# Output tables for 1xN statistical comparisons.

April 27, 2017

## 1 Average rankings of Friedman test

Average ranks obtained by each method in the Friedman test.

| Algorithm | Ranking |
|---|---|
| AdaBoost.NC | 4.4 |
| C45 | 2.75 |
| Chi-RW | 4.1667 |
| FURIA | 3.6667 |
| GAssist-Intervalar | 3.9 |
| GFS-GCCL | 5.9667 |
| Ripper | 3.15 |

Table 1: Average Rankings of the algorithms (Friedman)

Friedman statistic (distributed according to chi-square with 6 degrees of freedom): 41.539286.
P-value computed by Friedman Test: 0.

## 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 |
|---|---|---|---|---|
| 6 | GFS-GCCL | 5.766978 | 0 | 0.008333 |
| 5 | AdaBoost.NC | 2.958191 | 0.003095 | 0.01 |
| 4 | Chi-RW | 2.539861 | 0.01109 | 0.0125 |
| 3 | GAssist-Intervalar | 2.061769 | 0.03923 | 0.016667 |
| 2 | FURIA | 1.643439 | 0.100292 | 0.025 |
| 1 | Ripper | 0.717137 | 0.473289 | 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 $\leq 0.016667$.

# 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 | GFS-GCCL | 0 | 0 |
| 2 | AdaBoost.NC | 0.003095 | 0.015473 |
| 3 | Chi-RW | 0.01109 | 0.044359 |
| 4 | GAssist-Intervalar | 0.03923 | 0.117689 |
| 5 | FURIA | 0.100292 | 0.200584 |
| 6 | Ripper | 0.473289 | 0.473289 |

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

| i | algorithm | unadjusted $p$ |
|---|---|---|
| 1 | GFS-GCCL | 0 |
| 2 | AdaBoost.NC | 0.003095 |
| 3 | Chi-RW | 0.01109 |
| 4 | GAssist-Intervalar | 0.03923 |
| 5 | FURIA | 0.100292 |
| 6 | Ripper | 0.473289 |

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