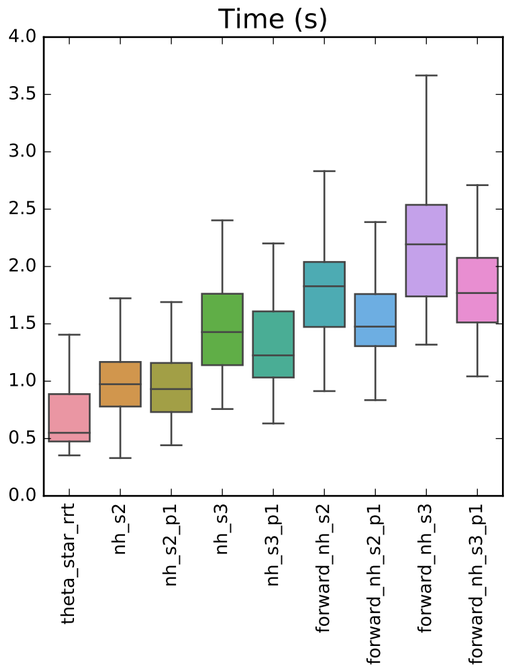
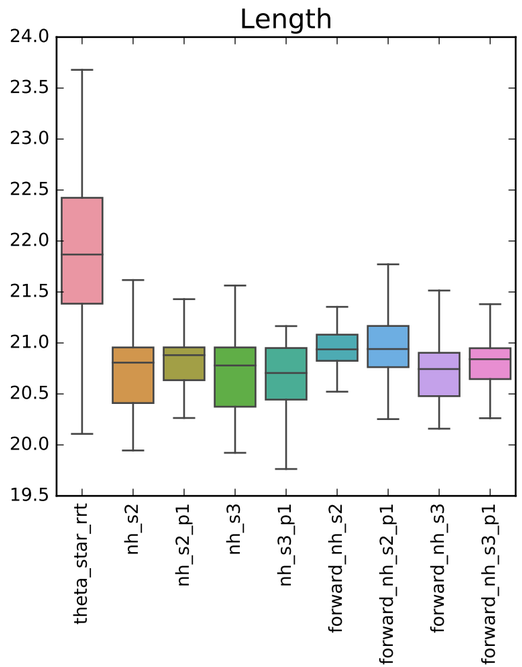
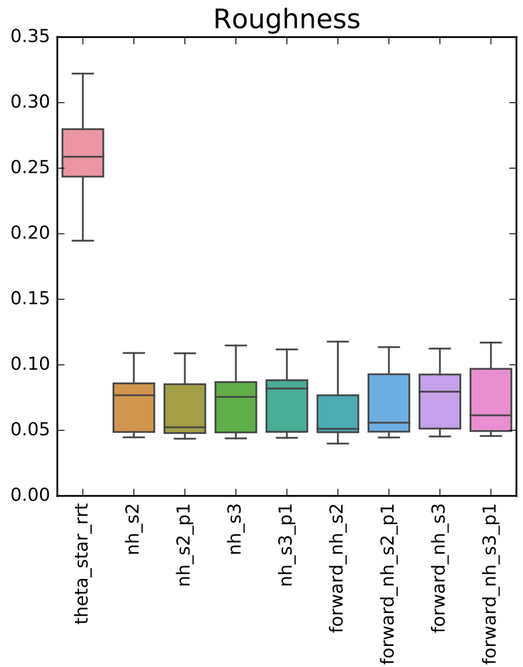
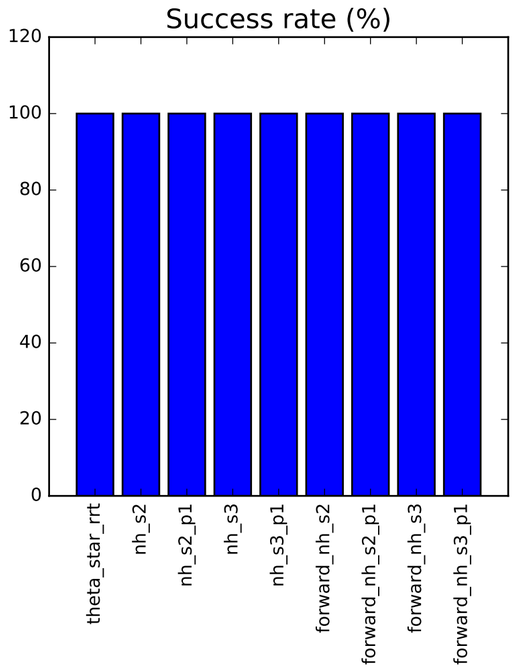
grass 0

