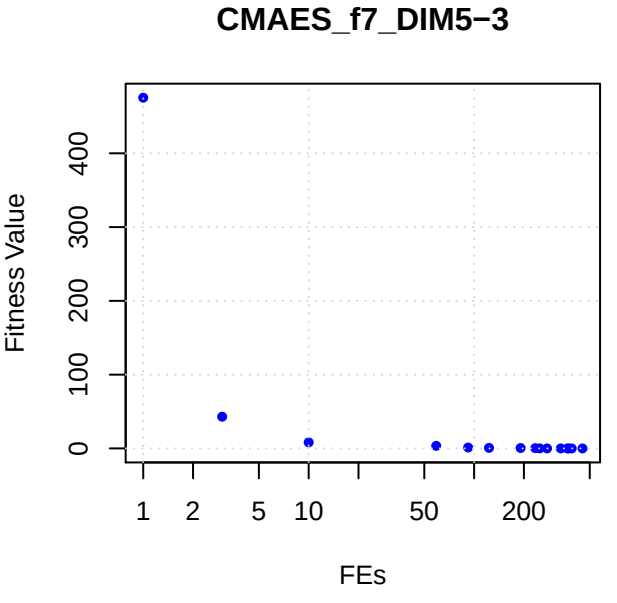
50
100
150
200
250
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM5−3
Fitness Value
0
100
200
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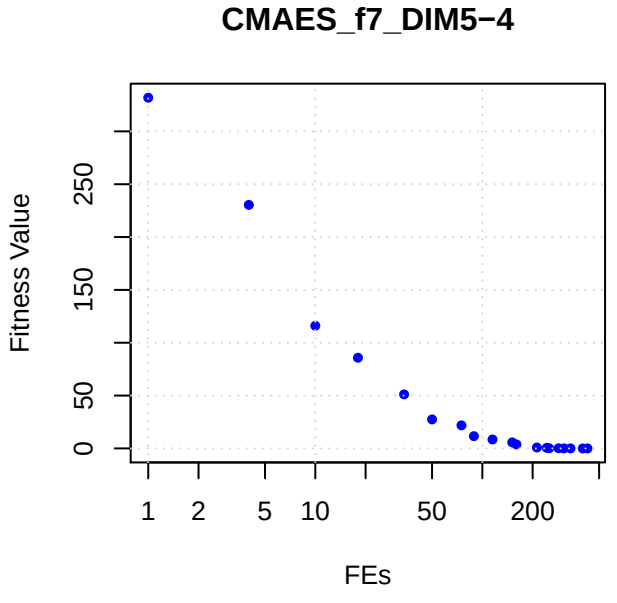
400
1
2
5
10
50
200
FEs


CMAES_f7_DIM5−4
Fitness Value
0
50
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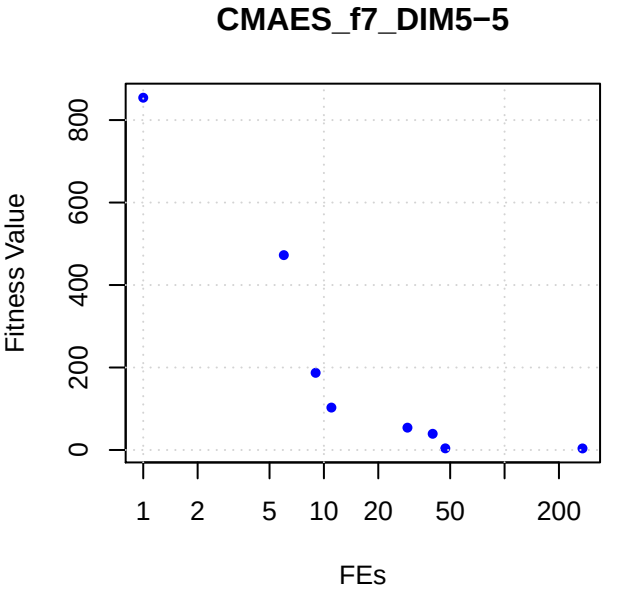
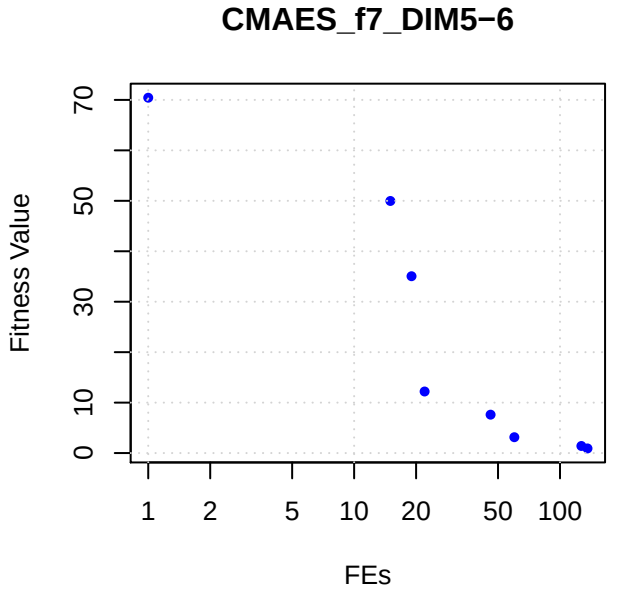
250
1
2
5
10
50
200
FEs


CMAES_f7_DIM5−5
Fitness Value
0
200
400
600
800
1
2
5
10
20
50
200
FEs


CMAES_f7_DIM5−6
Fitness Value
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1
2
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20
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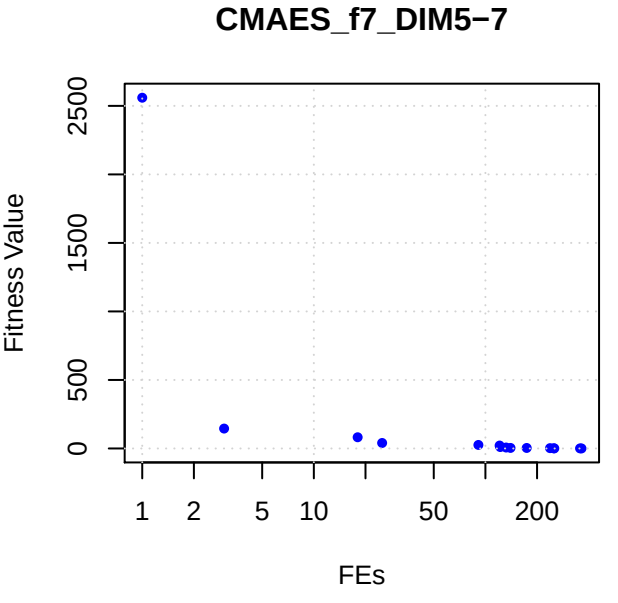
100
FEs


CMAES_f7_DIM5−7
Fitness Value
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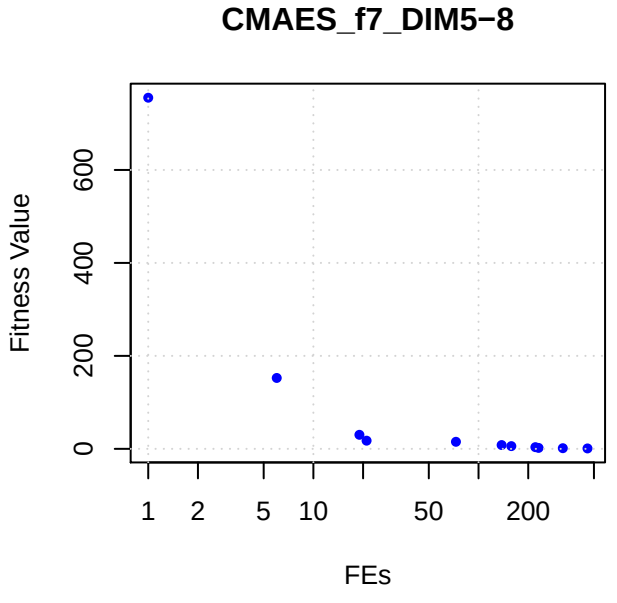
1500
2500
1
2
5
10
50
200
FEs


CMAES_f7_DIM5−8
Fitness Value
0
200
400
600
1
2
5
10
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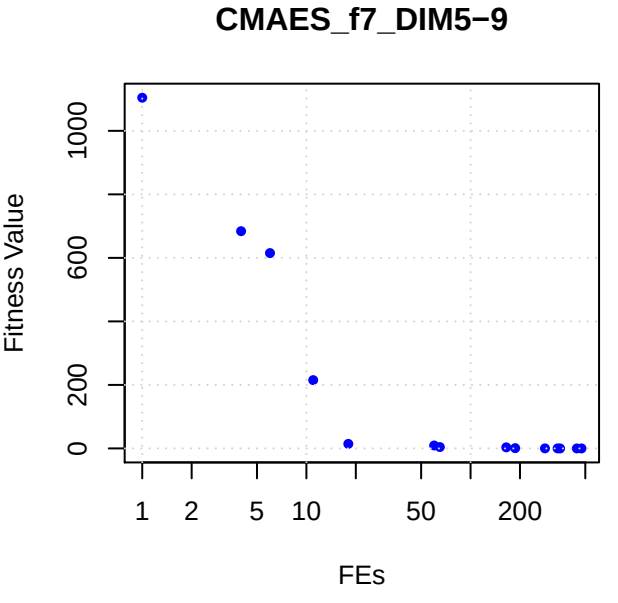
200
FEs


CMAES_f7_DIM5−9
Fitness Value
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1000
1
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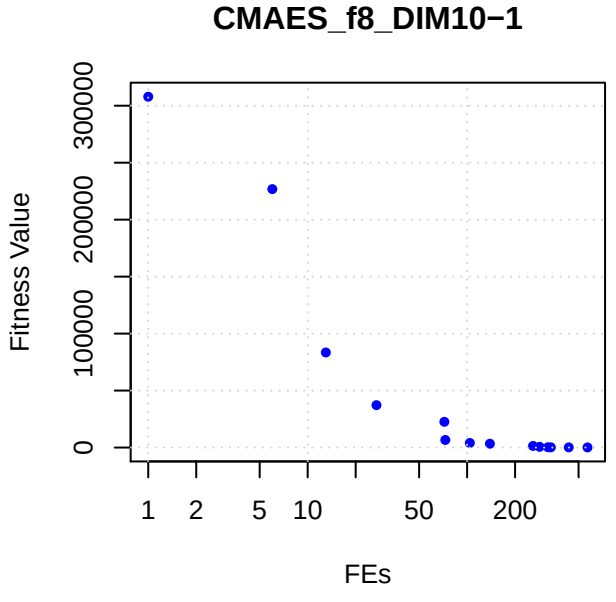
200
FEs


CMAES_f8_DIM10−1
Fitness Value
0
100000
200000
300000
1
2
5
10
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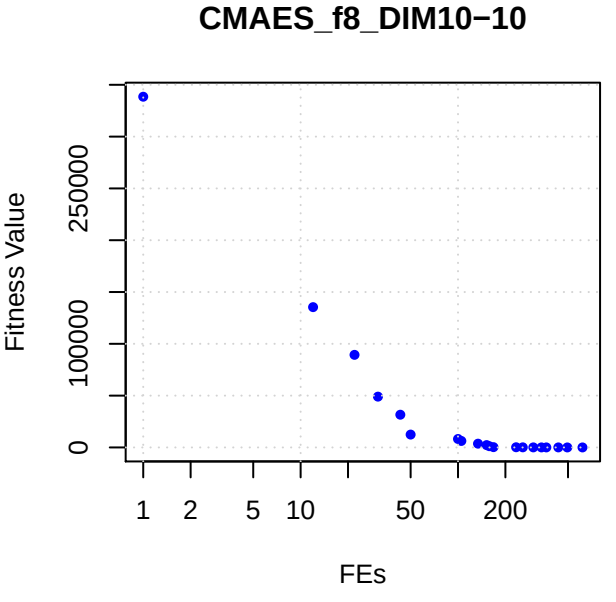
200
FEs


CMAES_f8_DIM10−10
Fitness Value
0
100000
250000
1
2
5
10
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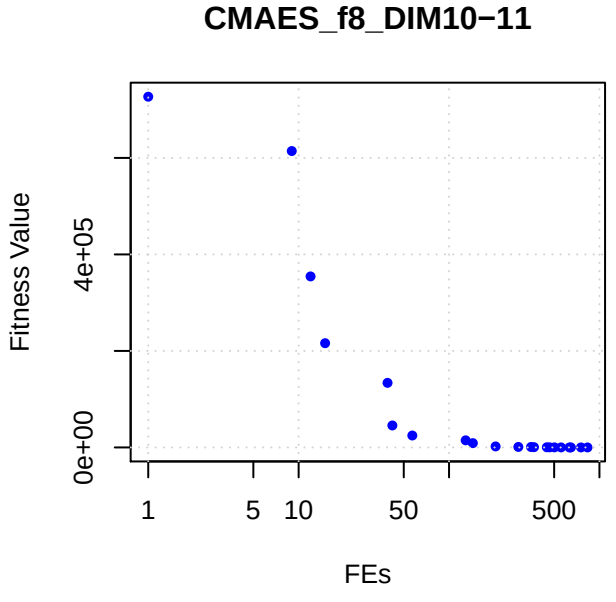
200
FEs


CMAES_f8_DIM10−11
Fitness Value
0e+00
4e+05
1
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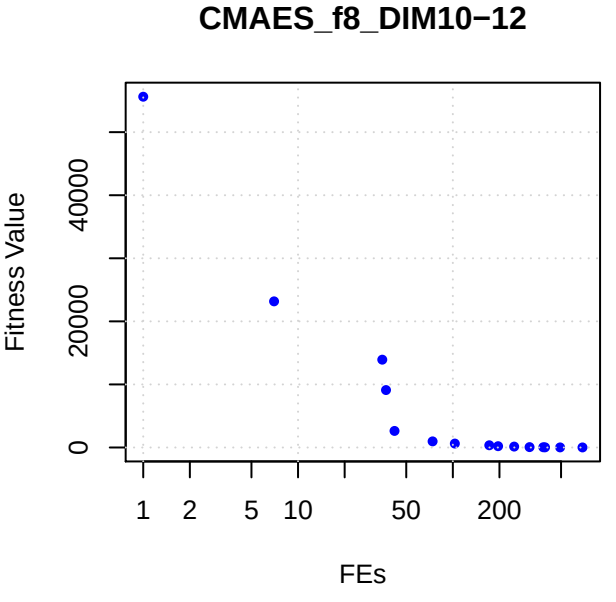
FEs


CMAES_f8_DIM10−12
Fitness Value
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20000
40000
1
2
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10
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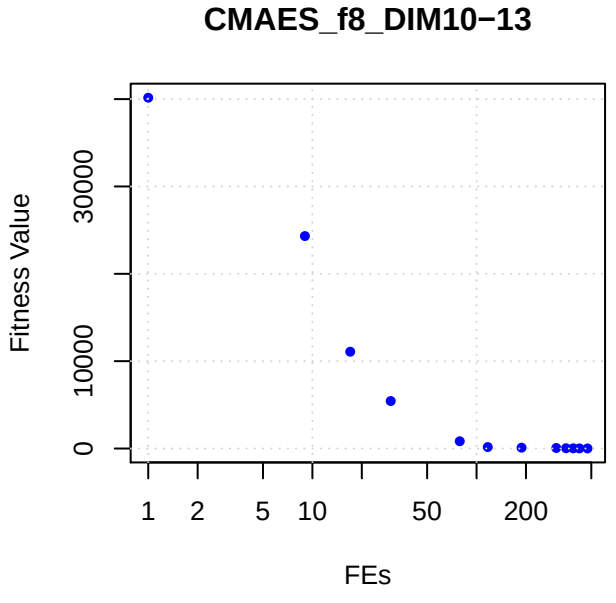
FEs


CMAES_f8_DIM10−13
Fitness Value
0
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30000
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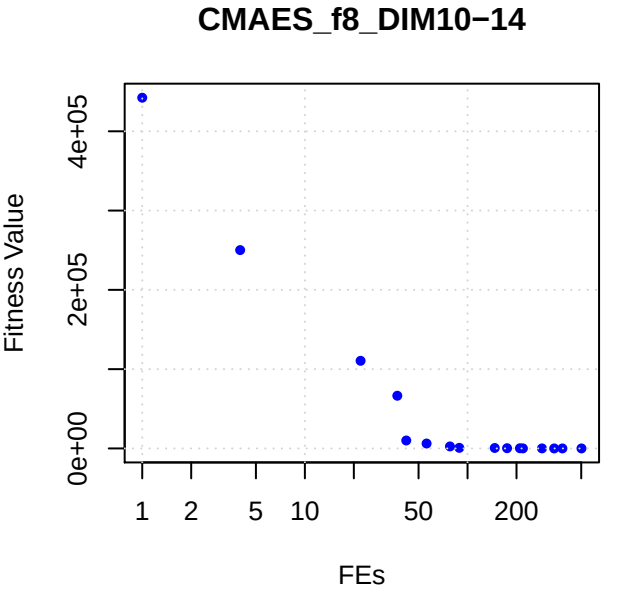
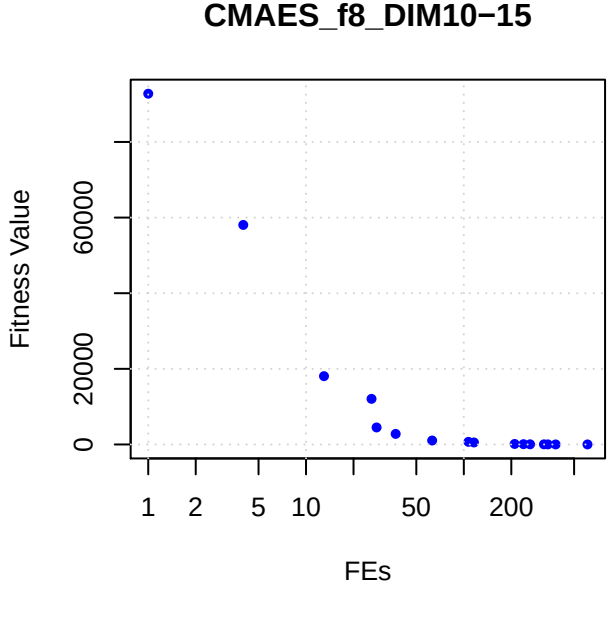
FEs


CMAES_f8_DIM10−14
Fitness Value
0e+00
2e+05
4e+05
1
2
5
10
50
200
FEs


CMAES_f8_DIM10−15
Fitness Value
0
20000
60000
1
2
5
10
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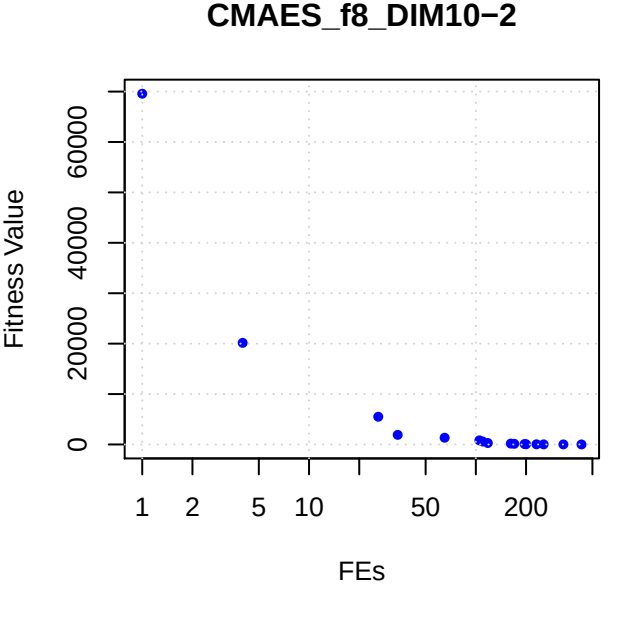
200
FEs


CMAES_f8_DIM10−2
Fitness Value
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40000
60000
1
2
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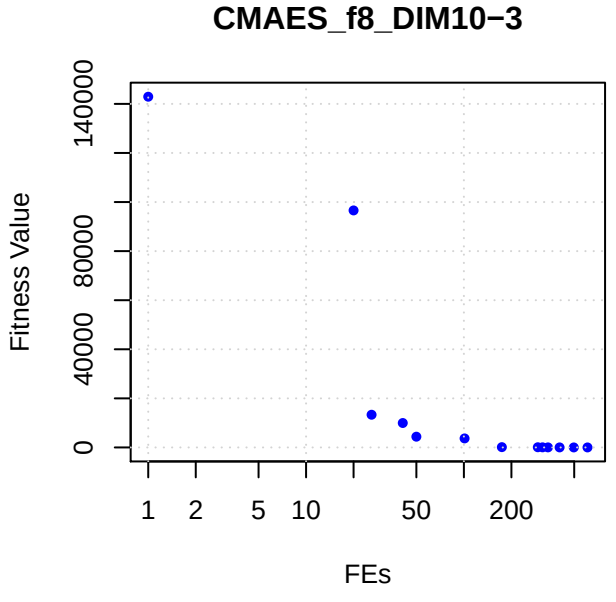
200
FEs


CMAES_f8_DIM10−3
Fitness Value
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140000
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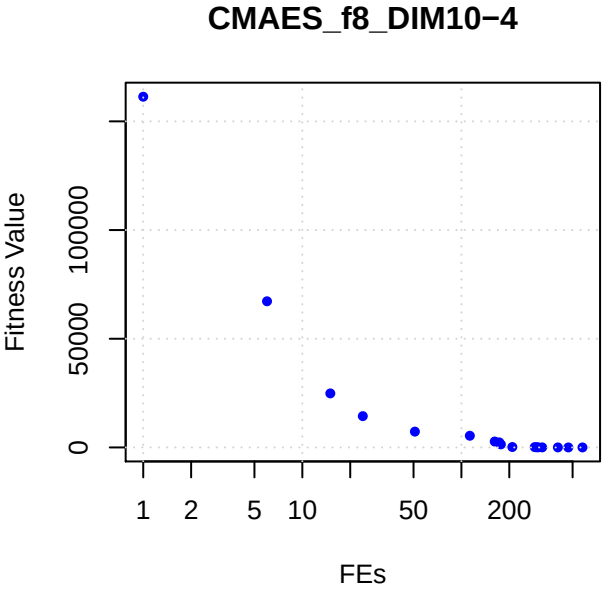
200
FEs


CMAES_f8_DIM10−4
Fitness Value
0
50000
100000
1
2
5
10
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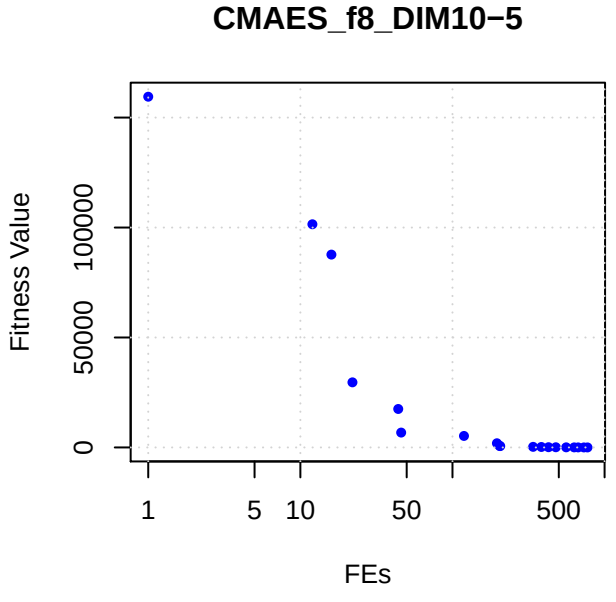
200
FEs


CMAES_f8_DIM10−5
Fitness Value
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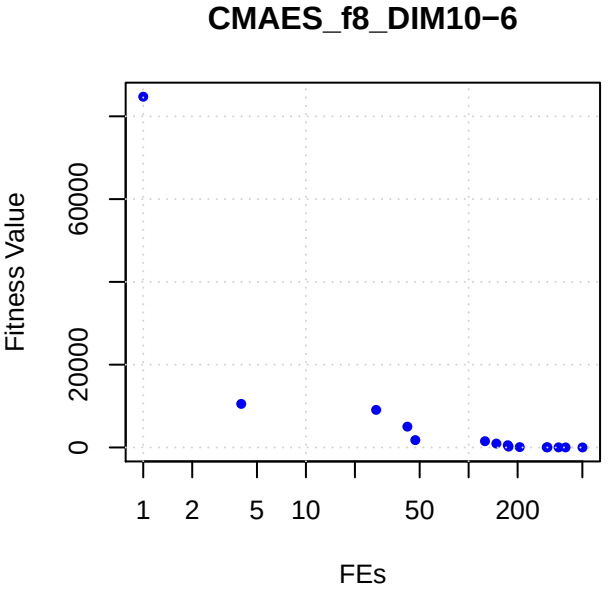
50000
100000
1
5
10
50
500
FEs


CMAES_f8_DIM10−6
Fitness Value
0
20000
60000
1
2
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10
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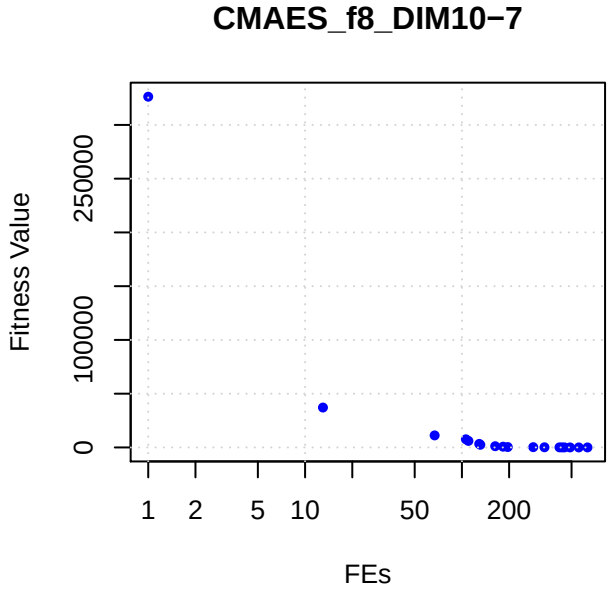
200
FEs


CMAES_f8_DIM10−7
Fitness Value
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250000
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2
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10
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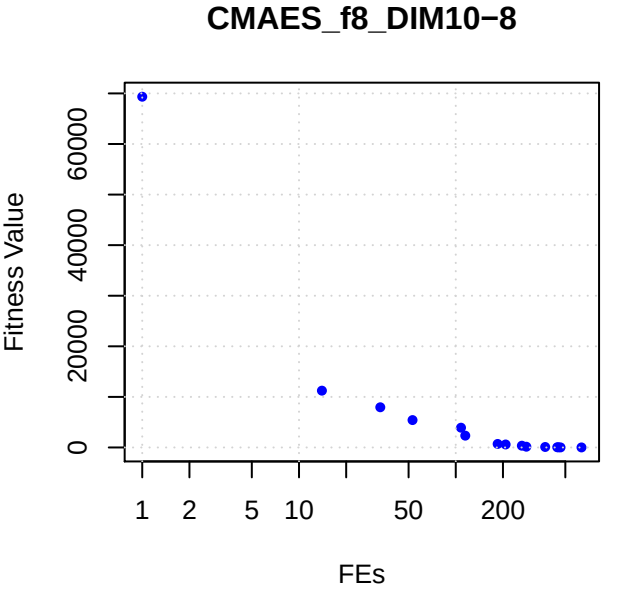
200
FEs


CMAES_f8_DIM10−8
Fitness Value
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40000
60000
1
2
5
10
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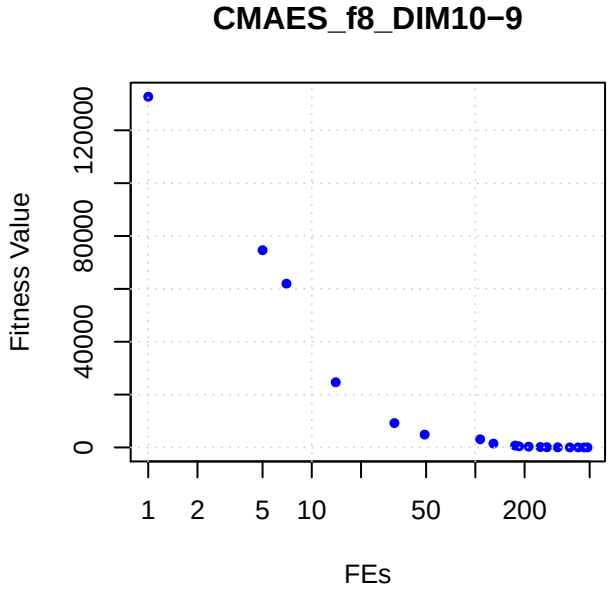
200
FEs


CMAES_f8_DIM10−9
Fitness Value
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80000
120000
1
2
5
10
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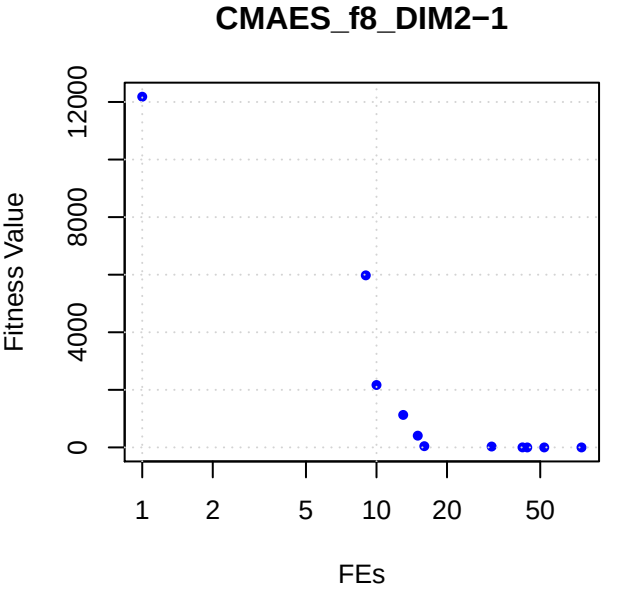
200
FEs


