Output tables for the test of Multiple comparisons.

October 21, 2021

1 Average rankings of Friedman test

Average ranks obtained by applying the Friedman procedure

Algorithm	Ranking
brm	1.9421
gmm	2.0474
isorf	3.1579
ocsvm	2.8526

Table 1: Average Rankings of the algorithms

Friedman statistic considering reduction performance (distributed according to chi-square with 3 degrees of freedom: 61.177895.
P-value computed by Friedman Test: 3.5575098422668816E-11.

2 Post hoc comparisons

Results achieved on post hoc comparisons for $\alpha = 0.05$, $\alpha = 0.10$ and adjusted p-values.

2.1 P-values for $\alpha = 0.05$

i	algorithms	$z = (R_0 - R_i)/SE$	p	Holm
6	brm vs. isorf	6.49054	0	0.008333
5	gmm vs. isorf	5.928588	0	0.01
4	brm vs. ocsvm	4.86088	0.000001	0.0125
3	gmm vs. ocsvm	4.298929	0.000017	0.016667
2	isorf vs. ocsvm	1.629659	0.103174	0.025
1	brm vs. gmm	0.561951	0.574149	0.05

Table 2: P-values Table for $\alpha = 0.05$

Holm's procedure rejects those hypotheses that have an unadjusted p-value ≤ 0.025.

2.2 P-values for $\alpha = 0.10$

i	algorithms	$z = (R_0 - R_i)/SE$	p	Holm
6	brm vs. isorf	6.49054	0	0.016667
5	gmm vs. isorf	5.928588	0	0.02
4	brm vs. ocsvm	4.86088	0.000001	0.025
3	gmm vs. ocsvm	4.298929	0.000017	0.033333
2	isorf vs. ocsvm	1.629659	0.103174	0.05
1	brm vs. gmm	0.561951	0.574149	0.1

Table 3: P-values Table for $\alpha = 0.10$

Holm's procedure rejects those hypotheses that have an unadjusted p-value ≤ 0.05.

2.3 Adjusted p-values

i	hypothesis	unadjusted p	p_{Holm}
1	brm vs .isorf	0	0
2	gmm vs .isorf	0	0
3	brm vs .ocsvm	0.000001	0.000005
4	gmm vs .ocsvm	0.000017	0.000051
5	isorf vs .ocsvm	0.103174	0.206347
6	brm vs .gmm	0.574149	0.574149

Table 4: Adjusted p-values