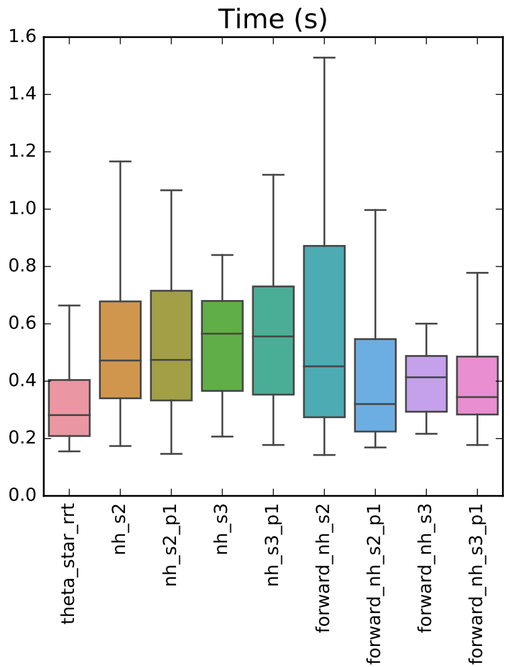

Time (s)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

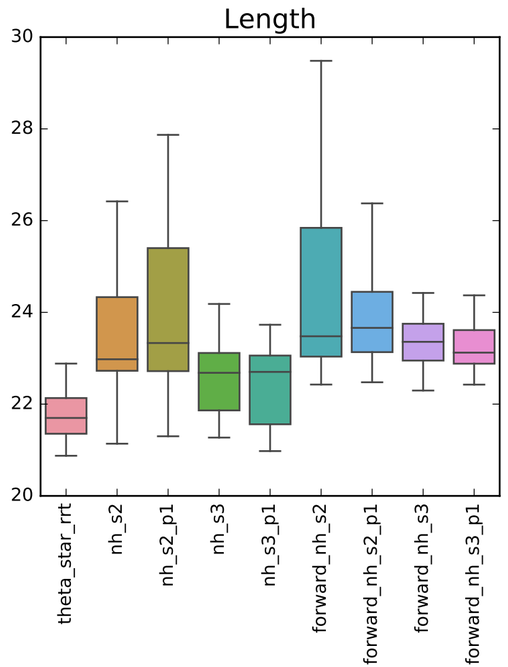

Length
24.0
23.5
23.0
22.5
22.0
21.5
21.0
20.5
20.0
19.5
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

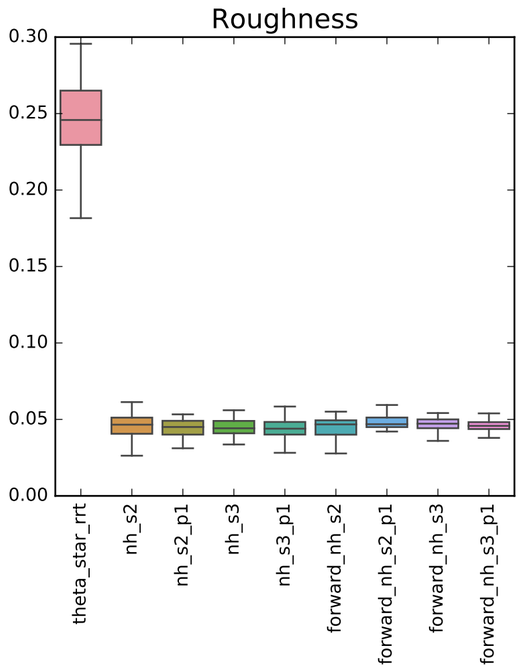

Roughness
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

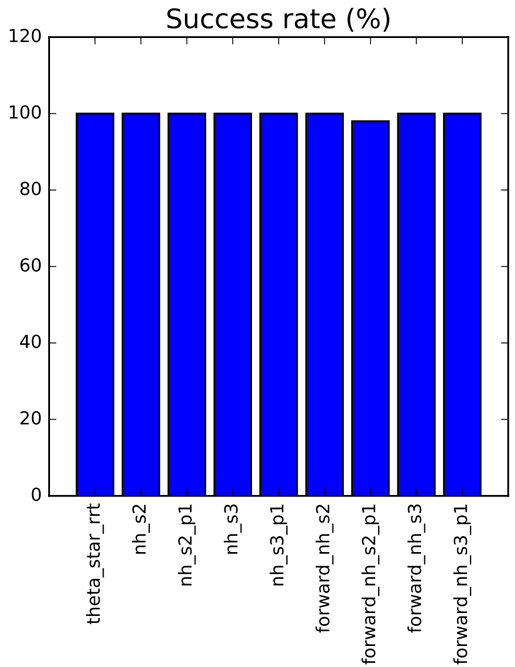

Success rate (%)
120
100
80
60
40
20
0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 1

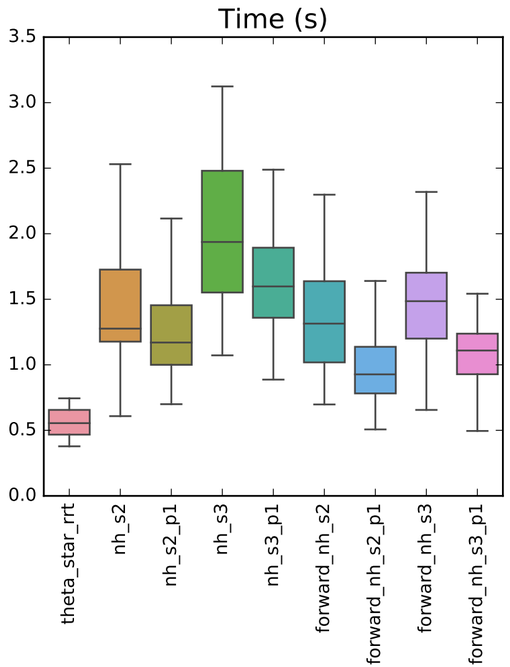

Time (s)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

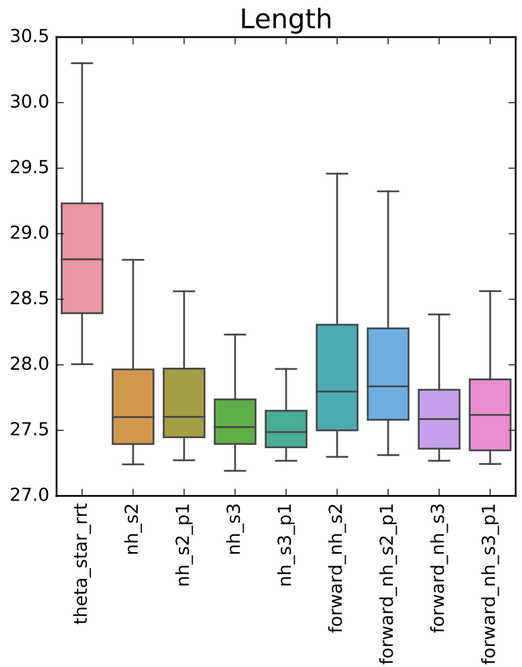

Length
30
28
26
24
22
20
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

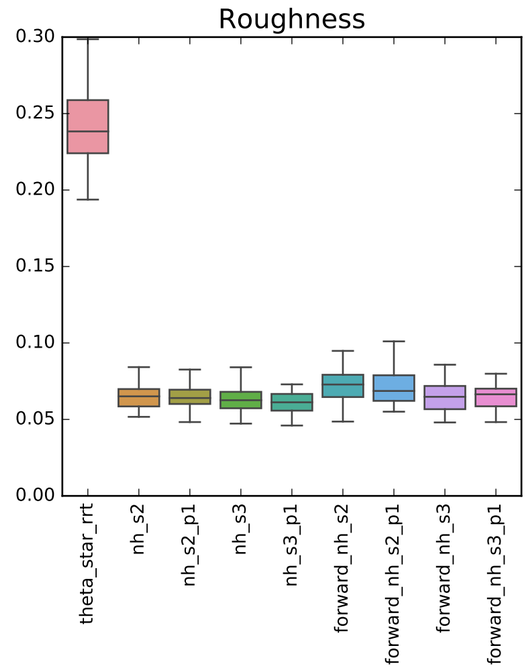

Roughness
0.30
0.25
0.20
0.15
0.10
0.05
0.00
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

