

Wilcoxon Signed Ranks test.

KEEL non-parametric statistical module

May 9, 2011

1 Detailed results for 1R

1.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
Ameva	245.5	574.5	≥ 0.2	1
Bayesian	421.0	359.0	≥ 0.2	0.66024
CACC	361.0	459.0	≥ 0.2	1
CADD	772.0	48.0	7.114E-7	0.000007
CAIM	209.0	611.0	≥ 0.2	1
Chi2	226.0	594.0	≥ 0.2	1
ChiMerge	201.0	619.0	≥ 0.2	1
ClusterAnalysis	266.0	514.0	≥ 0.2	1
DIBD	459.0	361.0	≥ 0.2	0.50583
Distance	389.0	431.0	≥ 0.2	1
EqualFrequency	155.0	665.0	≥ 0.2	1
EqualWidth	215.0	605.0	≥ 0.2	1
Extended Chi2	383.0	437.0	≥ 0.2	1
FFD	93.0	727.0	≥ 0.2	1
FUSINTER	182.0	638.0	≥ 0.2	1
HDD	309.0	511.0	≥ 0.2	1
HellingerBD	234.0	586.0	≥ 0.2	1
Heter-Disc	633.0	150.0	0.0018066	0.002308
ID3	348.0	472.0	≥ 0.2	1
IDD	303.0	480.0	≥ 0.2	1
Khiops	96.0	724.0	≥ 0.2	1
MDLP	314.0	506.0	≥ 0.2	1
Modified Chi2	129.0	691.0	≥ 0.2	1
MODL	188.0	632.0	≥ 0.2	1
MVD	462.0	318.0	≥ 0.2	0.311664
PKID	56.0	764.0	≥ 0.2	1
UCPD	346.0	474.0	≥ 0.2	1
USD	299.0	521.0	≥ 0.2	1
Zeta	333.0	487.0	≥ 0.2	1

Table 1: Results obtained by the Wilcoxon test for algorithm 1R

1.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
Ameva	[-0.1514 , -0.0132]	0.90276
Bayesian	[-0.02975 , 0.05505]	0.90276
CACC	[-0.0924 , 0.038]	0.90276
CADD	[0.12225 , 0.2714]	0.90276
CAIM	[-0.1802 , -0.02755]	0.90276
Chi2	[-0.15505 , -0.0256]	0.90276
ChiMerge	[-0.1586 , -0.0236]	0.90276
ClusterAnalysis	[-0.1223 , -0.001]	0.90276
DIBD	[-0.0381 , 0.0612]	0.90276
Distance	[-0.0716 , 0.03885]	0.90276
EqualFrequency	[-0.164 , -0.0465]	0.90276
EqualWidth	[-0.15075 , -0.02615]	0.90276
Extended Chi2	[-0.11345 , 0.06615]	0.90276
FFD	[-0.174 , -0.0629]	0.90276
FUSINTER	[-0.1372 , -0.02925]	0.90276
HDD	[-0.12615 , 0.0057]	0.90276
HellingerBD	[-0.1185 , -0.01595]	0.90276
Heter-Disc	[0.0905 , 0.26795]	0.90276
ID3	[-0.0978 , 0.02385]	0.90276
IDD	[-0.03165 , 0.0035]	0.90276
Khiops	[-0.1568 , -0.0503]	0.90276
MDLP	[-0.08625 , 0.0095]	0.90276
Modified Chi2	[-0.1675 , -0.03825]	0.90276
MODL	[-0.1525 , -0.034]	0.90276
MVD	[-0.0201 , 0.0858]	0.90276
PKID	[-0.1829 , -0.0775]	0.90276
UCPD	[-0.11485 , 0.0249]	0.90276
USD	[-0.13305 , 0.0046]	0.90276
Zeta	[-0.1366 , 0.0172]	0.90276

Table 2: Confidence intervals for algorithm 1R ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
Ameva	[-0.16705 , -0.00695]	0.95024
Bayesian	[-0.039 , 0.06165]	0.95024
CACC	[-0.10755 , 0.0463]	0.95024
CADD	[0.10795 , 0.2836]	0.95024
CAIM	[-0.19515 , -0.01905]	0.95024
Chi2	[-0.17345 , -0.01685]	0.95024
ChiMerge	[-0.1691 , -0.01705]	0.95024
ClusterAnalysis	[-0.1398 , 0.00875]	0.95024
DIBD	[-0.05075 , 0.06975]	0.95024
Distance	[-0.08795 , 0.0453]	0.95024
EqualFrequency	[-0.18 , -0.0389]	0.95024
EqualWidth	[-0.17305 , -0.0158]	0.95024
Extended Chi2	[-0.1313 , 0.07885]	0.95024
FFD	[-0.1905 , -0.0555]	0.95024
FUSINTER	[-0.15285 , -0.0229]	0.95024
HDD	[-0.13875 , 0.015]	0.95024
HellingerBD	[-0.1369 , -0.00875]	0.95024
Heter-Disc	[0.0769 , 0.28655]	0.95024
ID3	[-0.11215 , 0.0333]	0.95024
IDD	[-0.03505 , 0.0062]	0.95024
Khiops	[-0.1723 , -0.04015]	0.95024
MDLP	[-0.1037 , 0.01585]	0.95024
Modified Chi2	[-0.18075 , -0.03295]	0.95024
MODL	[-0.16325 , -0.0267]	0.95024
MVD	[-0.0303 , 0.10025]	0.95024
PKID	[-0.1964 , -0.07065]	0.95024
UCPD	[-0.12735 , 0.033]	0.95024
USD	[-0.14385 , 0.01235]	0.95024
Zeta	[-0.16255 , 0.02815]	0.95024

Table 3: Confidence intervals for algorithm 1R ($\alpha=0.95$)

2 Detailed results for Ameva

2.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	574.5	245.5	0.02638	0.026314
Bayesian	641.0	179.0	0.0014408	0.00186
CACC	672.5	147.5	8.443999999999999E-4	0.00119
CADD	801.0	19.0	5.584E-10	0
CAIM	342.5	477.5	≥ 0.2	1
Chi2	426.0	394.0	≥ 0.2	0.824484
ChiMerge	336.0	444.0	≥ 0.2	1
ClusterAnalysis	473.0	347.0	≥ 0.2	0.39337
DIBD	705.0	115.0	2.64E-5	0.000069
Distance	567.0	213.0	0.01261	0.013249
EqualFrequency	317.0	503.0	≥ 0.2	1
EqualWidth	391.0	429.0	≥ 0.2	1
Extended Chi2	558.0	222.0	0.018214	0.018496
FFD	216.5	603.5	≥ 0.2	1
FUSINTER	328.0	452.0	≥ 0.2	1
HDD	455.0	325.0	≥ 0.2	0.360689
HellingerBD	439.0	381.0	≥ 0.2	0.691723
Heter-Disc	819.0	1.0	3.638E-12	0
ID3	520.0	300.0	0.14234	0.137474
IDD	545.0	275.0	0.07034	0.068562
Khiops	251.5	568.5	≥ 0.2	1
MDLP	471.0	309.0	≥ 0.2	0.255399
Modified Chi2	304.5	515.5	≥ 0.2	1
MODL	321.0	459.0	≥ 0.2	1
MVD	644.0	176.0	0.0012308	0.001622
PKID	146.0	674.0	≥ 0.2	1
UCPD	566.0	254.0	0.0356	0.034802
USD	487.0	333.0	≥ 0.2	0.297551
Zeta	564.0	256.0	0.03812	0.037189

Table 4: Results obtained by the Wilcoxon test for algorithm Ameva

2.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.0132 , 0.1514]	0.90276
Bayesian	[0.03455 , 0.1409]	0.90276
CACC	[0.0194 , 0.06985]	0.90276
CADD	[0.2349 , 0.4127]	0.90276
CAIM	[-0.02035 , 0.0058]	0.90276
Chi2	[-0.031 , 0.0379]	0.90276
ChiMerge	[-0.022 , 0.00915]	0.90276
ClusterAnalysis	[-0.01895 , 0.05245]	0.90276
DIBD	[0.0543 , 0.12]	0.90276
Distance	[0.0089 , 0.0884]	0.90276
EqualFrequency	[-0.0437 , 0.00495]	0.90276
EqualWidth	[-0.03475 , 0.02055]	0.90276
Extended Chi2	[0.0094 , 0.09475]	0.90276
FFD	[-0.0539 , -0.0087]	0.90276
FUSINTER	[-0.0358 , 0.00735]	0.90276
HDD	[-0.0165 , 0.06265]	0.90276
HellingerBD	[-0.0287 , 0.04235]	0.90276
Heter-Disc	[0.199 , 0.34795]	0.90276
ID3	[-0.00495 , 0.07765]	0.90276
IDD	[0.0044 , 0.10825]	0.90276
Khiops	[-0.05105 , -0.0058]	0.90276
MDLP	[-0.00595 , 0.0536]	0.90276
Modified Chi2	[-0.0364 , 0.00235]	0.90276
MODL	[-0.02585 , 0.0085]	0.90276
MVD	[0.03325 , 0.1788]	0.90276
PKID	[-0.07685 , -0.02545]	0.90276
UCPD	[0.00535 , 0.0636]	0.90276
USD	[-0.0166 , 0.05735]	0.90276
Zeta	[0.00545 , 0.05545]	0.90276

Table 5: Confidence intervals for algorithm Ameva ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.00695 , 0.16705]	0.95024
Bayesian	[0.029 , 0.15535]	0.95024
CACC	[0.01525 , 0.07605]	0.95024
CADD	[0.21775 , 0.4301]	0.95024
CAIM	[-0.02325 , 0.0082]	0.95024
Chi2	[-0.0405 , 0.04775]	0.95024
ChiMerge	[-0.02515 , 0.0119]	0.95024
ClusterAnalysis	[-0.02825 , 0.0591]	0.95024
DIBD	[0.0479 , 0.1266]	0.95024
Distance	[0.00555 , 0.0953]	0.95024
EqualFrequency	[-0.04925 , 0.0086]	0.95024
EqualWidth	[-0.04085 , 0.02585]	0.95024
Extended Chi2	[0.00485 , 0.10315]	0.95024
FFD	[-0.0584 , -0.0067]	0.95024
FUSINTER	[-0.04355 , 0.01325]	0.95024
HDD	[-0.02405 , 0.071]	0.95024
HellingerBD	[-0.0344 , 0.04895]	0.95024
Heter-Disc	[0.189 , 0.36525]	0.95024
ID3	[-0.0126 , 0.08425]	0.95024
IDD	[-0.0017 , 0.1203]	0.95024
Khiops	[-0.05535 , -0.0017]	0.95024
MDLP	[-0.00905 , 0.0664]	0.95024
Modified Chi2	[-0.03995 , 0.0055]	0.95024
MODL	[-0.03 , 0.0122]	0.95024
MVD	[0.02755 , 0.2003]	0.95024
PKID	[-0.08225 , -0.019]	0.95024
UCPD	[0.00135 , 0.0722]	0.95024
USD	[-0.02235 , 0.0636]	0.95024
Zeta	[0.0017 , 0.06145]	0.95024

Table 6: Confidence intervals for algorithm Ameva ($\alpha=0.95$)