CMAES_f8_DIM2−1
Fitness Value
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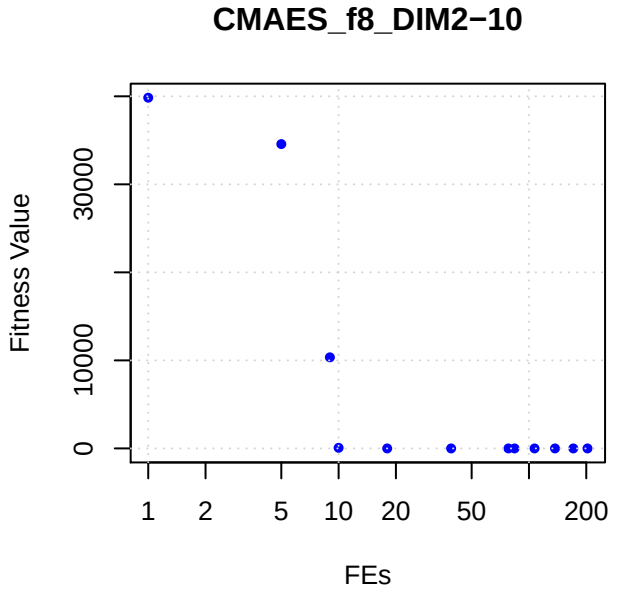
8000
12000
1
2
5
10
20
50
FEs


CMAES_f8_DIM2−10
Fitness Value
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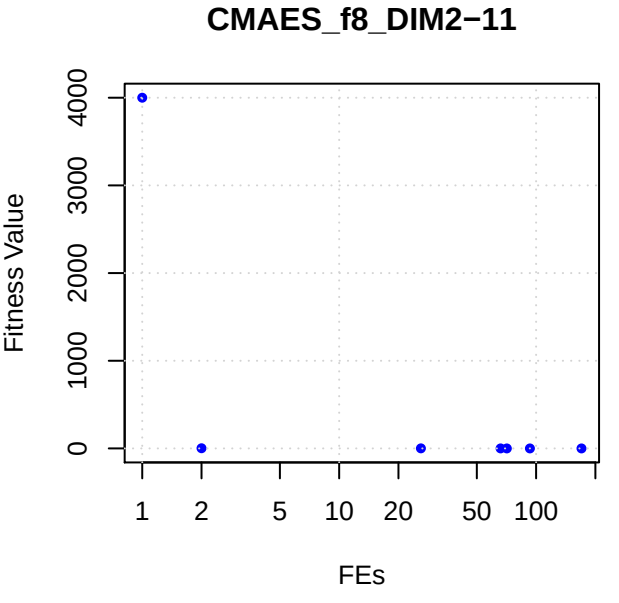
10000
30000
1
2
5
10
20
50
200
FEs


CMAES_f8_DIM2−11
Fitness Value
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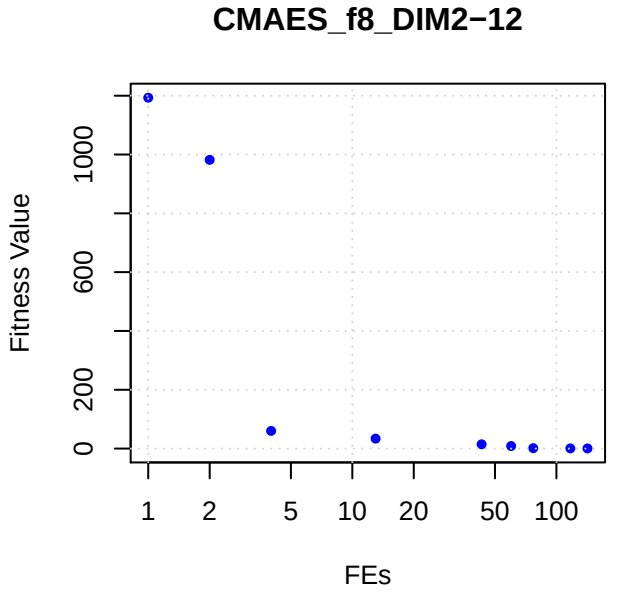
1000
2000
3000
4000
1
2
5
10
20
50
100
FEs


CMAES_f8_DIM2−12
Fitness Value
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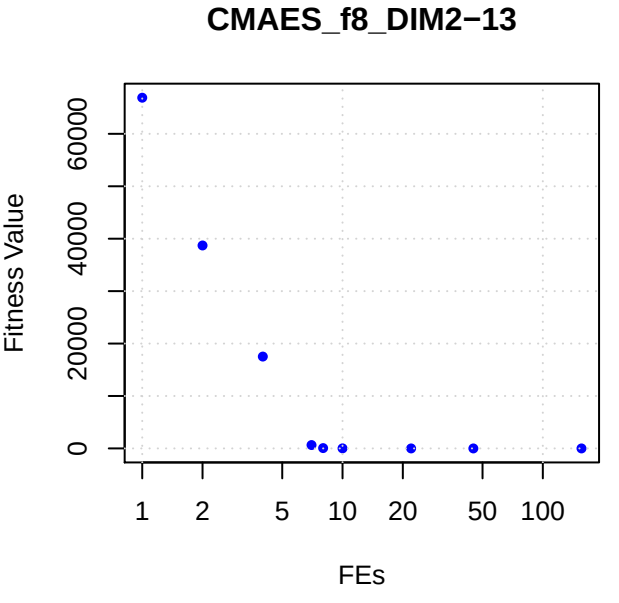
200
600
1000
1
2
5
10
20
50
100
FEs


CMAES_f8_DIM2−13
Fitness Value
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40000
60000
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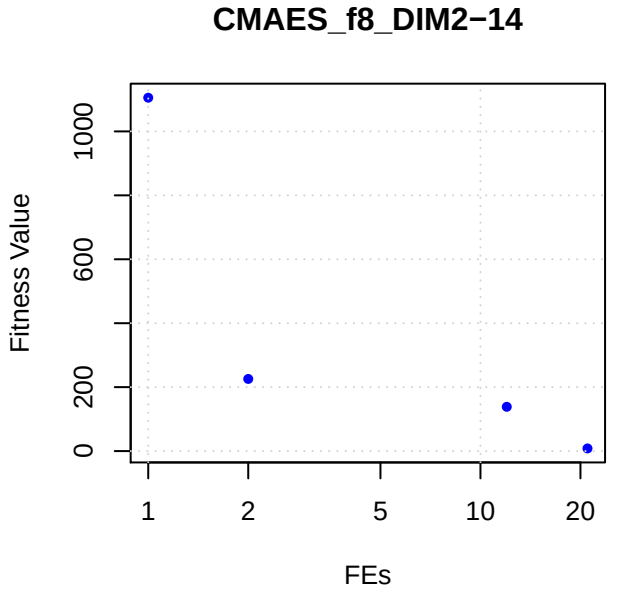
2
5
10
20
50
100
FEs


CMAES_f8_DIM2−14
Fitness Value
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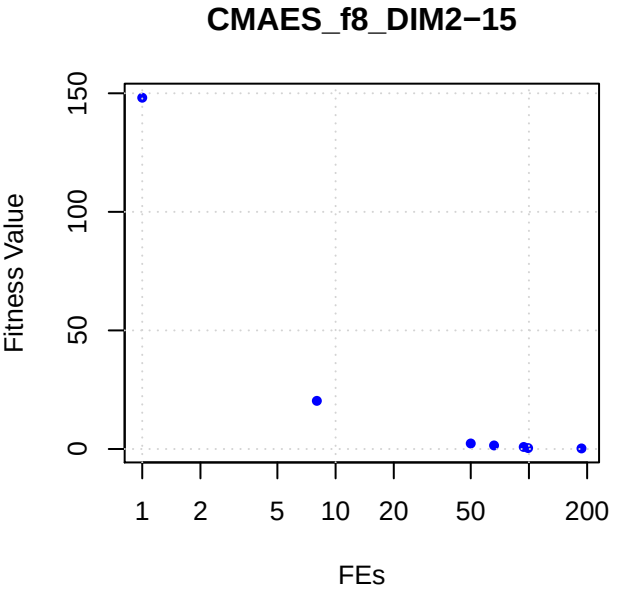
600
1000
1
2
5
10
20
FEs


CMAES_f8_DIM2−15
Fitness Value
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100
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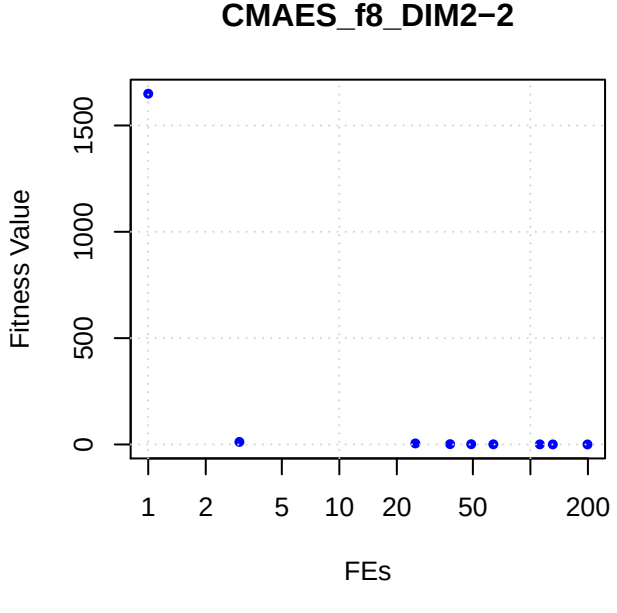
1
2
5
10
20
50
200
FEs


CMAES_f8_DIM2−2
Fitness Value
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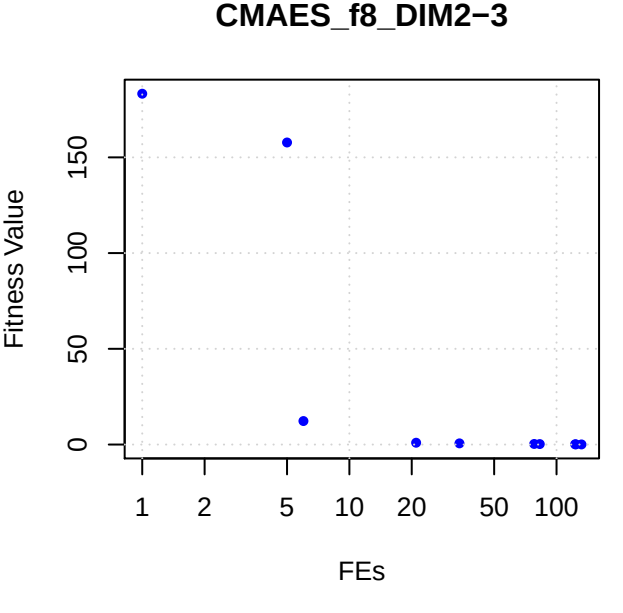
1000
1500
1
2
5
10
20
50
200
FEs


CMAES_f8_DIM2−3
Fitness Value
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1
2
5
10
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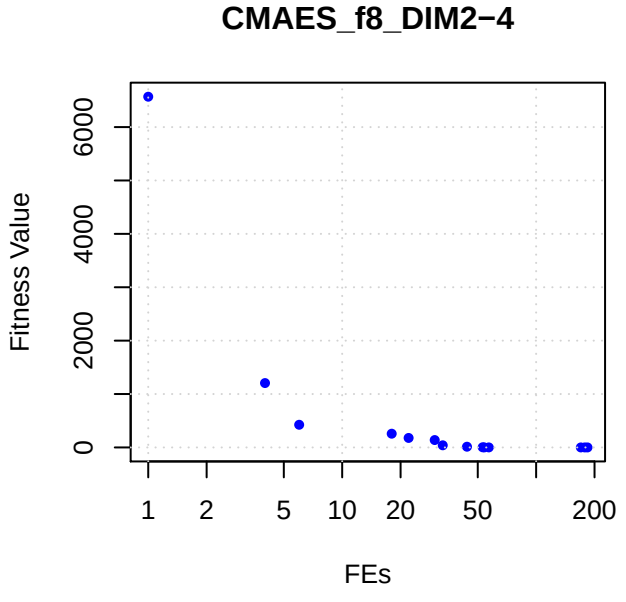
100
FEs


CMAES_f8_DIM2−4
Fitness Value
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4000
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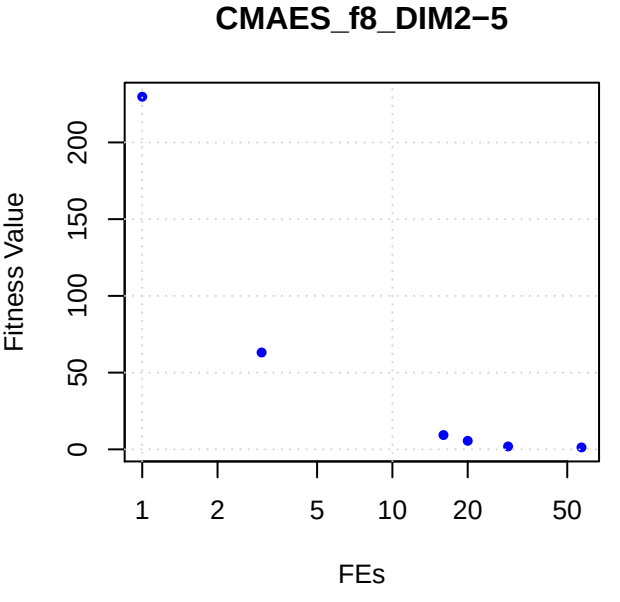
1
2
5
10
20
50
200
FEs


CMAES_f8_DIM2−5
Fitness Value
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100
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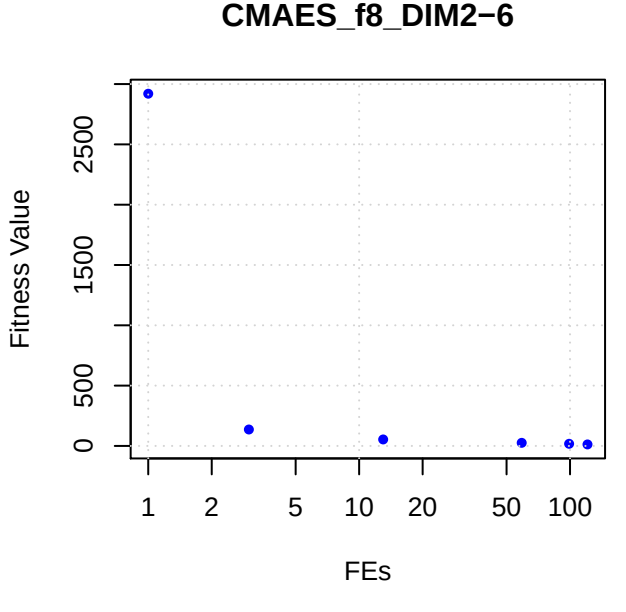
200
1
2
5
10
20
50
FEs


CMAES_f8_DIM2−6
Fitness Value
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500
1500
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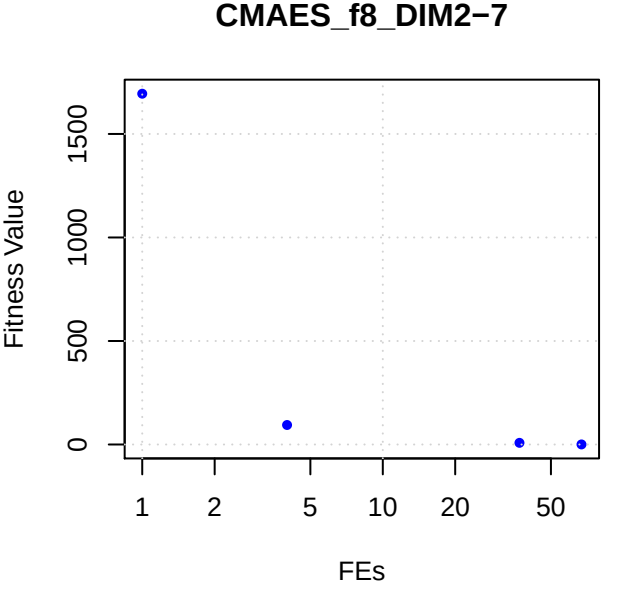
1
2
5
10
20
50
100
FEs


CMAES_f8_DIM2−7
Fitness Value
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1500
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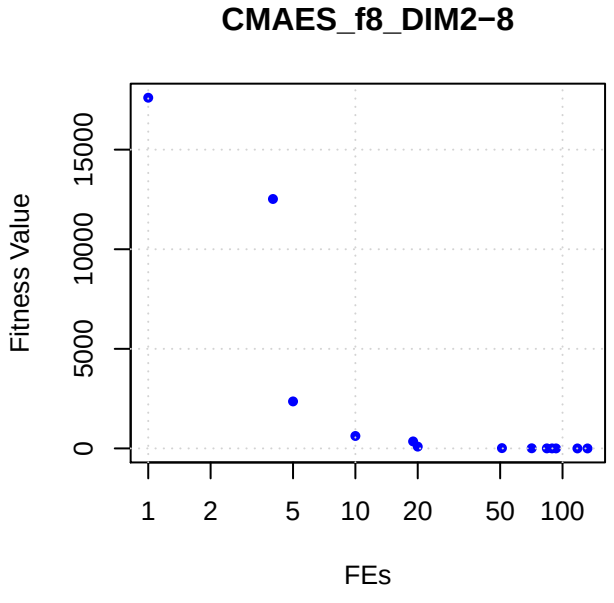
FEs


CMAES_f8_DIM2−8
Fitness Value
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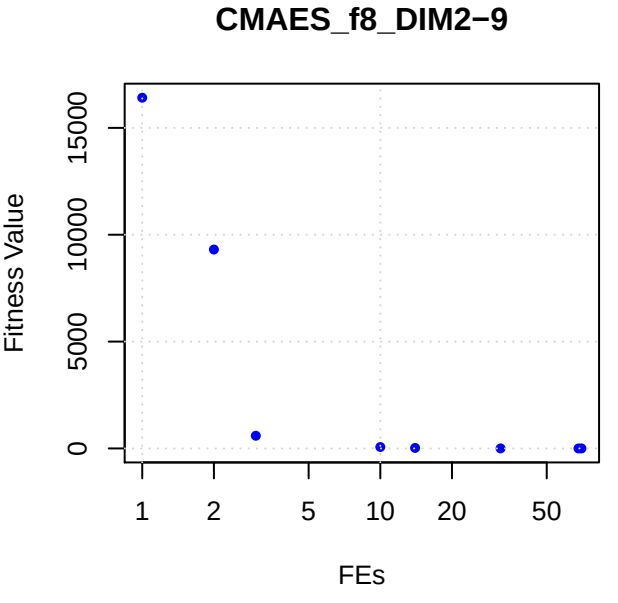
5000
10000
15000
1
2
5
10
20
50
100
FEs


CMAES_f8_DIM2−9
Fitness Value
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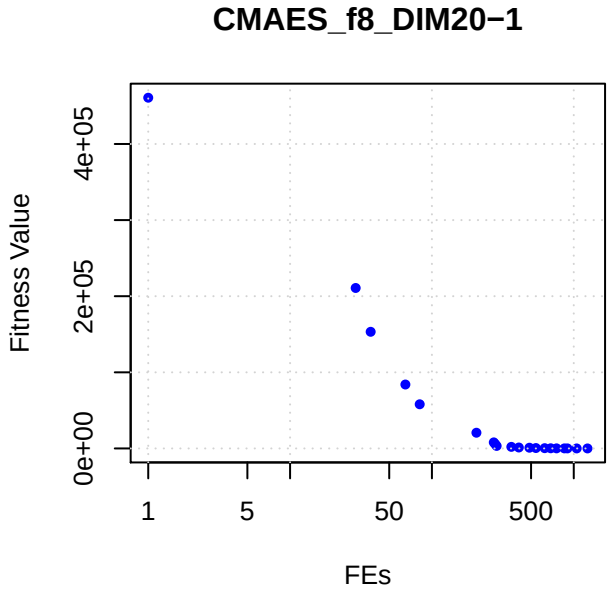
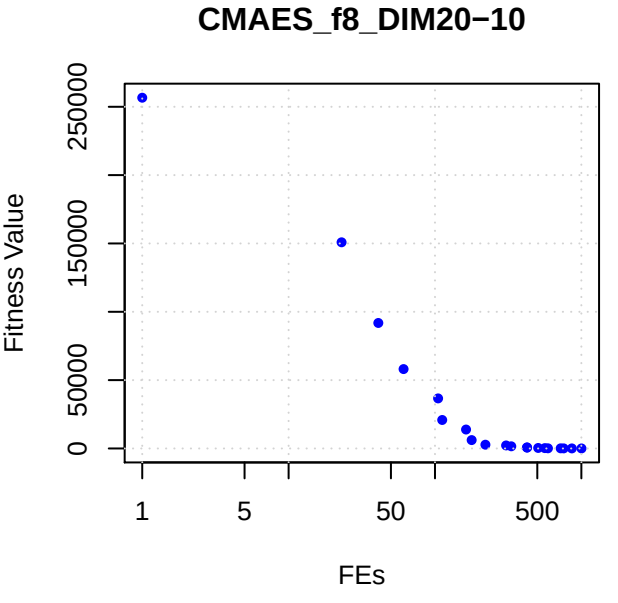
10000
15000
1
2
5
10
20
50
FEs


CMAES_f8_DIM20−1
Fitness Value
0e+00
2e+05
4e+05
1
5
50
500
FEs


CMAES_f8_DIM20−10
Fitness Value
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150000
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1
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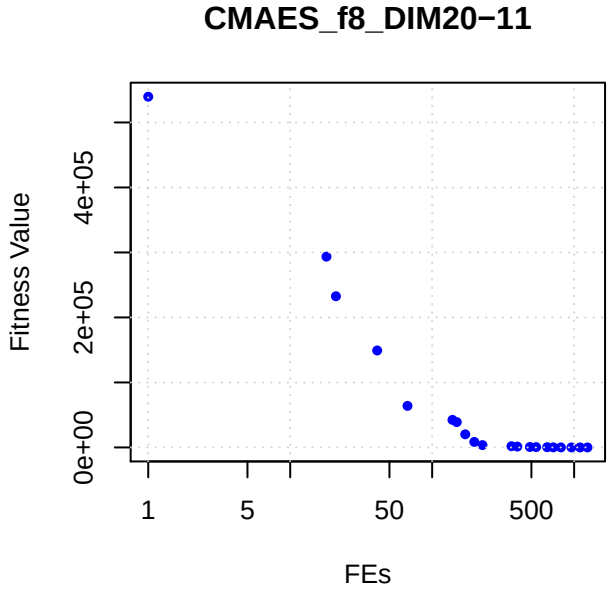
500
FEs


CMAES_f8_DIM20−11
Fitness Value
0e+00
2e+05
4e+05
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5
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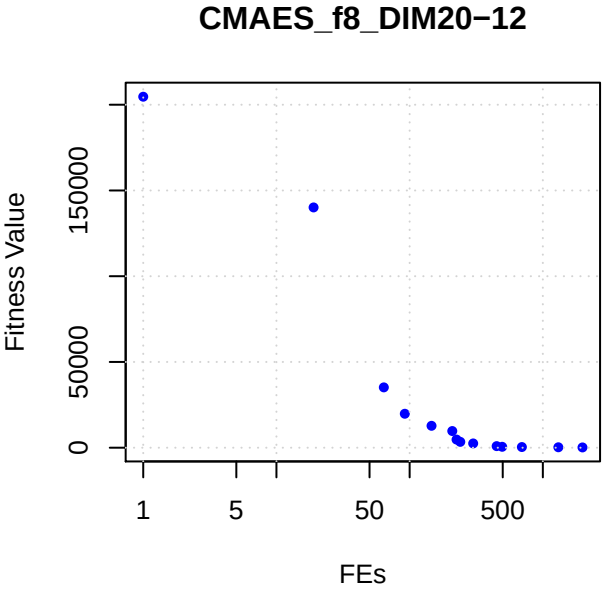
500
FEs


CMAES_f8_DIM20−12
Fitness Value
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5
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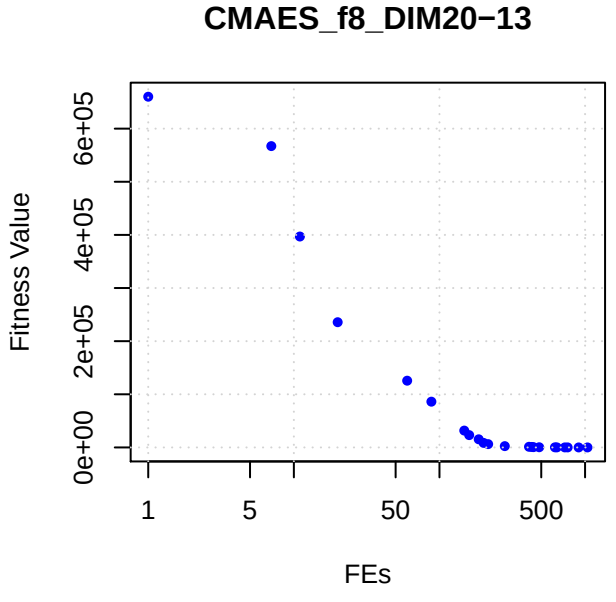
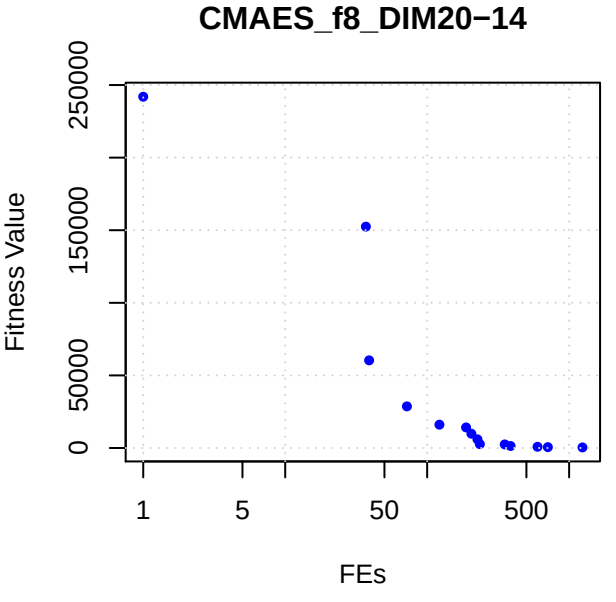
500
FEs


CMAES_f8_DIM20−13
Fitness Value
0e+00
2e+05
4e+05
6e+05
1
5
50
500
FEs


CMAES_f8_DIM20−14
Fitness Value
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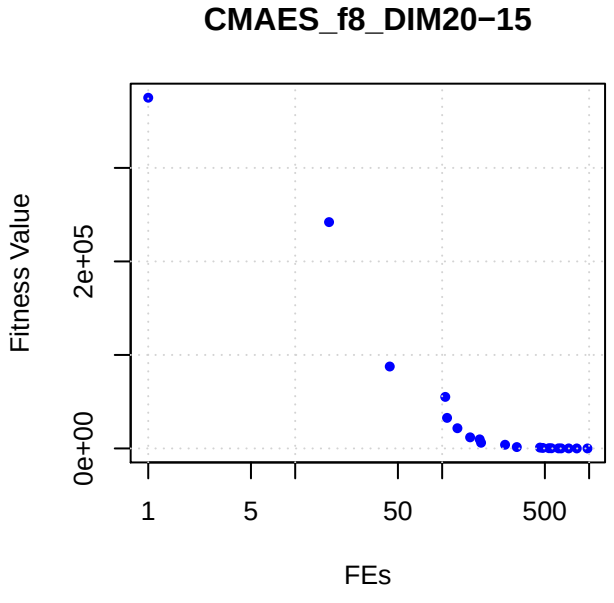
150000
250000
1
5
50
500
FEs


CMAES_f8_DIM20−15
Fitness Value
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2e+05
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5
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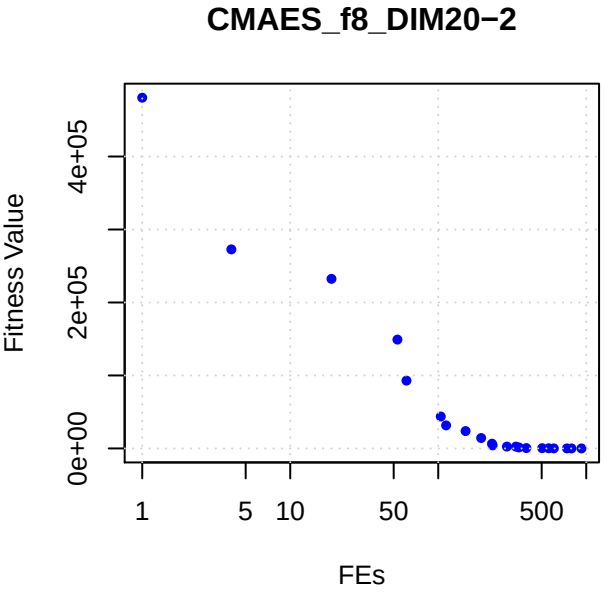
500
FEs


CMAES_f8_DIM20−2
Fitness Value
0e+00
2e+05
4e+05
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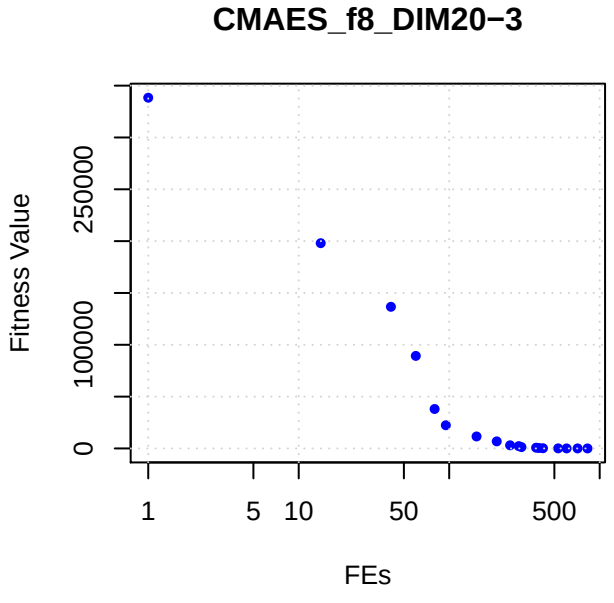
500
FEs