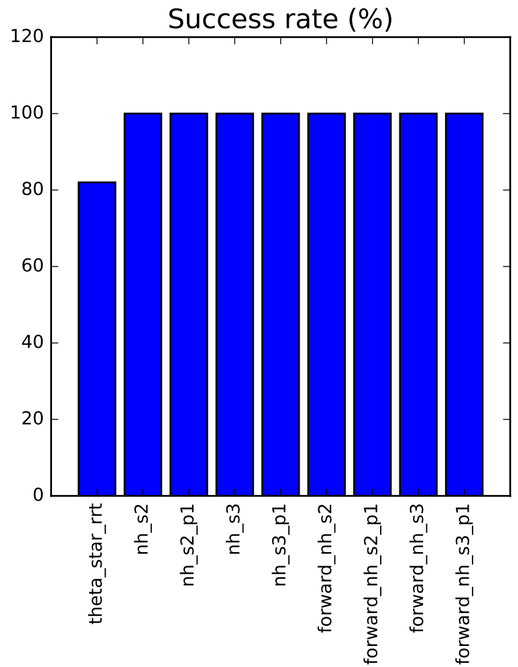

Success rate (%)
120
100
80
60
40
20
0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 2

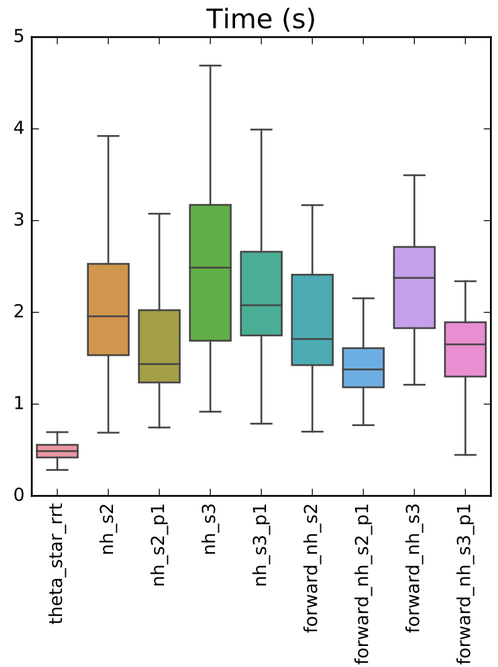

Time (s)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

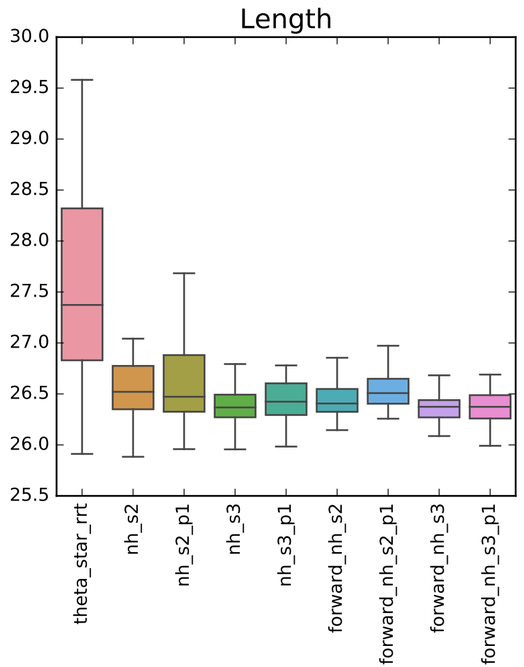

Length
30.5
30.0
29.5
29.0
28.5
28.0
27.5
27.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

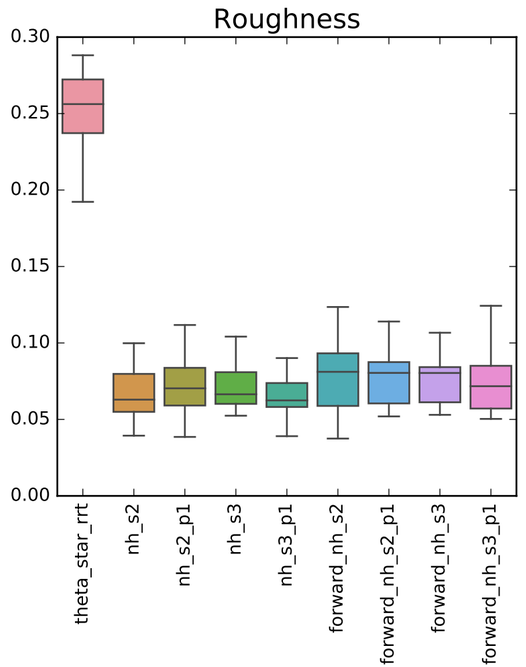

Roughness
0.30
0.25
0.20
0.15
0.10
0.05
0.00
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