3 Detailed results for Bayesian

3.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	359.0	421.0	≥ 0.2	1
Ameva	179.0	641.0	≥ 0.2	1
CACC	246.0	574.0	≥ 0.2	1
CADD	724.0	56.0	2.32E-7	0.000003
CAIM	175.0	645.0	≥ 0.2	1
Chi2	189.0	631.0	≥ 0.2	1
ChiMerge	170.0	650.0	≥ 0.2	1
ClusterAnalysis	170.0	610.0	≥ 0.2	1
DIBD	392.0	388.0	≥ 0.2	0.972169
Distance	328.0	492.0	≥ 0.2	1
EqualFrequency	113.0	667.0	≥ 0.2	1
EqualWidth	138.0	642.0	≥ 0.2	1
Extended Chi2	317.0	503.0	≥ 0.2	1
FFD	69.5	750.5	≥ 0.2	1
FUSINTER	129.0	691.0	≥ 0.2	1
HDD	173.0	647.0	≥ 0.2	1
HellingerBD	170.0	650.0	≥ 0.2	1
Heter-Disc	664.0	116.0	5.496E-5	0.000128
ID3	195.0	625.0	≥ 0.2	1
IDD	269.0	511.0	≥ 0.2	1
Khiops	105.0	675.0	≥ 0.2	1
MDLP	264.0	556.0	≥ 0.2	1
Modified Chi2	51.0	769.0	≥ 0.2	1
MODL	63.0	757.0	≥ 0.2	1
MVD	481.0	339.0	≥ 0.2	0.336526
PKID	47.0	773.0	≥ 0.2	1
UCPD	270.0	550.0	≥ 0.2	1
USD	59.0	761.0	≥ 0.2	1
Zeta	269.0	511.0	≥ 0.2	1

Table 7: Results obtained by the Wilcoxon test for algorithm Bayesian

3.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.05505 , 0.02975]	0.90276
Ameva	[-0.1409 , -0.03455]	0.90276
CACC	[-0.0599 , -0.0092]	0.90276
CADD	[0.14355 , 0.30655]	0.90276
CAIM	[-0.15625 , -0.04735]	0.90276
Chi2	[-0.14 , -0.04285]	0.90276
ChiMerge	[-0.15415 , -0.04255]	0.90276
ClusterAnalysis	[-0.09925 , -0.0289]	0.90276
DIBD	[-0.0434 , 0.0429]	0.90276
Distance	[-0.08465 , 0.0159]	0.90276
EqualFrequency	[-0.1671 , -0.0743]	0.90276
EqualWidth	[-0.14445 , -0.05025]	0.90276
Extended Chi2	[-0.07465 , 0.01725]	0.90276
FFD	[-0.17045 , -0.091]	0.90276
FUSINTER	[-0.12965 , -0.0485]	0.90276
HDD	[-0.0816 , -0.01555]	0.90276
HellingerBD	[-0.1187 , -0.04135]	0.90276
Heter-Disc	[0.10565 , 0.2678]	0.90276
ID3	[-0.04685 , -0.01085]	0.90276
IDD	[-0.0703 , -0.0011]	0.90276
Khiops	[-0.152 , -0.0682]	0.90276
MDLP	[-0.1057 , -0.011]	0.90276
Modified Chi2	[-0.1489 , -0.0721]	0.90276
MODL	[-0.1319 , -0.05625]	0.90276
MVD	[-0.027 , 0.1167]	0.90276
PKID	[-0.1801 , -0.10085]	0.90276
UCPD	[-0.095 , -0.00665]	0.90276
USD	[-0.0694 , -0.02555]	0.90276
Zeta	[-0.11715 , -0.00145]	0.90276

Table 8: Confidence intervals for algorithm Bayesian ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.06165 , 0.039]	0.95024
Ameva	[-0.15535 , -0.029]	0.95024
CACC	[-0.06855 , -0.00415]	0.95024
CADD	[0.1296 , 0.32445]	0.95024
CAIM	[-0.17125 , -0.03735]	0.95024
Chi2	[-0.15055 , -0.0314]	0.95024
ChiMerge	[-0.1624 , -0.0306]	0.95024
ClusterAnalysis	[-0.10475 , -0.0227]	0.95024
DIBD	[-0.0518 , 0.0504]	0.95024
Distance	[-0.09135 , 0.02715]	0.95024
EqualFrequency	[-0.17435 , -0.06325]	0.95024
EqualWidth	[-0.15415 , -0.0423]	0.95024
Extended Chi2	[-0.0849 , 0.02965]	0.95024
FFD	[-0.1783 , -0.0829]	0.95024
FUSINTER	[-0.13765 , -0.0432]	0.95024
HDD	[-0.0887 , -0.0128]	0.95024
HellingerBD	[-0.12745 , -0.03175]	0.95024
Heter-Disc	[0.09 , 0.28515]	0.95024
ID3	[-0.05645 , -0.0084]	0.95024
IDD	[-0.07745 , 0.00635]	0.95024
Khiops	[-0.16405 , -0.06]	0.95024
MDLP	[-0.11355 , -0.0003]	0.95024
Modified Chi2	[-0.1559 , -0.0634]	0.95024
MODL	[-0.13715 , -0.05225]	0.95024
MVD	[-0.0336 , 0.1309]	0.95024
PKID	[-0.19005 , -0.0967]	0.95024
UCPD	[-0.1052 , 0.00215]	0.95024
USD	[-0.0793 , -0.02375]	0.95024
Zeta	[-0.131 , 0.00455]	0.95024

Table 9: Confidence intervals for algorithm Bayesian ($\alpha=0.95$)

4 Detailed results for CACC

4.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	459.0	361.0	≥ 0.2	0.50583
Ameva	147.5	672.5	≥ 0.2	1
Bayesian	574.0	246.0	0.02686	0.027029
CADD	768.0	52.0	7.284E-8	0.000001
CAIM	227.0	593.0	≥ 0.2	1
Chi2	244.0	536.0	≥ 0.2	1
ChiMerge	239.0	581.0	≥ 0.2	1
ClusterAnalysis	301.0	519.0	≥ 0.2	1
DIBD	515.0	305.0	0.16178	0.156174
Distance	360.0	420.0	≥ 0.2	1
EqualFrequency	190.0	630.0	≥ 0.2	1
EqualWidth	238.0	582.0	≥ 0.2	1
Extended Chi2	390.0	430.0	≥ 0.2	1
FFD	122.0	698.0	≥ 0.2	1
FUSINTER	171.5	608.5	≥ 0.2	1
HDD	359.0	461.0	≥ 0.2	1
HellingerBD	279.0	541.0	≥ 0.2	1
Heter-Disc	758.5	61.5	8.551E-7	0.000007
ID3	403.0	377.0	≥ 0.2	0.850569
IDD	405.0	415.0	≥ 0.2	1
Khiops	149.0	671.0	≥ 0.2	1
MDLP	260.0	560.0	≥ 0.2	1
Modified Chi2	95.5	724.5	≥ 0.2	1
MODL	128.0	692.0	≥ 0.2	1
MVD	525.5	294.5	≥ 0.2	0.267247
PKID	81.0	699.0	≥ 0.2	1
UCPD	379.0	441.0	≥ 0.2	1
USD	309.0	471.0	≥ 0.2	1
Zeta	350.0	470.0	≥ 0.2	1

Table 10: Results obtained by the Wilcoxon test for algorithm CACC

4.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.038 , 0.0924]	0.90276
Ameva	[-0.06985 , -0.0194]	0.90276
Bayesian	[0.0092 , 0.0599]	0.90276
CADD	[0.17035 , 0.32405]	0.90276
CAIM	[-0.0949 , -0.02335]	0.90276
Chi2	[-0.0964 , -0.01065]	0.90276
ChiMerge	[-0.0922 , -0.01275]	0.90276
ClusterAnalysis	[-0.07085 , 0.003]	0.90276
DIBD	[-0.008 , 0.07965]	0.90276
Distance	[-0.0436 , 0.02595]	0.90276
EqualFrequency	[-0.12735 , -0.03235]	0.90276
EqualWidth	[-0.1141 , -0.01845]	0.90276
Extended Chi2	[-0.03615 , 0.02665]	0.90276
FFD	[-0.1275 , -0.0525]	0.90276
FUSINTER	[-0.085 , -0.021]	0.90276
HDD	[-0.0427 , 0.01525]	0.90276
HellingerBD	[-0.0914 , -0.0017]	0.90276
Heter-Disc	[0.13815 , 0.27235]	0.90276
ID3	[-0.0259 , 0.02825]	0.90276
IDD	[-0.0477 , 0.0473]	0.90276
Khiops	[-0.11615 , -0.03725]	0.90276
MDLP	[-0.0636 , -0.00635]	0.90276
Modified Chi2	[-0.09365 , -0.0375]	0.90276
MODL	[-0.0742 , -0.02535]	0.90276
MVD	[-0.00355 , 0.13515]	0.90276
PKID	[-0.149 , -0.06255]	0.90276
UCPD	[-0.05075 , 0.0237]	0.90276
USD	[-0.0427 , 0.0083]	0.90276
Zeta	[-0.0581 , 0.0242]	0.90276

Table 11: Confidence intervals for algorithm CACC ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.0463 , 0.10755]	0.95024
Ameva	[-0.07605 , -0.01525]	0.95024
Bayesian	[0.00415 , 0.06855]	0.95024
CADD	[0.15075 , 0.3466]	0.95024
CAIM	[-0.1035 , -0.0164]	0.95024
Chi2	[-0.1048 , -0.002]	0.95024
ChiMerge	[-0.1043 , -0.0079]	0.95024
ClusterAnalysis	[-0.0786 , 0.0083]	0.95024
DIBD	[-0.0132 , 0.08505]	0.95024
Distance	[-0.05085 , 0.03435]	0.95024
EqualFrequency	[-0.1376 , -0.0245]	0.95024
EqualWidth	[-0.1278 , -0.01055]	0.95024
Extended Chi2	[-0.04135 , 0.03365]	0.95024
FFD	[-0.1409 , -0.0461]	0.95024
FUSINTER	[-0.0938 , -0.0161]	0.95024
HDD	[-0.0501 , 0.0199]	0.95024
HellingerBD	[-0.10235 , 0.0058]	0.95024
Heter-Disc	[0.1272 , 0.28295]	0.95024
ID3	[-0.0326 , 0.03335]	0.95024
IDD	[-0.0586 , 0.061]	0.95024
Khiops	[-0.1252 , -0.03305]	0.95024
MDLP	[-0.0686 , -0.0021]	0.95024
Modified Chi2	[-0.09855 , -0.03425]	0.95024
MODL	[-0.0806 , -0.02085]	0.95024
MVD	[-0.0108 , 0.14345]	0.95024
PKID	[-0.1626 , -0.0553]	0.95024
UCPD	[-0.05825 , 0.03035]	0.95024
USD	[-0.05055 , 0.0106]	0.95024
Zeta	[-0.072 , 0.0343]	0.95024

Table 12: Confidence intervals for algorithm CACC ($\alpha=0.95$)

5 Detailed results for CADD

5.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	48.0	772.0	≥ 0.2	1
Ameva	19.0	801.0	≥ 0.2	1
Bayesian	56.0	724.0	≥ 0.2	1
CACC	52.0	768.0	≥ 0.2	1
CAIM	15.0	805.0	≥ 0.2	1
Chi2	30.0	790.0	≥ 0.2	1
ChiMerge	12.0	808.0	≥ 0.2	1
ClusterAnalysis	13.0	767.0	≥ 0.2	1
DIBD	68.0	712.0	≥ 0.2	1
Distance	50.0	730.0	≥ 0.2	1
EqualFrequency	10.0	770.0	≥ 0.2	1
EqualWidth	17.0	803.0	≥ 0.2	1
Extended Chi2	98.5	721.5	≥ 0.2	1
FFD	0.0	820.0	≥ 0.2	1
FUSINTER	0.0	820.0	≥ 0.2	1
HDD	25.0	795.0	≥ 0.2	1
HellingerBD	0.0	820.0	≥ 0.2	1
Heter-Disc	410.0	410.0	≥ 0.2	1
ID3	32.0	788.0	≥ 0.2	1
IDD	29.5	790.5	≥ 0.2	1
Khiops	0.0	820.0	≥ 0.2	1
MDLP	49.5	770.5	≥ 0.2	1
Modified Chi2	0.0	820.0	≥ 0.2	1
MODL	3.0	817.0	≥ 0.2	1
MVD	136.5	646.5	≥ 0.2	1
PKID	0.0	820.0	≥ 0.2	1
UCPD	27.0	793.0	≥ 0.2	1
USD	23.0	797.0	≥ 0.2	1
Zeta	19.0	761.0	≥ 0.2	1