CMAES_f8_DIM20−3
Fitness Value
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100000
250000
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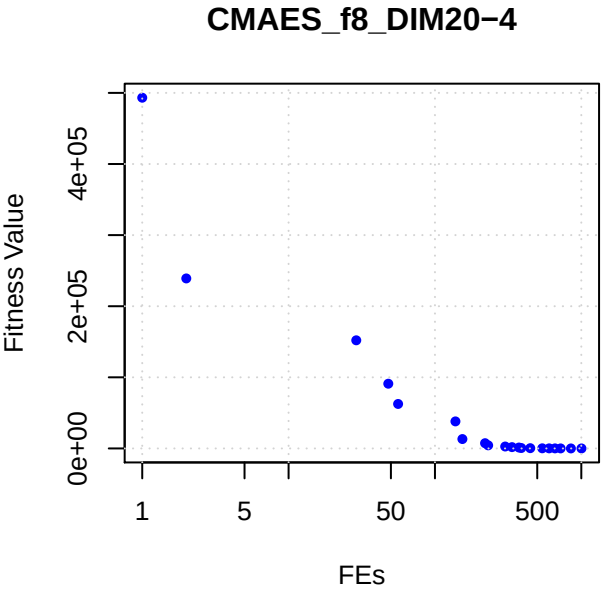
10
50
500
FEs


CMAES_f8_DIM20−4
Fitness Value
0e+00
2e+05
4e+05
1
5
50
500
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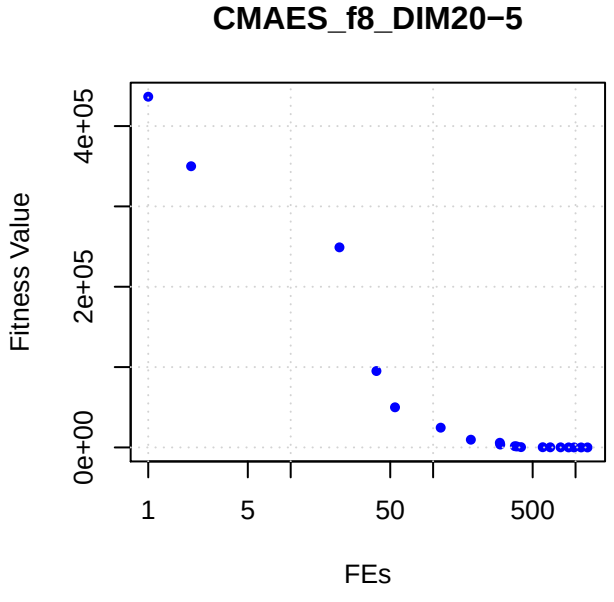
CMAES_f8_DIM20−5
Fitness Value
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4e+05
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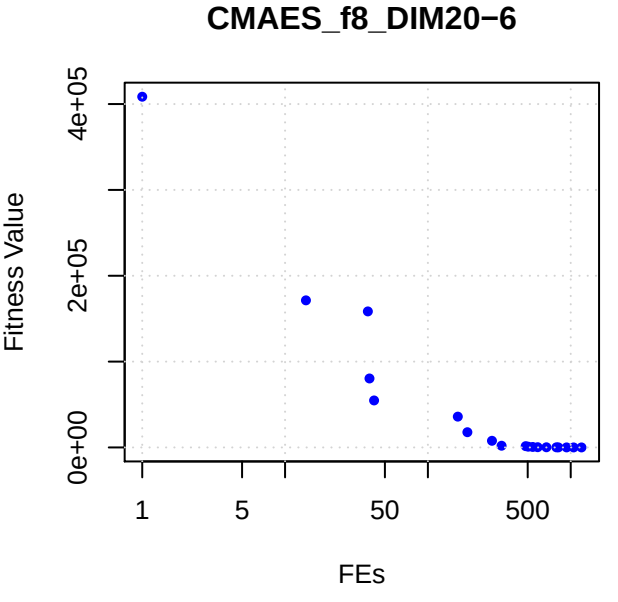
500
FEs


CMAES_f8_DIM20−6
Fitness Value
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4e+05
1
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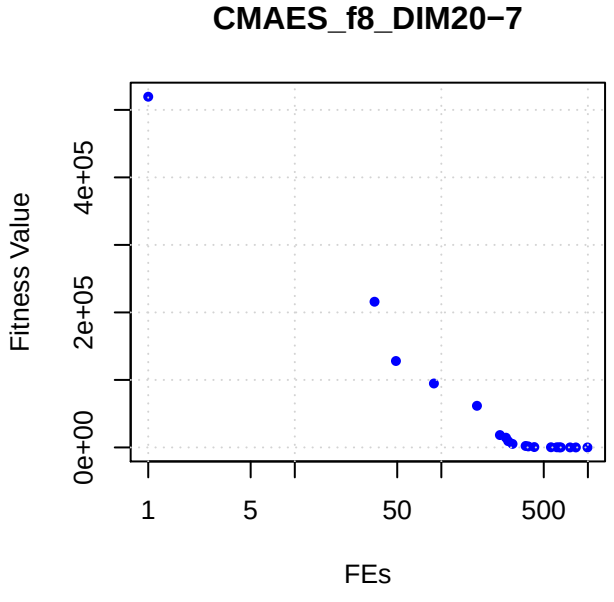
500
FEs


CMAES_f8_DIM20−7
Fitness Value
0e+00
2e+05
4e+05
1
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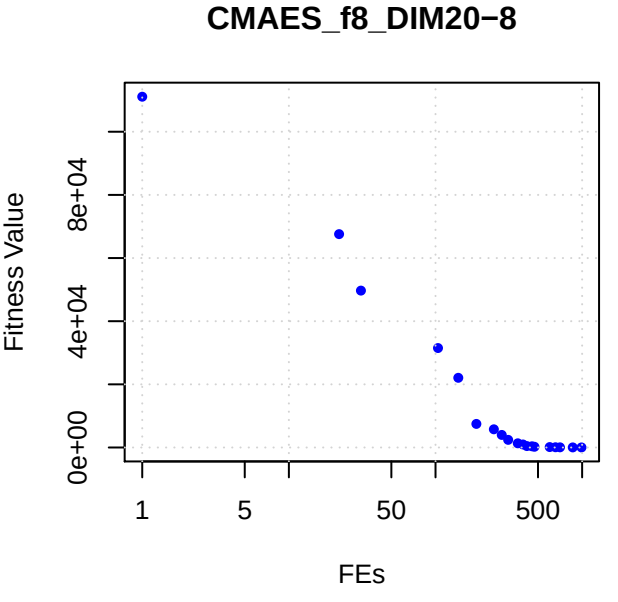
500
FEs


CMAES_f8_DIM20−8
Fitness Value
0e+00
4e+04
8e+04
1
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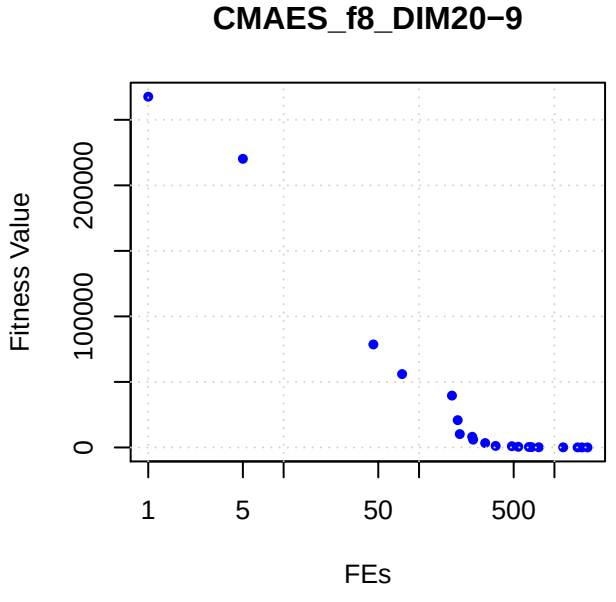
500
FEs


CMAES_f8_DIM20−9
Fitness Value
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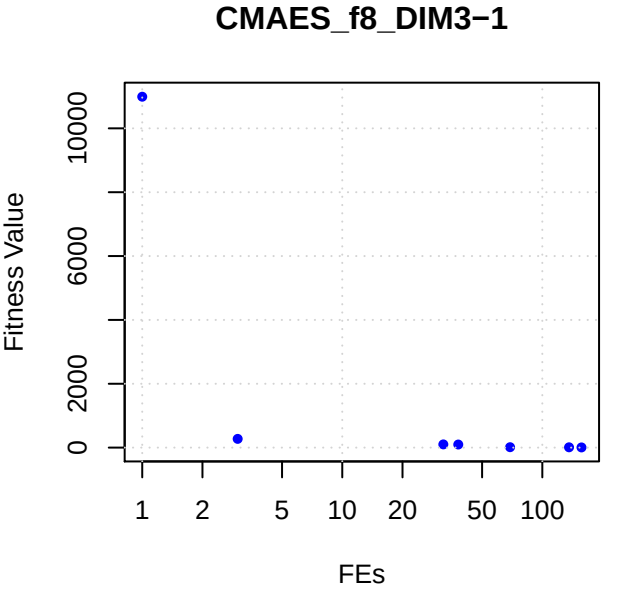
FEs


CMAES_f8_DIM3−1
Fitness Value
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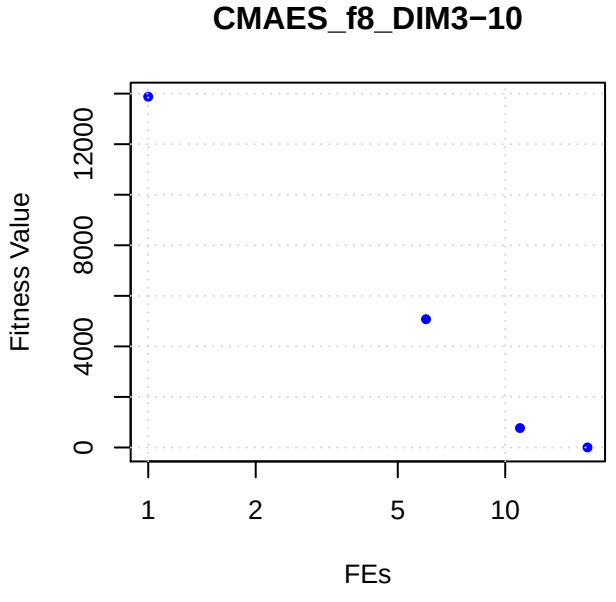
2000
6000
10000
1
2
5
10
20
50
100
FEs


CMAES_f8_DIM3−10
Fitness Value
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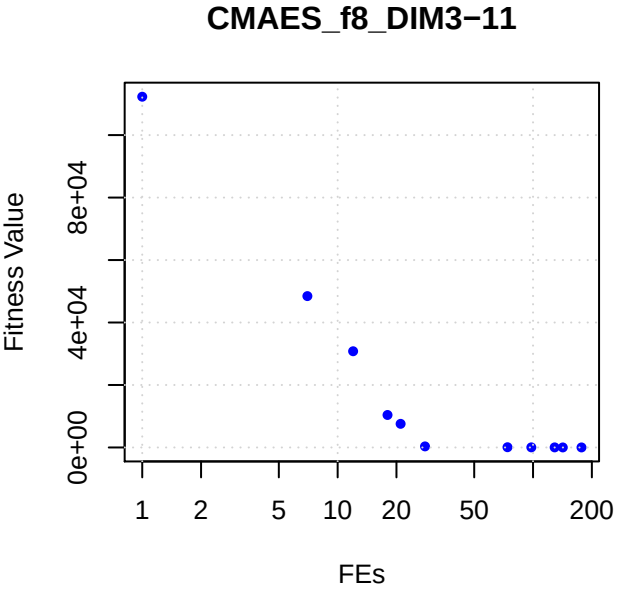
8000
12000
1
2
5
10
FEs


CMAES_f8_DIM3−11
Fitness Value
0e+00
4e+04
8e+04
1
2
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20
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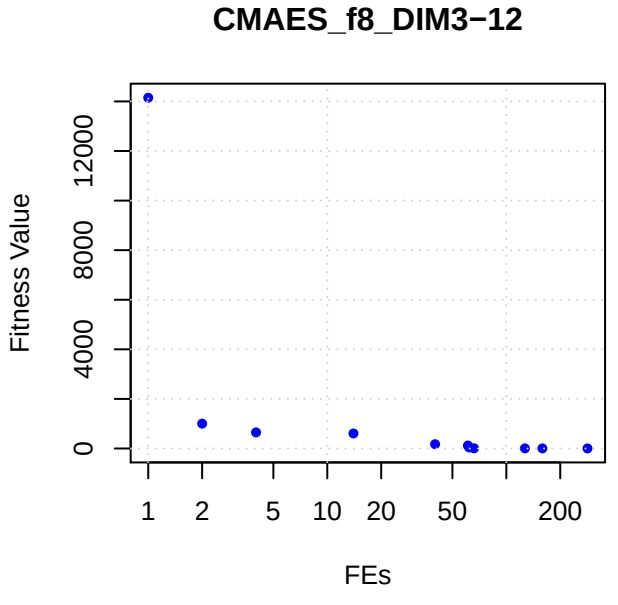
200
FEs


CMAES_f8_DIM3−12
Fitness Value
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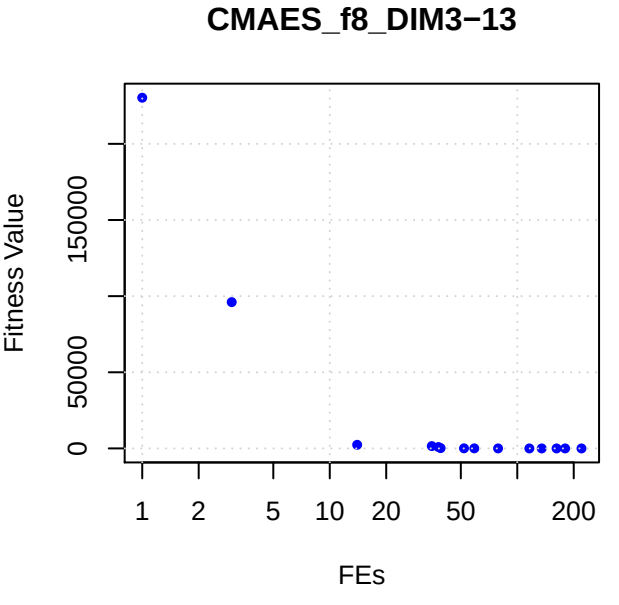
200
FEs


CMAES_f8_DIM3−13
Fitness Value
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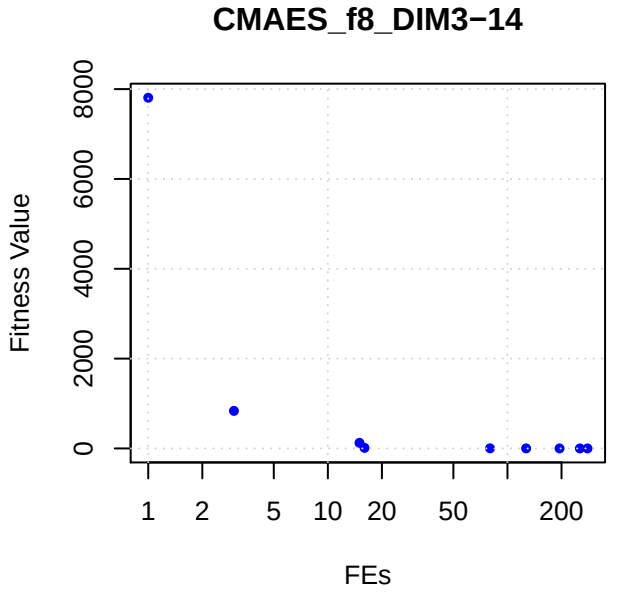
200
FEs


CMAES_f8_DIM3−14
Fitness Value
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8000
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2
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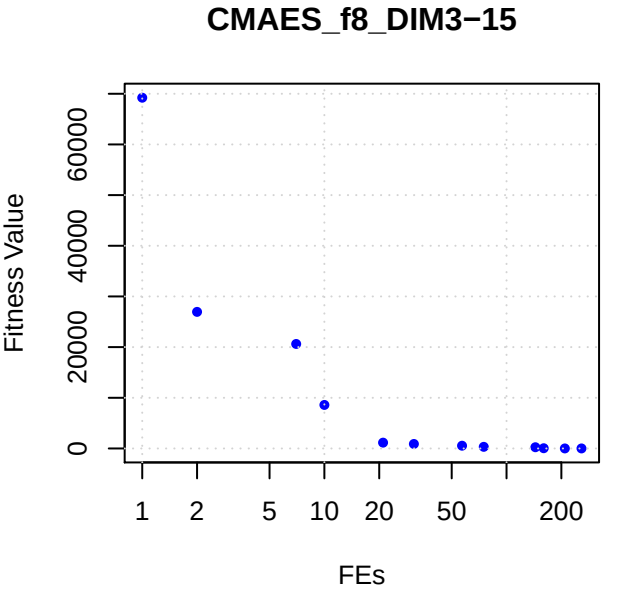
200
FEs


CMAES_f8_DIM3−15
Fitness Value
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60000
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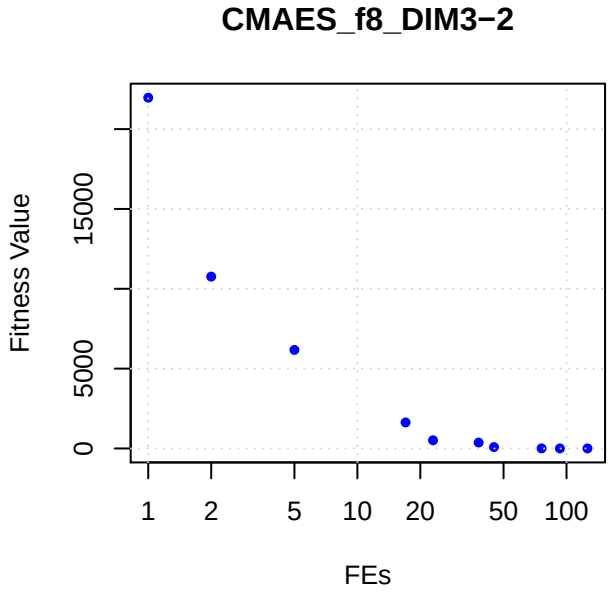
2
5
10
20
50
200
FEs


CMAES_f8_DIM3−2
Fitness Value
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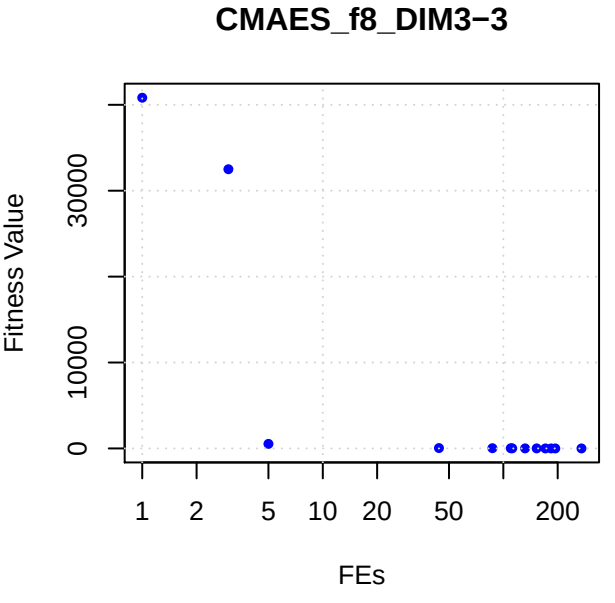
1
2
5
10
20
50
100
FEs


CMAES_f8_DIM3−3
Fitness Value
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30000
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2
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10
20
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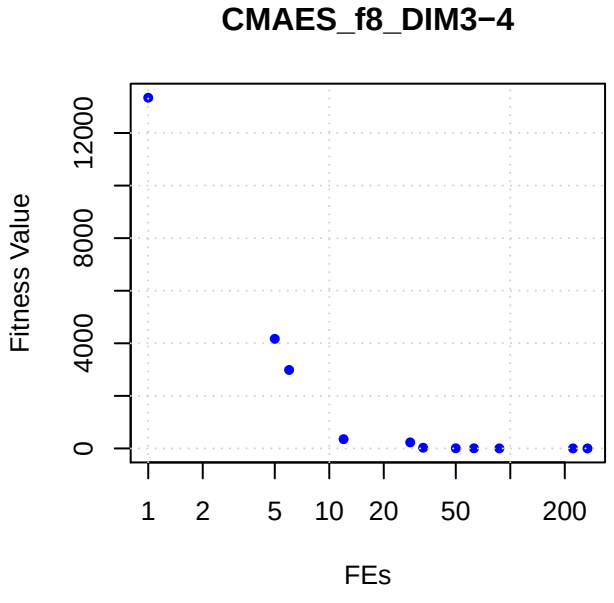
200
FEs


CMAES_f8_DIM3−4
Fitness Value
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8000
12000
1
2
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10
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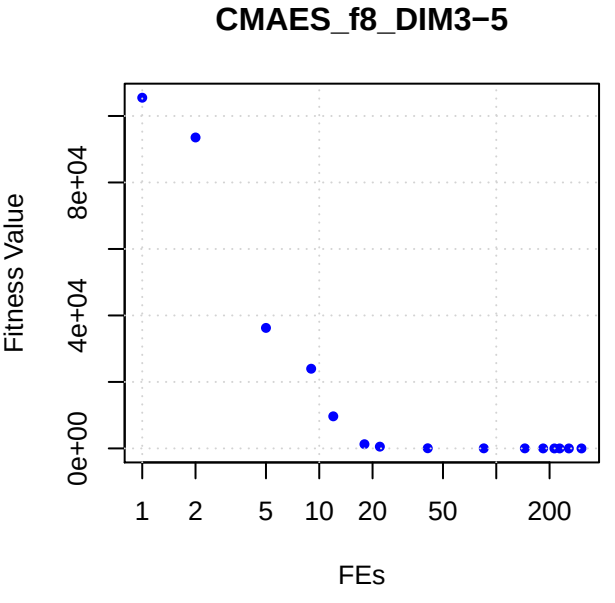
200
FEs


CMAES_f8_DIM3−5
Fitness Value
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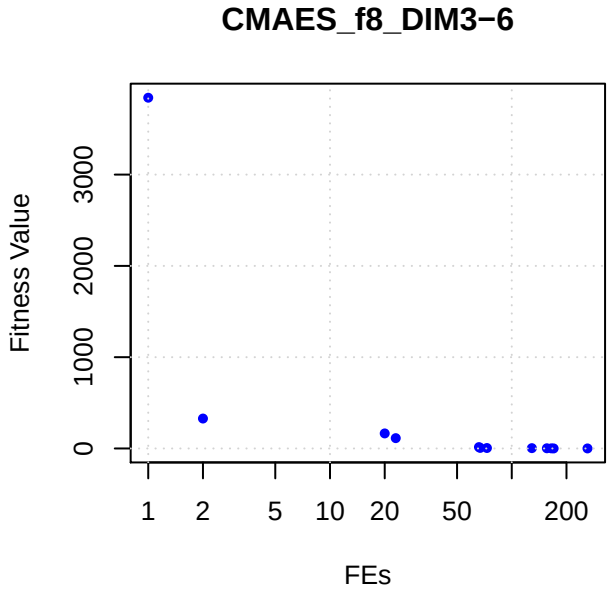
4e+04
8e+04
1
2
5
10
20
50
200
FEs


CMAES_f8_DIM3−6
Fitness Value
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2000
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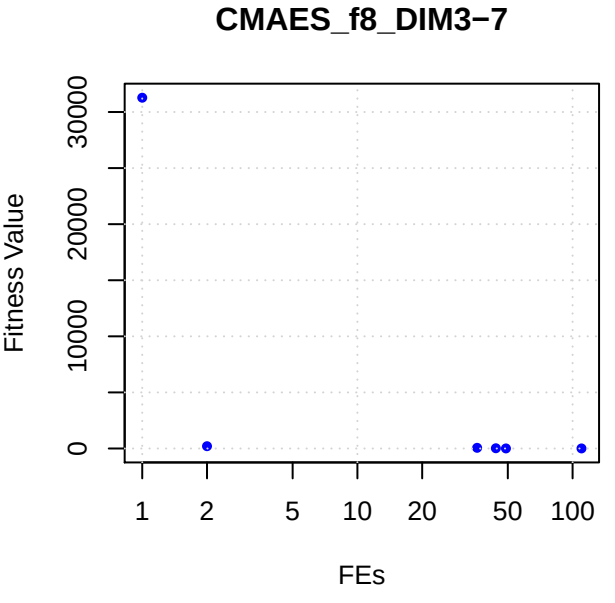
1
2
5
10
20
50
200
FEs


CMAES_f8_DIM3−7
Fitness Value
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20000
30000
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20
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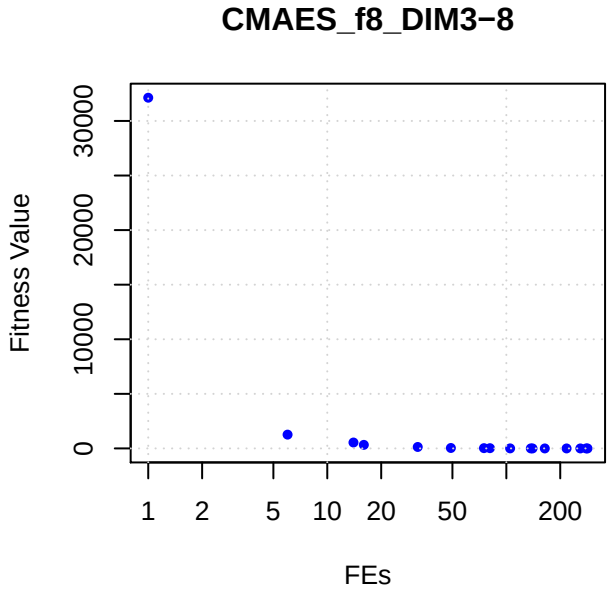
FEs


CMAES_f8_DIM3−8
Fitness Value
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30000
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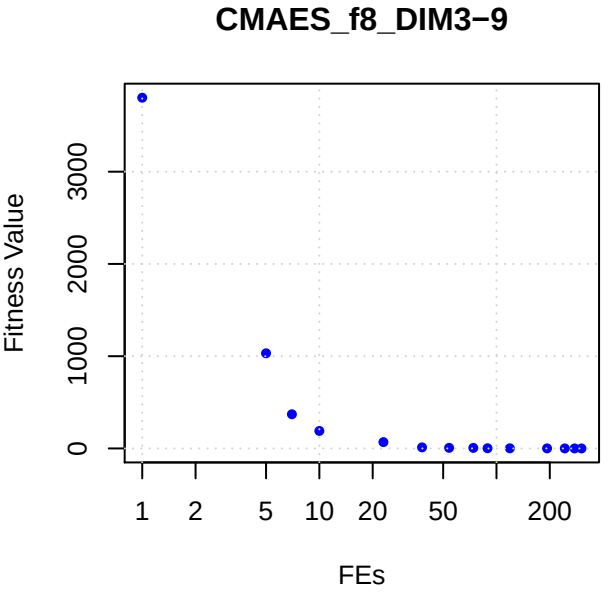
20
50
200
FEs


CMAES_f8_DIM3−9
Fitness Value
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2000
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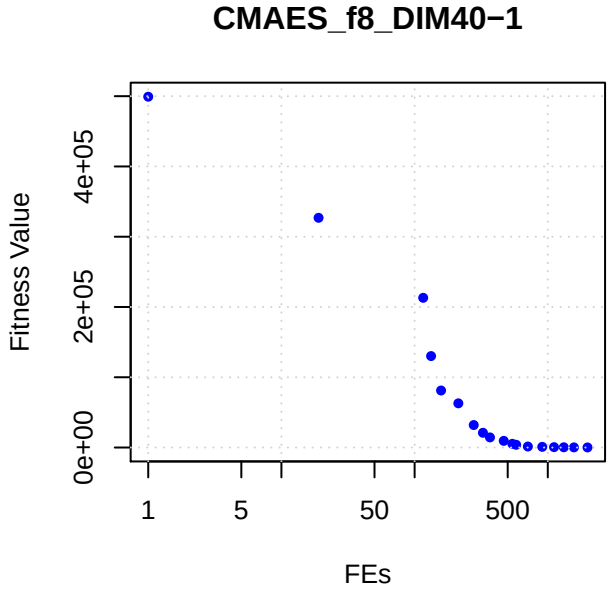
1
2
5
10
20
50
200
FEs


CMAES_f8_DIM40−1
Fitness Value
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4e+05
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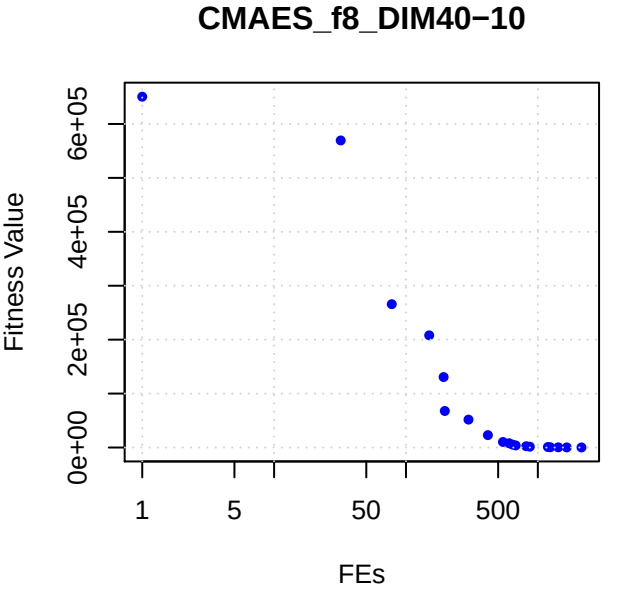
50
500
FEs


CMAES_f8_DIM40−10
Fitness Value
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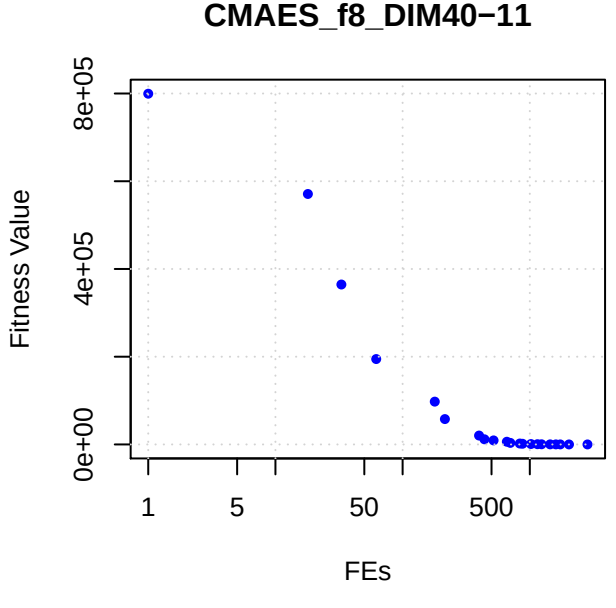
2e+05
4e+05
6e+05
1
5
50
500
FEs