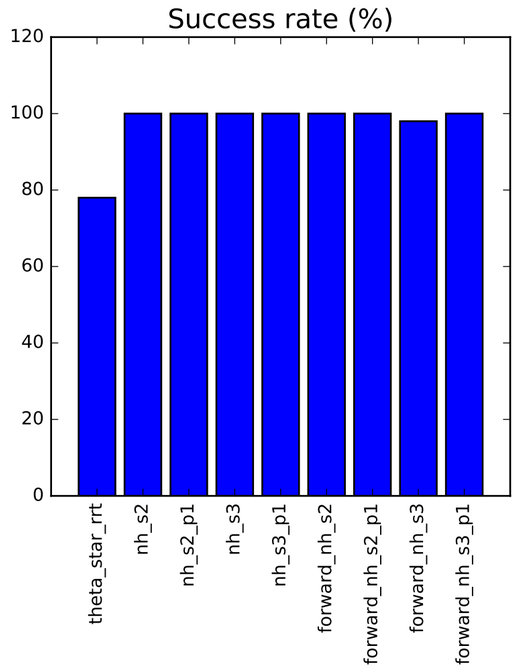

Success rate (%)
120
100
80
60
40
20
0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 3

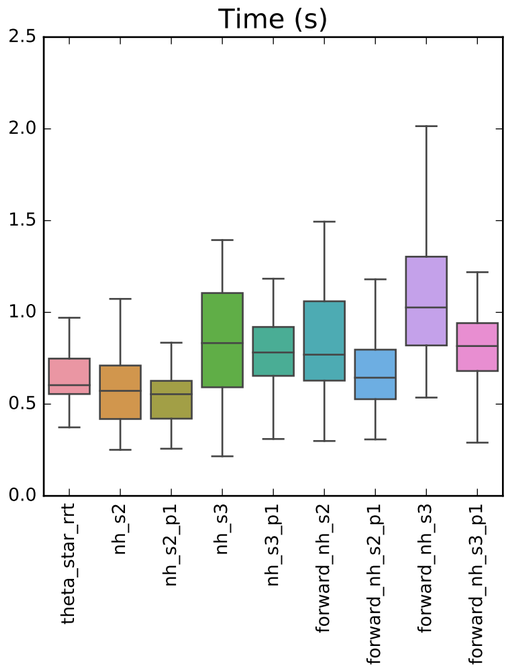

Time (s)
0
1
2
3
4
5
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

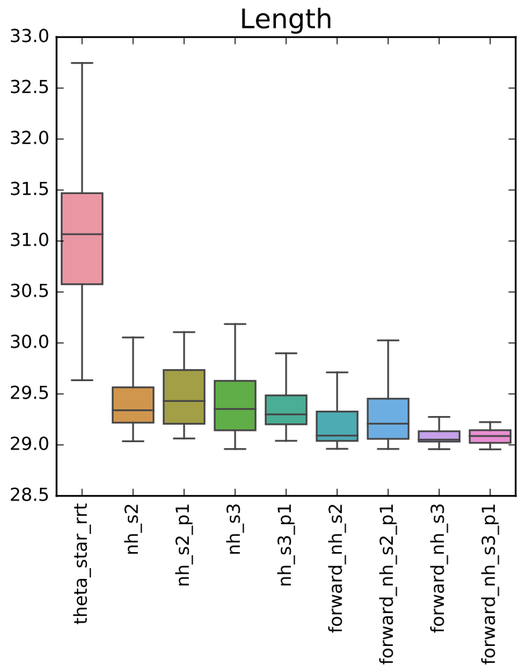

Length
25.5
26.0
26.5
27.0
27.5
28.0
28.5
29.0
29.5
30.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

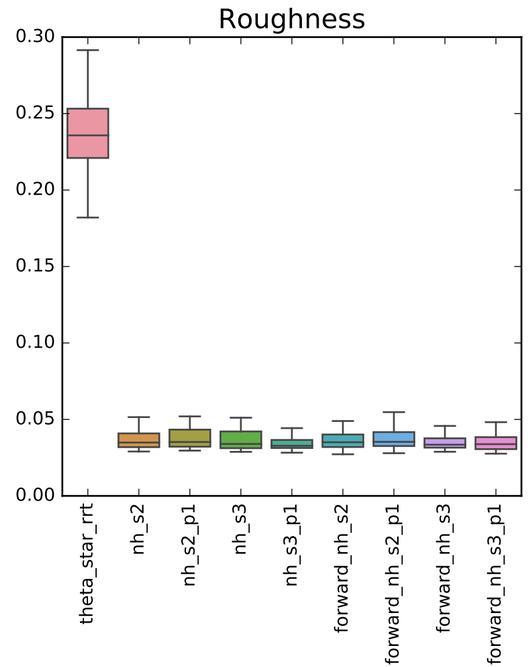

Roughness
0.00
0.05
0.10
0.15
0.20
0.25
0.30
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

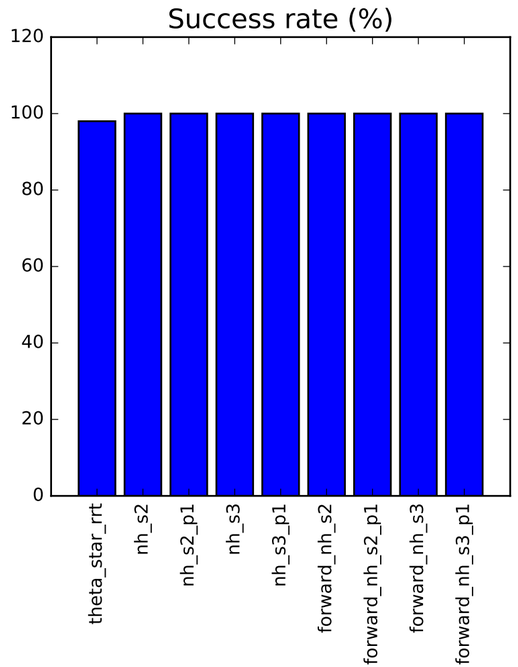

Success rate (%)
0
20
40
60
80
100
120
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 4