Table 13: Results obtained by the Wilcoxon test for algorithm CADD

5.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.2714 , -0.12225]	0.90276
Ameva	[-0.4127 , -0.2349]	0.90276
Bayesian	[-0.30655 , -0.14355]	0.90276
CACC	[-0.32405 , -0.17035]	0.90276
CAIM	[-0.43945 , -0.24975]	0.90276
Chi2	[-0.42145 , -0.25995]	0.90276
ChiMerge	[-0.435 , -0.25205]	0.90276
ClusterAnalysis	[-0.3923 , -0.2035]	0.90276
DIBD	[-0.31185 , -0.1412]	0.90276
Distance	[-0.36195 , -0.15975]	0.90276
EqualFrequency	[-0.45785 , -0.284]	0.90276
EqualWidth	[-0.4442 , -0.27635]	0.90276
Extended Chi2	[-0.35935 , -0.14645]	0.90276
FFD	[-0.4695 , -0.29635]	0.90276
FUSINTER	[-0.4362 , -0.25255]	0.90276
HDD	[-0.3923 , -0.20605]	0.90276
HellingerBD	[-0.422 , -0.22875]	0.90276
Heter-Disc	[-0.05135 , 0.02775]	0.90276
ID3	[-0.37875 , -0.1899]	0.90276
IDD	[-0.3133 , -0.16035]	0.90276
Khiops	[-0.45625 , -0.28075]	0.90276
MDLP	[-0.3759 , -0.17025]	0.90276
Modified Chi2	[-0.4529 , -0.2888]	0.90276
MODL	[-0.424 , -0.24575]	0.90276
MVD	[-0.2403 , -0.07255]	0.90276
PKID	[-0.4868 , -0.32705]	0.90276
UCPD	[-0.38995 , -0.19305]	0.90276
USD	[-0.38995 , -0.22315]	0.90276
Zeta	[-0.38625 , -0.21955]	0.90276

Table 14: Confidence intervals for algorithm CADD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.2836 , -0.10795]	0.95024
Ameva	[-0.4301 , -0.21775]	0.95024
Bayesian	[-0.32445 , -0.1296]	0.95024
CACC	[-0.3466 , -0.15075]	0.95024
CAIM	[-0.4589 , -0.23365]	0.95024
Chi2	[-0.43355 , -0.2488]	0.95024
ChiMerge	[-0.44855 , -0.2316]	0.95024
ClusterAnalysis	[-0.41035 , -0.18945]	0.95024
DIBD	[-0.33525 , -0.12875]	0.95024
Distance	[-0.3769 , -0.1397]	0.95024
EqualFrequency	[-0.47475 , -0.26585]	0.95024
EqualWidth	[-0.465 , -0.258]	0.95024
Extended Chi2	[-0.3859 , -0.12935]	0.95024
FFD	[-0.48715 , -0.28275]	0.95024
FUSINTER	[-0.45125 , -0.2202]	0.95024
HDD	[-0.4077 , -0.19695]	0.95024
HellingerBD	[-0.4419 , -0.2124]	0.95024
Heter-Disc	[-0.10645 , 0.03775]	0.95024
ID3	[-0.4022 , -0.1788]	0.95024
IDD	[-0.33305 , -0.1504]	0.95024
Khiops	[-0.4727 , -0.2603]	0.95024
MDLP	[-0.3895 , -0.15445]	0.95024
Modified Chi2	[-0.46805 , -0.2741]	0.95024
MODL	[-0.44725 , -0.23225]	0.95024
MVD	[-0.25215 , -0.0651]	0.95024
PKID	[-0.5022 , -0.30775]	0.95024
UCPD	[-0.4081 , -0.17615]	0.95024
USD	[-0.40875 , -0.2118]	0.95024
Zeta	[-0.4018 , -0.1911]	0.95024

Table 15: Confidence intervals for algorithm CADD ($\alpha=0.95$)

6 Detailed results for CAIM

6.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	611.0	209.0	0.006096	0.00676
Ameva	477.5	342.5	≥ 0.2	0.679376
Bayesian	645.0	175.0	0.0011672	0.001549
CACC	593.0	227.0	0.013026	0.013645
CADD	805.0	15.0	2.492E-10	0
Chi2	453.0	327.0	≥ 0.2	0.375541
ChiMerge	353.5	426.5	≥ 0.2	1
ClusterAnalysis	509.0	311.0	0.18762	0.181089
DIBD	691.0	129.0	7.198E-5	0.000154
Distance	650.0	170.0	8.912E-4	0.001227
EqualFrequency	353.0	467.0	≥ 0.2	1
EqualWidth	440.5	379.5	≥ 0.2	0.676399
Extended Chi2	581.0	199.0	0.006844	0.007531
FFD	268.0	512.0	≥ 0.2	1
FUSINTER	373.0	407.0	≥ 0.2	1
HDD	500.0	287.0	≥ 0.2	1
HellingerBD	425.0	395.0	≥ 0.2	0.834963
Heter-Disc	805.0	15.0	2.492E-10	0
ID3	509.5	270.5	0.09712	0.09344
IDD	570.0	250.0	0.03098	0.03098
Khiops	312.0	508.0	≥ 0.2	1
MDLP	559.0	221.0	0.0175	0.018012
Modified Chi2	358.0	462.0	≥ 0.2	1
MODL	402.5	377.5	≥ 0.2	0.855793
MVD	630.0	190.0	0.002512	0.003039
PKID	205.0	615.0	≥ 0.2	1
UCPD	587.0	233.0	0.016506	0.017041
USD	492.0	288.0	0.15828	0.152606
Zeta	669.0	111.0	3.784E-5	0.000096

Table 16: Results obtained by the Wilcoxon test for algorithm CAIM

6.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.02755 , 0.1802]	0.90276
Ameva	[-0.0058 , 0.02035]	0.90276
Bayesian	[0.04735 , 0.15625]	0.90276
CACC	[0.02335 , 0.0949]	0.90276
CADD	[0.24975 , 0.43945]	0.90276
Chi2	[-0.01715 , 0.0471]	0.90276
ChiMerge	[-0.01385 , 0.00695]	0.90276
ClusterAnalysis	[-0.0058 , 0.05615]	0.90276
DIBD	[0.05795 , 0.1304]	0.90276
Distance	[0.02435 , 0.09]	0.90276
EqualFrequency	[-0.0272 , 0.01215]	0.90276
EqualWidth	[-0.0161 , 0.03535]	0.90276
Extended Chi2	[0.0136 , 0.1008]	0.90276
FFD	[-0.0398 , -0.00075]	0.90276
FUSINTER	[-0.0332 , 0.02075]	0.90276
HDD	[0 , 0.06135]	0.90276
HellingerBD	[-0.0223 , 0.0476]	0.90276
Heter-Disc	[0.20965 , 0.37835]	0.90276
ID3	[0.00025 , 0.08785]	0.90276
IDD	[0.00845 , 0.116]	0.90276
Khiops	[-0.0397 , 0.00395]	0.90276
MDLP	[0.0114 , 0.0726]	0.90276
Modified Chi2	[-0.0322 , 0.013]	0.90276
MODL	[-0.01985 , 0.02705]	0.90276
MVD	[0.0432 , 0.2601]	0.90276
PKID	[-0.0627 , -0.0107]	0.90276
UCPD	[0.01275 , 0.0634]	0.90276
USD	[-0.003 , 0.07085]	0.90276
Zeta	[0.0205 , 0.0542]	0.90276

Table 17: Confidence intervals for algorithm CAIM ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.01905 , 0.19515]	0.95024
Ameva	[-0.0082 , 0.02325]	0.95024
Bayesian	[0.03735 , 0.17125]	0.95024
CACC	[0.0164 , 0.1035]	0.95024
CADD	[0.23365 , 0.4589]	0.95024
Chi2	[-0.02565 , 0.0605]	0.95024
ChiMerge	[-0.01565 , 0.00885]	0.95024
ClusterAnalysis	[-0.012 , 0.06385]	0.95024
DIBD	[0.0512 , 0.13865]	0.95024
Distance	[0.01975 , 0.0947]	0.95024
EqualFrequency	[-0.03335 , 0.01735]	0.95024
EqualWidth	[-0.0247 , 0.04145]	0.95024
Extended Chi2	[0.0088 , 0.1076]	0.95024
FFD	[-0.0448 , 0.00275]	0.95024
FUSINTER	[-0.0413 , 0.02855]	0.95024
HDD	[-0.00355 , 0.0719]	0.95024
HellingerBD	[-0.0264 , 0.0568]	0.95024
Heter-Disc	[0.20055 , 0.397]	0.95024
ID3	[-0.006 , 0.0983]	0.95024
IDD	[0.00275 , 0.13095]	0.95024
Khiops	[-0.04515 , 0.00885]	0.95024
MDLP	[0.0059 , 0.07995]	0.95024
Modified Chi2	[-0.0413 , 0.0165]	0.95024
MODL	[-0.0238 , 0.03105]	0.95024
MVD	[0.034 , 0.28645]	0.95024
PKID	[-0.0704 , -0.0083]	0.95024
UCPD	[0.0091 , 0.0719]	0.95024
USD	[-0.01065 , 0.07725]	0.95024
Zeta	[0.0176 , 0.05675]	0.95024

Table 18: Confidence intervals for algorithm CAIM ($\alpha=0.95$)

7 Detailed results for Chi2

7.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	594.0	226.0	0.012512	0.013141
Ameva	394.0	426.0	≥ 0.2	1
Bayesian	631.0	189.0	0.002392	0.002908
CACC	536.0	244.0	0.04138	0.040913
CADD	790.0	30.0	3.702E-9	0
CAIM	327.0	453.0	≥ 0.2	1
ChiMerge	338.0	482.0	≥ 0.2	1
ClusterAnalysis	520.0	300.0	0.14234	0.137474
DIBD	658.0	162.0	5.698E-4	0.000837
Distance	547.0	233.0	0.02782	0.027955
EqualFrequency	304.0	516.0	≥ 0.2	1
EqualWidth	370.0	450.0	≥ 0.2	1
Extended Chi2	635.0	185.0	0.0019596	0.002437
FFD	246.0	574.0	≥ 0.2	1
FUSINTER	394.5	425.5	≥ 0.2	1
HDD	510.0	310.0	0.18312	0.176743
HellingerBD	432.0	388.0	≥ 0.2	0.762325
Heter-Disc	751.0	69.0	4.766E-7	0.000004
ID3	504.5	275.5	0.11232	0.107916
IDD	566.0	254.0	0.0356	0.035417
Khiops	295.0	525.0	≥ 0.2	1
MDLP	508.0	312.0	0.1922	0.185514
Modified Chi2	275.0	505.0	≥ 0.2	1
MODL	416.0	404.0	≥ 0.2	0.930379
MVD	667.0	153.0	3.364E-4	0.000538
PKID	153.0	627.0	≥ 0.2	1
UCPD	578.0	242.0	0.0232	0.023521
USD	486.0	334.0	≥ 0.2	0.303828
Zeta	497.0	323.0	≥ 0.2	0.23955

