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	2.0684
gmm	1.7368
isorf	2.8105
ocsvm	3.3842

Table 1: Average Rankings of the algorithms

Friedman statistic considering reduction performance (distributed according to chi-square with 3 degrees of freedom: 93.874737.
P-value computed by Friedman Test: 7.725142747716518E-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	gmm vs. ocsvm	8.794541	0	0.008333
5	brm vs. ocsvm	7.024394	0	0.01
4	gmm vs. isorf	5.731905	0	0.0125
3	brm vs. isorf	3.961758	0.000074	0.016667
2	isorf vs. ocsvm	3.062636	0.002194	0.025
1	brm vs. gmm	1.770147	0.076703	0.05

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

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

2.2 P-values for $\alpha = 0.10$

i	algorithms	$z = (R_0 - R_i)/SE$	p	Holm
6	gmm vs. ocsvm	8.794541	0	0.016667
5	brm vs. ocsvm	7.024394	0	0.02
4	gmm vs. isorf	5.731905	0	0.025
3	brm vs. isorf	3.961758	0.000074	0.033333
2	isorf vs. ocsvm	3.062636	0.002194	0.05
1	brm vs. gmm	1.770147	0.076703	0.1

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

2.3 Adjusted p-values

i	hypothesis	unadjusted p	p_{Holm}
1	gmm vs .ocsvm	0	0
2	brm vs .ocsvm	0	0
3	gmm vs .isorf	0	0
4	brm vs .isorf	0.000074	0.000223
5	isorf vs .ocsvm	0.002194	0.004388
6	brm vs .gmm	0.076703	0.076703

Table 4: Adjusted p-values