

Output tables for 1xN statistical comparisons.

January 10, 2022

1 Average rankings of Friedman test

Average ranks obtained by each method in the Friedman test.

Friedman statistic (distributed according to chi-square with 12 degrees of freedom): 74.057904.

P-value computed by Friedman Test: 0.

Algorithm	Ranking
best-precision	9.3654
best-recall	4.75
balanced	5.1154
promethee-precision	9.3654
promethee-recall	4.75
bac	5.9038
precision	10.4423
recall	7.7885
f1	6.3654
auc	6.3269
gmean	5.5192
AdaBoost	8.2692
Bagging	7.0385

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
12	precision	5.270053	0
11	best-precision	4.273016	0.000019
10	promethee-precision	4.273016	0.000019
9	AdaBoost	3.258175	0.001121
8	recall	2.813069	0.004907
7	Bagging	2.118704	0.034116
6	f1	1.495556	0.13477
5	auc	1.459947	0.144305
4	bac	1.068254	0.285406
3	gmean	0.712169	0.47636
2	balanced	0.33828	0.735152
1	promethee-recall	0	1

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	precision	0
2	best-precision	0.000019
3	promethee-precision	0.000019
4	AdaBoost	0.001121
5	recall	0.004907
6	Bagging	0.034116
7	f1	0.13477
8	auc	0.144305
9	bac	0.285406
10	gmean	0.47636
11	balanced	0.735152
12	promethee-recall	1

Table 3: Adjusted p -values (FRIEDMAN) (1)

i	algorithm	unadjusted p
1	precision	0
2	best-precision	0.000019
3	promethee-precision	0.000019
4	AdaBoost	0.001121
5	recall	0.004907
6	Bagging	0.034116
7	f1	0.13477
8	auc	0.144305
9	bac	0.285406
10	gmean	0.47636
11	balanced	0.735152
12	promethee-recall	1

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