

Output tables for 1xN statistical comparisons.

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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): 196.064035.

P-value computed by Friedman Test: 0.

Algorithm	Ranking
best cyclic assignment	13.6
farthest first	16.8
parallel	7.875
bestnearest	17.95
clara	12.875
coefficient propagation	8.275
cyclicassignment	15.9
kmeans	6.625
nearestbycustomer	5.575
nearestbydepot	8.275
pam	6.65
randombyelement	6.65
randomsequentialcyclic	6.025
sequentialcyclic	6.625
simplified	7.375
sweep	6.95
threecriteriaclustering	6.675
upgmc	10.3

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	$z = (R_0 - R_i)/SE$	$p$
17	bestnearest	7.330317	0
16	farthest first	6.649116	0
15	cyclicassignment	6.116002	0
14	best cyclic assignment	4.7536	0.000002
13	clara	4.324147	0.000015
12	upgmc	2.798848	0.005129
11	nearestbydepot	1.599342	0.109745
10	coefficient propagation	1.599342	0.109745
9	parallel	1.362402	0.173071
8	simplified	1.066228	0.286321
7	sweep	0.81448	0.41537
6	threecriteriaclustering	0.651584	0.51467
5	pam	0.636775	0.524271
4	randombyelement	0.636775	0.524271
3	kmeans	0.621966	0.533964
2	sequentialcyclic	0.621966	0.533964
1	randomsequentialcyclic	0.266557	0.78981

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	bestnearest	0
2	farthest first	0
3	cyclicassignment	0
4	best cyclic assignment	0.000002
5	clara	0.000015
6	upgmc	0.005129
7	nearestbydepot	0.109745
8	coefficient propagation	0.109745
9	parallel	0.173071
10	simplified	0.286321
11	sweep	0.41537
12	threecriteriaclustering	0.51467
13	pam	0.524271
14	randombyelement	0.524271
15	kmeans	0.533964
16	sequentialcyclic	0.533964
17	randomsequentialcyclic	0.78981

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

i	algorithm	unadjusted $p$
1	bestnearest	0
2	farthest first	0
3	cyclicassignment	0
4	best cyclic assignment	0.000002
5	clara	0.000015
6	upgmc	0.005129
7	nearestbydepot	0.109745
8	coefficient propagation	0.109745
9	parallel	0.173071
10	simplified	0.286321
11	sweep	0.41537
12	threecriteriaclustering	0.51467
13	pam	0.524271
14	randombyelement	0.524271
15	kmeans	0.533964
16	sequentialcyclic	0.533964
17	randomsequentialcyclic	0.78981

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