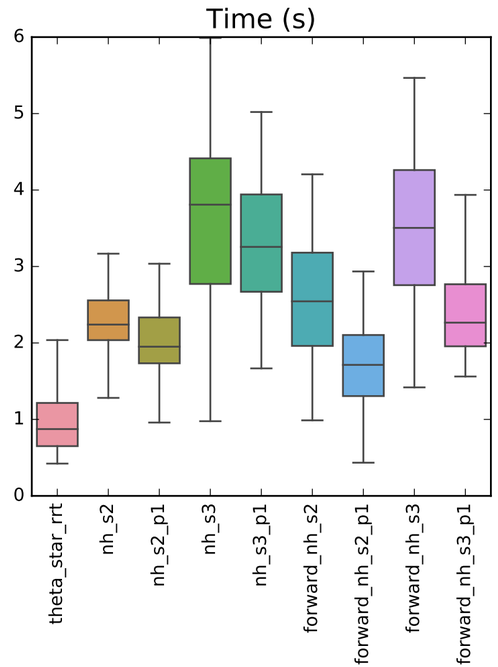

Time (s)
2.5
2.0
1.5
1.0
0.5
0.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

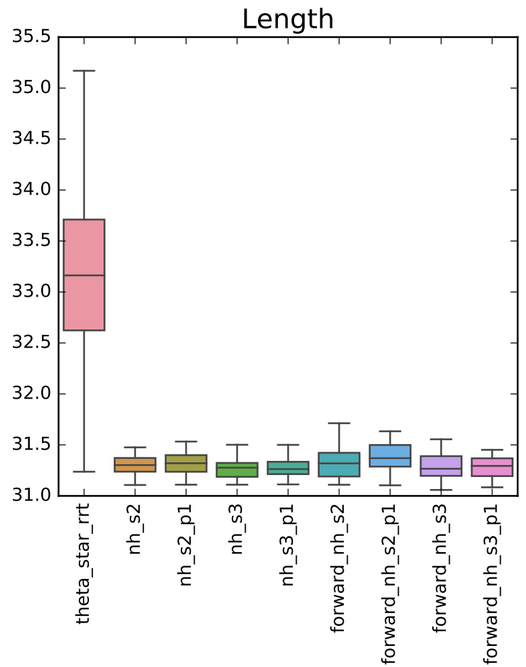

Length
33.0
32.5
32.0
31.5
31.0
30.5
30.0
29.5
29.0
28.5
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

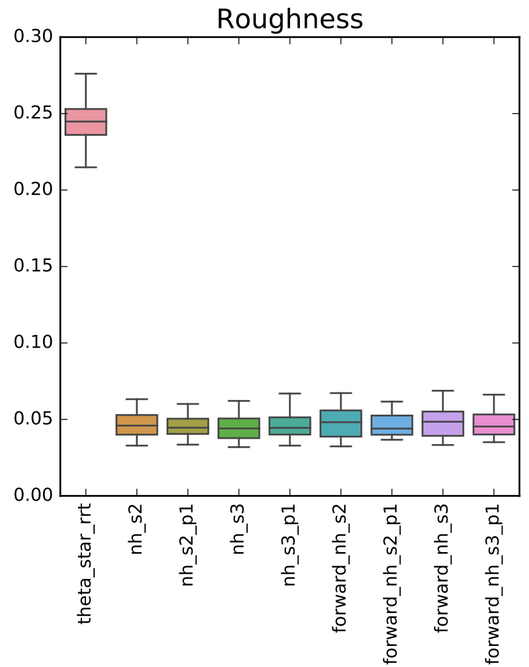

Roughness
0.30
0.25
0.20
0.15
0.10
0.05
0.00
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

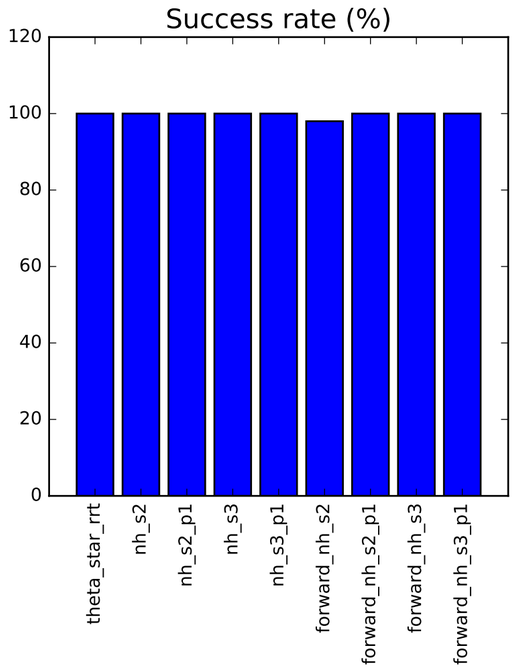

Success rate (%)
120
100
80
60
40
20
0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 5

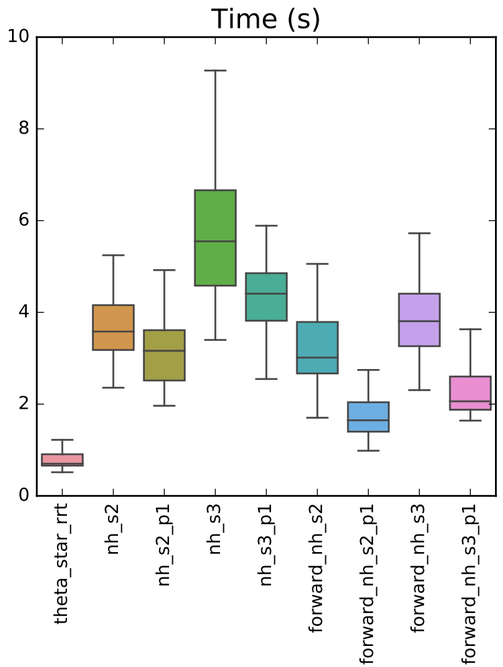

Time (s)
0
1
2
3
4
5
6
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

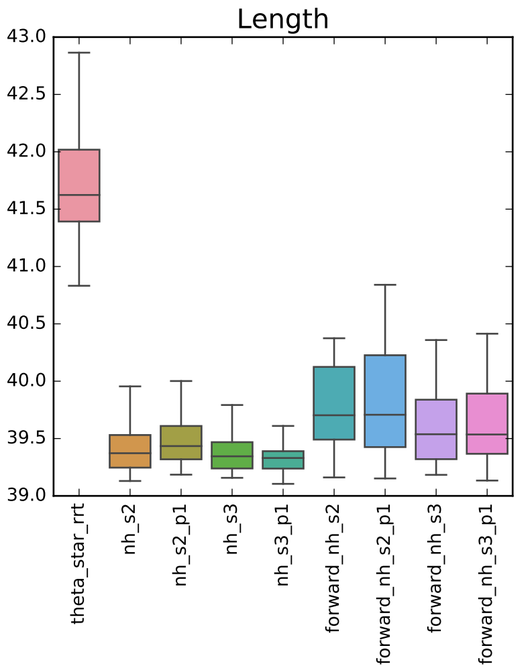

Length
31.0
31.5
32.0
32.5
33.0
33.5
34.0
34.5
35.0
35.5
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

