Output tables for 1xN statistical comparisons.

May 18, 2025

1 Average rankings of Friedman test

Average ranks obtained by each method in the Friedman test.

Algorithm	Ranking
CyclicAssignment	3.75
CoefficientPropagation	3.4
Parallel	4.9
BestNearest	5.05
SequentialCyclic	4.7
Farthest-First	5.05
CLARA	4.45
UPGMC	4.7

Table 1: Average Rankings of the algorithms (Friedman)

Friedman statistic (distributed according to chi-square with 7 degrees of freedom): 4.366667.
P-value computed by Friedman Test: 0.736708.

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	Li
7	BestNearest	1.506237	0.132006	0.007143	0.013192
6	Farthest-First	1.506237	0.132006	0.008333	0.013192
5	Parallel	1.369306	0.170904	0.01	0.013192
4	SequentialCyclic	1.186732	0.235333	0.0125	0.013192
3	UPGMC	1.186732	0.235333	0.016667	0.013192
2	CLARA	0.958514	0.337803	0.025	0.013192
1	CyclicAssignment	0.319505	0.749344	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 ≤ 0.007143.
Li's procedure rejects those hypotheses that have an unadjusted p-value ≤ 0.013192.

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	BestNearest	0.132006	0.924044
2	Farthest-First	0.132006	0.924044
3	Parallel	0.170904	0.924044
4	SequentialCyclic	0.235333	0.941333
5	UPGMC	0.235333	0.941333
6	CLARA	0.337803	0.941333
7	CyclicAssignment	0.749344	0.941333

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

i	algorithm	unadjusted p	p_{Li}
1	BestNearest	0.132006	0.344968
2	Farthest-First	0.132006	0.344968
3	Parallel	0.170904	0.405408
4	SequentialCyclic	0.235333	0.484235
5	UPGMC	0.235333	0.484235
6	CLARA	0.337803	0.574047
7	CyclicAssignment	0.749344	0.749344

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