Table 19: Results obtained by the Wilcoxon test for algorithm Chi2

7.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.0256 , 0.15505]	0.90276
Ameva	[-0.0379 , 0.031]	0.90276
Bayesian	[0.04285 , 0.14]	0.90276
CACC	[0.01065 , 0.0964]	0.90276
CADD	[0.25995 , 0.42145]	0.90276
CAIM	[-0.0471 , 0.01715]	0.90276
ChiMerge	[-0.039 , 0.0141]	0.90276
ClusterAnalysis	[-0.0057 , 0.0654]	0.90276
DIBD	[0.06205 , 0.142]	0.90276
Distance	[0.01315 , 0.1062]	0.90276
EqualFrequency	[-0.04415 , 0.0024]	0.90276
EqualWidth	[-0.0335 , 0.0135]	0.90276
Extended Chi2	[0.0238 , 0.11945]	0.90276
FFD	[-0.06225 , -0.00855]	0.90276
FUSINTER	[-0.0342 , 0.0225]	0.90276
HDD	[-0.0063 , 0.05985]	0.90276
HellingerBD	[-0.02525 , 0.0369]	0.90276
Heter-Disc	[0.2305 , 0.3812]	0.90276
ID3	[-0.00035 , 0.07615]	0.90276
IDD	[0.0106 , 0.10725]	0.90276
Khiops	[-0.04685 , 0.00255]	0.90276
MDLP	[-0.01005 , 0.0846]	0.90276
Modified Chi2	[-0.0398 , 0.0007]	0.90276
MODL	[-0.02955 , 0.0309]	0.90276
MVD	[0.06595 , 0.2277]	0.90276
PKID	[-0.0898 , -0.0233]	0.90276
UCPD	[0.01435 , 0.08285]	0.90276
USD	[-0.01585 , 0.05015]	0.90276
Zeta	[-0.0132 , 0.0696]	0.90276

Table 20: Confidence intervals for algorithm Chi2 ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.01685 , 0.17345]	0.95024
Ameva	[-0.04775 , 0.0405]	0.95024
Bayesian	[0.0314 , 0.15055]	0.95024
CACC	[0.002 , 0.1048]	0.95024
CADD	[0.2488 , 0.43355]	0.95024
CAIM	[-0.0605 , 0.02565]	0.95024
ChiMerge	[-0.046 , 0.0221]	0.95024
ClusterAnalysis	[-0.014 , 0.06995]	0.95024
DIBD	[0.05545 , 0.1498]	0.95024
Distance	[0.0079 , 0.11405]	0.95024
EqualFrequency	[-0.0541 , 0.00615]	0.95024
EqualWidth	[-0.0404 , 0.0186]	0.95024
Extended Chi2	[0.0163 , 0.13005]	0.95024
FFD	[-0.06895 , -0.00365]	0.95024
FUSINTER	[-0.03825 , 0.02915]	0.95024
HDD	[-0.0129 , 0.0652]	0.95024
HellingerBD	[-0.02845 , 0.04125]	0.95024
Heter-Disc	[0.2181 , 0.3957]	0.95024
ID3	[-0.00805 , 0.0828]	0.95024
IDD	[0.00215 , 0.1196]	0.95024
Khiops	[-0.0509 , 0.0072]	0.95024
MDLP	[-0.0163 , 0.09275]	0.95024
Modified Chi2	[-0.0433 , 0.0035]	0.95024
MODL	[-0.03675 , 0.038]	0.95024
MVD	[0.0518 , 0.23805]	0.95024
PKID	[-0.09675 , -0.0185]	0.95024
UCPD	[0.00815 , 0.09075]	0.95024
USD	[-0.02055 , 0.05655]	0.95024
Zeta	[-0.0196 , 0.0758]	0.95024

Table 21: Confidence intervals for algorithm Chi2 ($\alpha=0.95$)

8 Detailed results for ChiMerge

8.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	619.0	201.0	0.004244	0.004863
Ameva	444.0	336.0	≥ 0.2	0.446927
Bayesian	650.0	170.0	8.912E-4	0.001227
CACC	581.0	239.0	0.02076	0.021156
CADD	808.0	12.0	1.2732E-10	0
CAIM	426.5	353.5	≥ 0.2	0.604359
Chi2	482.0	338.0	≥ 0.2	0.329811
ClusterAnalysis	521.0	299.0	0.13868	0.13395
DIBD	723.0	97.0	6.358E-6	0.000025
Distance	665.0	115.0	5.106E-5	0.000121
EqualFrequency	413.0	407.0	≥ 0.2	0.962478
EqualWidth	495.0	325.0	≥ 0.2	0.250461
Extended Chi2	564.5	215.5	0.013996	0.014429
FFD	312.0	508.0	≥ 0.2	1
FUSINTER	387.0	393.0	≥ 0.2	1
HDD	490.0	290.0	0.16676	0.160773
HellingerBD	483.0	337.0	≥ 0.2	0.323184
Heter-Disc	810.0	10.0	7.822E-11	0
ID3	535.0	285.0	0.0945	0.091626
IDD	581.0	239.0	0.02076	0.02094
Khiops	331.0	489.0	≥ 0.2	1
MDLP	569.0	211.0	0.01159	0.012248
Modified Chi2	312.0	508.0	≥ 0.2	1
MODL	379.0	401.0	≥ 0.2	1
MVD	665.0	155.0	3.79E-4	0.000594
PKID	254.0	566.0	≥ 0.2	1
UCPD	586.5	233.5	0.016832	0.01698
USD	492.0	328.0	≥ 0.2	0.26747
Zeta	698.0	122.0	4.404E-5	0.000105

Table 22: Results obtained by the Wilcoxon test for algorithm ChiMerge

8.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.0236 , 0.1586]	0.90276
Ameva	[-0.00915 , 0.022]	0.90276
Bayesian	[0.04255 , 0.15415]	0.90276
CACC	[0.01275 , 0.0922]	0.90276
CADD	[0.25205 , 0.435]	0.90276
CAIM	[-0.00695 , 0.01385]	0.90276
Chi2	[-0.0141 , 0.039]	0.90276
ClusterAnalysis	[-0.0031 , 0.0616]	0.90276
DIBD	[0.06745 , 0.1381]	0.90276
Distance	[0.0294 , 0.09965]	0.90276
EqualFrequency	[-0.0144 , 0.01215]	0.90276
EqualWidth	[-0.0088 , 0.0407]	0.90276
Extended Chi2	[0.008 , 0.0936]	0.90276
FFD	[-0.046 , 0.0037]	0.90276
FUSINTER	[-0.0263 , 0.02255]	0.90276
HDD	[-0.0041 , 0.07435]	0.90276
HellingerBD	[-0.01 , 0.0426]	0.90276
Heter-Disc	[0.21815 , 0.3668]	0.90276
ID3	[0.00005 , 0.09485]	0.90276
IDD	[0.00905 , 0.1226]	0.90276
Khiops	[-0.0274 , 0.00365]	0.90276
MDLP	[0.0099 , 0.0859]	0.90276
Modified Chi2	[-0.02925 , 0.0038]	0.90276
MODL	[-0.0222 , 0.0264]	0.90276
MVD	[0.04725 , 0.22785]	0.90276
PKID	[-0.05295 , -0.0039]	0.90276
UCPD	[0.01455 , 0.0694]	0.90276
USD	[-0.0158 , 0.06855]	0.90276
Zeta	[0.02735 , 0.061]	0.90276

Table 23: Confidence intervals for algorithm ChiMerge ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.01705 , 0.1691]	0.95024
Ameva	[-0.0119 , 0.02515]	0.95024
Bayesian	[0.0306 , 0.1624]	0.95024
CACC	[0.0079 , 0.1043]	0.95024
CADD	[0.2316 , 0.44855]	0.95024
CAIM	[-0.00885 , 0.01565]	0.95024
Chi2	[-0.0221 , 0.046]	0.95024
ClusterAnalysis	[-0.0089 , 0.06875]	0.95024
DIBD	[0.06035 , 0.14495]	0.95024
Distance	[0.0247 , 0.10585]	0.95024
EqualFrequency	[-0.01945 , 0.0158]	0.95024
EqualWidth	[-0.0162 , 0.04605]	0.95024
Extended Chi2	[0.00355 , 0.10925]	0.95024
FFD	[-0.0606 , 0.00625]	0.95024
FUSINTER	[-0.0325 , 0.02785]	0.95024
HDD	[-0.0104 , 0.0845]	0.95024
HellingerBD	[-0.01505 , 0.0488]	0.95024
Heter-Disc	[0.20545 , 0.3822]	0.95024
ID3	[-0.0053 , 0.09925]	0.95024
IDD	[0.00375 , 0.13365]	0.95024
Khiops	[-0.0322 , 0.0074]	0.95024
MDLP	[0.0078 , 0.095]	0.95024
Modified Chi2	[-0.03335 , 0.00605]	0.95024
MODL	[-0.0259 , 0.0337]	0.95024
MVD	[0.03935 , 0.24865]	0.95024
PKID	[-0.0598 , -0.0011]	0.95024
UCPD	[0.00835 , 0.07665]	0.95024
USD	[-0.02325 , 0.07405]	0.95024
Zeta	[0.02355 , 0.06355]	0.95024

Table 24: Confidence intervals for algorithm ChiMerge ($\alpha=0.95$)

9 Detailed results for ClusterAnalysis

9.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	514.0	266.0	0.08484	0.082317
Ameva	347.0	473.0	≥ 0.2	1
Bayesian	610.0	170.0	0.0016352	0.00209
CACC	519.0	301.0	0.14608	0.141069
CADD	767.0	13.0	3.202E-10	0
CAIM	311.0	509.0	≥ 0.2	1
Chi2	300.0	520.0	≥ 0.2	1
ChiMerge	299.0	521.0	≥ 0.2	1
DIBD	646.0	174.0	0.0011066	0.001479
Distance	526.0	294.0	0.1214	0.117369
EqualFrequency	207.0	573.0	≥ 0.2	1
EqualWidth	242.0	538.0	≥ 0.2	1
Extended Chi2	491.0	329.0	≥ 0.2	0.273313
FFD	98.0	682.0	≥ 0.2	1
FUSINTER	322.0	498.0	≥ 0.2	1
HDD	438.0	382.0	≥ 0.2	0.701663
HellingerBD	361.5	418.5	≥ 0.2	1
Heter-Disc	761.0	19.0	1.1168E-9	0
ID3	486.0	294.0	0.18474	0.178091
IDD	445.0	335.0	≥ 0.2	0.438634
Khiops	206.0	614.0	≥ 0.2	1
MDLP	418.0	402.0	≥ 0.2	0.909039
Modified Chi2	209.0	611.0	≥ 0.2	1
MODL	315.0	505.0	≥ 0.2	1
MVD	644.0	176.0	0.0012308	0.001622
PKID	81.0	699.0	≥ 0.2	1
UCPD	510.0	310.0	0.18312	0.176016
USD	482.0	338.0	≥ 0.2	0.329811
Zeta	474.0	346.0	≥ 0.2	0.385962

Table 25: Results obtained by the Wilcoxon test for algorithm ClusterAnalysis

9.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.001 , 0.1223]	0.90276
Ameva	[-0.05245 , 0.01895]	0.90276
Bayesian	[0.0289 , 0.09925]	0.90276
CACC	[-0.003 , 0.07085]	0.90276
CADD	[0.2035 , 0.3923]	0.90276
CAIM	[-0.05615 , 0.0058]	0.90276
Chi2	[-0.0654 , 0.0057]	0.90276
ChiMerge	[-0.0616 , 0.0031]	0.90276
DIBD	[0.0373 , 0.1089]	0.90276
Distance	[-0.0022 , 0.0735]	0.90276
EqualFrequency	[-0.0636 , -0.0145]	0.90276
EqualWidth	[-0.05835 , -0.00475]	0.90276
Extended Chi2	[-0.00805 , 0.06995]	0.90276
FFD	[-0.0671 , -0.0291]	0.90276
FUSINTER	[-0.05205 , 0.00695]	0.90276
HDD	[-0.0192 , 0.031]	0.90276
HellingerBD	[-0.04025 , 0.0203]	0.90276
Heter-Disc	[0.1762 , 0.3242]	0.90276
ID3	[-0.00615 , 0.0507]	0.90276
IDD	[-0.0165 , 0.07075]	0.90276
Khiops	[-0.0665 , -0.01685]	0.90276
MDLP	[-0.0282 , 0.051]	0.90276
Modified Chi2	[-0.0606 , -0.01145]	0.90276
MODL	[-0.04825 , 0.00605]	0.90276
MVD	[0.0412 , 0.1698]	0.90276
PKID	[-0.0866 , -0.03875]	0.90276
UCPD	[-0.00535 , 0.0536]	0.90276
USD	[-0.00915 , 0.03255]	0.90276
Zeta	[-0.02115 , 0.0513]	0.90276