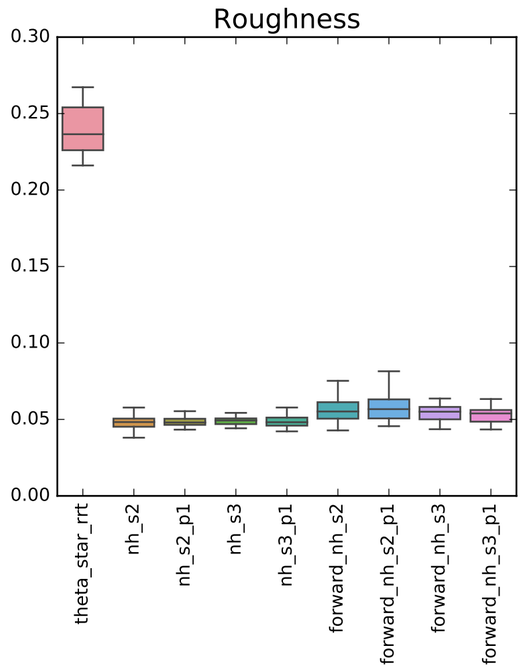

Roughness
0.00
0.05
0.10
0.15
0.20
0.25
0.30
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

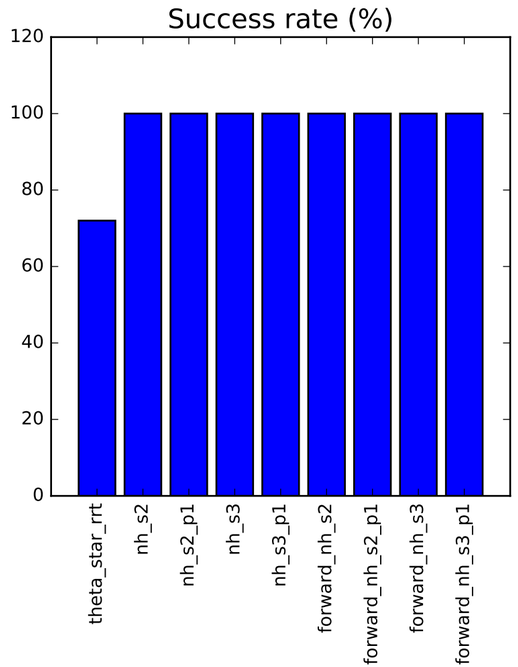

Success rate (%)
0
20
40
60
80
100
120
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 6

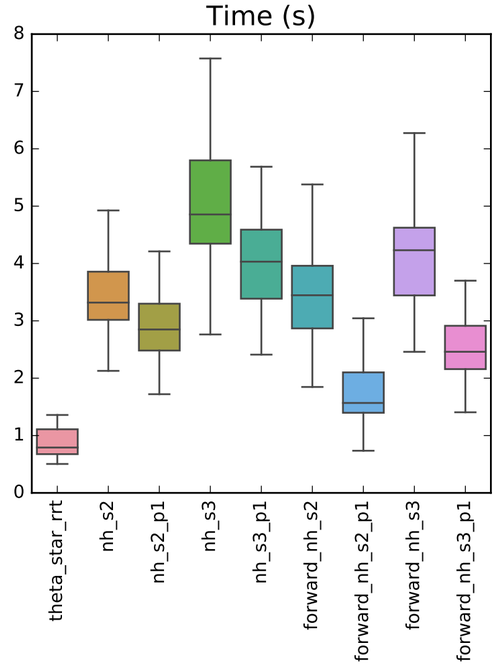

Time (s)
10
8
6
4
2
0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

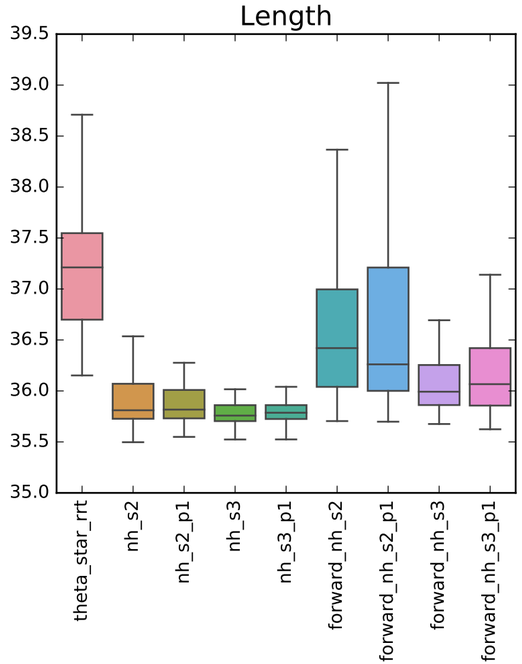

Length
43.0
42.5
42.0
41.5
41.0
40.5
40.0
39.5
39.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

