Output tables for 1xN statistical comparisons.

January 30, 2025

1 Average rankings of Friedman test

Average ranks obtained by each method in the Friedman test.

Friedman statistic (distributed according to chi-square with 17 degrees of freedom): 422.595906.

P-value computed by Friedman Test: 0.

Algorithm	Ranking
BCA	14.5333
BN	9.7
CLARA	17.8
CP	13
CA	7.85
FF	16.0667
KM	15.5667
NBC	8.3
NBD	11.35
PAM	12.8
P	9.4833
RBE	3.9333
RSC	3.5667
SC	3.8167
S	3.5667
SW	4.55
3CC	3.6333
UPGMC	11.4833

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	Holm	Finner
17	CLARA	10.325945	0	0.002941	0.003013
16	FF	9.068453	0	0.003125	0.006016
15	KM	8.705715	0	0.003333	0.009011
14	BCA	7.956056	0	0.003571	0.011996
13	CP	6.843659	0	0.003846	0.014973
12	PAM	6.698564	0	0.004167	0.017941
11	UPGMC	5.743354	0	0.004545	0.020899
10	NBD	5.646623	0	0.005	0.023849
9	BN	4.449588	0.000009	0.005556	0.02679
8	P	4.292401	0.000018	0.00625	0.029722
7	NBC	3.433921	0.000595	0.007143	0.032645
6	CA	3.107457	0.001887	0.008333	0.035559
5	SW	0.713385	0.475608	0.01	0.038465
4	RBE	0.266008	0.790233	0.0125	0.041362
3	SC	0.181369	0.856078	0.016667	0.04425
2	3CC	0.048365	0.961425	0.025	0.047129
1	S	0	1	0.05	0.05

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

Holm's procedure rejects those hypotheses that have an unadjusted p-value ≤ 0.01.
Finner's procedure rejects those hypotheses that have an unadjusted p-value ≤ 0.038465.

3 Adjusted P-Values (Friedman)

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

i	algorithm	unadjusted p	p_{Holm}
1	CLARA	0	0
2	FF	0	0
3	KM	0	0
4	BCA	0	0
5	CP	0	0
6	PAM	0	0
7	UPGMC	0	0
8	NBD	0	0
9	BN	0.000009	0.000077
10	P	0.000018	0.000141
11	NBC	0.000595	0.004164
12	CA	0.001887	0.011322
13	SW	0.475608	2.378038
14	RBE	0.790233	3.160932
15	SC	0.856078	3.160932
16	3CC	0.961425	3.160932
17	S	1	3.160932

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

i	algorithm	unadjusted p	p_{Finner}
1	CLARA	0	0
2	FF	0	0
3	KM	0	0
4	BCA	0	0
5	CP	0	0
6	PAM	0	0
7	UPGMC	0	0
8	NBD	0	0
9	BN	0.000009	0.000016
10	P	0.000018	0.00003
11	NBC	0.000595	0.000919
12	CA	0.001887	0.002672
13	SW	0.475608	0.570071
14	RBE	0.790233	0.849895
15	SC	0.856078	0.888858
16	3CC	0.961425	0.968526
17	S	1	1

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