Table 26: Confidence intervals for algorithm ClusterAnalysis ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.00875 , 0.1398]	0.95024
Ameva	[-0.0591 , 0.02825]	0.95024
Bayesian	[0.0227 , 0.10475]	0.95024
CACC	[-0.0083 , 0.0786]	0.95024
CADD	[0.18945 , 0.41035]	0.95024
CAIM	[-0.06385 , 0.012]	0.95024
Chi2	[-0.06995 , 0.014]	0.95024
ChiMerge	[-0.06875 , 0.0089]	0.95024
DIBD	[0.03205 , 0.11675]	0.95024
Distance	[-0.00825 , 0.0812]	0.95024
EqualFrequency	[-0.0687 , -0.00935]	0.95024
EqualWidth	[-0.06515 , -0.002]	0.95024
Extended Chi2	[-0.0119 , 0.08195]	0.95024
FFD	[-0.0715 , -0.02465]	0.95024
FUSINTER	[-0.0576 , 0.01225]	0.95024
HDD	[-0.0254 , 0.0361]	0.95024
HellingerBD	[-0.0452 , 0.02905]	0.95024
Heter-Disc	[0.1676 , 0.3417]	0.95024
ID3	[-0.01345 , 0.0546]	0.95024
IDD	[-0.02285 , 0.08055]	0.95024
Khiops	[-0.071 , -0.0128]	0.95024
MDLP	[-0.03265 , 0.06]	0.95024
Modified Chi2	[-0.06735 , -0.0086]	0.95024
MODL	[-0.0527 , 0.01055]	0.95024
MVD	[0.0326 , 0.19075]	0.95024
PKID	[-0.0924 , -0.03405]	0.95024
UCPD	[-0.01305 , 0.05725]	0.95024
USD	[-0.01495 , 0.0368]	0.95024
Zeta	[-0.03185 , 0.05795]	0.95024

Table 27: Confidence intervals for algorithm ClusterAnalysis ($\alpha=0.95$)

10 Detailed results for DIBD

10.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	361.0	459.0	≥ 0.2	1
Ameva	115.0	705.0	≥ 0.2	1
Bayesian	388.0	392.0	≥ 0.2	1
CACC	305.0	515.0	≥ 0.2	1
CADD	712.0	68.0	8.544E-7	0.000007
CAIM	129.0	691.0	≥ 0.2	1
Chi2	162.0	658.0	≥ 0.2	1
ChiMerge	97.0	723.0	≥ 0.2	1
ClusterAnalysis	174.0	646.0	≥ 0.2	1
Distance	299.0	481.0	≥ 0.2	1
EqualFrequency	60.0	720.0	≥ 0.2	1
EqualWidth	106.0	714.0	≥ 0.2	1
Extended Chi2	331.0	489.0	≥ 0.2	1
FFD	14.0	806.0	≥ 0.2	1
FUSINTER	104.0	716.0	≥ 0.2	1
HDD	232.0	588.0	≥ 0.2	1
HellingerBD	109.0	711.0	≥ 0.2	1
Heter-Disc	766.5	53.5	3.469E-7	0.000004
ID3	266.0	514.0	≥ 0.2	1
IDD	283.0	537.0	≥ 0.2	1
Khiops	32.0	788.0	≥ 0.2	1
MDLP	248.0	532.0	≥ 0.2	1
Modified Chi2	45.0	775.0	≥ 0.2	1
MODL	74.0	746.0	≥ 0.2	1
MVD	429.0	351.0	≥ 0.2	0.581481
PKID	21.0	799.0	≥ 0.2	1
UCPD	162.0	658.0	≥ 0.2	1
USD	219.0	601.0	≥ 0.2	1
Zeta	233.0	547.0	≥ 0.2	1

Table 28: Results obtained by the Wilcoxon test for algorithm DIBD

10.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.0612 , 0.0381]	0.90276
Ameva	[-0.12 , -0.0543]	0.90276
Bayesian	[-0.0429 , 0.0434]	0.90276
CACC	[-0.07965 , 0.008]	0.90276
CADD	[0.1412 , 0.31185]	0.90276
CAIM	[-0.1304 , -0.05795]	0.90276
Chi2	[-0.142 , -0.06205]	0.90276
ChiMerge	[-0.1381 , -0.06745]	0.90276
ClusterAnalysis	[-0.1089 , -0.0373]	0.90276
Distance	[-0.0607 , 0.0069]	0.90276
EqualFrequency	[-0.1511 , -0.08435]	0.90276
EqualWidth	[-0.13305 , -0.06035]	0.90276
Extended Chi2	[-0.08415 , 0.0185]	0.90276
FFD	[-0.16415 , -0.10215]	0.90276
FUSINTER	[-0.1393 , -0.06965]	0.90276
HDD	[-0.1031 , -0.0215]	0.90276
HellingerBD	[-0.1236 , -0.06005]	0.90276
Heter-Disc	[0.1138 , 0.24935]	0.90276
ID3	[-0.0938 , -0.0019]	0.90276
IDD	[-0.0682 , -0.0007]	0.90276
Khiops	[-0.14925 , -0.09365]	0.90276
MDLP	[-0.0898 , -0.01205]	0.90276
Modified Chi2	[-0.1499 , -0.0844]	0.90276
MODL	[-0.1285 , -0.06745]	0.90276
MVD	[-0.029 , 0.0939]	0.90276
PKID	[-0.1766 , -0.10775]	0.90276
UCPD	[-0.0802 , -0.0329]	0.90276
USD	[-0.11485 , -0.02845]	0.90276
Zeta	[-0.09255 , -0.0113]	0.90276

Table 29: Confidence intervals for algorithm DIBD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.06975 , 0.05075]	0.95024
Ameva	[-0.1266 , -0.0479]	0.95024
Bayesian	[-0.0504 , 0.0518]	0.95024
CACC	[-0.08505 , 0.0132]	0.95024
CADD	[0.12875 , 0.33525]	0.95024
CAIM	[-0.13865 , -0.0512]	0.95024
Chi2	[-0.1498 , -0.05545]	0.95024
ChiMerge	[-0.14495 , -0.06035]	0.95024
ClusterAnalysis	[-0.11675 , -0.03205]	0.95024
Distance	[-0.0674 , 0.0132]	0.95024
EqualFrequency	[-0.1589 , -0.077]	0.95024
EqualWidth	[-0.1429 , -0.0539]	0.95024
Extended Chi2	[-0.0934 , 0.0276]	0.95024
FFD	[-0.1699 , -0.09665]	0.95024
FUSINTER	[-0.1472 , -0.06415]	0.95024
HDD	[-0.11265 , -0.0138]	0.95024
HellingerBD	[-0.12865 , -0.05425]	0.95024
Heter-Disc	[0.10425 , 0.2651]	0.95024
ID3	[-0.1023 , 0.00495]	0.95024
IDD	[-0.0732 , 0.0062]	0.95024
Khiops	[-0.1584 , -0.08925]	0.95024
MDLP	[-0.09445 , -0.00165]	0.95024
Modified Chi2	[-0.15895 , -0.07995]	0.95024
MODL	[-0.13245 , -0.0623]	0.95024
MVD	[-0.03865 , 0.11565]	0.95024
PKID	[-0.19265 , -0.10235]	0.95024
UCPD	[-0.087 , -0.0275]	0.95024
USD	[-0.1194 , -0.0201]	0.95024
Zeta	[-0.0995 , -0.0067]	0.95024

Table 30: Confidence intervals for algorithm DIBD ($\alpha=0.95$)

11 Detailed results for Distance

11.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	431.0	389.0	≥ 0.2	0.772591
Ameva	213.0	567.0	≥ 0.2	1
Bayesian	492.0	328.0	≥ 0.2	0.26747
CACC	420.0	360.0	≥ 0.2	0.670379
CADD	730.0	50.0	1.143E-7	0.000002
CAIM	170.0	650.0	≥ 0.2	1
Chi2	233.0	547.0	≥ 0.2	1
ChiMerge	115.0	665.0	≥ 0.2	1
ClusterAnalysis	294.0	526.0	≥ 0.2	1
DIBD	481.0	299.0	≥ 0.2	0.201644
EqualFrequency	143.0	637.0	≥ 0.2	1
EqualWidth	211.0	609.0	≥ 0.2	1
Extended Chi2	413.0	407.0	≥ 0.2	0.962478
FFD	102.0	718.0	≥ 0.2	1
FUSINTER	154.0	666.0	≥ 0.2	1
HDD	344.0	476.0	≥ 0.2	1
HellingerBD	198.5	621.5	≥ 0.2	1
Heter-Disc	747.0	33.0	1.1688E-8	0.000001
ID3	373.0	407.0	≥ 0.2	1
IDD	349.0	471.0	≥ 0.2	1
Khiops	100.0	720.0	≥ 0.2	1
MDLP	216.5	568.5	≥ 0.2	1
Modified Chi2	114.5	705.5	≥ 0.2	1
MODL	186.0	634.0	≥ 0.2	1
MVD	474.0	306.0	≥ 0.2	0.23832
PKID	59.0	721.0	≥ 0.2	1
UCPD	357.0	463.0	≥ 0.2	1
USD	336.0	484.0	≥ 0.2	1
Zeta	322.0	458.0	≥ 0.2	1

Table 31: Results obtained by the Wilcoxon test for algorithm Distance

11.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.03885 , 0.0716]	0.90276
Ameva	[-0.0884 , -0.0089]	0.90276
Bayesian	[-0.0159 , 0.08465]	0.90276
CACC	[-0.02595 , 0.0436]	0.90276
CADD	[0.15975 , 0.36195]	0.90276
CAIM	[-0.09 , -0.02435]	0.90276
Chi2	[-0.1062 , -0.01315]	0.90276
ChiMerge	[-0.09965 , -0.0294]	0.90276
ClusterAnalysis	[-0.0735 , 0.0022]	0.90276
DIBD	[-0.0069 , 0.0607]	0.90276
EqualFrequency	[-0.1125 , -0.03715]	0.90276
EqualWidth	[-0.09535 , -0.0158]	0.90276
Extended Chi2	[-0.04175 , 0.0446]	0.90276
FFD	[-0.1307 , -0.0529]	0.90276
FUSINTER	[-0.0954 , -0.0325]	0.90276
HDD	[-0.06595 , 0.023]	0.90276
HellingerBD	[-0.085 , -0.02125]	0.90276
Heter-Disc	[0.1342 , 0.27705]	0.90276
ID3	[-0.0526 , 0.0405]	0.90276
IDD	[-0.0489 , 0.02425]	0.90276
Khiops	[-0.11405 , -0.05035]	0.90276
MDLP	[-0.0293 , -0.0034]	0.90276
Modified Chi2	[-0.11375 , -0.0376]	0.90276
MODL	[-0.099 , -0.0266]	0.90276
MVD	[-0.0172 , 0.16085]	0.90276
PKID	[-0.1393 , -0.0695]	0.90276
UCPD	[-0.05275 , 0.01535]	0.90276
USD	[-0.07315 , 0.01285]	0.90276
Zeta	[-0.04305 , 0.0098]	0.90276