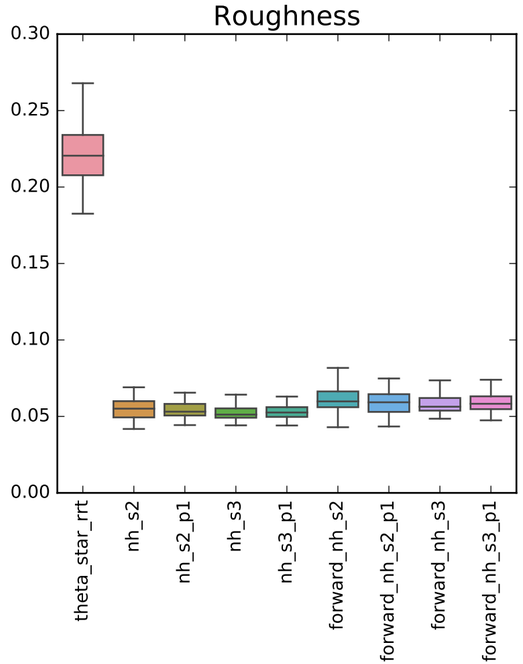

Roughness
0.30
0.25
0.20
0.15
0.10
0.05
0.00
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

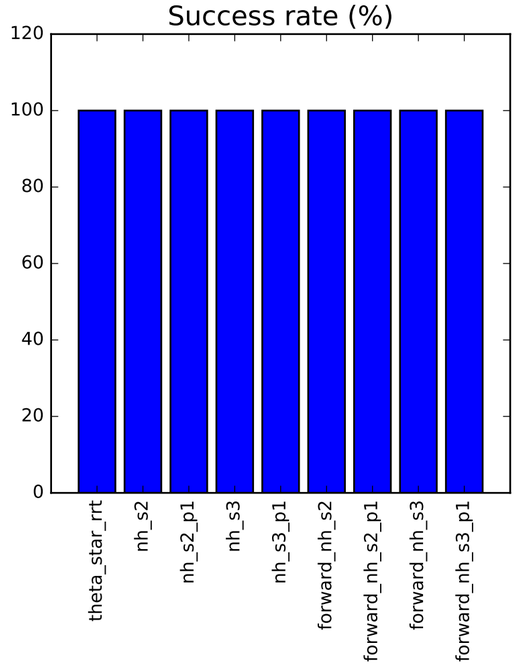

Success rate (%)
120
100
80
60
40
20
0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 7

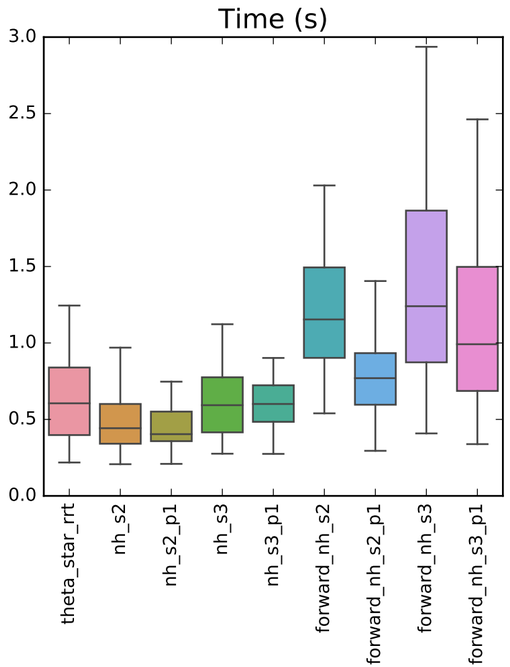

Time (s)
0
1
2
3
4
5
6
7
8
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

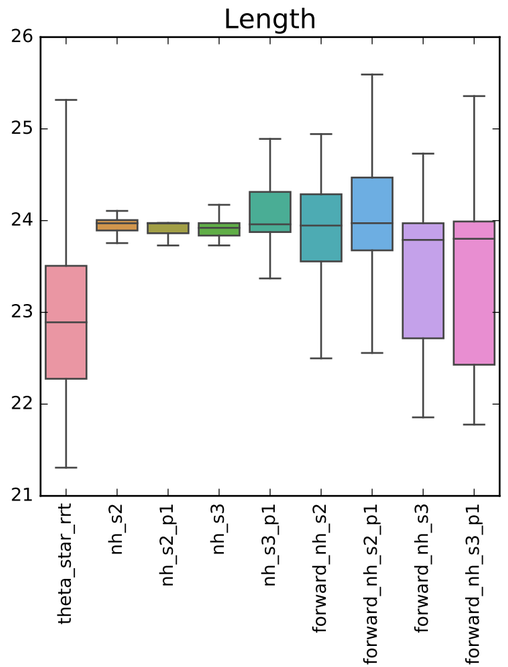

Length
35.0
35.5
36.0
36.5
37.0
37.5
38.0
38.5
39.0
39.5
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

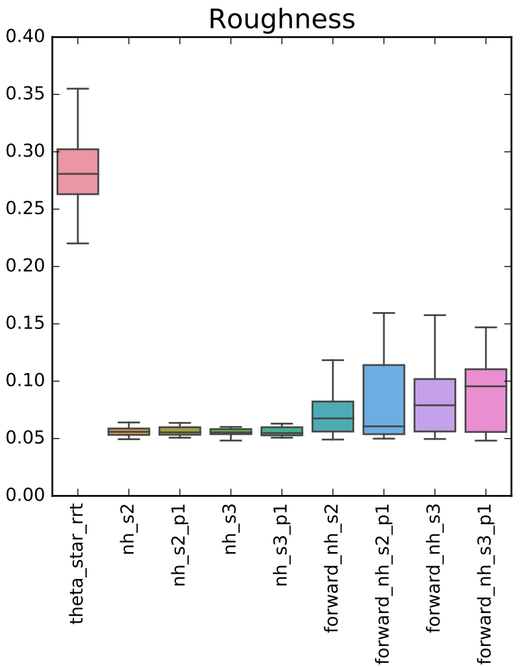

Roughness
0.00
0.05
0.10
0.15
0.20
0.25
0.30
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