CMAES_f8_DIM40−11
Fitness Value
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8e+05
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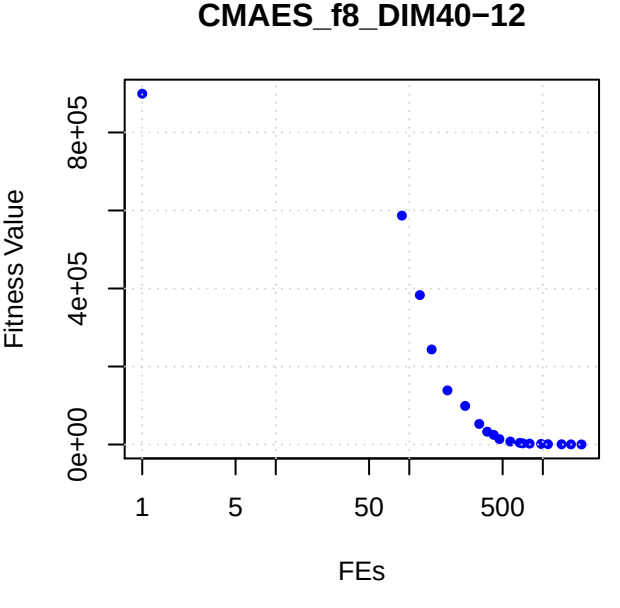
500
FEs


CMAES_f8_DIM40−12
Fitness Value
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4e+05
8e+05
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5
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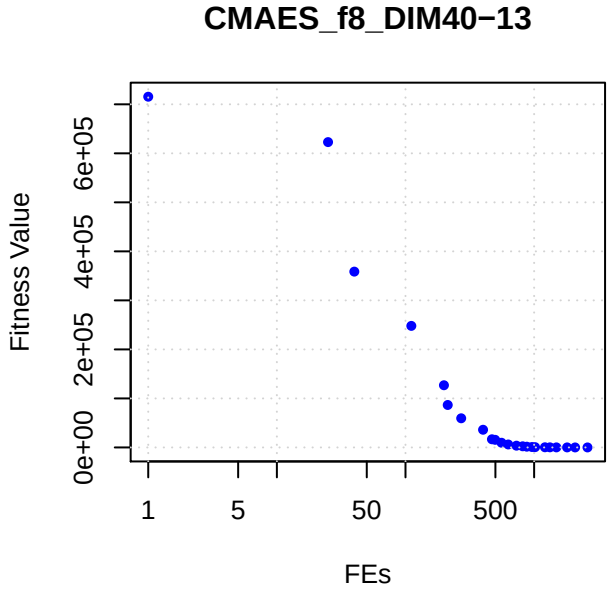
500
FEs


CMAES_f8_DIM40−13
Fitness Value
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2e+05
4e+05
6e+05
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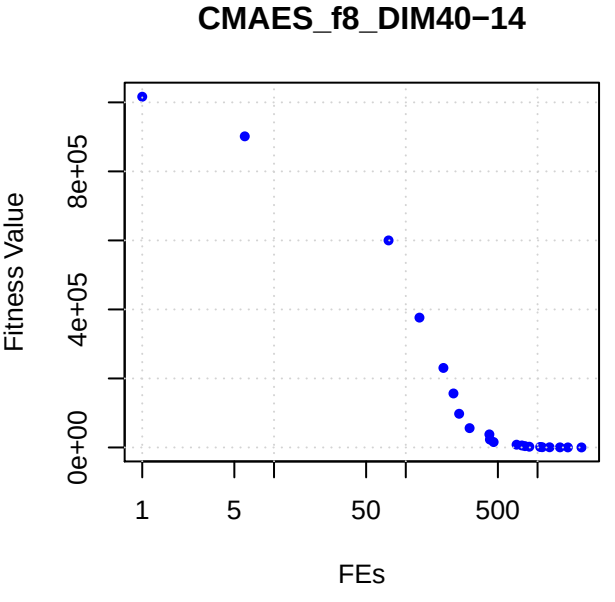
500
FEs


CMAES_f8_DIM40−14
Fitness Value
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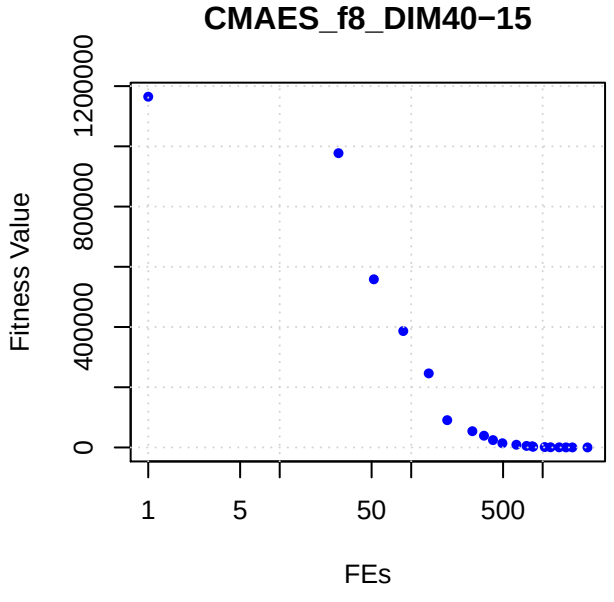
CMAES_f8_DIM40−15
Fitness Value
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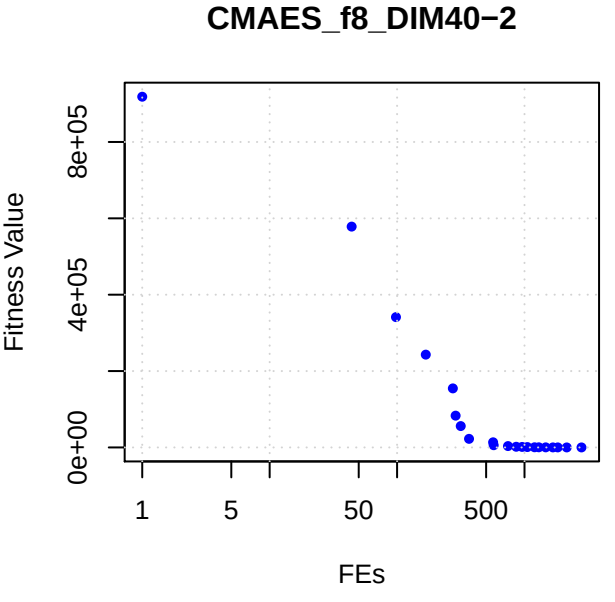
FEs


CMAES_f8_DIM40−2
Fitness Value
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8e+05
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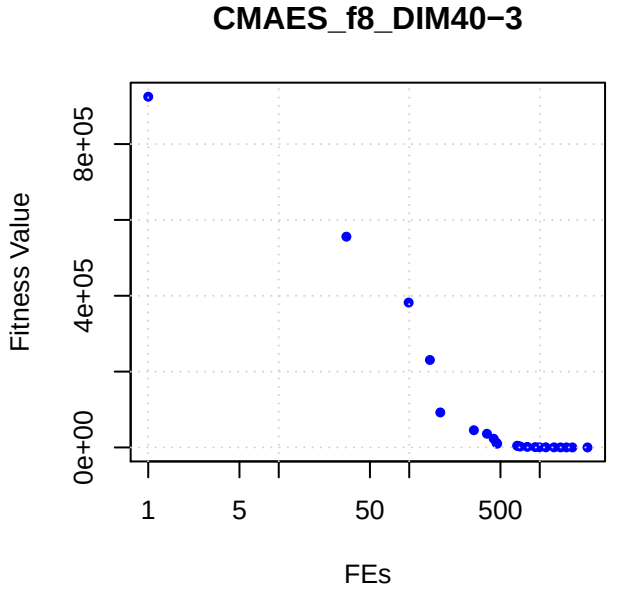
500
FEs


CMAES_f8_DIM40−3
Fitness Value
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8e+05
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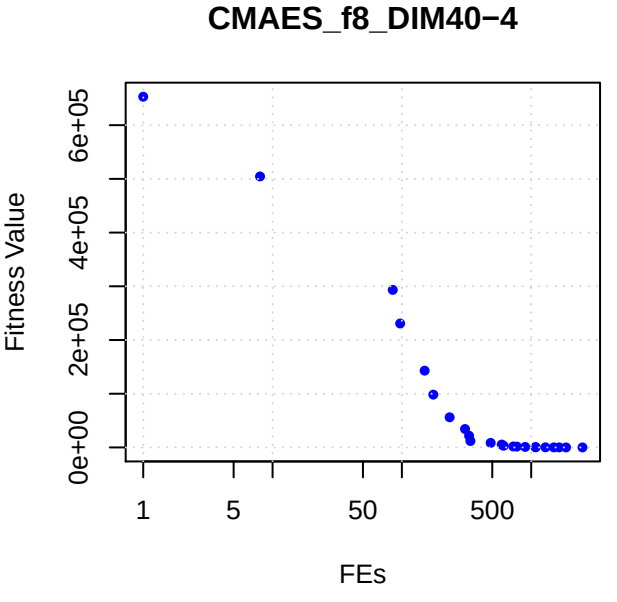
500
FEs


CMAES_f8_DIM40−4
Fitness Value
0e+00
2e+05
4e+05
6e+05
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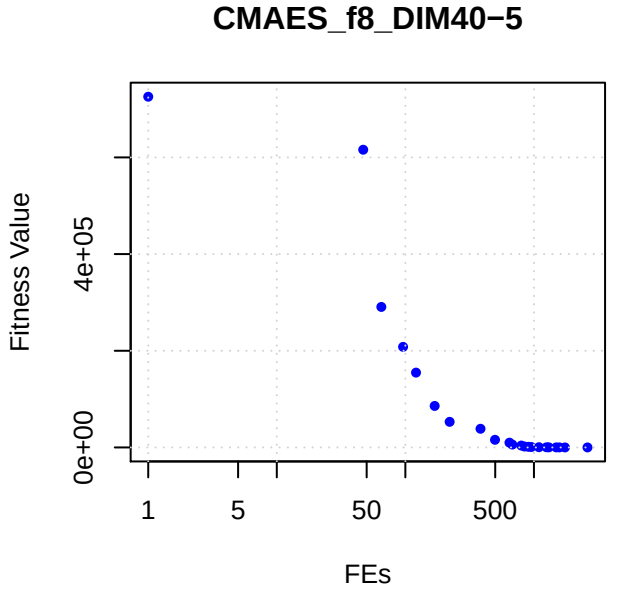
500
FEs


CMAES_f8_DIM40−5
Fitness Value
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4e+05
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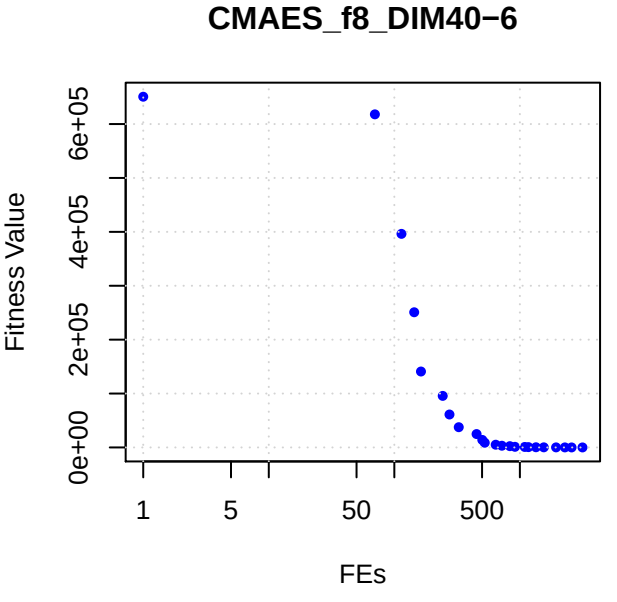
500
FEs


CMAES_f8_DIM40−6
Fitness Value
0e+00
2e+05
4e+05
6e+05
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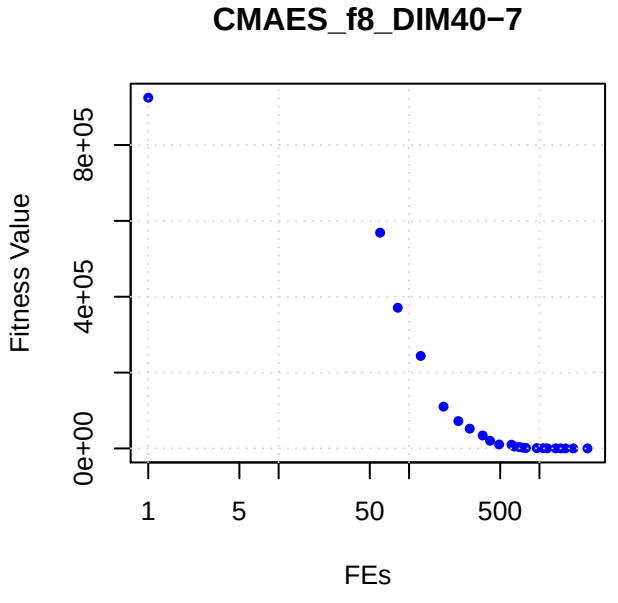
500
FEs


CMAES_f8_DIM40−7
Fitness Value
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8e+05
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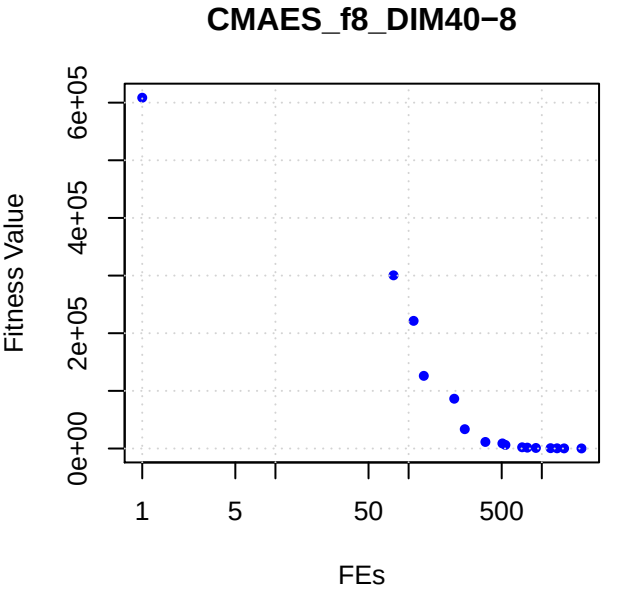
FEs


CMAES_f8_DIM40−8
Fitness Value
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6e+05
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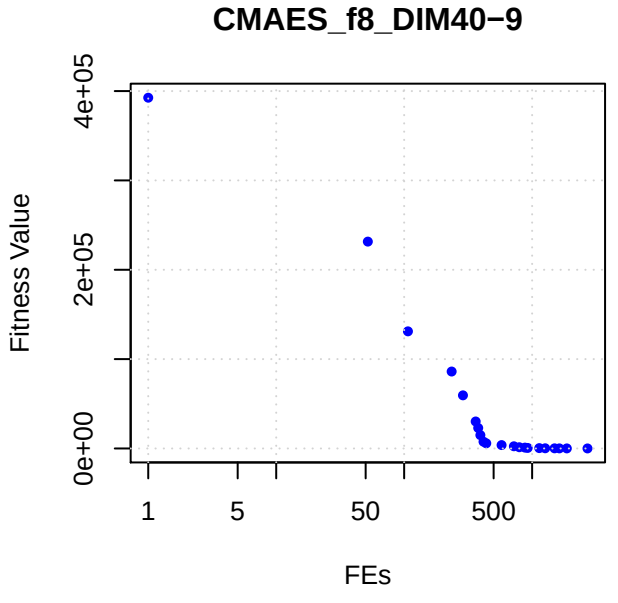
500
FEs


CMAES_f8_DIM40−9
Fitness Value
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4e+05
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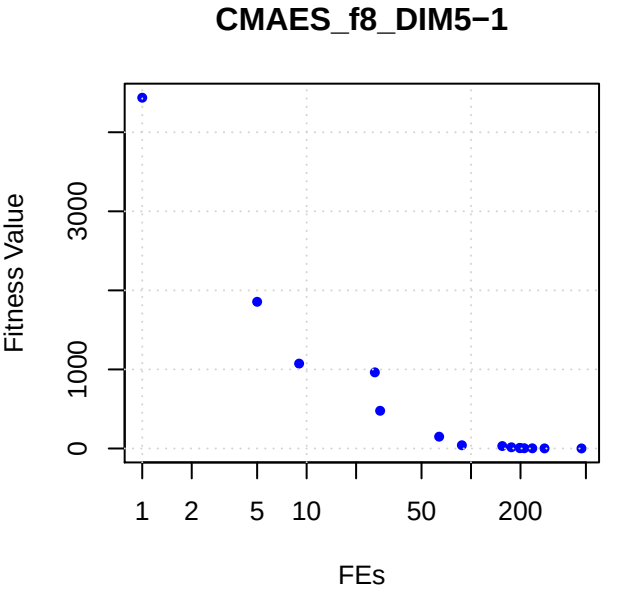
500
FEs


CMAES_f8_DIM5−1
Fitness Value
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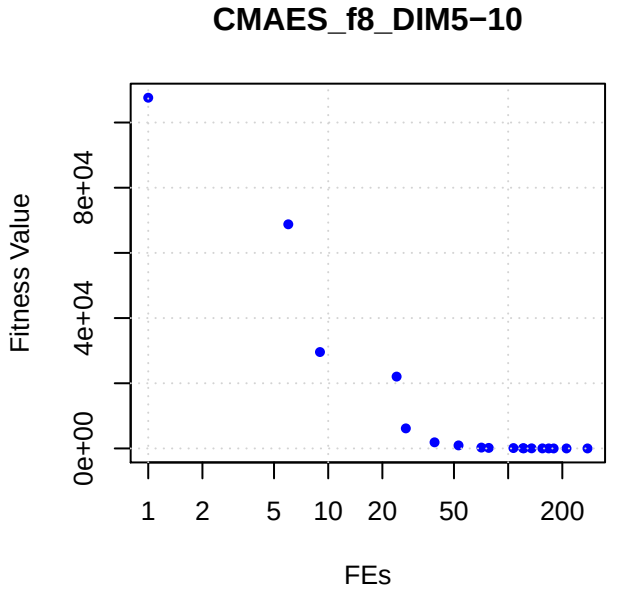
3000
1
2
5
10
50
200
FEs


CMAES_f8_DIM5−10
Fitness Value
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4e+04
8e+04
1
2
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10
20
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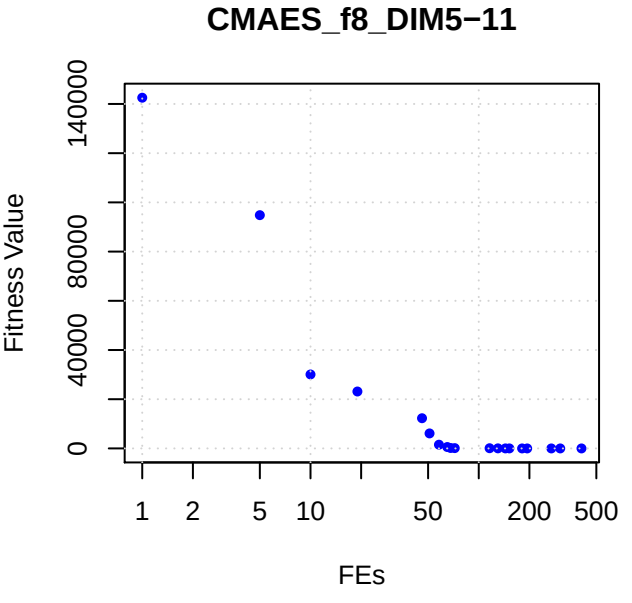
200
FEs


CMAES_f8_DIM5−11
Fitness Value
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80000
140000
1
2
5
10
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200
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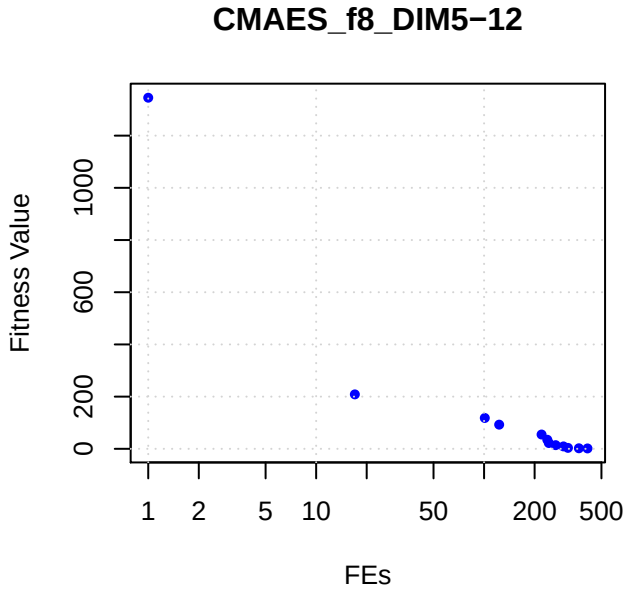
FEs


CMAES_f8_DIM5−12
Fitness Value
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1
2
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10
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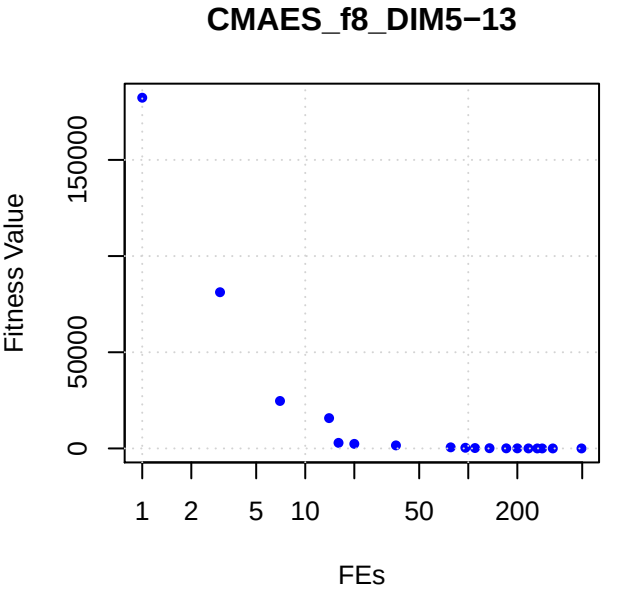
200
500
FEs


CMAES_f8_DIM5−13
Fitness Value
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150000
1
2
5
10
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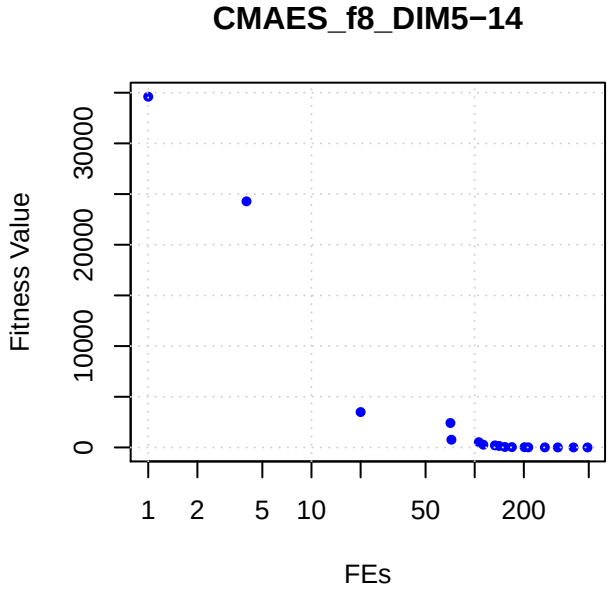
200
FEs


CMAES_f8_DIM5−14
Fitness Value
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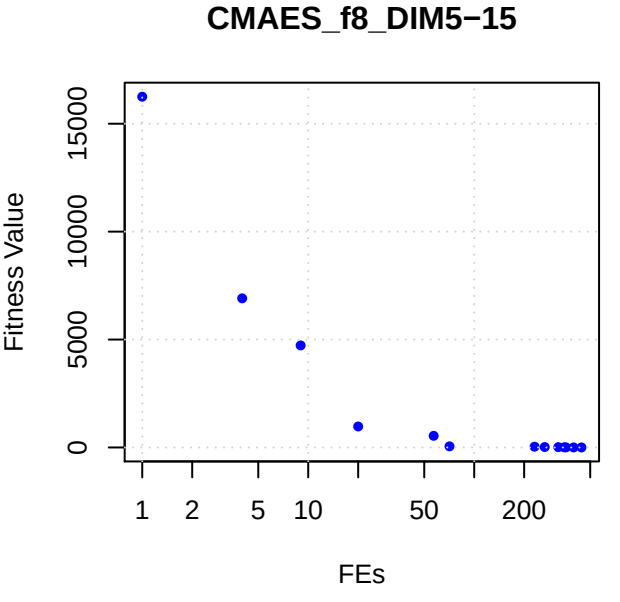
10000
20000
30000
1
2
5
10
50
200
FEs


CMAES_f8_DIM5−15
Fitness Value
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15000
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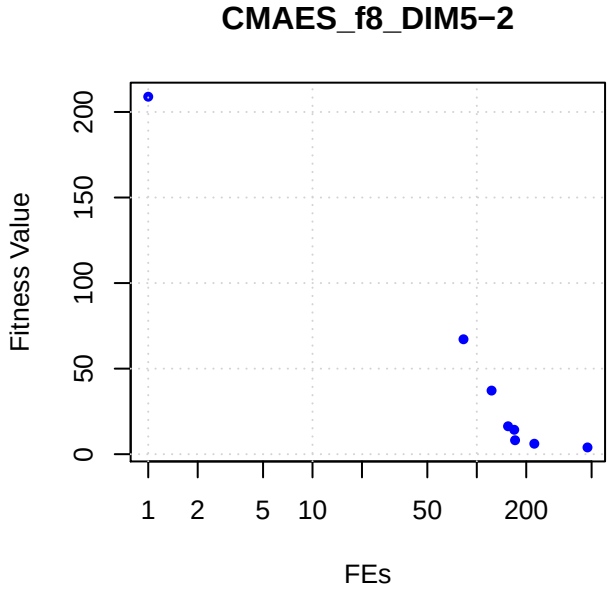
200
FEs


CMAES_f8_DIM5−2
Fitness Value
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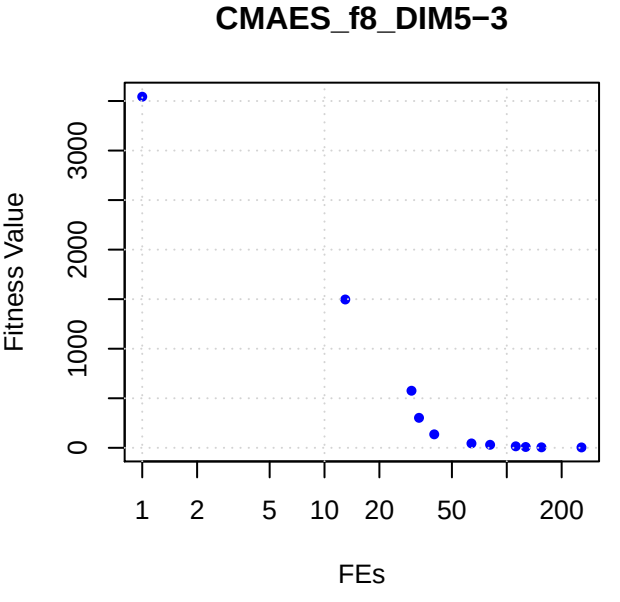
200
FEs


CMAES_f8_DIM5−3
Fitness Value
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2000
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20
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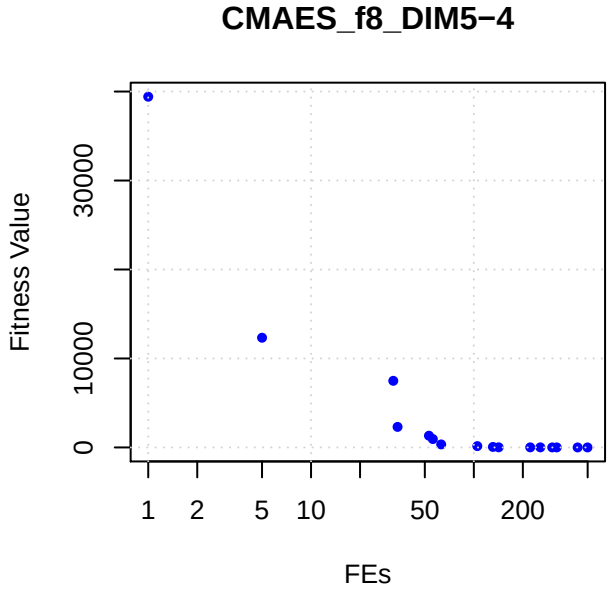
200
FEs


CMAES_f8_DIM5−4
Fitness Value
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30000
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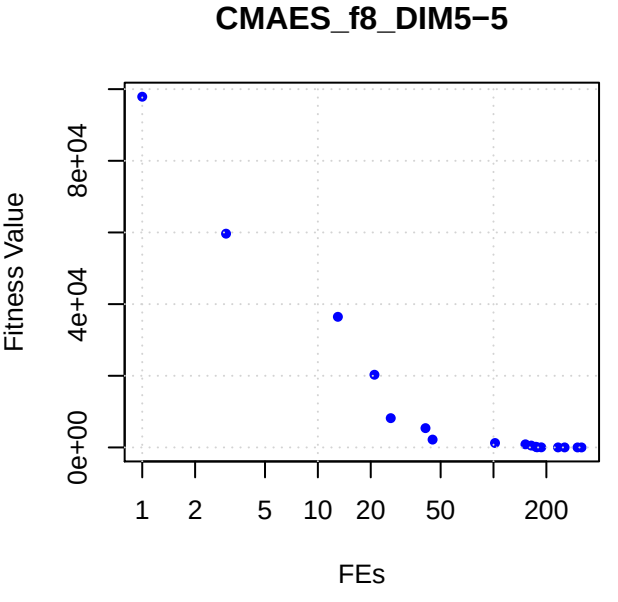
200
FEs