Table 32: Confidence intervals for algorithm Distance ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.0453 , 0.08795]	0.95024
Ameva	[-0.0953 , -0.00555]	0.95024
Bayesian	[-0.02715 , 0.09135]	0.95024
CACC	[-0.03435 , 0.05085]	0.95024
CADD	[0.1397 , 0.3769]	0.95024
CAIM	[-0.0947 , -0.01975]	0.95024
Chi2	[-0.11405 , -0.0079]	0.95024
ChiMerge	[-0.10585 , -0.0247]	0.95024
ClusterAnalysis	[-0.0812 , 0.00825]	0.95024
DIBD	[-0.0132 , 0.0674]	0.95024
EqualFrequency	[-0.1211 , -0.02955]	0.95024
EqualWidth	[-0.10285 , -0.01235]	0.95024
Extended Chi2	[-0.0548 , 0.06045]	0.95024
FFD	[-0.14145 , -0.04725]	0.95024
FUSINTER	[-0.1044 , -0.0271]	0.95024
HDD	[-0.07765 , 0.0303]	0.95024
HellingerBD	[-0.09105 , -0.01605]	0.95024
Heter-Disc	[0.1241 , 0.2915]	0.95024
ID3	[-0.06145 , 0.04925]	0.95024
IDD	[-0.05595 , 0.0339]	0.95024
Khiops	[-0.127 , -0.04445]	0.95024
MDLP	[-0.0316 , -0.0019]	0.95024
Modified Chi2	[-0.12135 , -0.0322]	0.95024
MODL	[-0.1093 , -0.02255]	0.95024
MVD	[-0.02545 , 0.1871]	0.95024
PKID	[-0.14525 , -0.0638]	0.95024
UCPD	[-0.06085 , 0.02]	0.95024
USD	[-0.0819 , 0.02235]	0.95024
Zeta	[-0.0472 , 0.0139]	0.95024

Table 33: Confidence intervals for algorithm Distance ($\alpha=0.95$)

12 Detailed results for EqualFrequency

12.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	665.0	155.0	3.79E-4	0.000594
Ameva	503.0	317.0	≥ 0.2	0.20884
Bayesian	667.0	113.0	4.4E-5	0.000108
CACC	630.0	190.0	0.002512	0.00299
CADD	770.0	10.0	1.5644E-10	0
CAIM	467.0	353.0	≥ 0.2	0.439597
Chi2	516.0	304.0	0.15776	0.152287
ChiMerge	407.0	413.0	≥ 0.2	1
ClusterAnalysis	573.0	207.0	0.009764	0.010311
DIBD	720.0	60.0	3.64E-7	0.000004
Distance	637.0	143.0	3.426E-4	0.00054
EqualWidth	500.5	319.5	≥ 0.2	0.454325
Extended Chi2	657.0	163.0	6.032E-4	0.000879
FFD	355.5	464.5	≥ 0.2	1
FUSINTER	478.0	302.0	≥ 0.2	0.216824
HDD	565.0	215.0	0.013706	0.014321
HellingerBD	540.0	240.0	0.03594	0.035709
Heter-Disc	774.0	6.0	5.094E-11	0
ID3	574.0	206.0	0.009348	0.010033
IDD	647.0	173.0	0.0010488	0.001411
Khiops	422.0	398.0	≥ 0.2	1
MDLP	570.5	209.5	0.010876	0.011254
Modified Chi2	453.0	367.0	≥ 0.2	0.558752
MODL	527.0	293.0	0.11814	0.114255
MVD	670.0	110.0	3.506E-5	0.000091
PKID	273.0	507.0	≥ 0.2	1
UCPD	690.0	130.0	7.708E-5	0.000163
USD	568.0	212.0	0.012092	0.01274
Zeta	645.5	174.5	0.003749	0.004376

Table 34: Results obtained by the Wilcoxon test for algorithm EqualFrequency

12.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.0465 , 0.164]	0.90276
Ameva	[-0.00495 , 0.0437]	0.90276
Bayesian	[0.0743 , 0.1671]	0.90276
CACC	[0.03235 , 0.12735]	0.90276
CADD	[0.284 , 0.45785]	0.90276
CAIM	[-0.01215 , 0.0272]	0.90276
Chi2	[-0.0024 , 0.04415]	0.90276
ChiMerge	[-0.01215 , 0.0144]	0.90276
ClusterAnalysis	[0.0145 , 0.0636]	0.90276
DIBD	[0.08435 , 0.1511]	0.90276
Distance	[0.03715 , 0.1125]	0.90276
EqualWidth	[-0.003 , 0.02105]	0.90276
Extended Chi2	[0.0252 , 0.1287]	0.90276
FFD	[-0.0116 , 0.0043]	0.90276
FUSINTER	[-0.0041 , 0.03575]	0.90276
HDD	[0.01465 , 0.0816]	0.90276
HellingerBD	[0.00375 , 0.05205]	0.90276
Heter-Disc	[0.2362 , 0.39825]	0.90276
ID3	[0.02085 , 0.0988]	0.90276
IDD	[0.0306 , 0.1161]	0.90276
Khiops	[-0.0161 , 0.01065]	0.90276
MDLP	[0.01085 , 0.0922]	0.90276
Modified Chi2	[-0.0114 , 0.0264]	0.90276
MODL	[-0.0016 , 0.0514]	0.90276
MVD	[0.06035 , 0.2553]	0.90276
PKID	[-0.0253 , 0.00035]	0.90276
UCPD	[0.0372 , 0.08645]	0.90276
USD	[0.0107 , 0.08005]	0.90276
Zeta	[0.0166 , 0.07695]	0.90276

Table 35: Confidence intervals for algorithm EqualFrequency ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.0389 , 0.18]	0.95024
Ameva	[-0.0086 , 0.04925]	0.95024
Bayesian	[0.06325 , 0.17435]	0.95024
CACC	[0.0245 , 0.1376]	0.95024
CADD	[0.26585 , 0.47475]	0.95024
CAIM	[-0.01735 , 0.03335]	0.95024
Chi2	[-0.00615 , 0.0541]	0.95024
ChiMerge	[-0.0158 , 0.01945]	0.95024
ClusterAnalysis	[0.00935 , 0.0687]	0.95024
DIBD	[0.077 , 0.1589]	0.95024
Distance	[0.02955 , 0.1211]	0.95024
EqualWidth	[-0.00425 , 0.0278]	0.95024
Extended Chi2	[0.02005 , 0.1465]	0.95024
FFD	[-0.0134 , 0.0057]	0.95024
FUSINTER	[-0.00685 , 0.0421]	0.95024
HDD	[0.0091 , 0.09]	0.95024
HellingerBD	[0.00115 , 0.0581]	0.95024
Heter-Disc	[0.2175 , 0.40885]	0.95024
ID3	[0.01375 , 0.1049]	0.95024
IDD	[0.0233 , 0.1262]	0.95024
Khiops	[-0.0188 , 0.01375]	0.95024
MDLP	[0.0061 , 0.10155]	0.95024
Modified Chi2	[-0.01385 , 0.02955]	0.95024
MODL	[-0.00615 , 0.0558]	0.95024
MVD	[0.0507 , 0.29705]	0.95024
PKID	[-0.02915 , 0.0016]	0.95024
UCPD	[0.03265 , 0.09165]	0.95024
USD	[0.0078 , 0.0883]	0.95024
Zeta	[0.0132 , 0.08185]	0.95024

Table 36: Confidence intervals for algorithm EqualFrequency ($\alpha=0.95$)

13 Detailed results for EqualWidth

13.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	605.0	215.0	0.007918	0.008595
Ameva	429.0	391.0	≥ 0.2	0.79324
Bayesian	642.0	138.0	2.496E-4	0.000426
CACC	582.0	238.0	0.019988	0.020415
CADD	803.0	17.0	3.766E-10	0
CAIM	379.5	440.5	≥ 0.2	1
Chi2	450.0	370.0	≥ 0.2	0.586185
ChiMerge	325.0	495.0	≥ 0.2	1
ClusterAnalysis	538.0	242.0	0.03858	0.038236
DIBD	714.0	106.0	1.3218E-5	0.000043
Distance	609.0	211.0	0.006658	0.007328
EqualFrequency	319.5	500.5	≥ 0.2	1
Extended Chi2	567.0	253.0	0.0344	0.034259
FFD	224.5	595.5	≥ 0.2	1
FUSINTER	405.0	415.0	≥ 0.2	1
HDD	569.5	250.5	0.08310000000000001	0.080546
HellingerBD	452.0	331.0	≥ 0.2	0.751386
Heter-Disc	805.0	15.0	2.492E-10	0
ID3	564.0	219.0	0.04554	0.044805
IDD	555.0	225.0	0.0205	0.020913
Khiops	312.5	507.5	≥ 0.2	1
MDLP	509.0	271.0	0.09856	0.095391
Modified Chi2	324.5	495.5	≥ 0.2	1
MODL	409.0	411.0	≥ 0.2	1
MVD	660.0	160.0	5.08E-4	0.00076
PKID	135.0	648.0	≥ 0.2	1
UCPD	604.0	216.0	0.008264	0.00894
USD	543.0	277.0	0.07472	0.072747
Zeta	537.0	243.0	0.03996	0.039212

Table 37: Results obtained by the Wilcoxon test for algorithm EqualWidth

13.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.02615 , 0.15075]	0.90276
Ameva	[-0.02055 , 0.03475]	0.90276
Bayesian	[0.05025 , 0.14445]	0.90276
CACC	[0.01845 , 0.1141]	0.90276
CADD	[0.27635 , 0.4442]	0.90276
CAIM	[-0.03535 , 0.0161]	0.90276
Chi2	[-0.0135 , 0.0335]	0.90276
ChiMerge	[-0.0407 , 0.0088]	0.90276
ClusterAnalysis	[0.00475 , 0.05835]	0.90276
DIBD	[0.06035 , 0.13305]	0.90276
Distance	[0.0158 , 0.09535]	0.90276
EqualFrequency	[-0.02105 , 0.003]	0.90276
Extended Chi2	[0.00625 , 0.14325]	0.90276
FFD	[-0.051 , -0.00685]	0.90276
FUSINTER	[-0.02365 , 0.02015]	0.90276
HDD	[0.00515 , 0.0716]	0.90276
HellingerBD	[-0.0085 , 0.0394]	0.90276
Heter-Disc	[0.2336 , 0.3843]	0.90276
ID3	[0.01545 , 0.0796]	0.90276
IDD	[0.01195 , 0.1073]	0.90276
Khiops	[-0.0398 , 0.00335]	0.90276
MDLP	[-0.0001 , 0.06785]	0.90276
Modified Chi2	[-0.03555 , 0.004]	0.90276
MODL	[-0.0305 , 0.0284]	0.90276
MVD	[0.0541 , 0.23125]	0.90276
PKID	[-0.06465 , -0.01395]	0.90276
UCPD	[0.0207 , 0.0723]	0.90276
USD	[0.0014 , 0.0679]	0.90276
Zeta	[0.0067 , 0.06015]	0.90276