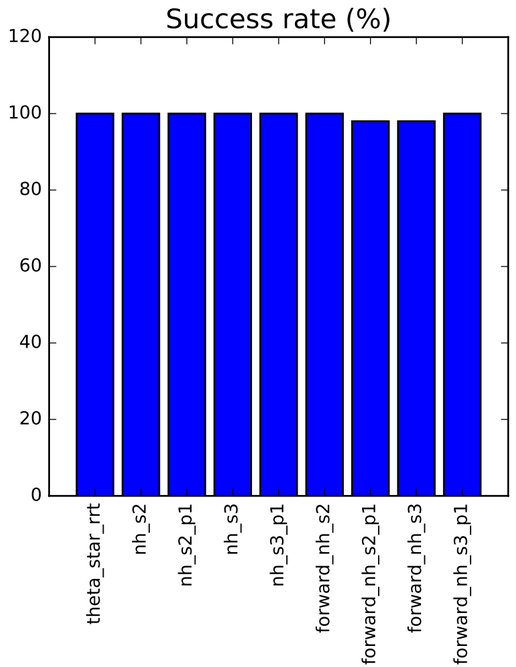

Success rate (%)
0
20
40
60
80
100
120
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 8

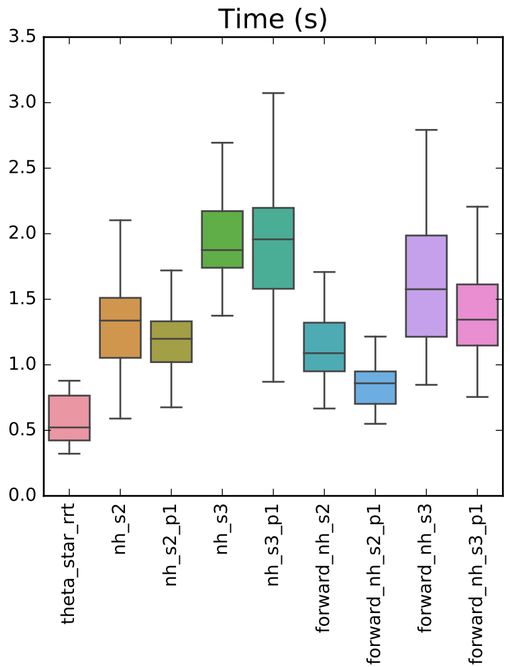

Time (s)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

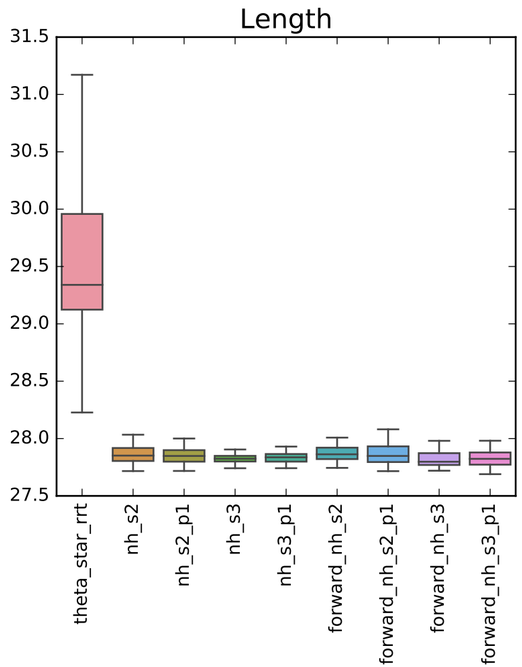

Length
26
25
24
23
22
21
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

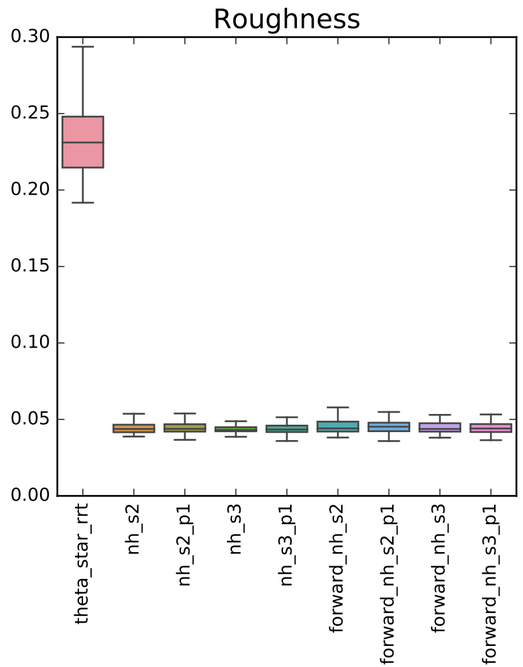

Roughness
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

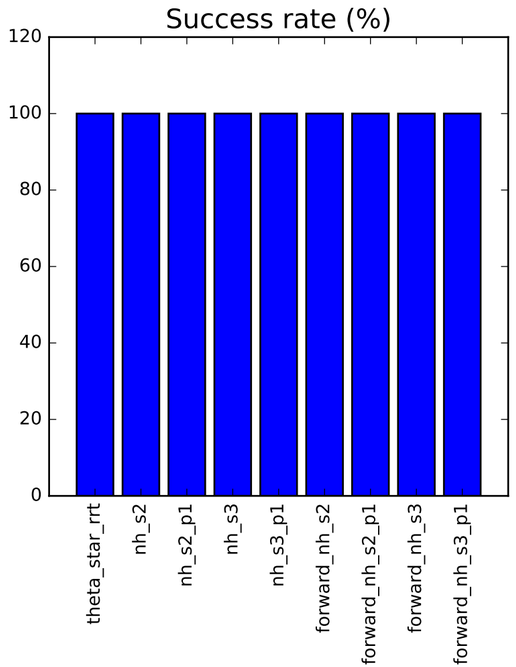

Success rate (%)
120
100
80
60
40
20
0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1

grass 9


Time (s)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1


Length
31.5
31.0
30.5
30.0
29.5
29.0
28.5
28.0
27.5
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1


Roughness
0.30
0.25
0.20
0.15
0.10
0.05
0.00
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1


Success rate (%)
120
100
80
60
40
20
0
theta_star_rrt
nh_s2
nh_s2_p1
nh_s3
nh_s3_p1
forward_nh_s2
forward_nh_s2_p1
forward_nh_s3
forward_nh_s3_p1