

Output tables for 1xN statistical comparisons.

June 24, 2017

1 Average rankings of Friedman test

Average ranks obtained by each method in the Friedman test.

Friedman statistic (distributed according to chi-square with 39 degrees of freedom): 31.303659.

P-value computed by Friedman Test: 0.804978.

Algorithm	Ranking
TT-20-3-T	24.875
TT-20-6-T	23.2083
TT-20-9-T	17.9167
TT-20-12-T	23.0417
TT-30-3-T	23.5
TT-30-6-T	21.1667
TT-30-9-T	23.25
TT-30-12-T	24.375
TT-40-3-T	17.0833
TT-40-6-T	21.4167
TT-40-9-T	16.375
TT-40-12-T	22.6667
TT-50-3-T	21.7917
TT-50-6-T	21.2083
TT-50-9-T	21.7917
TT-50-12-T	19.1667
TT-60-3-T	17.9167
TT-60-6-T	19.9583
TT-60-9-T	18.4167
TT-60-12-T	18.5417
C99-20-9-false-T	20.25
C99-20-9-true-T	22.0417
C99-20-11-false-T	19.2917
C99-20-11-true-T	20.8333
C99-40-9-false-T	20
C99-40-9-true-T	18.9167
C99-40-11-false-T	18.2083
C99-40-11-true-T	17.5
C99-60-9-false-T	20.3333
C99-60-9-true-T	13
C99-60-11-false-T	18.3333
C99-60-11-true-T	13.75
C99-80-9-false-T	20.2917
C99-80-9-true-T	18.4583
C99-80-11-false-T	20.0833
C99-80-11-true-T	19.375
C99-100-9-false-T	25.4167
C99-100-9-true-T	25.4167
C99-100-11-false-T	25.4167
C99-100-11-true-T	25.4167

Table 1: Average Rankings of the algorithms (Friedman)

2 Post hoc comparison (Friedman)

P-values obtained in by applying post hoc methods over the results of Friedman procedure.

i	algorithm	$z = (R_0 - R_i)/SE$	p
39	C99-100-9-false-T	2.601653	0.009278
38	C99-100-9-true-T	2.601653	0.009278
37	C99-100-11-false-T	2.601653	0.009278
36	C99-100-11-true-T	2.601653	0.009278
35	TT-20-3-T	2.488158	0.012841
34	TT-30-12-T	2.383393	0.017154
33	TT-30-3-T	2.200055	0.027803
32	TT-30-9-T	2.147673	0.03174
31	TT-20-6-T	2.138943	0.03244
30	TT-20-12-T	2.104021	0.035377
29	TT-40-12-T	2.025448	0.042821
28	C99-20-9-true-T	1.894492	0.05816
27	TT-50-3-T	1.84211	0.065459
26	TT-50-9-T	1.84211	0.065459
25	TT-40-6-T	1.763536	0.07781
24	TT-50-6-T	1.719885	0.085453
23	TT-30-6-T	1.711154	0.087053
22	C99-20-11-true-T	1.641311	0.100733
21	C99-60-9-false-T	1.536547	0.124404
20	C99-80-9-false-T	1.527816	0.126558
19	C99-20-9-false-T	1.519086	0.128741
18	C99-80-11-false-T	1.484164	0.137765
17	C99-40-9-false-T	1.466704	0.142457
16	TT-60-6-T	1.457973	0.144848
15	C99-80-11-true-T	1.335748	0.181632
14	C99-20-11-false-T	1.318287	0.187408
13	TT-50-12-T	1.292096	0.196324
12	C99-40-9-true-T	1.239714	0.215081
11	TT-60-12-T	1.16114	0.245585
10	C99-80-9-true-T	1.14368	0.252757
9	TT-60-9-T	1.134949	0.256397
8	C99-60-11-false-T	1.117488	0.263786
7	C99-40-11-false-T	1.091297	0.275142
6	TT-20-9-T	1.030185	0.302923
5	TT-60-3-T	1.030185	0.302923
4	C99-40-11-true-T	0.942881	0.345742
3	TT-40-3-T	0.855577	0.392232
2	TT-40-9-T	0.707161	0.479467
1	C99-60-11-true-T	0.157147	0.875129