CMAES_f8_DIM5−5
Fitness Value
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4e+04
8e+04
1
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20
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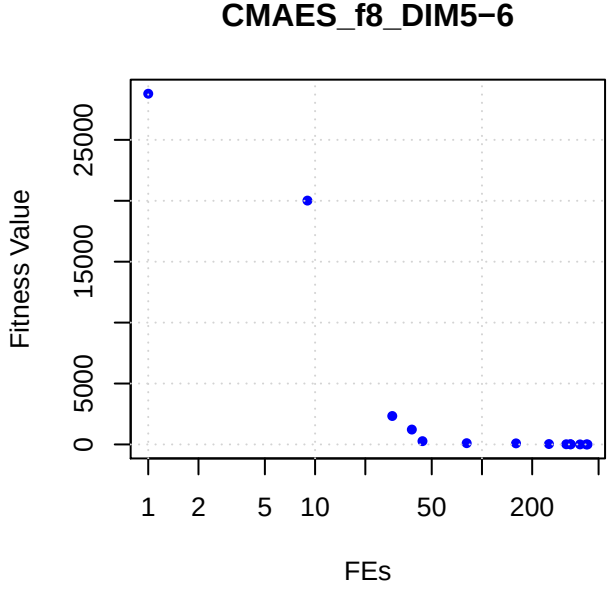
200
FEs


CMAES_f8_DIM5−6
Fitness Value
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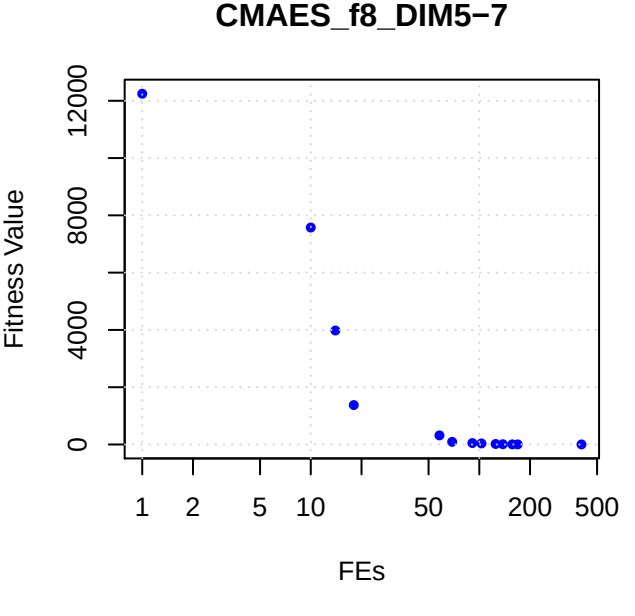
FEs


CMAES_f8_DIM5−7
Fitness Value
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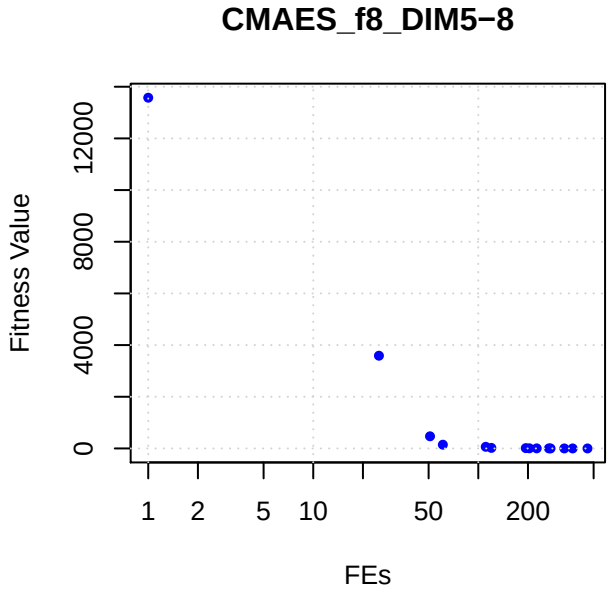
500
FEs


CMAES_f8_DIM5−8
Fitness Value
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12000
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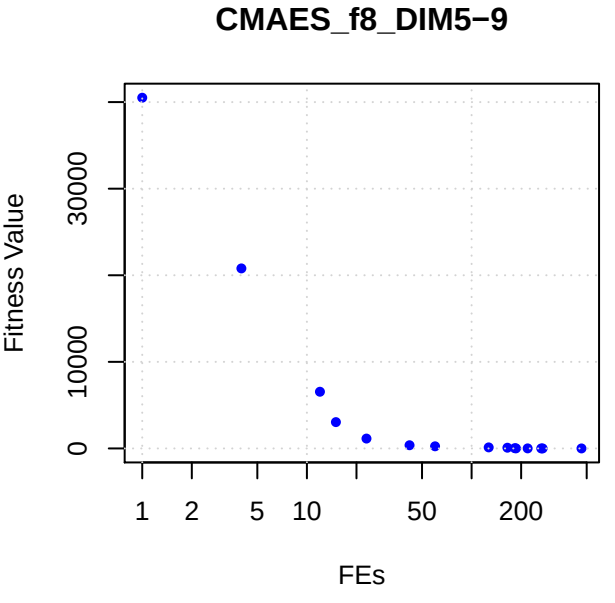
200
FEs


CMAES_f8_DIM5−9
Fitness Value
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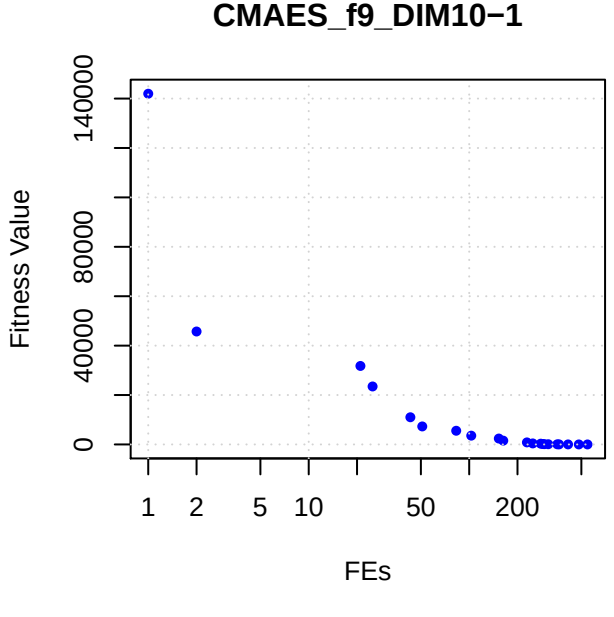
FEs


CMAES_f9_DIM10−1
Fitness Value
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140000
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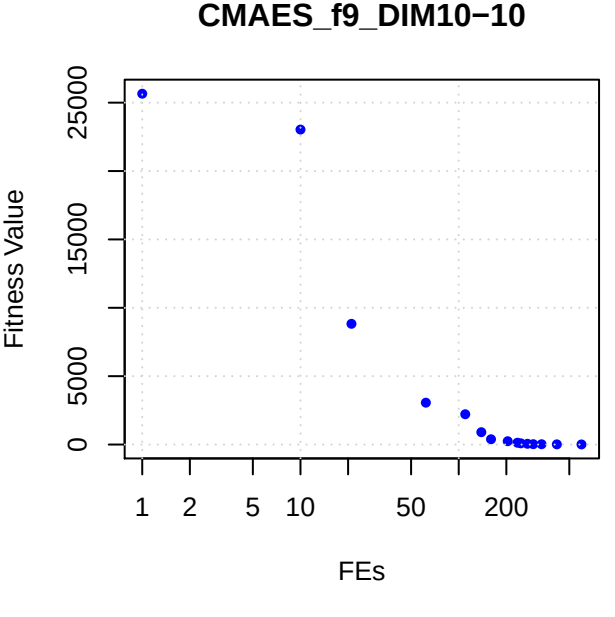
200
FEs


CMAES_f9_DIM10−10
Fitness Value
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25000
1
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5
10
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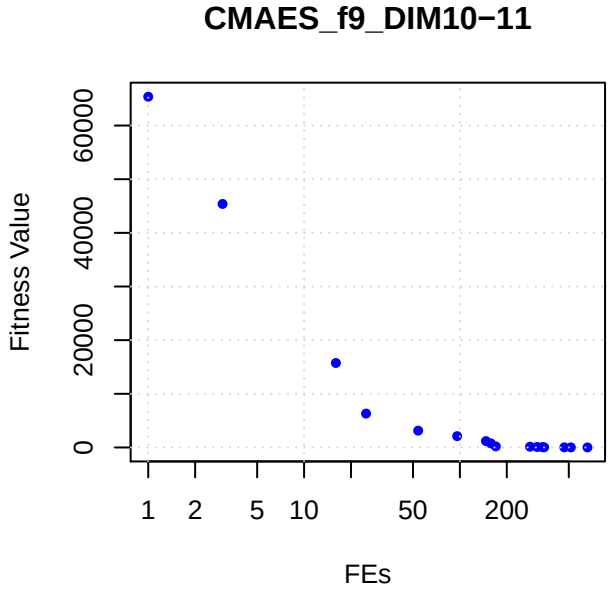
200
FEs


CMAES_f9_DIM10−11
Fitness Value
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60000
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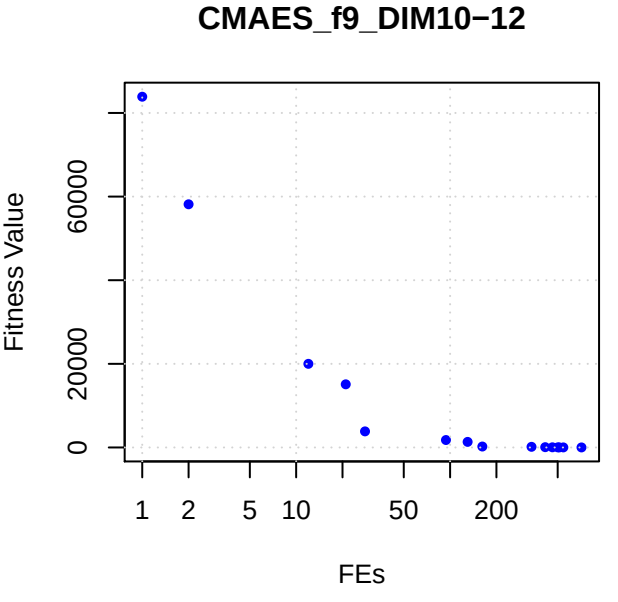
200
FEs


CMAES_f9_DIM10−12
Fitness Value
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10
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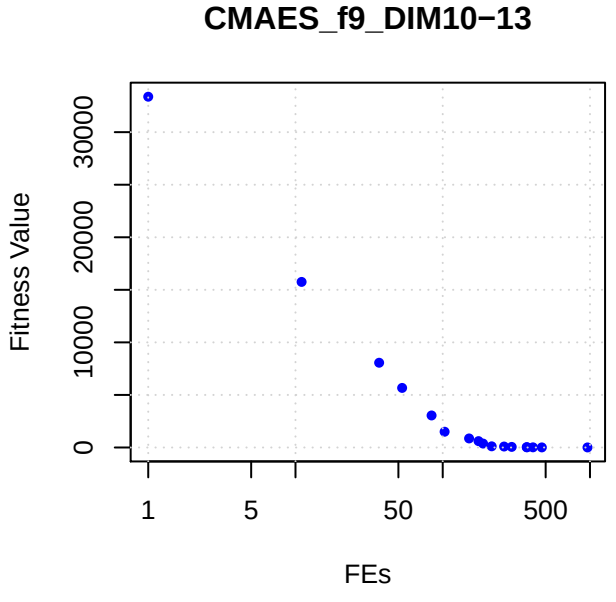
200
FEs


CMAES_f9_DIM10−13
Fitness Value
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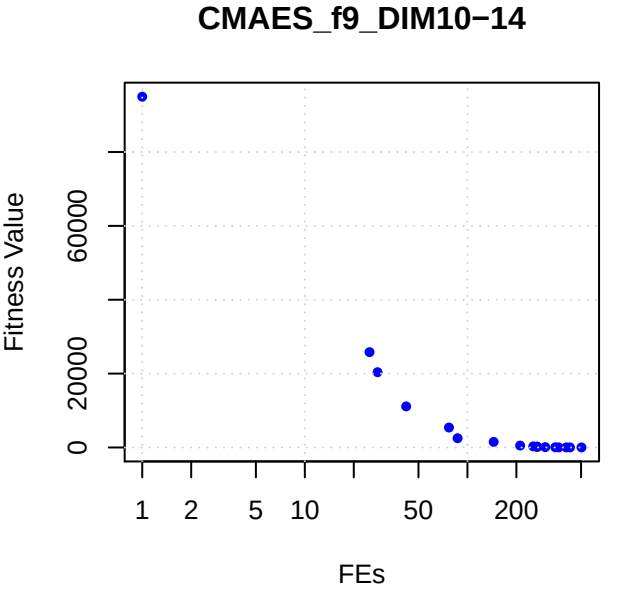
FEs


CMAES_f9_DIM10−14
Fitness Value
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2
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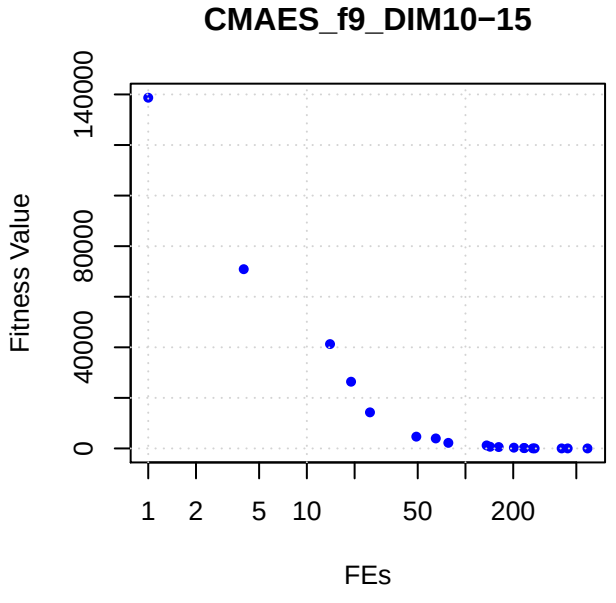
200
FEs


CMAES_f9_DIM10−15
Fitness Value
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140000
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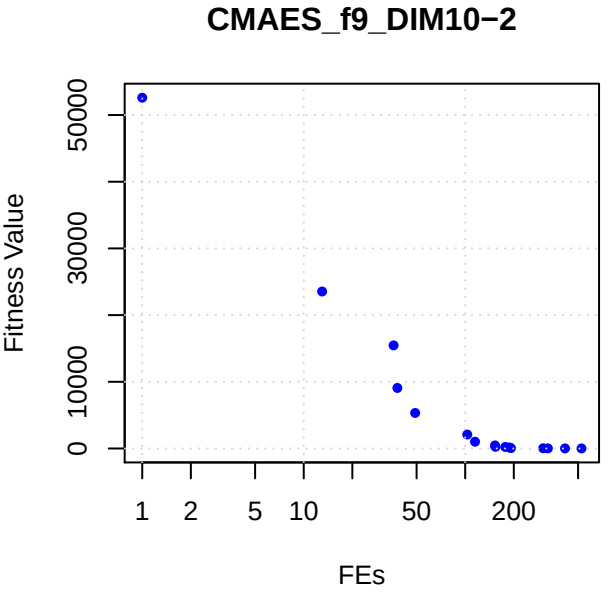
200
FEs


CMAES_f9_DIM10−2
Fitness Value
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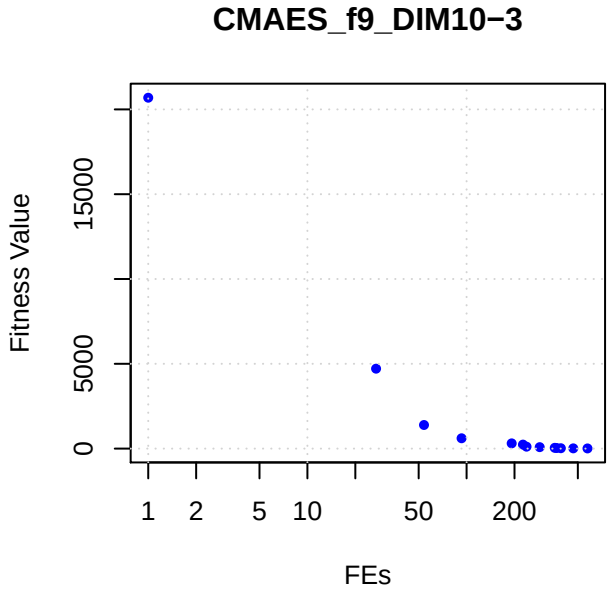
30000
50000
1
2
5
10
50
200
FEs


CMAES_f9_DIM10−3
Fitness Value
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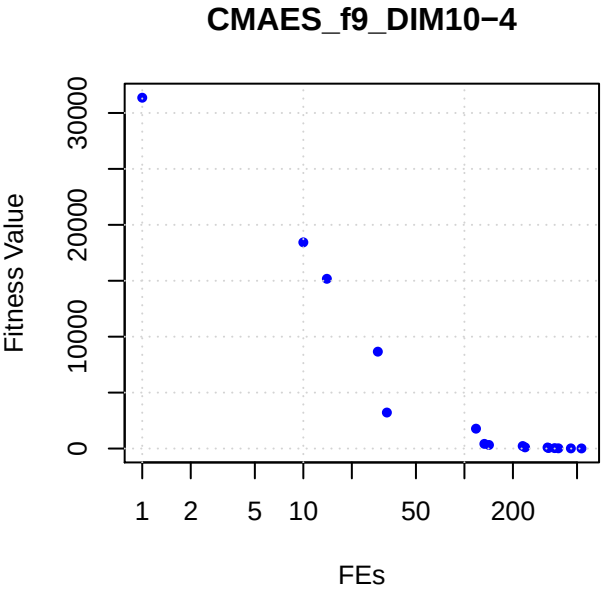
200
FEs


CMAES_f9_DIM10−4
Fitness Value
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30000
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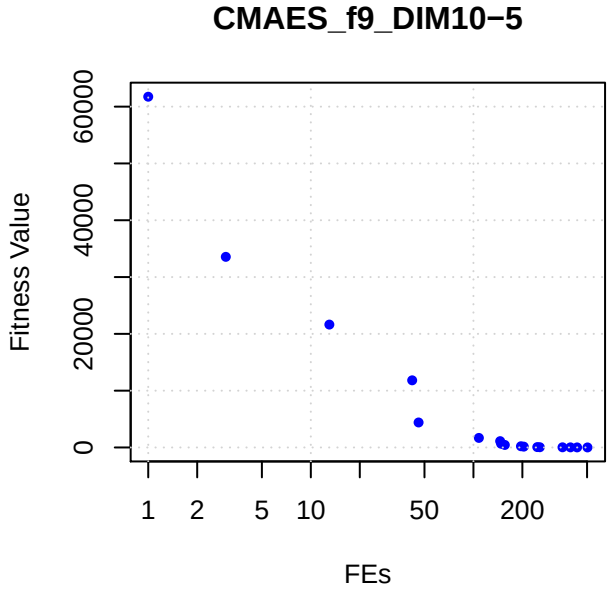
200
FEs


CMAES_f9_DIM10−5
Fitness Value
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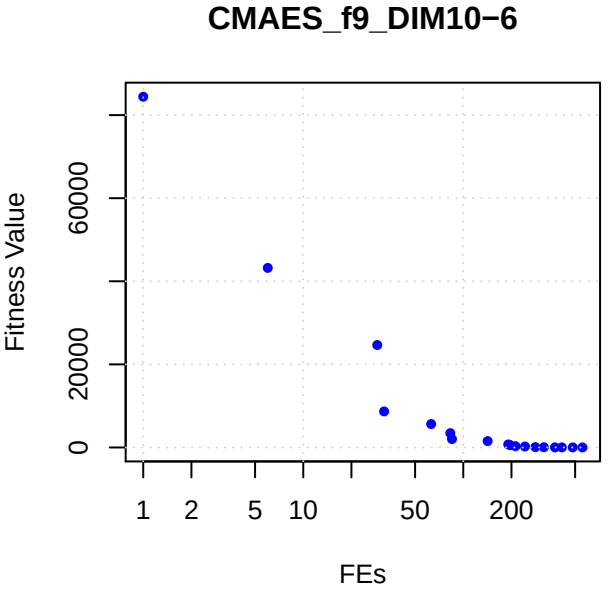
40000
60000
1
2
5
10
50
200
FEs


CMAES_f9_DIM10−6
Fitness Value
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60000
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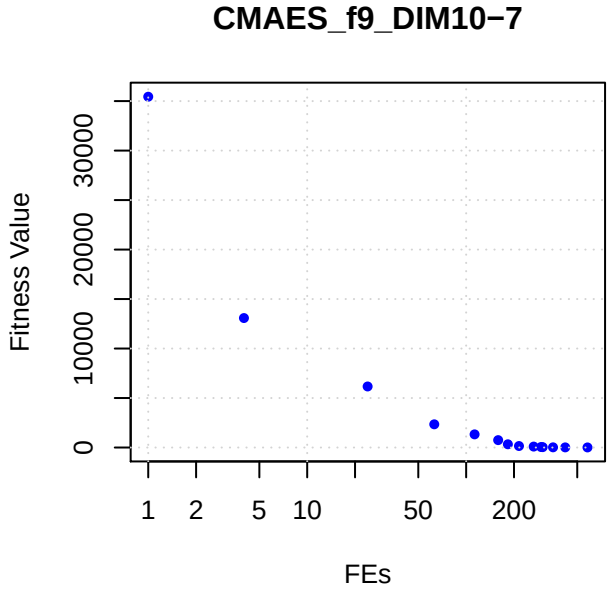
200
FEs


CMAES_f9_DIM10−7
Fitness Value
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30000
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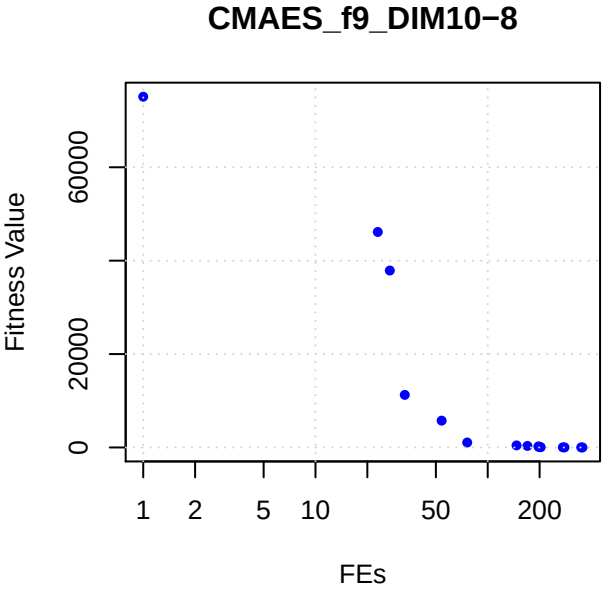
200
FEs


CMAES_f9_DIM10−8
Fitness Value
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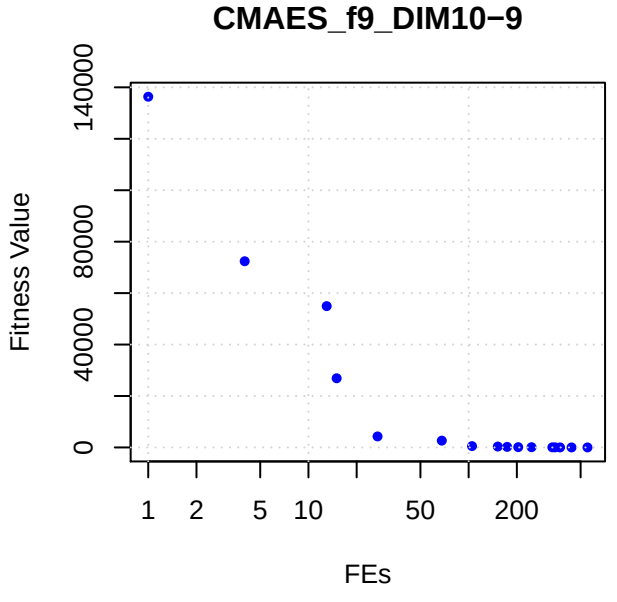
200
FEs


CMAES_f9_DIM10−9
Fitness Value
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80000
140000
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2
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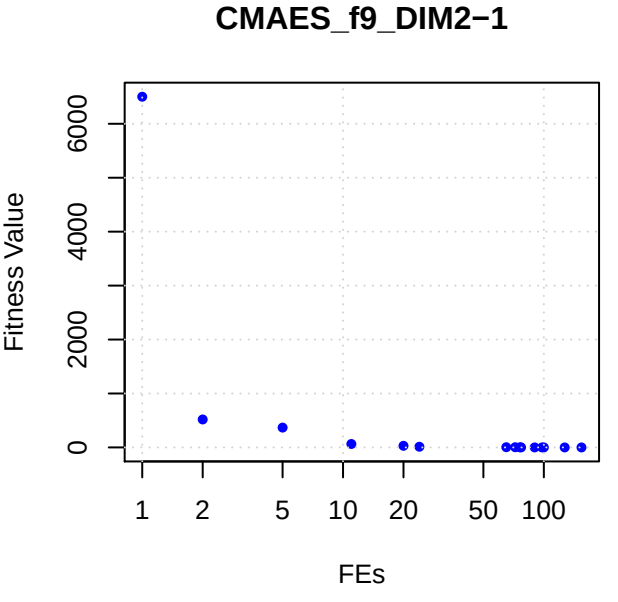
10
50
200
FEs


CMAES_f9_DIM2−1
Fitness Value
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6000
1
2
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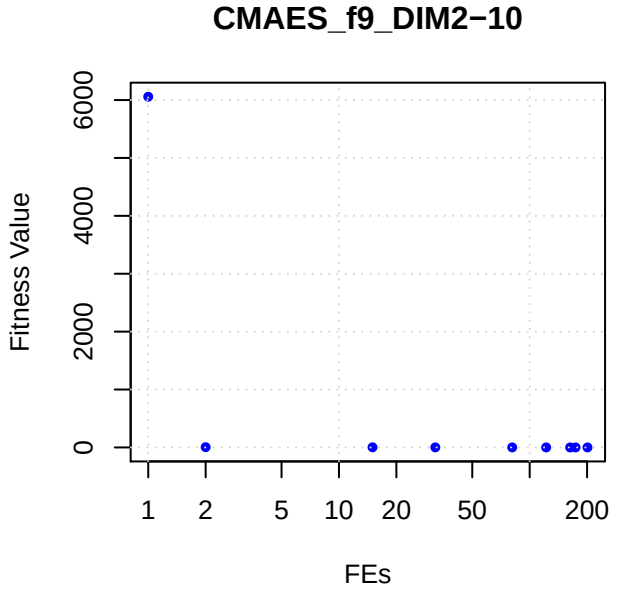
10
20
50
100
FEs


CMAES_f9_DIM2−10
Fitness Value
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10
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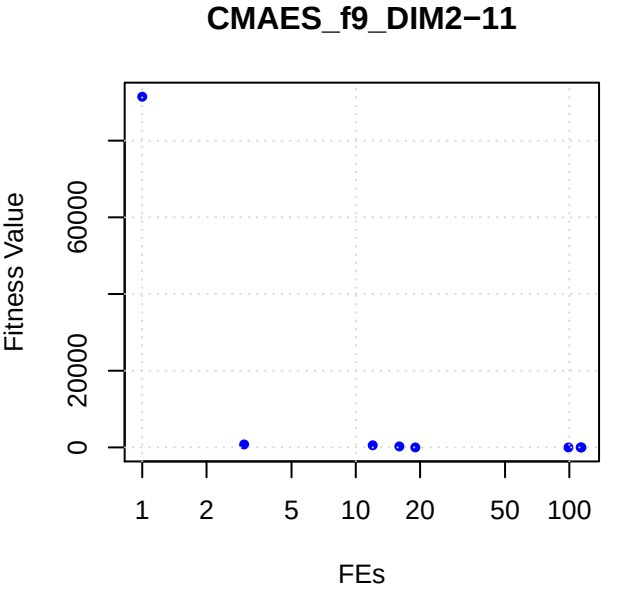
200
FEs


CMAES_f9_DIM2−11
Fitness Value
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60000
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2
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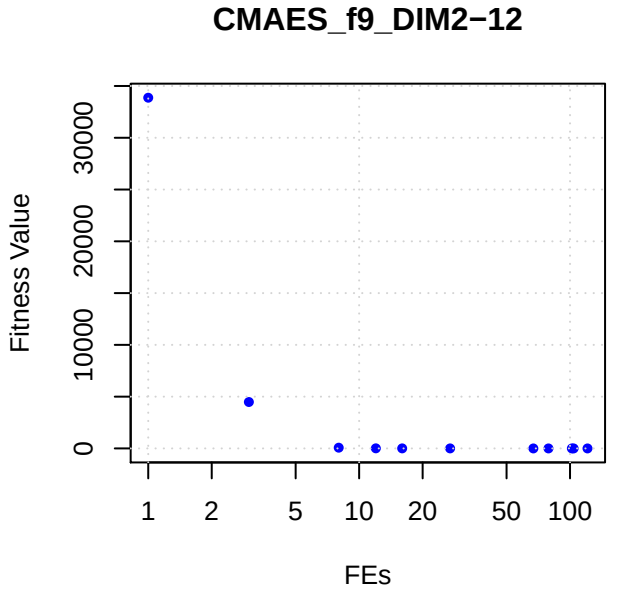
100
FEs


CMAES_f9_DIM2−12
Fitness Value
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30000
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20
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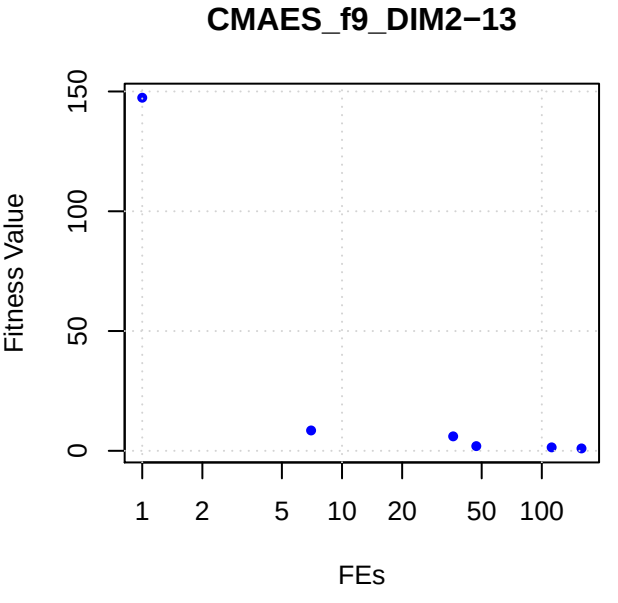
100
FEs


