

Output tables for 1xN statistical comparisons.

September 9, 2024

1 Average rankings of Friedman test

Average ranks obtained by each method in the Friedman test.

| Algorithm | Ranking |
|------------|---------|
| Random | 8.5 |
| NN | 6.1875 |
| Sweep | 7.8125 |
| SaveSeq | 2.5 |
| SaveParall | 2.625 |
| MJ | 2.25 |
| CMT | 2.625 |
| Kilby | 6.25 |
| SaveMatch | 6.25 |

Table 1: Average Rankings of the algorithms (Friedman)

Friedman statistic (distributed according to chi-square with 8 degrees of freedom): 53.108333.

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 |
|-----|------------|----------------------|----------|
| 8 | Random | 4.564355 | 0.000005 |
| 7 | Sweep | 4.062276 | 0.000049 |
| 6 | Kilby | 2.921187 | 0.003487 |
| 5 | SaveMatch | 2.921187 | 0.003487 |
| 4 | NN | 2.875543 | 0.004033 |
| 3 | SaveParall | 0.273861 | 0.784191 |
| 2 | CMT | 0.273861 | 0.784191 |
| 1 | SaveSeq | 0.182574 | 0.855132 |

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 | Random | 0.000005 |
| 2 | Sweep | 0.000049 |
| 3 | Kilby | 0.003487 |
| 4 | SaveMatch | 0.003487 |
| 5 | NN | 0.004033 |
| 6 | SaveParall | 0.784191 |
| 7 | CMT | 0.784191 |
| 8 | SaveSeq | 0.855132 |

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

| i | algorithm | unadjusted p |
|---|------------|----------------|
| 1 | Random | 0.000005 |
| 2 | Sweep | 0.000049 |
| 3 | Kilby | 0.003487 |
| 4 | SaveMatch | 0.003487 |
| 5 | NN | 0.004033 |
| 6 | SaveParall | 0.784191 |
| 7 | CMT | 0.784191 |
| 8 | SaveSeq | 0.855132 |

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