Table 38: Confidence intervals for algorithm EqualWidth ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.0158 , 0.17305]	0.95024
Ameva	[-0.02585 , 0.04085]	0.95024
Bayesian	[0.0423 , 0.15415]	0.95024
CACC	[0.01055 , 0.1278]	0.95024
CADD	[0.258 , 0.465]	0.95024
CAIM	[-0.04145 , 0.0247]	0.95024
Chi2	[-0.0186 , 0.0404]	0.95024
ChiMerge	[-0.04605 , 0.0162]	0.95024
ClusterAnalysis	[0.002 , 0.06515]	0.95024
DIBD	[0.0539 , 0.1429]	0.95024
Distance	[0.01235 , 0.10285]	0.95024
EqualFrequency	[-0.0278 , 0.00425]	0.95024
Extended Chi2	[0.00265 , 0.15745]	0.95024
FFD	[-0.05695 , -0.00295]	0.95024
FUSINTER	[-0.0316 , 0.02425]	0.95024
HDD	[0.002 , 0.07625]	0.95024
HellingerBD	[-0.01475 , 0.0439]	0.95024
Heter-Disc	[0.21545 , 0.39815]	0.95024
ID3	[0.0071 , 0.08345]	0.95024
IDD	[0.00625 , 0.11645]	0.95024
Khiops	[-0.0445 , 0.00625]	0.95024
MDLP	[-0.00415 , 0.0778]	0.95024
Modified Chi2	[-0.0396 , 0.0075]	0.95024
MODL	[-0.03585 , 0.0357]	0.95024
MVD	[0.0416 , 0.2603]	0.95024
PKID	[-0.06855 , -0.0105]	0.95024
UCPD	[0.0139 , 0.0804]	0.95024
USD	[-0.0031 , 0.07235]	0.95024
Zeta	[0.0008 , 0.06805]	0.95024

Table 39: Confidence intervals for algorithm EqualWidth ($\alpha=0.95$)

14 Detailed results for Extended Chi2

14.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	437.0	383.0	≥ 0.2	0.711654
Ameva	222.0	558.0	≥ 0.2	1
Bayesian	503.0	317.0	≥ 0.2	0.20884
CACC	430.0	390.0	≥ 0.2	0.782896
CADD	721.5	98.5	2.754E-5	0.000078
CAIM	199.0	581.0	≥ 0.2	1
Chi2	185.0	635.0	≥ 0.2	1
ChiMerge	215.5	564.5	≥ 0.2	1
ClusterAnalysis	329.0	491.0	≥ 0.2	1
DIBD	489.0	331.0	≥ 0.2	0.285258
Distance	407.0	413.0	≥ 0.2	1
EqualFrequency	163.0	657.0	≥ 0.2	1
EqualWidth	253.0	567.0	≥ 0.2	1
FFD	142.0	678.0	≥ 0.2	1
FUSINTER	230.0	550.0	≥ 0.2	1
HDD	323.0	457.0	≥ 0.2	1
HellingerBD	259.0	521.0	≥ 0.2	1
Heter-Disc	670.0	110.0	3.506E-5	0.000091
ID3	397.0	423.0	≥ 0.2	1
IDD	382.0	438.0	≥ 0.2	1
Khiops	211.0	609.0	≥ 0.2	1
MDLP	311.0	469.0	≥ 0.2	1
Modified Chi2	98.0	722.0	≥ 0.2	1
MODL	192.0	588.0	≥ 0.2	1
MVD	539.0	281.0	0.08416	0.081745
PKID	106.0	714.0	≥ 0.2	1
UCPD	400.5	419.5	≥ 0.2	1
USD	303.0	517.0	≥ 0.2	1
Zeta	361.0	459.0	≥ 0.2	1

Table 40: Results obtained by the Wilcoxon test for algorithm Extended Chi2

14.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.06615 , 0.11345]	0.90276
Ameva	[-0.09475 , -0.0094]	0.90276
Bayesian	[-0.01725 , 0.07465]	0.90276
CACC	[-0.02665 , 0.03615]	0.90276
CADD	[0.14645 , 0.35935]	0.90276
CAIM	[-0.1008 , -0.0136]	0.90276
Chi2	[-0.11945 , -0.0238]	0.90276
ChiMerge	[-0.0936 , -0.008]	0.90276
ClusterAnalysis	[-0.06995 , 0.00805]	0.90276
DIBD	[-0.0185 , 0.08415]	0.90276
Distance	[-0.0446 , 0.04175]	0.90276
EqualFrequency	[-0.1287 , -0.0252]	0.90276
EqualWidth	[-0.14325 , -0.00625]	0.90276
FFD	[-0.1413 , -0.0331]	0.90276
FUSINTER	[-0.11555 , -0.0055]	0.90276
HDD	[-0.08035 , 0.0122]	0.90276
HellingerBD	[-0.11885 , -0.00275]	0.90276
Heter-Disc	[0.1538 , 0.30855]	0.90276
ID3	[-0.06765 , 0.02575]	0.90276
IDD	[-0.0746 , 0.05865]	0.90276
Khiops	[-0.13645 , -0.01675]	0.90276
MDLP	[-0.0651 , 0.0175]	0.90276
Modified Chi2	[-0.1041 , -0.02025]	0.90276
MODL	[-0.0735 , -0.01265]	0.90276
MVD	[0.00185 , 0.1539]	0.90276
PKID	[-0.1824 , -0.042]	0.90276
UCPD	[-0.0709 , 0.0371]	0.90276
USD	[-0.0673 , 0.00345]	0.90276
Zeta	[-0.0641 , 0.0173]	0.90276

Table 41: Confidence intervals for algorithm Extended Chi2 ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.07885 , 0.1313]	0.95024
Ameva	[-0.10315 , -0.00485]	0.95024
Bayesian	[-0.02965 , 0.0849]	0.95024
CACC	[-0.03365 , 0.04135]	0.95024
CADD	[0.12935 , 0.3859]	0.95024
CAIM	[-0.1076 , -0.0088]	0.95024
Chi2	[-0.13005 , -0.0163]	0.95024
ChiMerge	[-0.10925 , -0.00355]	0.95024
ClusterAnalysis	[-0.08195 , 0.0119]	0.95024
DIBD	[-0.0276 , 0.0934]	0.95024
Distance	[-0.06045 , 0.0548]	0.95024
EqualFrequency	[-0.1465 , -0.02005]	0.95024
EqualWidth	[-0.15745 , -0.00265]	0.95024
FFD	[-0.171 , -0.0265]	0.95024
FUSINTER	[-0.13375 , -0.00265]	0.95024
HDD	[-0.0924 , 0.0168]	0.95024
HellingerBD	[-0.1405 , 0.00155]	0.95024
Heter-Disc	[0.1384 , 0.32555]	0.95024
ID3	[-0.08465 , 0.029]	0.95024
IDD	[-0.0945 , 0.0738]	0.95024
Khiops	[-0.15345 , -0.01345]	0.95024
MDLP	[-0.075 , 0.0247]	0.95024
Modified Chi2	[-0.13715 , -0.01835]	0.95024
MODL	[-0.08555 , -0.0091]	0.95024
MVD	[-0.0121 , 0.16865]	0.95024
PKID	[-0.20315 , -0.0343]	0.95024
UCPD	[-0.08445 , 0.0485]	0.95024
USD	[-0.07685 , 0.0078]	0.95024
Zeta	[-0.0782 , 0.02515]	0.95024

Table 42: Confidence intervals for algorithm Extended Chi2 ($\alpha=0.95$)

15 Detailed results for FFD

15.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	727.0	93.0	4.528E-6	0.00002
Ameva	603.5	216.5	0.008442999999999999	0.008886
Bayesian	750.5	69.5	5.022E-7	0.000004
CACC	698.0	122.0	4.404E-5	0.000105
CADD	820.0	0.0	1.819E-12	0
CAIM	512.0	268.0	0.09014	0.087361
Chi2	574.0	246.0	0.02686	0.027029
ChiMerge	508.0	312.0	0.1922	0.185514
ClusterAnalysis	682.0	98.0	1.353E-5	0.000043
DIBD	806.0	14.0	2.0E-10	0
Distance	718.0	102.0	9.598E-6	0.000033
EqualFrequency	464.5	355.5	≥ 0.2	0.822146
EqualWidth	595.5	224.5	0.03377	0.033621
Extended Chi2	678.0	142.0	1.703E-4	0.000307
FUSINTER	524.5	255.5	0.06099	0.059131
HDD	640.0	140.0	2.836E-4	0.000473
HellingerBD	624.5	195.5	0.010235999999999999	0.010923
Heter-Disc	820.0	0.0	1.819E-12	0
ID3	655.0	128.0	4.634E-4	0.000727
IDD	722.0	98.0	6.91E-6	0.000027
Khiops	429.0	351.0	≥ 0.2	0.581481
MDLP	638.0	182.0	0.0016824	0.002131
Modified Chi2	558.5	261.5	0.04586	0.044843
MODL	593.0	227.0	0.013026	0.013645
MVD	759.0	61.0	2.04E-7	0.000003
PKID	228.0	592.0	≥ 0.2	1
UCPD	786.0	34.0	6.776E-9	0
USD	637.0	143.0	3.426E-4	0.000553
Zeta	658.0	162.0	5.698E-4	0.000837

Table 43: Results obtained by the Wilcoxon test for algorithm FFD

15.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.0629 , 0.174]	0.90276
Ameva	[0.0087 , 0.0539]	0.90276
Bayesian	[0.091 , 0.17045]	0.90276
CACC	[0.0525 , 0.1275]	0.90276
CADD	[0.29635 , 0.4695]	0.90276
CAIM	[0.00075 , 0.0398]	0.90276
Chi2	[0.00855 , 0.06225]	0.90276
ChiMerge	[-0.0037 , 0.046]	0.90276
ClusterAnalysis	[0.0291 , 0.0671]	0.90276
DIBD	[0.10215 , 0.16415]	0.90276
Distance	[0.0529 , 0.1307]	0.90276
EqualFrequency	[-0.0043 , 0.0116]	0.90276
EqualWidth	[0.00685 , 0.051]	0.90276
Extended Chi2	[0.0331 , 0.1413]	0.90276
FUSINTER	[0.00215 , 0.045]	0.90276
HDD	[0.03085 , 0.092]	0.90276
HellingerBD	[0.014 , 0.0693]	0.90276
Heter-Disc	[0.25755 , 0.4096]	0.90276
ID3	[0.0433 , 0.11035]	0.90276
IDD	[0.05395 , 0.12185]	0.90276
Khiops	[-0.00535 , 0.0122]	0.90276
MDLP	[0.0254 , 0.1093]	0.90276
Modified Chi2	[0.00265 , 0.0321]	0.90276
MODL	[0.00905 , 0.0543]	0.90276
MVD	[0.07875 , 0.26685]	0.90276
PKID	[-0.0261 , -0.00225]	0.90276
UCPD	[0.0545 , 0.09555]	0.90276
USD	[0.0355 , 0.0882]	0.90276
Zeta	[0.03415 , 0.0979]	0.90276

Table 44: Confidence intervals for algorithm FFD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.0555 , 0.1905]	0.95024
Ameva	[0.0067 , 0.0584]	0.95024
Bayesian	[0.0829 , 0.1783]	0.95024
CACC	[0.0461 , 0.1409]	0.95024
CADD	[0.28275 , 0.48715]	0.95024
CAIM	[-0.00275 , 0.0448]	0.95024
Chi2	[0.00365 , 0.06895]	0.95024
ChiMerge	[-0.00625 , 0.0606]	0.95024
ClusterAnalysis	[0.02465 , 0.0715]	0.95024
DIBD	[0.09665 , 0.1699]	0.95024
Distance	[0.04725 , 0.14145]	0.95024
EqualFrequency	[-0.0057 , 0.0134]	0.95024
EqualWidth	[0.00295 , 0.05695]	0.95024
Extended Chi2	[0.0265 , 0.171]	0.95024
FUSINTER	[-0.0011 , 0.05465]	0.95024
HDD	[0.0265 , 0.0993]	0.95024
HellingerBD	[0.0109 , 0.07575]	0.95024
Heter-Disc	[0.23765 , 0.4273]	0.95024
ID3	[0.03595 , 0.11425]	0.95024
IDD	[0.0423 , 0.1358]	0.95024
Khiops	[-0.00695 , 0.01415]	0.95024
MDLP	[0.02005 , 0.11995]	0.95024
Modified Chi2	[0.00025 , 0.03515]	0.95024
MODL	[0.00585 , 0.0574]	0.95024
MVD	[0.07245 , 0.307]	0.95024
PKID	[-0.02885 , -0.00145]	0.95024
UCPD	[0.0514 , 0.10035]	0.95024
USD	[0.03085 , 0.0933]	0.95024
Zeta	[0.02585 , 0.1029]	0.95024