CMAES_f9_DIM2−13
Fitness Value
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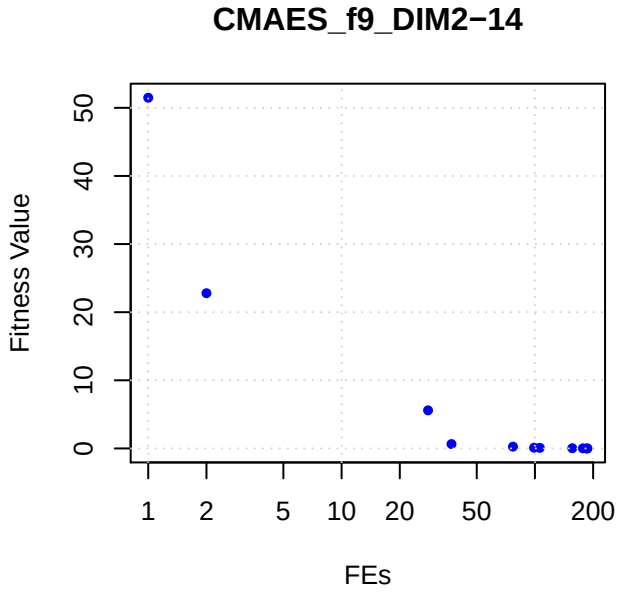
100
FEs


CMAES_f9_DIM2−14
Fitness Value
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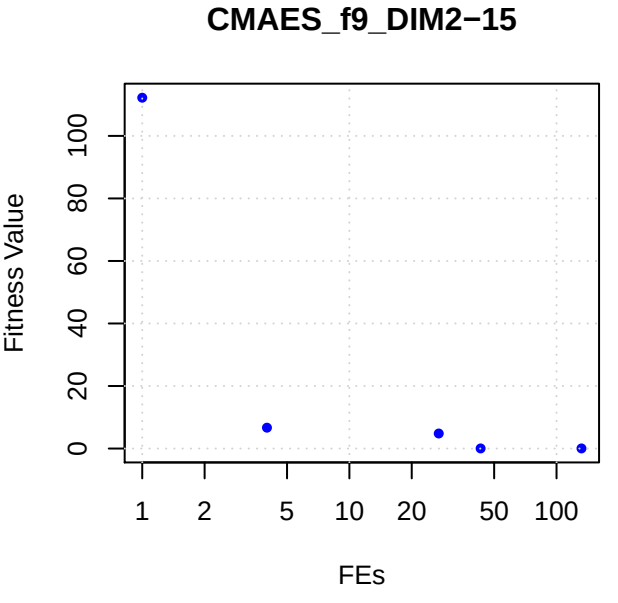
1
2
5
10
20
50
200
FEs


CMAES_f9_DIM2−15
Fitness Value
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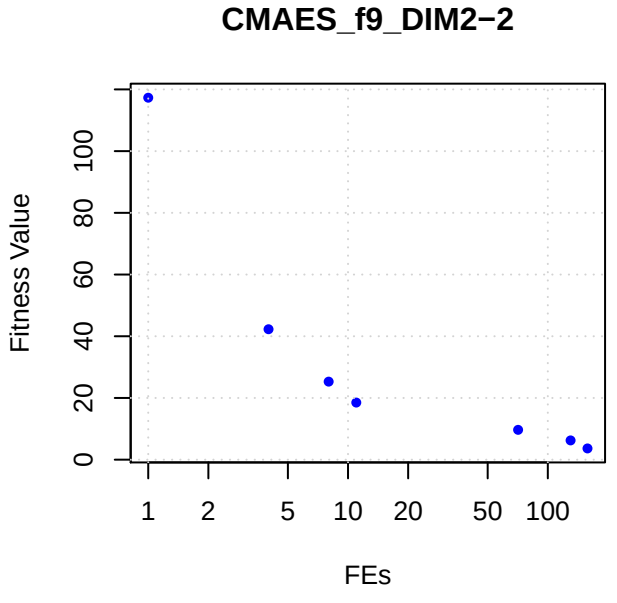
80
100
1
2
5
10
20
50
100
FEs


CMAES_f9_DIM2−2
Fitness Value
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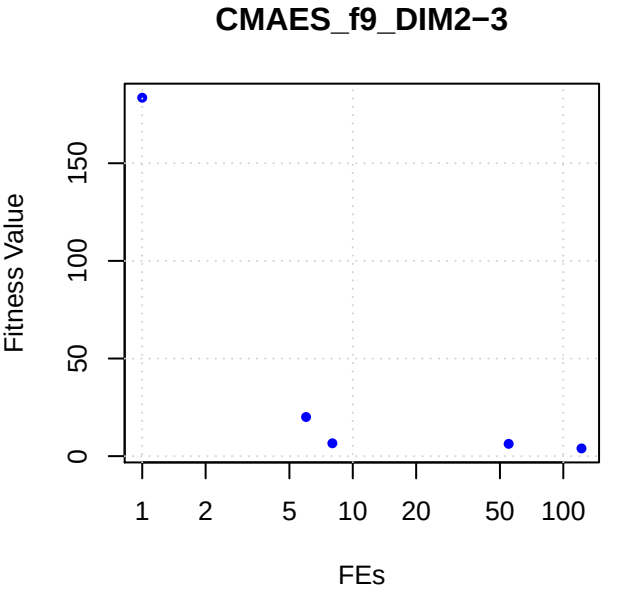
80
100
1
2
5
10
20
50
100
FEs


CMAES_f9_DIM2−3
Fitness Value
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10
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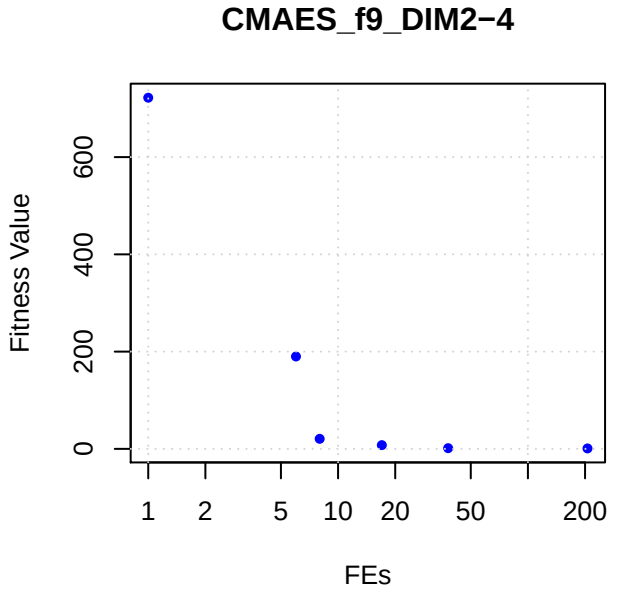
50
100
FEs


CMAES_f9_DIM2−4
Fitness Value
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1
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10
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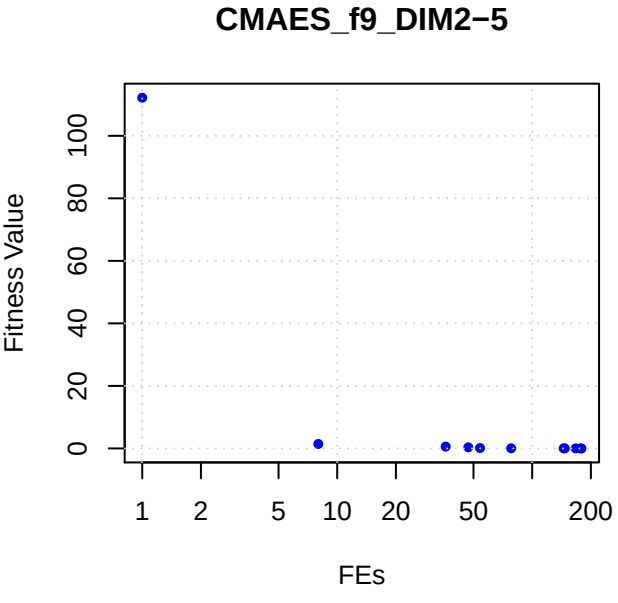
200
FEs


CMAES_f9_DIM2−5
Fitness Value
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80
100
1
2
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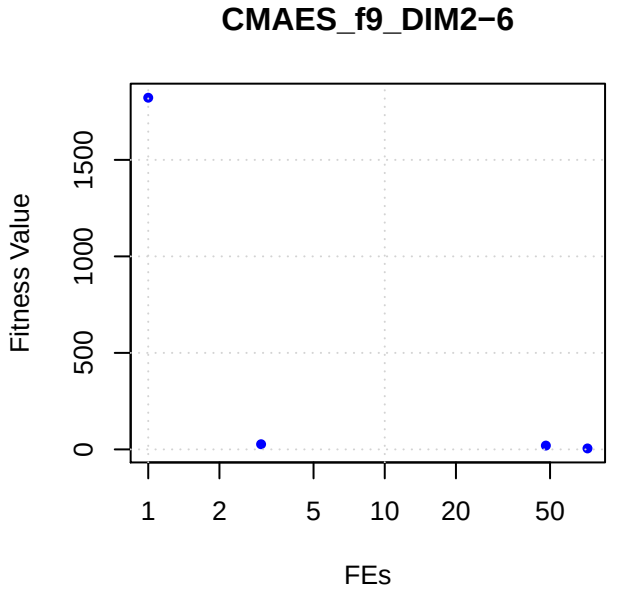
10
20
50
200
FEs


CMAES_f9_DIM2−6
Fitness Value
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1500
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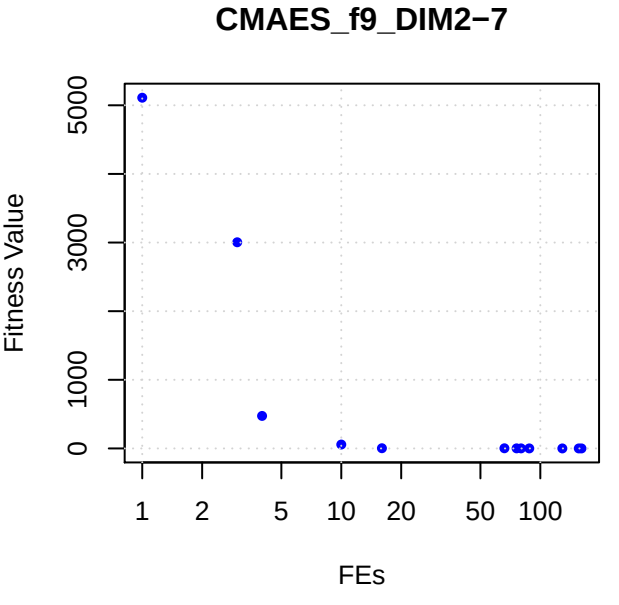
FEs


CMAES_f9_DIM2−7
Fitness Value
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3000
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1
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20
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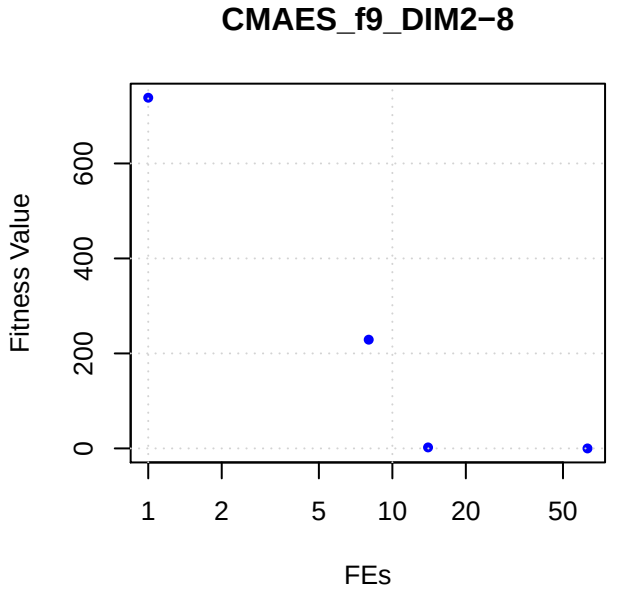
100
FEs


CMAES_f9_DIM2−8
Fitness Value
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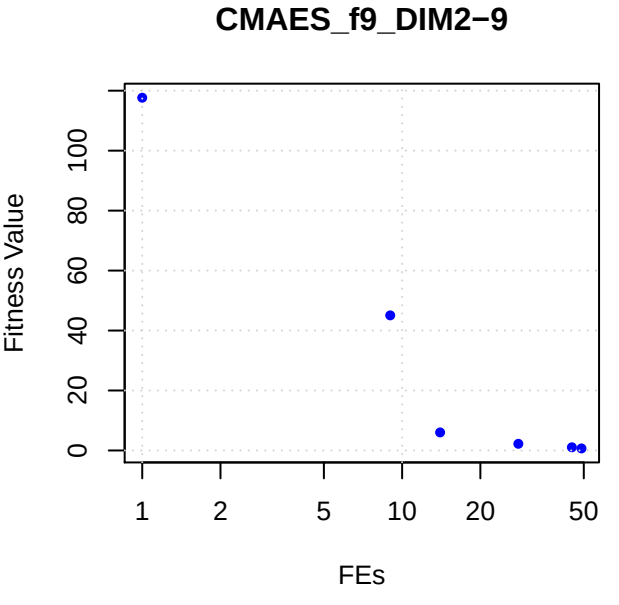
FEs


CMAES_f9_DIM2−9
Fitness Value
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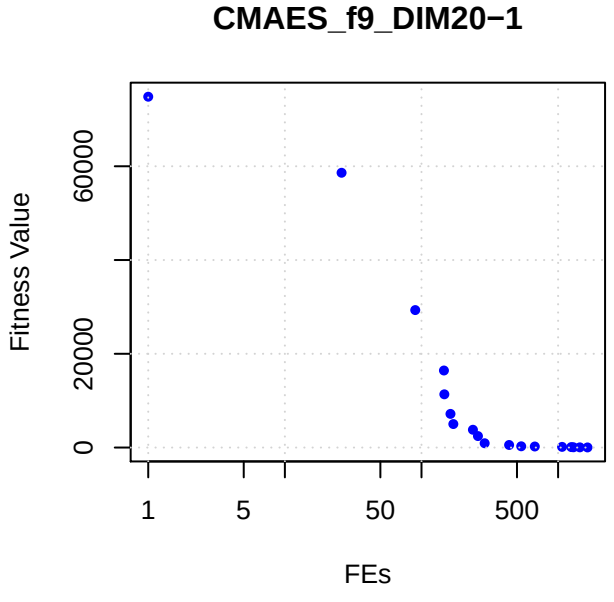
100
1
2
5
10
20
50
FEs


CMAES_f9_DIM20−1
Fitness Value
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20000
60000
1
5
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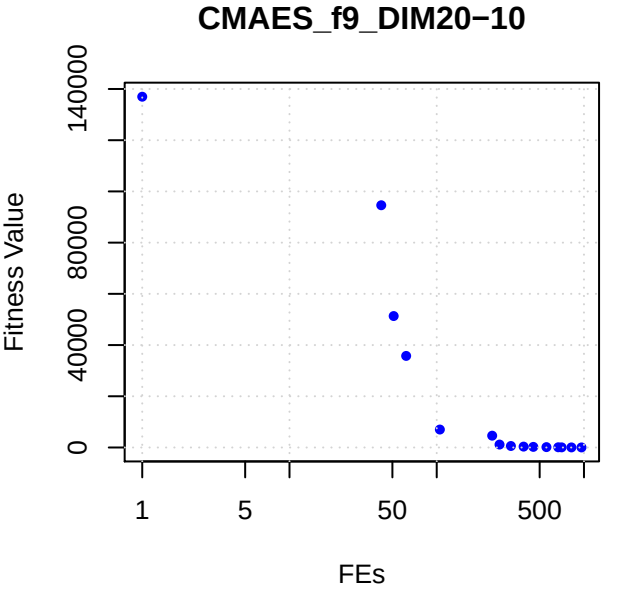
500
FEs


CMAES_f9_DIM20−10
Fitness Value
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40000
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140000
1
5
50
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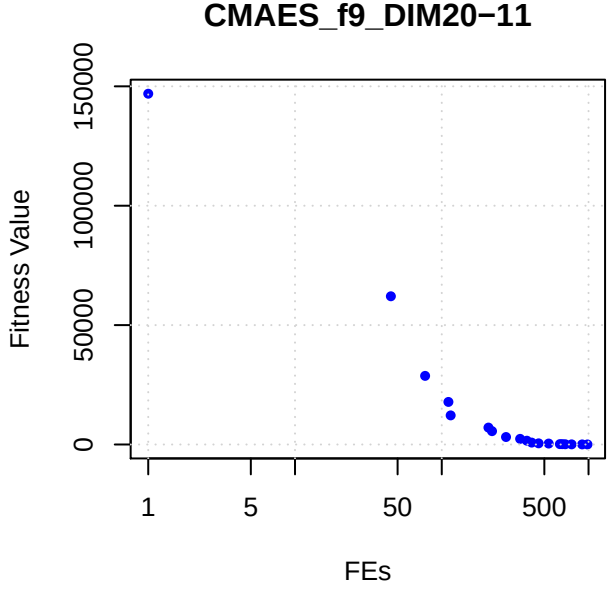
FEs


CMAES_f9_DIM20−11
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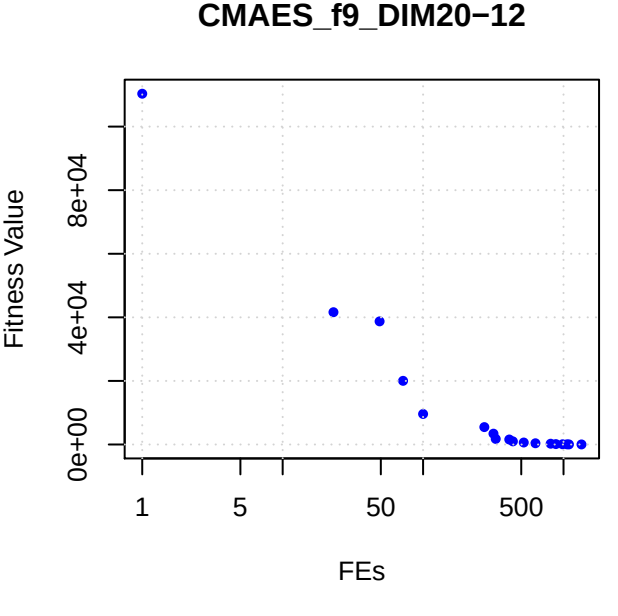
FEs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Fitness Value
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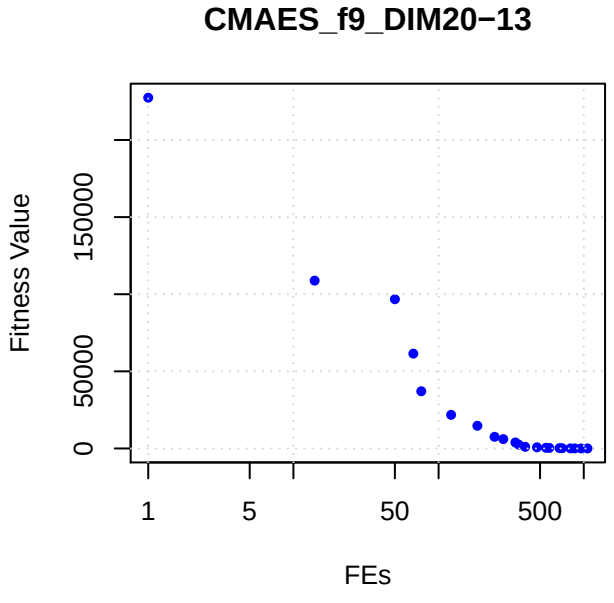
CMAES_f9_DIM20−13
Fitness Value
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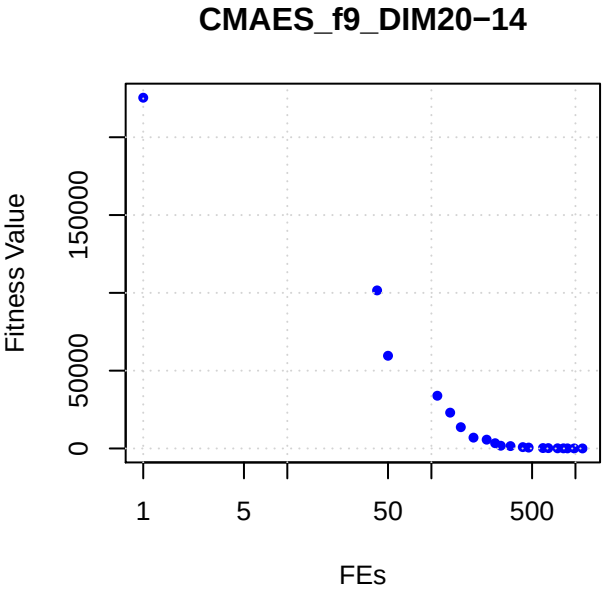
FEs


CMAES_f9_DIM20−14
Fitness Value
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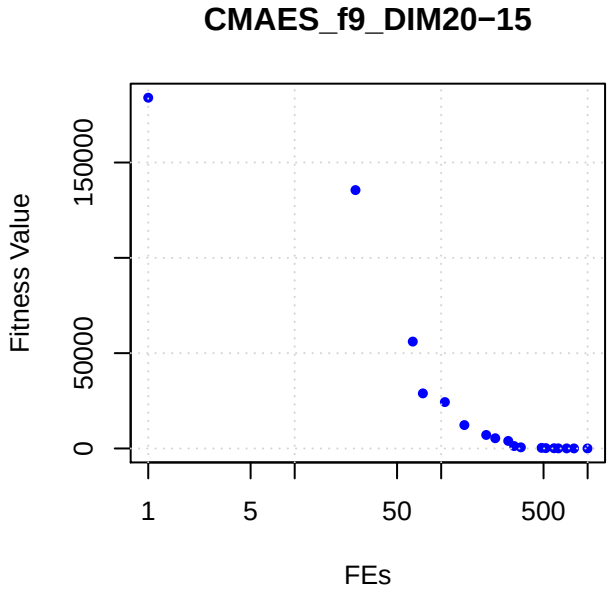
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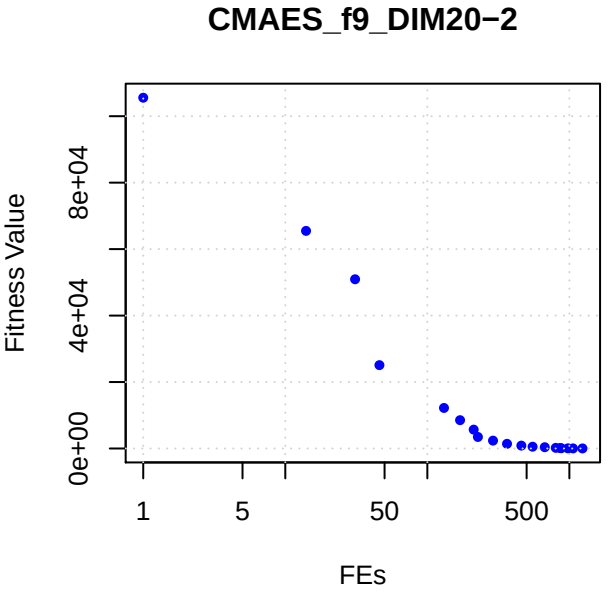
FEs


CMAES_f9_DIM20−2
Fitness Value
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8e+04
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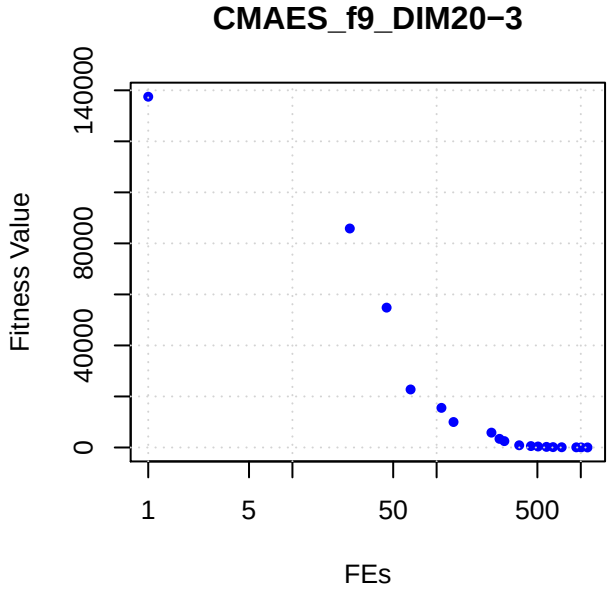
FEs


CMAES_f9_DIM20−3
Fitness Value
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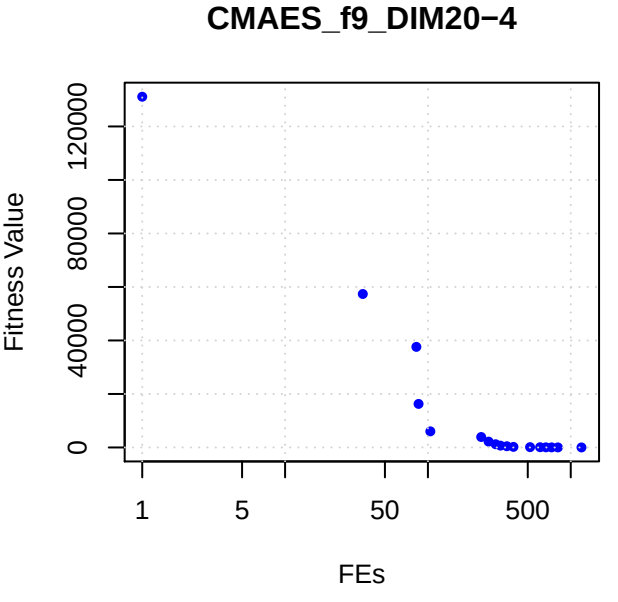
FEs


CMAES_f9_DIM20−4
Fitness Value
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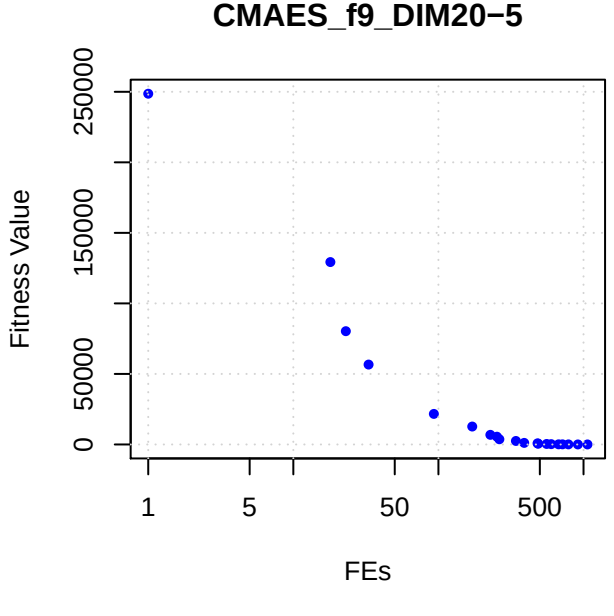
FEs


CMAES_f9_DIM20−5
Fitness Value
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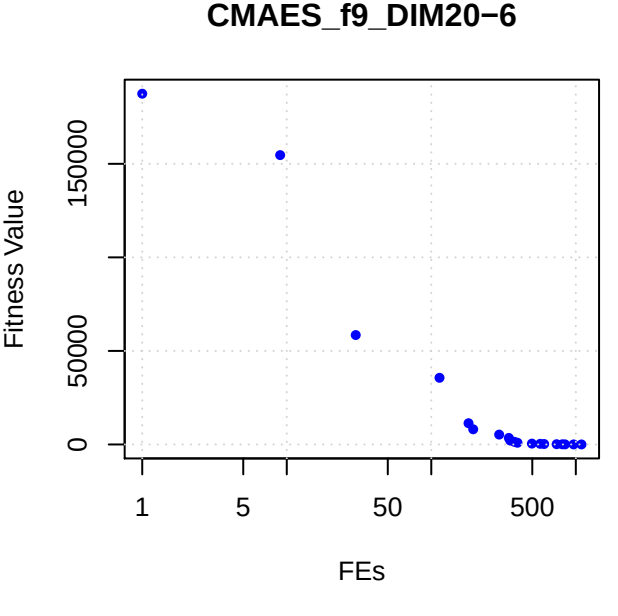
FEs


CMAES_f9_DIM20−6
Fitness Value
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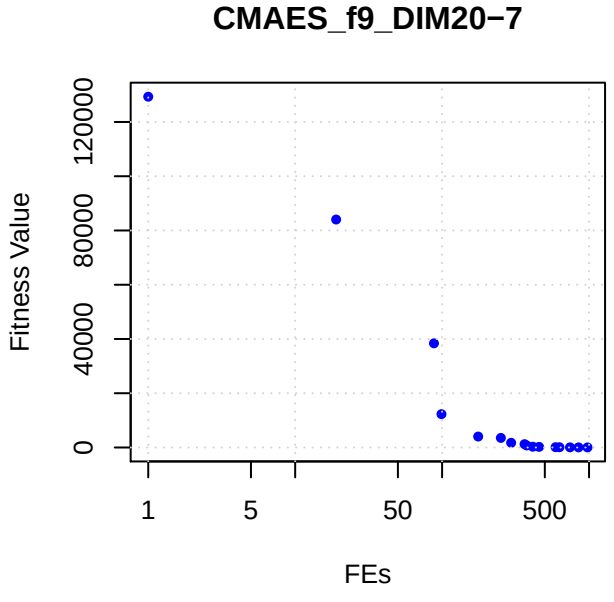
FEs


