

Results

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1 Tables of Friedman, Bonferroni-Dunn, Holm, Hochberg and Hommel Tests

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Table 1: Average Rankings of the algorithms

Algorithm	Ranking
svdd	2.68181818181808
svdd des	1.95454545454537
svdd desthr	1.36363636363633

Friedman statistic considering reduction performance (distributed according to chi-square with 2 degrees of freedom: 19.1818181817974.
P-value computed by Friedman Test: 6.834727360749415E-5.

Iman and Davenport statistic considering reduction performance (distributed according to F-distribution with 2 and 42 degrees of freedom: 16.230769230768917.

P-value computed by Iman and Daveport Test: 5.993258269844446E-6.

Bonferroni-Dunn’s procedure rejects those hypotheses that have a p-value ≤ 0.025 .

Table 2: Holm / Hochberg Table for $\alpha = 0.05$

i	algorithm	$z = (R_0 - R_i)/SE$	p	Holm/Hochberg/Hommel
2	svdd	4.3719144963775705	1.2316176136566026E-5	0.025
1	svdd des	1.9598237397554619	0.05001639548564598	0.05

Holm's procedure rejects those hypotheses that have a p-value ≤ 0.05 .
Hochberg's procedure rejects those hypotheses that have a p-value ≤ 0.025 .
Hommel's procedure rejects those hypotheses that have a p-value ≤ 0.05 .

Table 3: Holm / Hochberg Table for $\alpha = 0.10$

i	algorithm	$z = (R_0 - R_i)/SE$	p	Holm/Hochberg/Hommel
2	svdd	4.3719144963775705	1.2316176136566026E-5	0.05
1	svdd des	1.9598237397554619	0.05001639548564598	0.1

Bonferroni-Dunn's procedure rejects those hypotheses that have a p-value ≤ 0.05 .
Hochberg's procedure rejects those hypotheses that have a p-value ≤ 0.1 .
Hommel's procedure rejects all hypotheses.

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Table 4: Adjusted p -values

i	algorithm	unadjusted p	p_{Bonf}	p_{Holm}	p_{Hoch}	p_{Hommel}
1	svdd	1.2316176136566026E-5	2.4632352273132052E-5	2.4632352273132052E-5	2.4632352273132052E-5	2.4632352273132052E-5
2	svdd des	0.05001639548564598	0.10003279097129196	0.05001639548564598	0.05001639548564598	0.05001639548564598

Table 5: Holm / Shaffer Table for $\alpha = 0.05$

i	algorithms	$z = (R_0 - R_i)/SE$	p	Holm	Shaffer
3	svdd vs. svdd des	4.3719144963775705	1.2316176136566026E-5	0.016666666666666666	0.016666666666666666
2	svdd vs. svdd des	2.412090756622108	0.01586133273977302	0.025	0.05
1	svdd des vs. svdd des	1.9598237397554619	0.05001639548564598	0.05	0.05

Nemenyi's procedure rejects those hypotheses that have a p-value $\leq 0.016666666666666666$.

Holm’s procedure rejects those hypotheses that have a p-value ≤ 0.05 .
Shaffer’s procedure rejects those hypotheses that have a p-value $\leq 0.016666666666666666$.
Bergmann’s procedure rejects these hypotheses:

- svdd vs. svdd des
- svdd vs. svdd desthr

Table 6: Holm / Shaffer Table for $\alpha = 0.10$

<i>i</i>	algorithms	$z = (R_0 - R_i)/SE$	p	Holm	Shaffer
3	svdd vs. svdd desthr	4.3719144963775705	1.2316176136566026E-5	0.03333333333333333	0.03333333333333333
2	svdd vs. svdd des	2.412090756622108	0.01586133273977302	0.05	0.1
1	svdd des vs. svdd desthr	1.9598237397554619	0.05001639548564598	0.1	0.1

Nemenyi’s procedure rejects those hypotheses that have a p-value ≤ 0.03333333333333333 .
Shaffer’s procedure rejects those hypotheses that have a p-value ≤ 0.03333333333333333 .
Bergmann’s procedure rejects these hypotheses:

- svdd vs. svdd des
- svdd vs. svdd desthr
- svdd des vs. svdd desthr

Table 7: Adjusted *p*-values

<i>i</i>	hypothesis	unadjusted <i>p</i>	p_{Neme}	p_{Holm}	p_{Shaf}	p_{Berg}
1	svdd vs .svdd desthr	1.2316176136566026E-5	3.694852840969808E-5	3.694852840969808E-5	3.694852840969808E-5	3.694852840969808E-5
2	svdd vs .svdd des	0.01586133273977302	0.04758399821931906	0.03172266547954604	0.01586133273977302	0.01586133273977302
3	svdd des vs .svdd desthr	0.05001639548564598	0.15004918645693793	0.05001639548564598	0.05001639548564598	0.05001639548564598