Table 2: Post Hoc comparison Table for $\alpha = 0.05$ (FRIEDMAN)

3 Adjusted P-Values (Friedman)

Adjusted P-values obtained through the application of the post hoc methods (Friedman).

i	algorithm	unadjusted p
1	C99-100-9-false-T	0.009278
2	C99-100-9-true-T	0.009278
3	C99-100-11-false-T	0.009278
4	C99-100-11-true-T	0.009278
5	TT-20-3-T	0.012841
6	TT-30-12-T	0.017154
7	TT-30-3-T	0.027803
8	TT-30-9-T	0.03174
9	TT-20-6-T	0.03244
10	TT-20-12-T	0.035377
11	TT-40-12-T	0.042821
12	C99-20-9-true-T	0.05816
13	TT-50-3-T	0.065459
14	TT-50-9-T	0.065459
15	TT-40-6-T	0.07781
16	TT-50-6-T	0.085453
17	TT-30-6-T	0.087053
18	C99-20-11-true-T	0.100733
19	C99-60-9-false-T	0.124404
20	C99-80-9-false-T	0.126558
21	C99-20-9-false-T	0.128741
22	C99-80-11-false-T	0.137765
23	C99-40-9-false-T	0.142457
24	TT-60-6-T	0.144848
25	C99-80-11-true-T	0.181632
26	C99-20-11-false-T	0.187408
27	TT-50-12-T	0.196324
28	C99-40-9-true-T	0.215081
29	TT-60-12-T	0.245585
30	C99-80-9-true-T	0.252757
31	TT-60-9-T	0.256397
32	C99-60-11-false-T	0.263786
33	C99-40-11-false-T	0.275142
34	TT-20-9-T	0.302923
35	TT-60-3-T	0.302923
36	C99-40-11-true-T	0.345742
37	TT-40-3-T	0.392232
38	TT-40-9-T	0.479467
39	C99-60-11-true-T	0.875129

Table 3: Adjusted p -values (FRIEDMAN) (I)

i	algorithm	unadjusted p
1	C99-100-9-false-T	0.009278
2	C99-100-9-true-T	0.009278
3	C99-100-11-false-T	0.009278
4	C99-100-11-true-T	0.009278
5	TT-20-3-T	0.012841
6	TT-30-12-T	0.017154
7	TT-30-3-T	0.027803
8	TT-30-9-T	0.03174
9	TT-20-6-T	0.03244
10	TT-20-12-T	0.035377
11	TT-40-12-T	0.042821
12	C99-20-9-true-T	0.05816
13	TT-50-3-T	0.065459
14	TT-50-9-T	0.065459
15	TT-40-6-T	0.07781
16	TT-50-6-T	0.085453
17	TT-30-6-T	0.087053
18	C99-20-11-true-T	0.100733
19	C99-60-9-false-T	0.124404
20	C99-80-9-false-T	0.126558
21	C99-20-9-false-T	0.128741
22	C99-80-11-false-T	0.137765
23	C99-40-9-false-T	0.142457
24	TT-60-6-T	0.144848
25	C99-80-11-true-T	0.181632
26	C99-20-11-false-T	0.187408
27	TT-50-12-T	0.196324
28	C99-40-9-true-T	0.215081
29	TT-60-12-T	0.245585
30	C99-80-9-true-T	0.252757
31	TT-60-9-T	0.256397
32	C99-60-11-false-T	0.263786
33	C99-40-11-false-T	0.275142
34	TT-20-9-T	0.302923
35	TT-60-3-T	0.302923
36	C99-40-11-true-T	0.345742
37	TT-40-3-T	0.392232
38	TT-40-9-T	0.479467
39	C99-60-11-true-T	0.875129

Table 4: Adjusted p -values (FRIEDMAN) (II)