CMAES_f9_DIM20−7
Fitness Value
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80000
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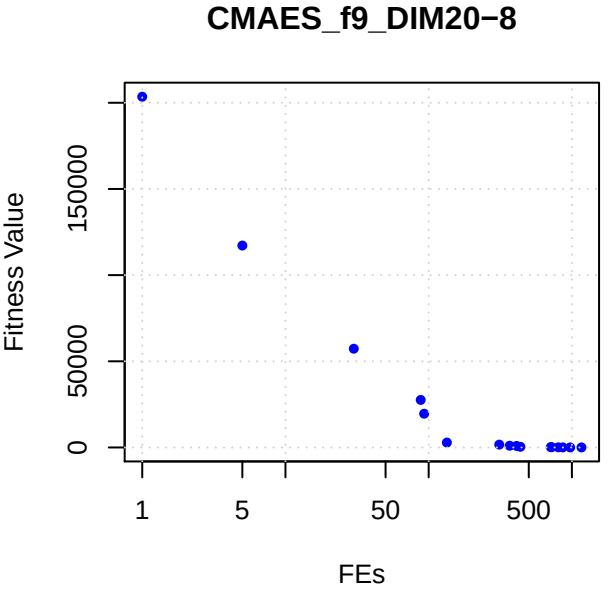
FEs


CMAES_f9_DIM20−8
Fitness Value
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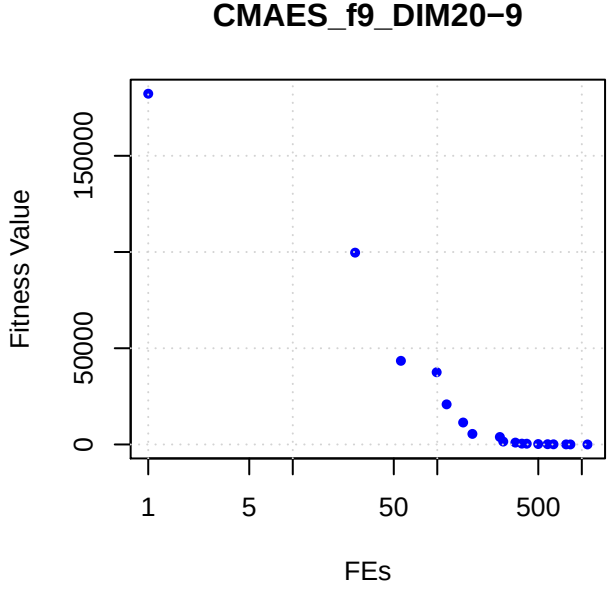
FEs


CMAES_f9_DIM20−9
Fitness Value
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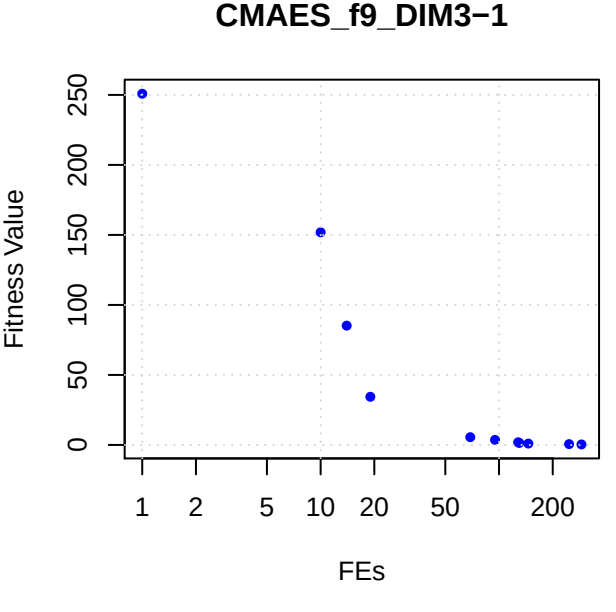
FEs


CMAES_f9_DIM3−1
Fitness Value
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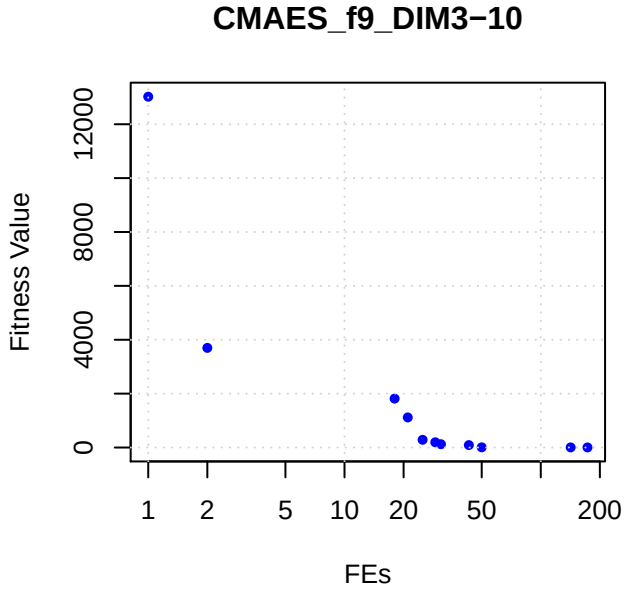
150
200
250
1
2
5
10
20
50
200
FEs


CMAES_f9_DIM3−10
Fitness Value
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12000
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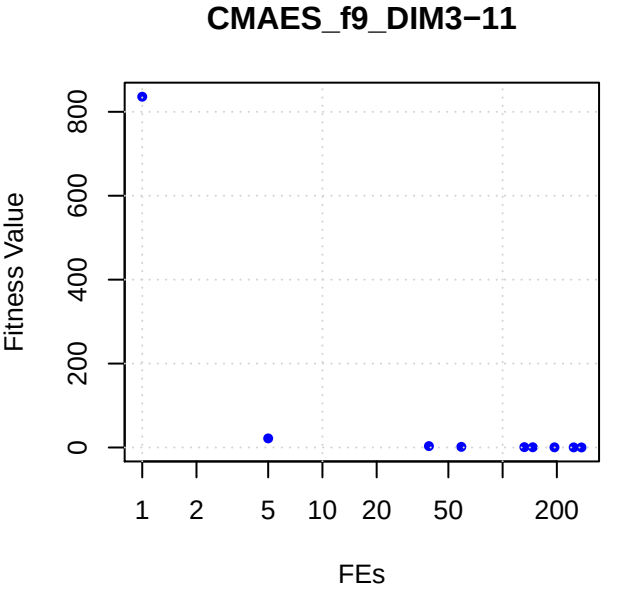
5
10
20
50
200
FEs


CMAES_f9_DIM3−11
Fitness Value
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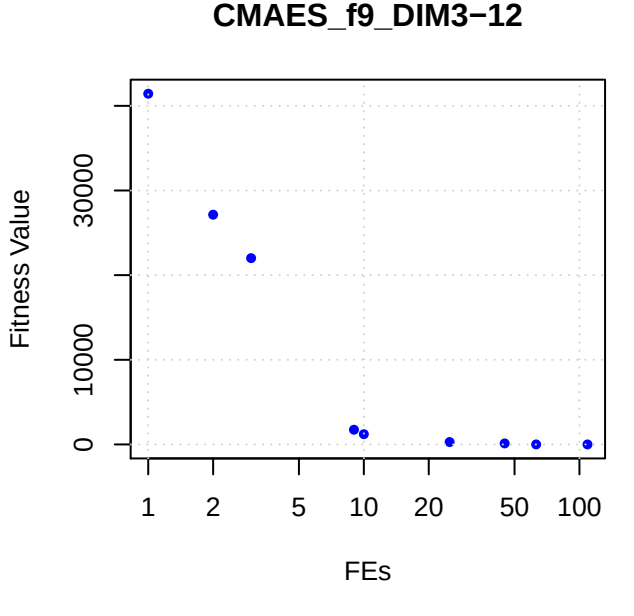
600
800
1
2
5
10
20
50
200
FEs


CMAES_f9_DIM3−12
Fitness Value
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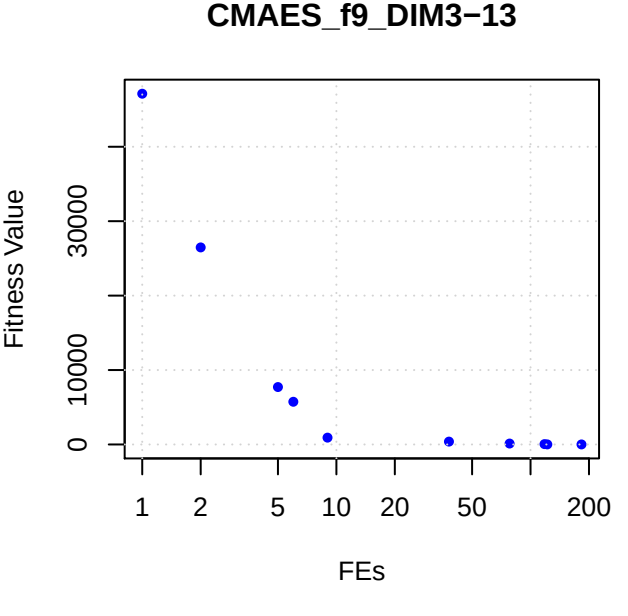
2
5
10
20
50
100
FEs


CMAES_f9_DIM3−13
Fitness Value
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10000
30000
1
2
5
10
20
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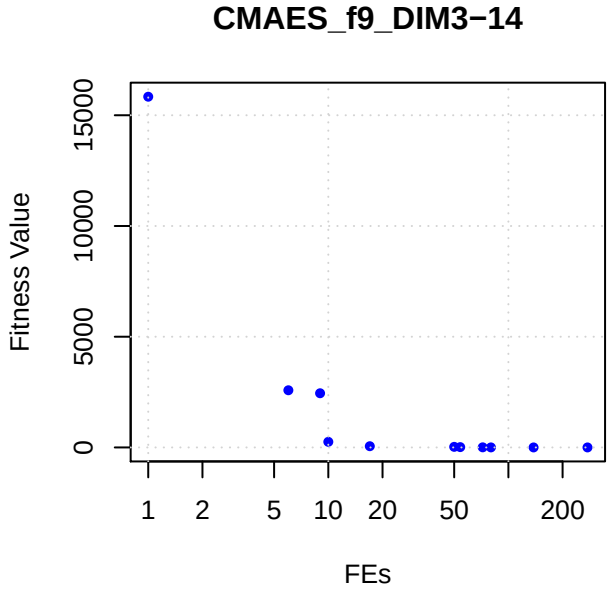
200
FEs


CMAES_f9_DIM3−14
Fitness Value
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1
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10
20
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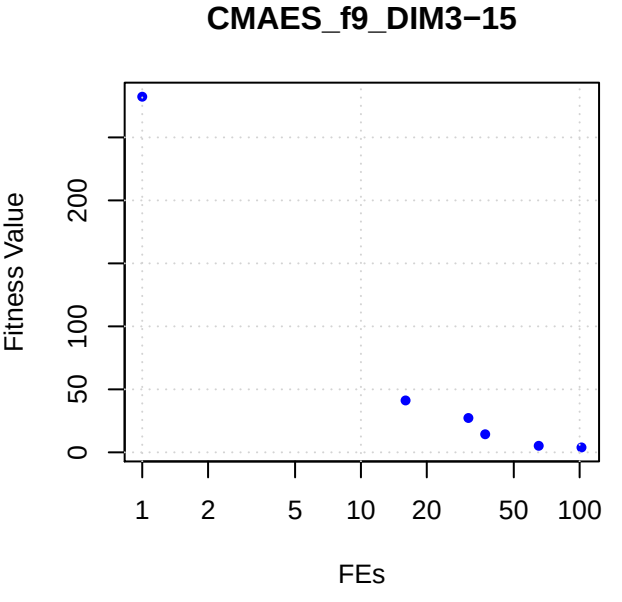
200
FEs


CMAES_f9_DIM3−15
Fitness Value
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100
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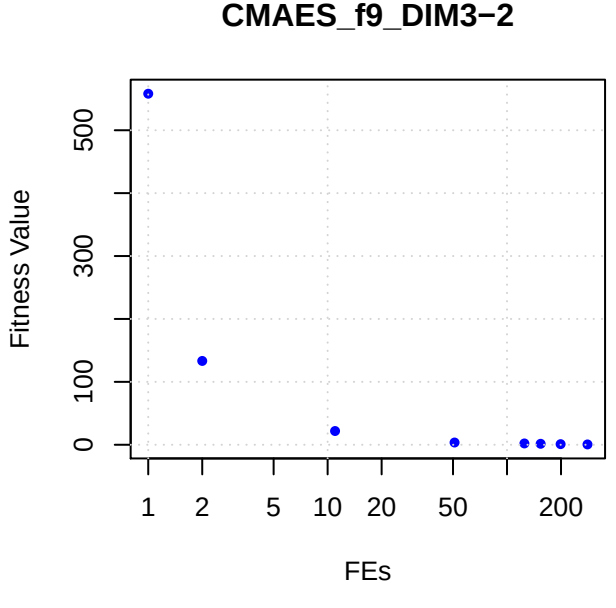
1
2
5
10
20
50
100
FEs


CMAES_f9_DIM3−2
Fitness Value
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300
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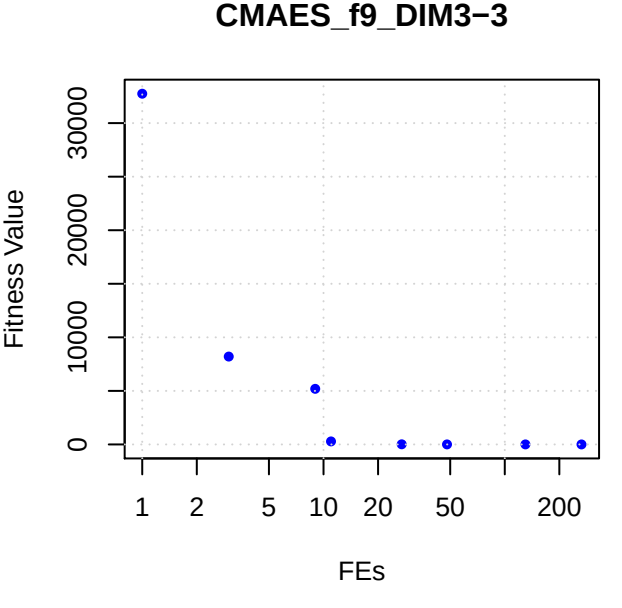
1
2
5
10
20
50
200
FEs


CMAES_f9_DIM3−3
Fitness Value
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30000
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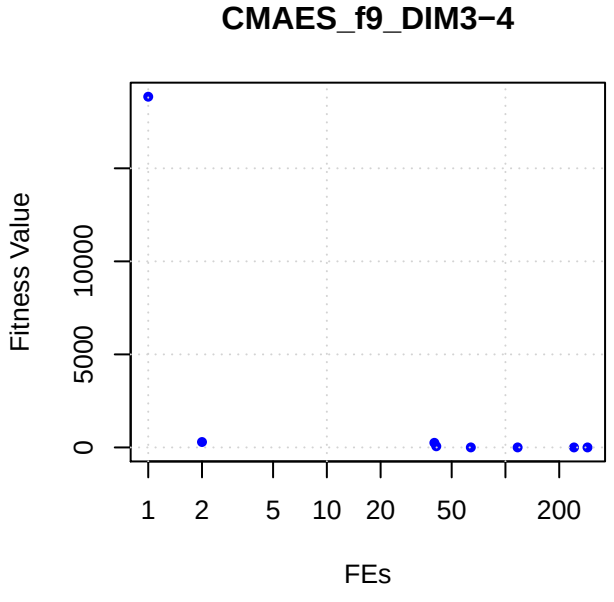
10
20
50
200
FEs


CMAES_f9_DIM3−4
Fitness Value
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20
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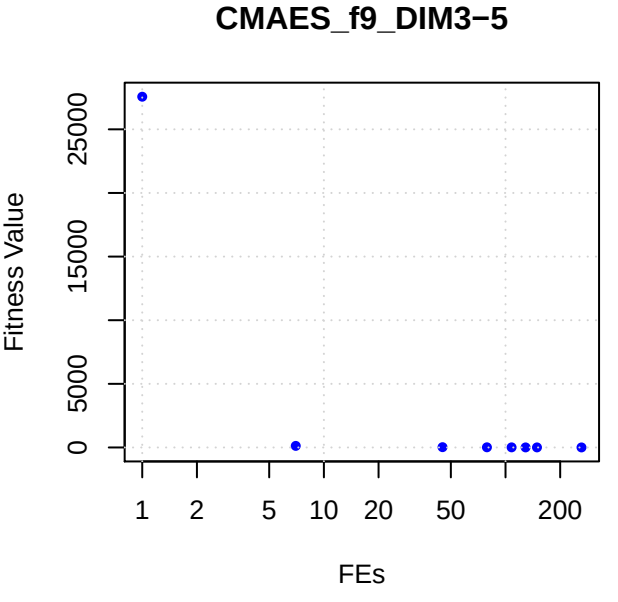
200
FEs


CMAES_f9_DIM3−5
Fitness Value
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25000
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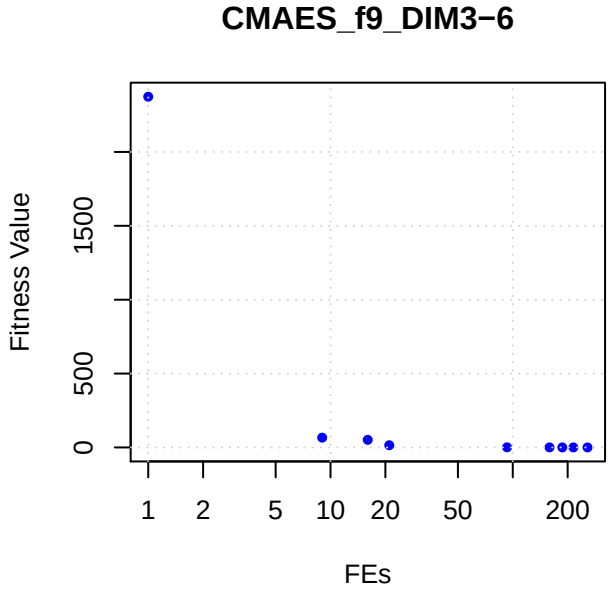
2
5
10
20
50
200
FEs


CMAES_f9_DIM3−6
Fitness Value
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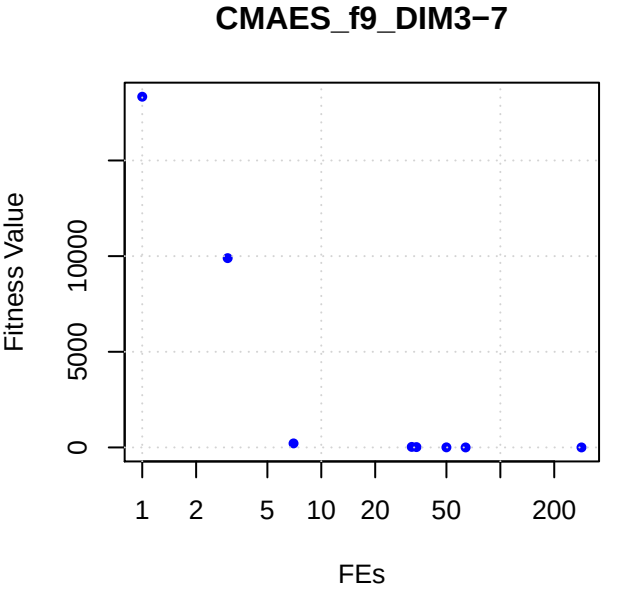
FEs


CMAES_f9_DIM3−7
Fitness Value
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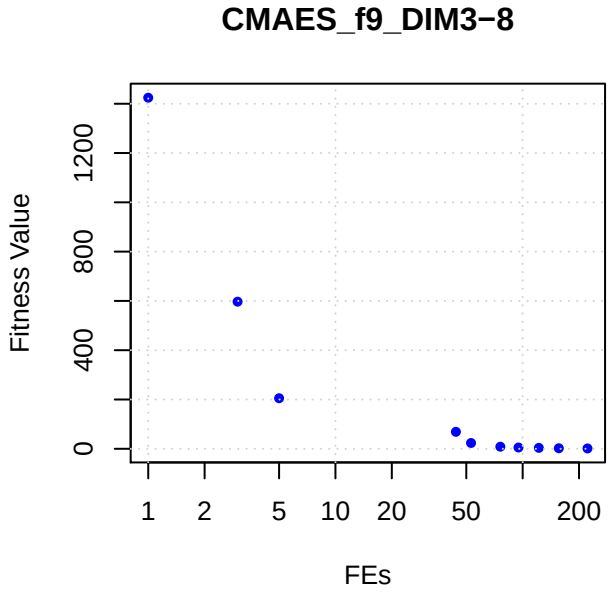
FEs


CMAES_f9_DIM3−8
Fitness Value
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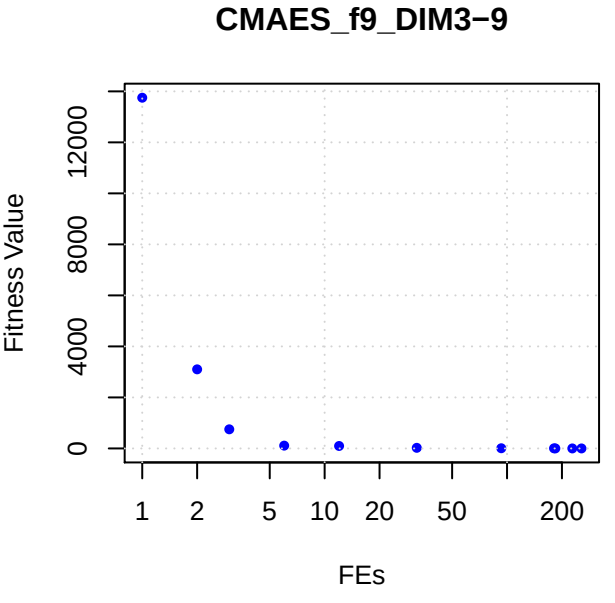
CMAES_f9_DIM3−9
Fitness Value
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12000
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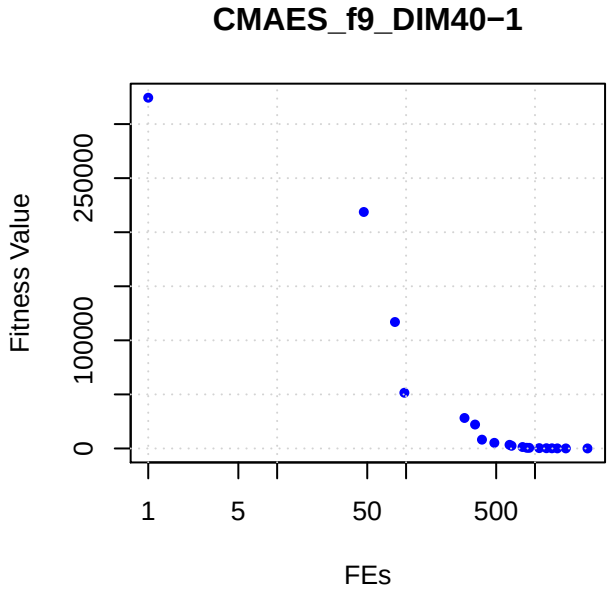
200
FEs


CMAES_f9_DIM40−1
Fitness Value
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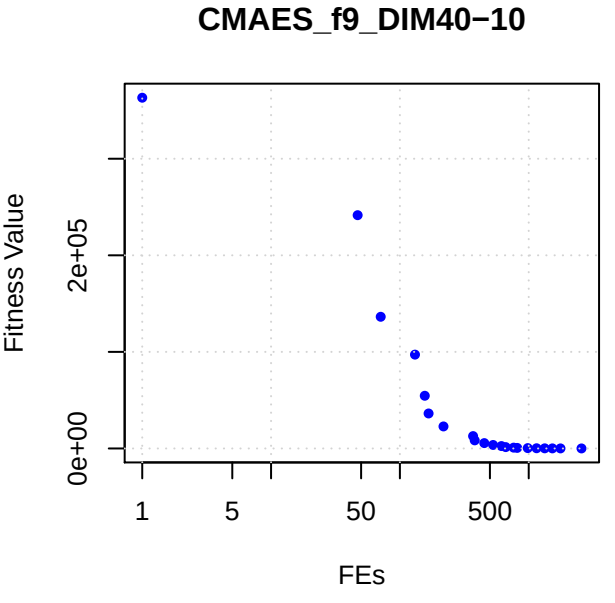
500
FEs


CMAES_f9_DIM40−10
Fitness Value
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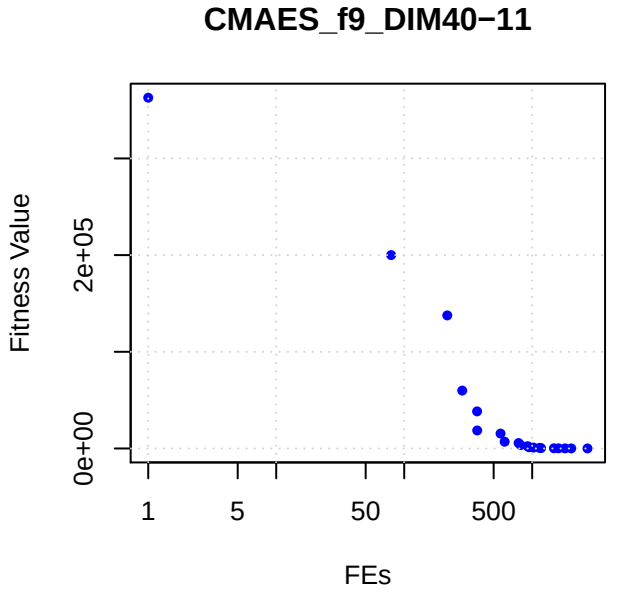
500
FEs


CMAES_f9_DIM40−11
Fitness Value
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2e+05
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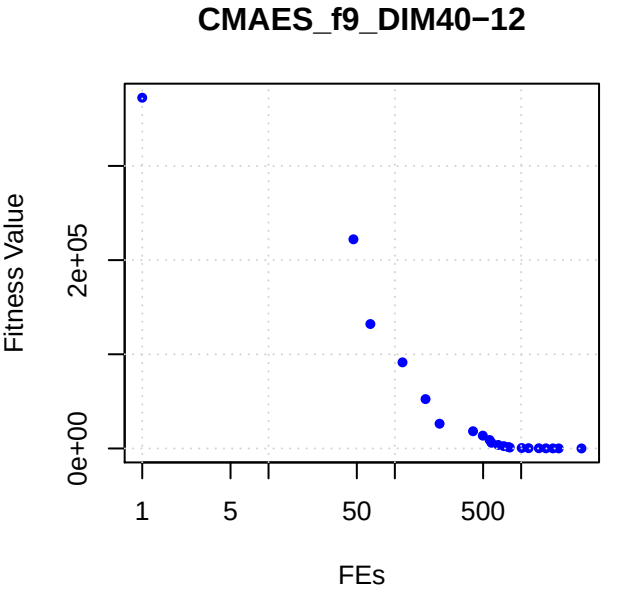
500
FEs


CMAES_f9_DIM40−12
Fitness Value
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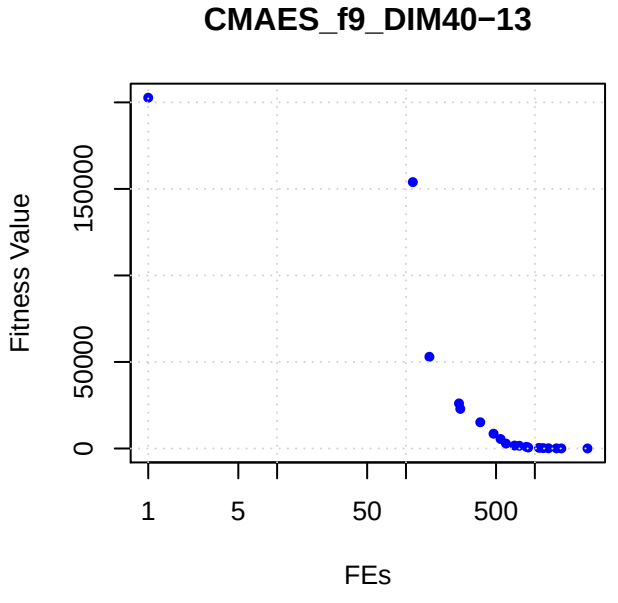
FEs


CMAES_f9_DIM40−13
Fitness Value
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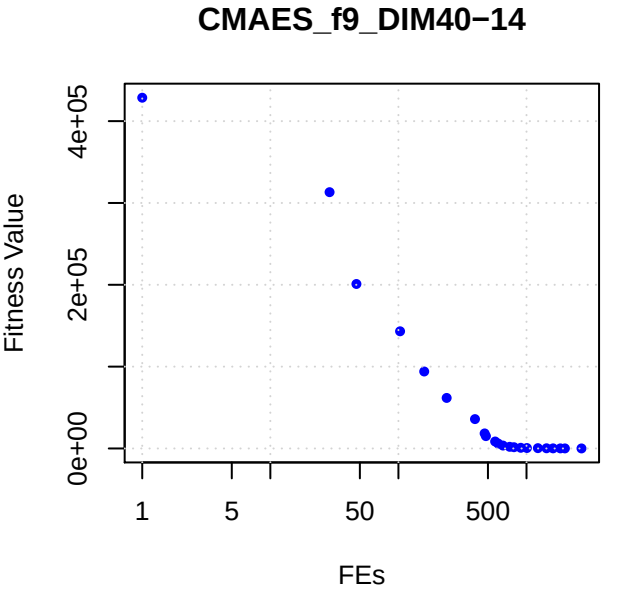
CMAES_f9_DIM40−14
Fitness Value
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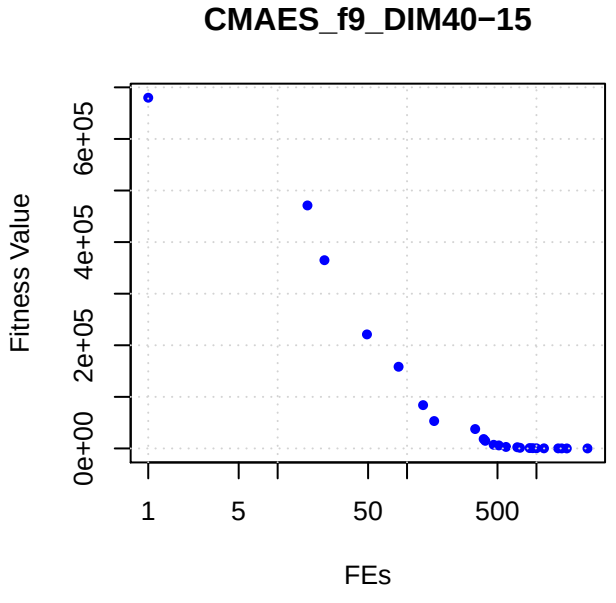
FEs


