

Wilcoxon Signed Ranks test.

KEEL non-parametric statistical module

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|                |      |     |
|----------------|------|-----|
|                | (1)  | (2) |
| BHCVRP-act (1) | -    | 0.0 |
| BHCVRP (2)     | 36.0 | -   |

Table 1: Ranks computed by the Wilcoxon test

|                |     |     |
|----------------|-----|-----|
|                | (1) | (2) |
| BHCVRP-act (1) | -   |     |
| BHCVRP (2)     |     | -   |

Table 2: Summary of the Wilcoxon test.  $\bullet$ = the method in the row improves the method of the column. o= the method in the column improves the method of the row. Upper diagonal of level significance  $\alpha = 0.9$ ,Lower diagonal level of significance  $\alpha = 0.95$

|            | $\alpha = 0.9$ |       | $\alpha = 0.95$ |       |
|------------|----------------|-------|-----------------|-------|
| Method     | +              | $\pm$ | +               | $\pm$ |
| BHCVRP-act | 0              | 1     | 0               | 1     |
| BHCVRP     | 0              | 1     | 0               | 1     |

Table 3: Wilcoxon test summary results