CMAES_f9_DIM40−15
Fitness Value
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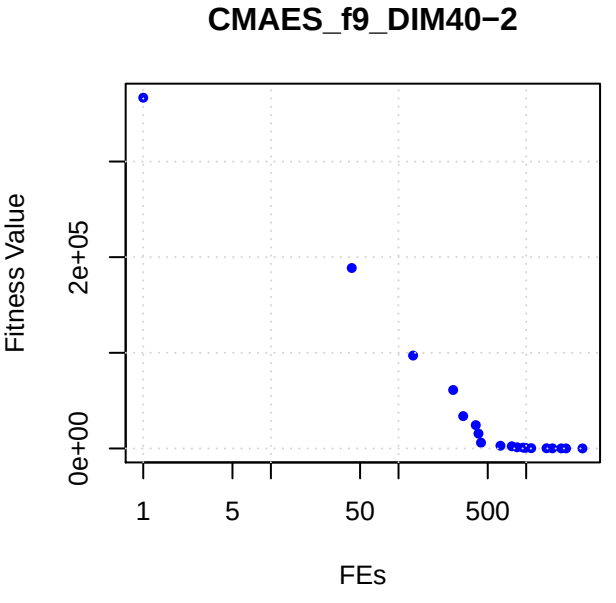
FEs


CMAES_f9_DIM40−2
Fitness Value
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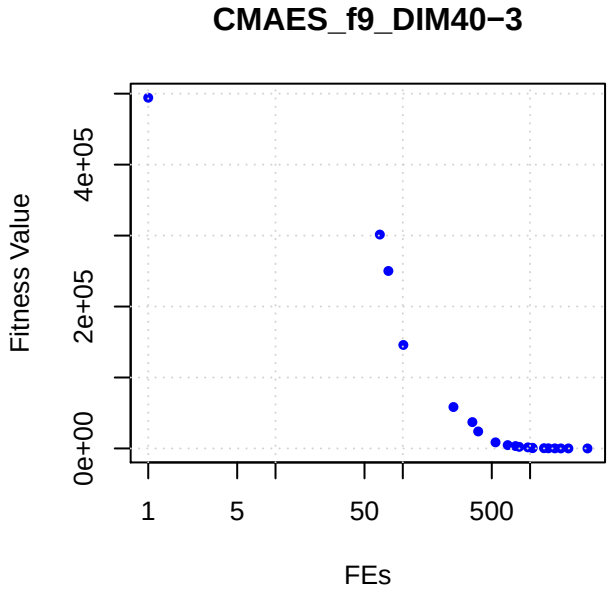
500
FEs


CMAES_f9_DIM40−3
Fitness Value
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4e+05
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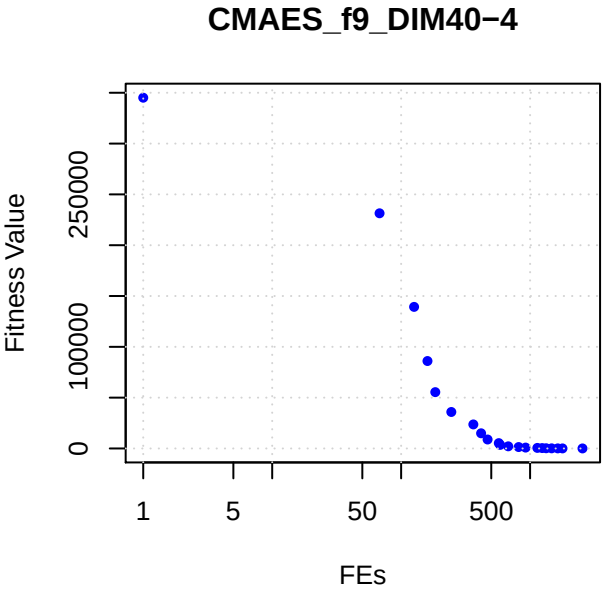
500
FEs


CMAES_f9_DIM40−4
Fitness Value
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1
5
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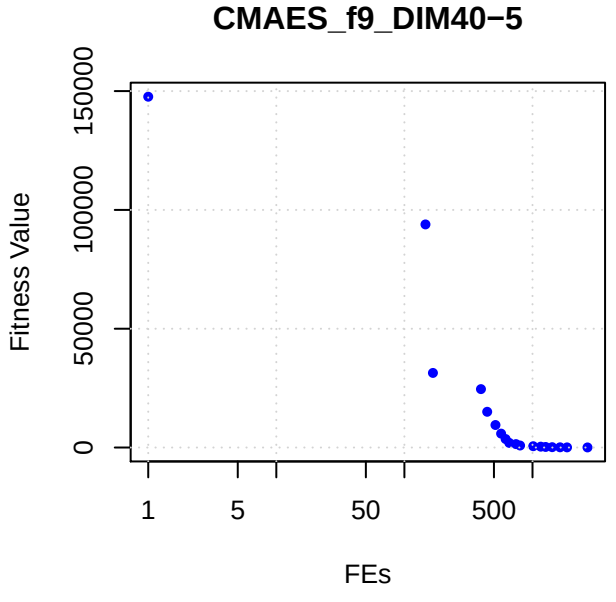
500
FEs


CMAES_f9_DIM40−5
Fitness Value
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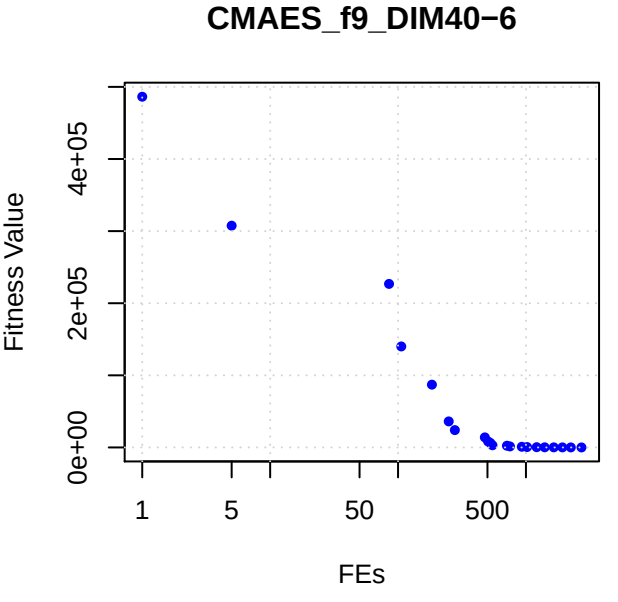
100000
150000
1
5
50
500
FEs


CMAES_f9_DIM40−6
Fitness Value
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4e+05
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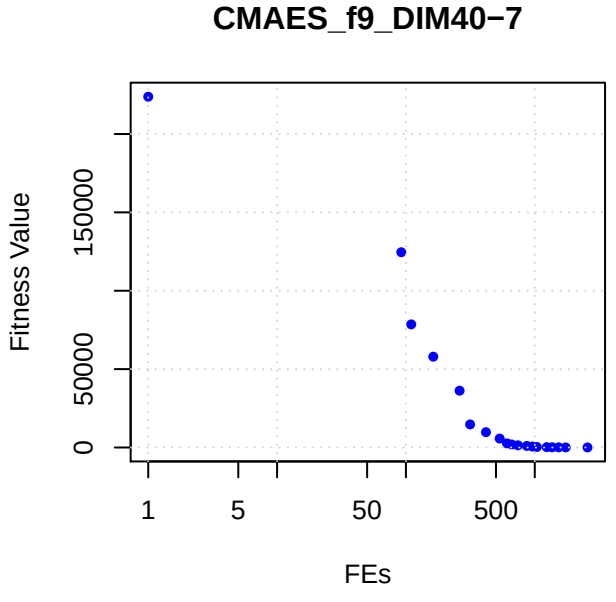
CMAES_f9_DIM40−7
Fitness Value
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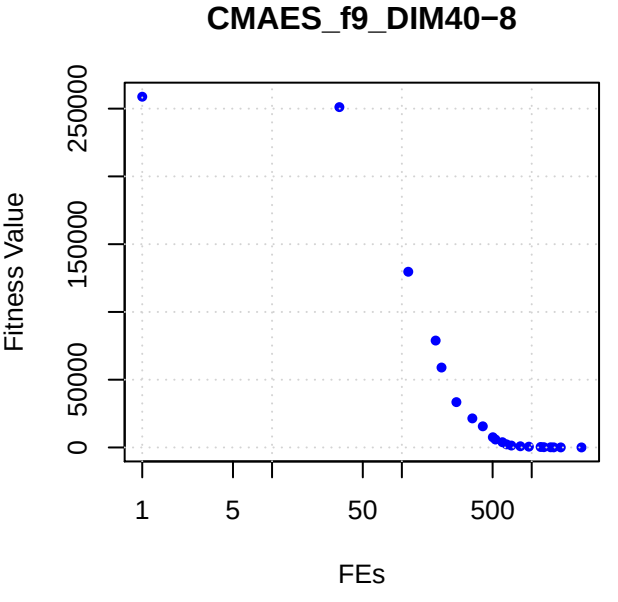
FEs


CMAES_f9_DIM40−8
Fitness Value
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250000
1
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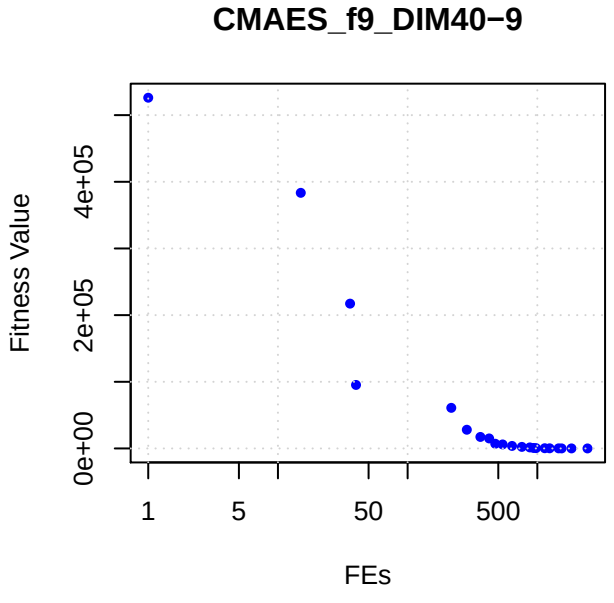
500
FEs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Fitness Value
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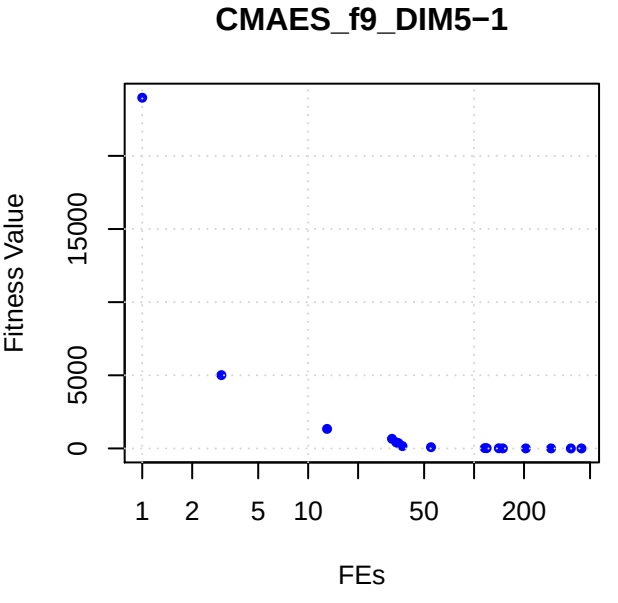
CMAES_f9_DIM5−1
Fitness Value
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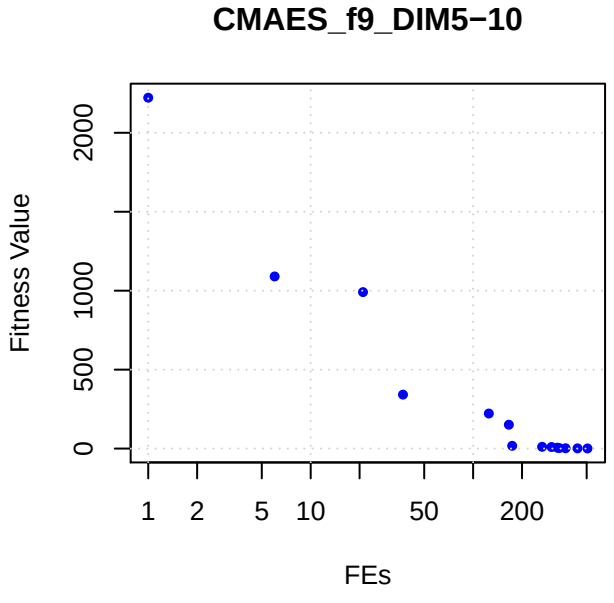
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Fitness Value
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2000
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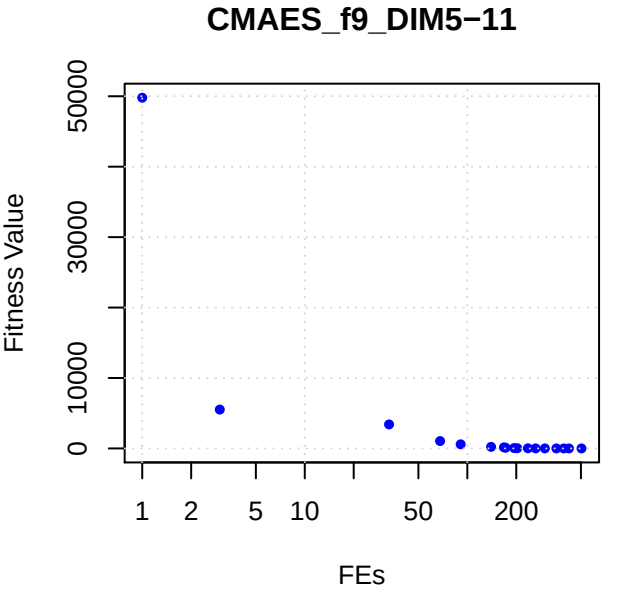
FEs


CMAES_f9_DIM5−11
Fitness Value
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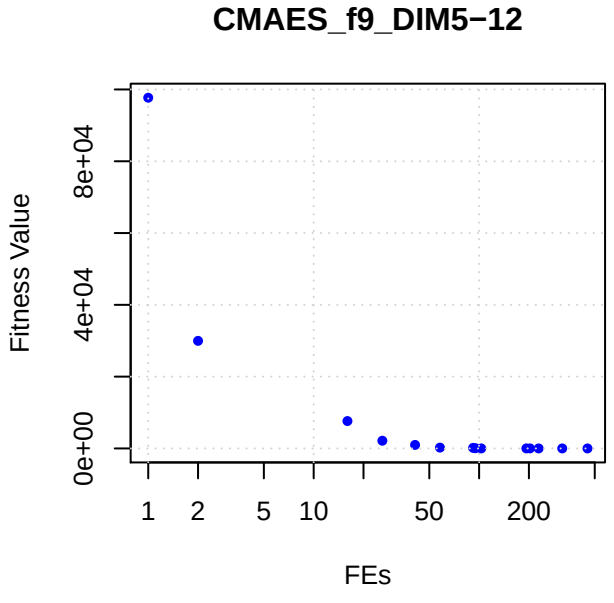
10000
30000
50000
1
2
5
10
50
200
FEs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Fitness Value
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4e+04
8e+04
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10
50
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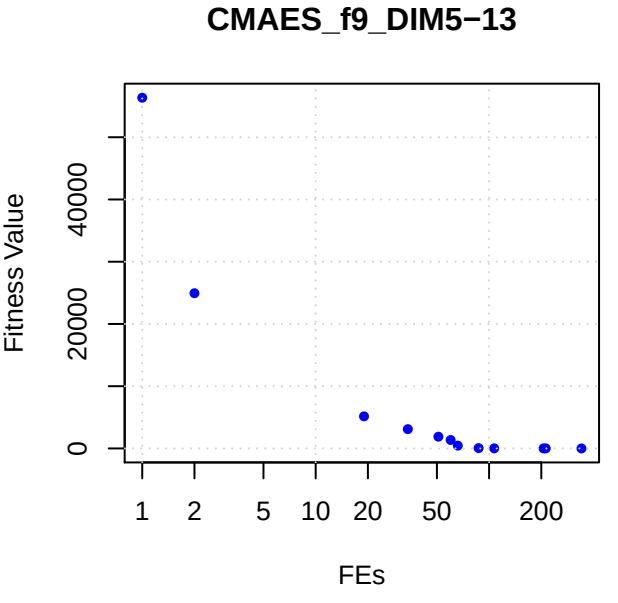
FEs


CMAES_f9_DIM5−13
Fitness Value
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20000
40000
1
2
5
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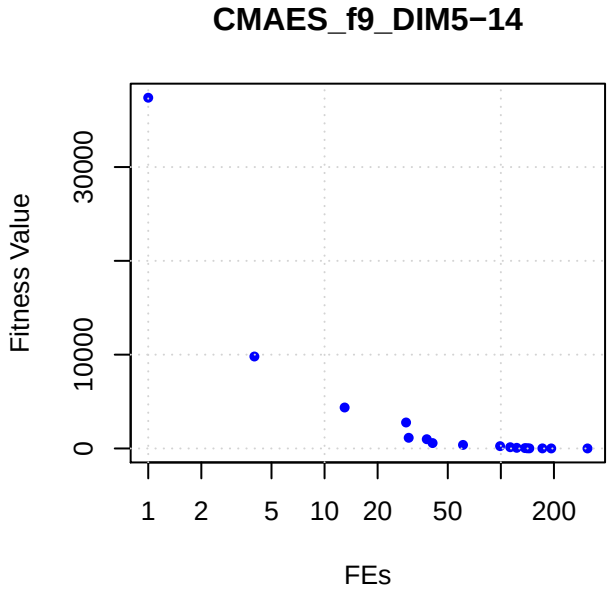
20
50
200
FEs


CMAES_f9_DIM5−14
Fitness Value
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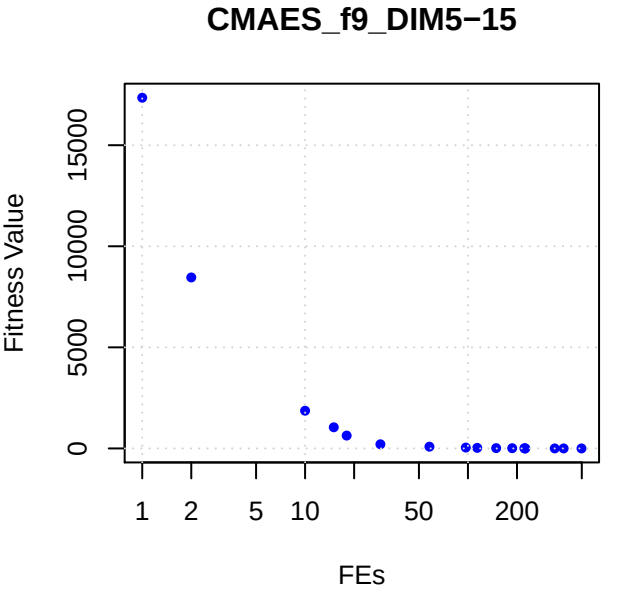
FEs


CMAES_f9_DIM5−15
Fitness Value
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5000
10000
15000
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2
5
10
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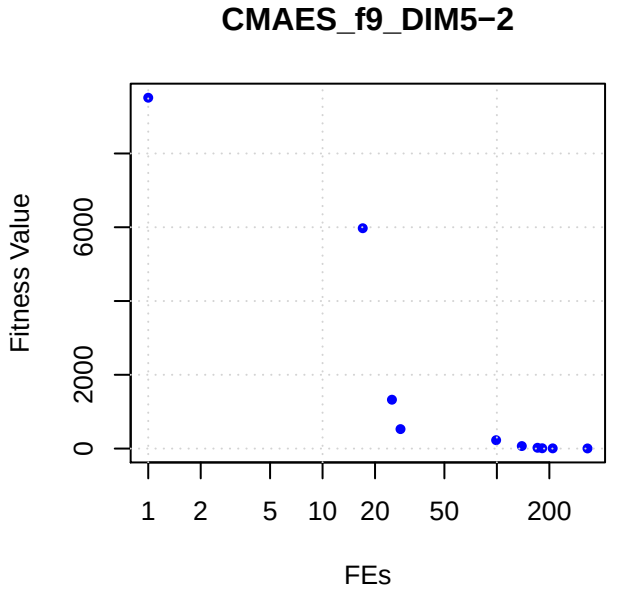
200
FEs


CMAES_f9_DIM5−2
Fitness Value
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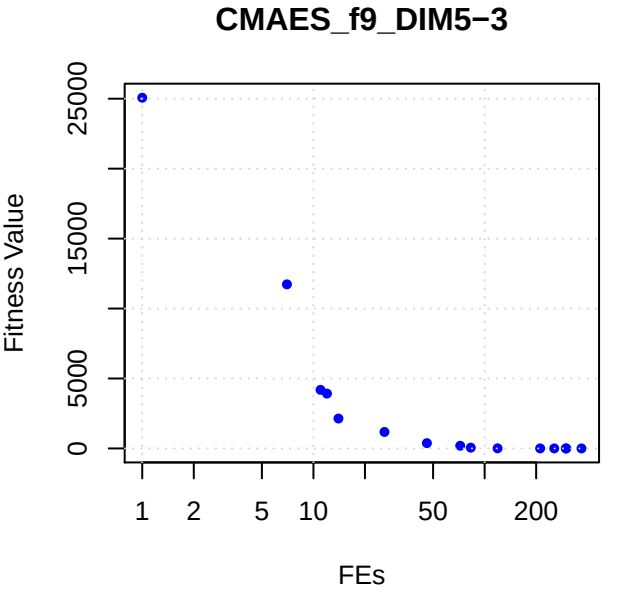
6000
1
2
5
10
20
50
200
FEs


CMAES_f9_DIM5−3
Fitness Value
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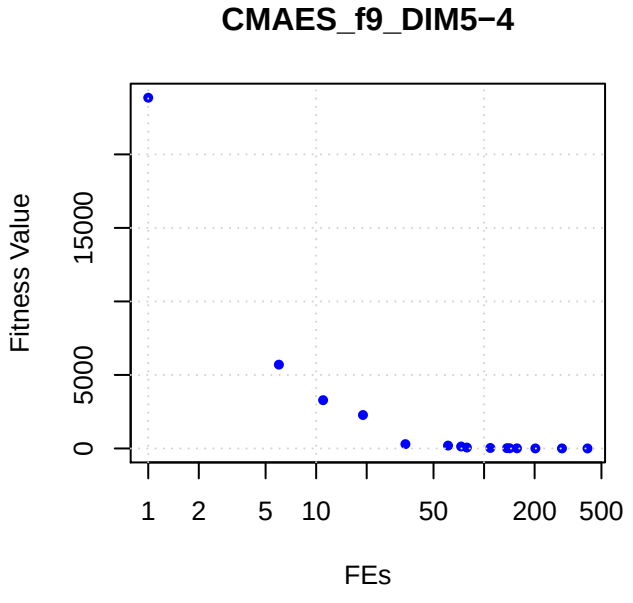
15000
25000
1
2
5
10
50
200
FEs


CMAES_f9_DIM5−4
Fitness Value
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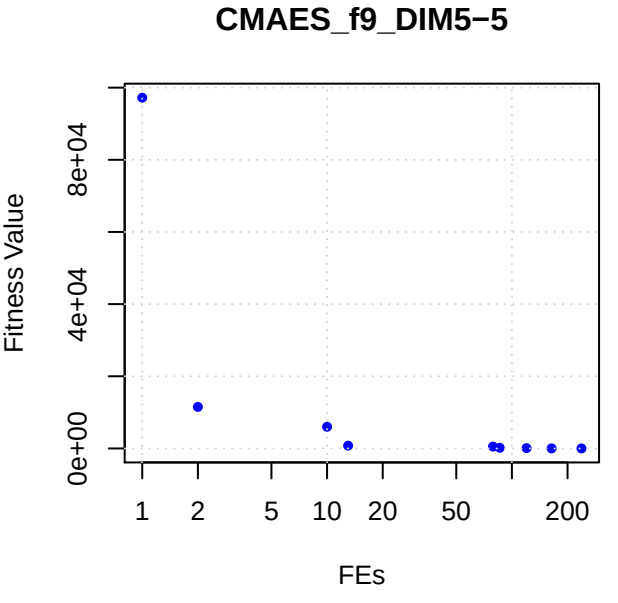
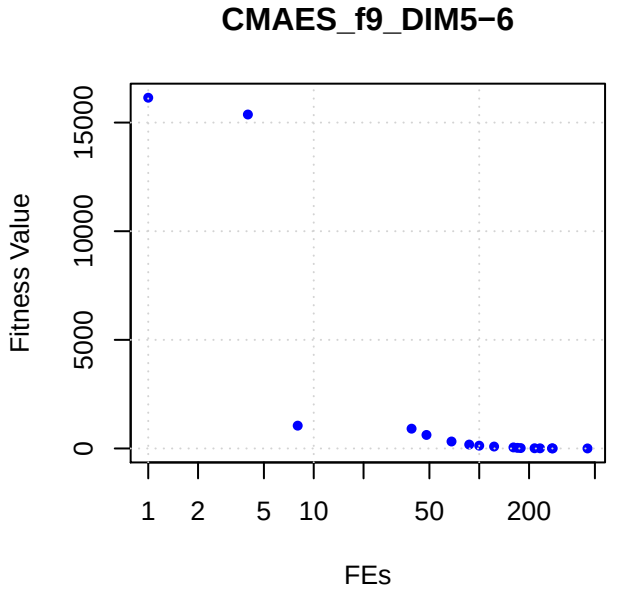
5000
15000
1
2
5
10
50
200
500
FEs


CMAES_f9_DIM5−5
Fitness Value
0e+00
4e+04
8e+04
1
2
5
10
20
50
200
FEs


CMAES_f9_DIM5−6
Fitness Value
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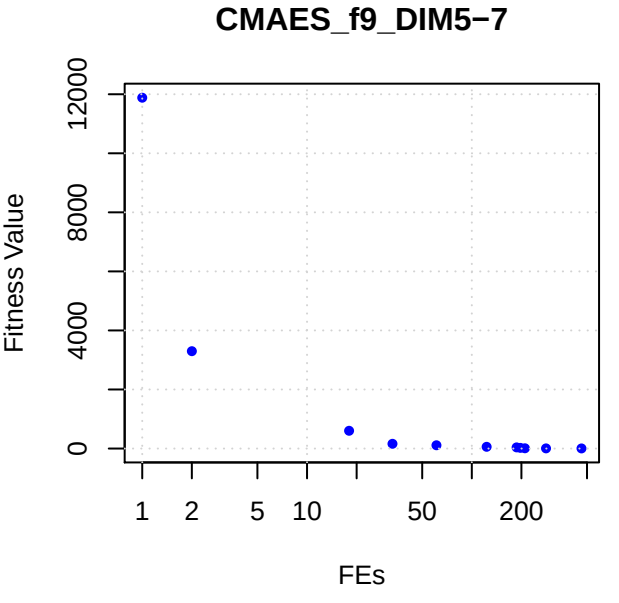
15000
1
2
5
10
50
200
FEs


CMAES_f9_DIM5−7
Fitness Value
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12000
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2
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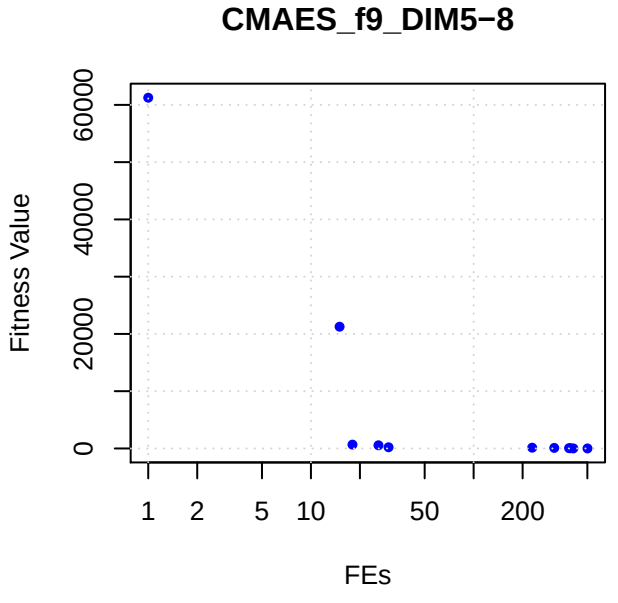
50
200
FEs


CMAES_f9_DIM5−8
Fitness Value
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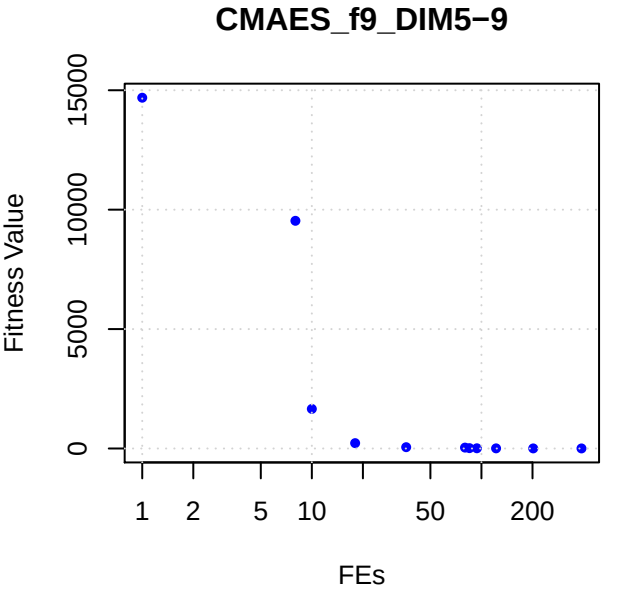
40000
60000
1
2
5
10
50
200
FEs


CMAES_f9_DIM5−9
Fitness Value
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10000
15000
1
2
5
10
50
200
FEs