Table 45: Confidence intervals for algorithm FFD ($\alpha=0.95$)

16 Detailed results for FUSINTER

16.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	638.0	182.0	0.0016824	0.002131
Ameva	452.0	328.0	≥ 0.2	0.383106
Bayesian	691.0	129.0	7.198E-5	0.000154
CACC	608.5	171.5	0.0017718	0.002202
CADD	820.0	0.0	1.819E-12	0
CAIM	407.0	373.0	≥ 0.2	0.807066
Chi2	425.5	394.5	≥ 0.2	0.829155
ChiMerge	393.0	387.0	≥ 0.2	0.961045
ClusterAnalysis	498.0	322.0	≥ 0.2	0.234221
DIBD	716.0	104.0	1.1274E-5	0.000038
Distance	666.0	154.0	3.572E-4	0.000565
EqualFrequency	302.0	478.0	≥ 0.2	1
EqualWidth	415.0	405.0	≥ 0.2	0.941068
Extended Chi2	550.0	230.0	0.02486	0.025105
FFD	255.5	524.5	≥ 0.2	1
HDD	533.0	247.0	0.0459	0.045226
HellingerBD	449.0	371.0	≥ 0.2	0.595466
Heter-Disc	806.0	14.0	2.0E-10	0
ID3	616.0	204.0	0.00487	0.00551
IDD	589.0	231.0	0.015266	0.015659
Khiops	295.5	524.5	≥ 0.2	1
MDLP	560.5	259.5	0.10968	0.105877
Modified Chi2	303.5	476.5	≥ 0.2	1
MODL	396.5	423.5	≥ 0.2	1
MVD	687.0	133.0	9.446E-5	0.000192
PKID	159.5	620.5	≥ 0.2	1
UCPD	639.0	181.0	0.001598	0.002037
USD	527.5	292.5	≥ 0.2	0.254942
Zeta	601.0	219.0	0.009382	0.010053

Table 46: Results obtained by the Wilcoxon test for algorithm FUSINTER

16.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.02925 , 0.1372]	0.90276
Ameva	[-0.00735 , 0.0358]	0.90276
Bayesian	[0.0485 , 0.12965]	0.90276
CACC	[0.021 , 0.085]	0.90276
CADD	[0.25255 , 0.4362]	0.90276
CAIM	[-0.02075 , 0.0332]	0.90276
Chi2	[-0.0225 , 0.0342]	0.90276
ChiMerge	[-0.02255 , 0.0263]	0.90276
ClusterAnalysis	[-0.00695 , 0.05205]	0.90276
DIBD	[0.06965 , 0.1393]	0.90276
Distance	[0.0325 , 0.0954]	0.90276
EqualFrequency	[-0.03575 , 0.0041]	0.90276
EqualWidth	[-0.02015 , 0.02365]	0.90276
Extended Chi2	[0.0055 , 0.11555]	0.90276
FFD	[-0.045 , -0.00215]	0.90276
HDD	[0.00445 , 0.07485]	0.90276
HellingerBD	[-0.01535 , 0.02985]	0.90276
Heter-Disc	[0.2119 , 0.3583]	0.90276
ID3	[0.0187 , 0.07485]	0.90276
IDD	[0.01385 , 0.0928]	0.90276
Khiops	[-0.03405 , 0.00155]	0.90276
MDLP	[0.00365 , 0.07635]	0.90276
Modified Chi2	[-0.0291 , 0.00295]	0.90276
MODL	[-0.02195 , 0.0249]	0.90276
MVD	[0.05305 , 0.21015]	0.90276
PKID	[-0.0587 , -0.01495]	0.90276
UCPD	[0.02765 , 0.07395]	0.90276
USD	[-0.0009 , 0.0531]	0.90276
Zeta	[0.0138 , 0.0744]	0.90276

Table 47: Confidence intervals for algorithm FUSINTER ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.0229 , 0.15285]	0.95024
Ameva	[-0.01325 , 0.04355]	0.95024
Bayesian	[0.0432 , 0.13765]	0.95024
CACC	[0.0161 , 0.0938]	0.95024
CADD	[0.2202 , 0.45125]	0.95024
CAIM	[-0.02855 , 0.0413]	0.95024
Chi2	[-0.02915 , 0.03825]	0.95024
ChiMerge	[-0.02785 , 0.0325]	0.95024
ClusterAnalysis	[-0.01225 , 0.0576]	0.95024
DIBD	[0.06415 , 0.1472]	0.95024
Distance	[0.0271 , 0.1044]	0.95024
EqualFrequency	[-0.0421 , 0.00685]	0.95024
EqualWidth	[-0.02425 , 0.0316]	0.95024
Extended Chi2	[0.00265 , 0.13375]	0.95024
FFD	[-0.05465 , 0.0011]	0.95024
HDD	[0.0008 , 0.0811]	0.95024
HellingerBD	[-0.01845 , 0.0346]	0.95024
Heter-Disc	[0.20515 , 0.3779]	0.95024
ID3	[0.01325 , 0.08085]	0.95024
IDD	[0.00945 , 0.1005]	0.95024
Khiops	[-0.0387 , 0.00535]	0.95024
MDLP	[0.00035 , 0.0877]	0.95024
Modified Chi2	[-0.03155 , 0.0064]	0.95024
MODL	[-0.0274 , 0.0291]	0.95024
MVD	[0.04485 , 0.2367]	0.95024
PKID	[-0.06465 , -0.0115]	0.95024
UCPD	[0.02205 , 0.0789]	0.95024
USD	[-0.00845 , 0.06035]	0.95024
Zeta	[0.0082 , 0.0794]	0.95024

Table 48: Confidence intervals for algorithm FUSINTER ($\alpha=0.95$)

17 Detailed results for HDD

17.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	511.0	309.0	0.1787	0.172476
Ameva	325.0	455.0	≥ 0.2	1
Bayesian	647.0	173.0	0.0010488	0.001411
CACC	461.0	359.0	≥ 0.2	0.488795
CADD	795.0	25.0	1.6444E-9	0
CAIM	287.0	500.0	≥ 0.2	1
Chi2	310.0	510.0	≥ 0.2	1
ChiMerge	290.0	490.0	≥ 0.2	1
ClusterAnalysis	382.0	438.0	≥ 0.2	1
DIBD	588.0	232.0	0.015876	0.016428
Distance	476.0	344.0	≥ 0.2	0.371404
EqualFrequency	215.0	565.0	≥ 0.2	1
EqualWidth	250.5	569.5	≥ 0.2	1
Extended Chi2	457.0	323.0	≥ 0.2	0.346212
FFD	140.0	640.0	≥ 0.2	1
FUSINTER	247.0	533.0	≥ 0.2	1
HellingerBD	303.0	477.0	≥ 0.2	1
Heter-Disc	747.0	73.0	7.138E-7	0.000006
ID3	476.0	344.0	≥ 0.2	1
IDD	436.0	344.0	≥ 0.2	0.516398
Khiops	223.5	556.5	≥ 0.2	1
MDLP	379.0	401.0	≥ 0.2	1
Modified Chi2	182.5	637.5	≥ 0.2	1
MODL	216.0	564.0	≥ 0.2	1
MVD	611.0	209.0	0.006096	0.00676
PKID	99.0	681.0	≥ 0.2	1
UCPD	465.0	355.0	≥ 0.2	0.455672
USD	326.5	493.5	≥ 0.2	1
Zeta	457.0	363.0	≥ 0.2	0.523173

Table 49: Results obtained by the Wilcoxon test for algorithm HDD

17.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.0057 , 0.12615]	0.90276
Ameva	[-0.06265 , 0.0165]	0.90276
Bayesian	[0.01555 , 0.0816]	0.90276
CACC	[-0.01525 , 0.0427]	0.90276
CADD	[0.20605 , 0.3923]	0.90276
CAIM	[-0.06135 , 0]	0.90276
Chi2	[-0.05985 , 0.0063]	0.90276
ChiMerge	[-0.07435 , 0.0041]	0.90276
ClusterAnalysis	[-0.031 , 0.0192]	0.90276
DIBD	[0.0215 , 0.1031]	0.90276
Distance	[-0.023 , 0.06595]	0.90276
EqualFrequency	[-0.0816 , -0.01465]	0.90276
EqualWidth	[-0.0716 , -0.00515]	0.90276
Extended Chi2	[-0.0122 , 0.08035]	0.90276
FFD	[-0.092 , -0.03085]	0.90276
FUSINTER	[-0.07485 , -0.00445]	0.90276
HellingerBD	[-0.05345 , 0.00645]	0.90276
Heter-Disc	[0.17155 , 0.3455]	0.90276
ID3	[-0.00335 , 0.0127]	0.90276
IDD	[-0.0274 , 0.06765]	0.90276
Khiops	[-0.088 , -0.0146]	0.90276
MDLP	[-0.04555 , 0.0362]	0.90276
Modified Chi2	[-0.0821 , -0.0175]	0.90276
MODL	[-0.05355 , -0.0095]	0.90276
MVD	[0.0395 , 0.16785]	0.90276
PKID	[-0.1043 , -0.04485]	0.90276
UCPD	[-0.0246 , 0.0498]	0.90276
USD	[-0.0196 , 0.00405]	0.90276
Zeta	[-0.02545 , 0.05595]	0.90276

Table 50: Confidence intervals for algorithm HDD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.015 , 0.13875]	0.95024
Ameva	[-0.071 , 0.02405]	0.95024
Bayesian	[0.0128 , 0.0887]	0.95024
CACC	[-0.0199 , 0.0501]	0.95024
CADD	[0.19695 , 0.4077]	0.95024
CAIM	[-0.0719 , 0.00355]	0.95024
Chi2	[-0.0652 , 0.0129]	0.95024
ChiMerge	[-0.0845 , 0.0104]	0.95024
ClusterAnalysis	[-0.0361 , 0.0254]	0.95024
DIBD	[0.0138 , 0.11265]	0.95024
Distance	[-0.0303 , 0.07765]	0.95024
EqualFrequency	[-0.09 , -0.0091]	0.95024
EqualWidth	[-0.07625 , -0.002]	0.95024
Extended Chi2	[-0.0168 , 0.0924]	0.95024
FFD	[-0.0993 , -0.0265]	0.95024
FUSINTER	[-0.0811 , -0.0008]	0.95024
HellingerBD	[-0.0598 , 0.0134]	0.95024
Heter-Disc	[0.158 , 0.36395]	0.95024
ID3	[-0.00475 , 0.0155]	0.95024
IDD	[-0.03255 , 0.07855]	0.95024
Khiops	[-0.09475 , -0.00855]	0.95024
MDLP	[-0.0514 , 0.0476]	0.95024
Modified Chi2	[-0.08785 , -0.0132]	0.95024
MODL	[-0.0598 , -0.0053]	0.95024
MVD	[0.02675 , 0.18775]	0.95024
PKID	[-0.10935 , -0.03915]	0.95024
UCPD	[-0.03375 , 0.05675]	0.95024
USD	[-0.0213 , 0.0068]	0.95024
Zeta	[-0.04025 , 0.06485]	0.95024

Table 51: Confidence intervals for algorithm HDD ($\alpha=0.95$)

18 Detailed results for HellingerBD

18.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	586.0	234.0	0.017158	0.017673
Ameva	381.0	439.0	≥ 0.2	1
Bayesian	650.0	170.0	8.912E-4	0.001227
CACC	541.0	279.0	0.07932	0.077139
CADD	820.0	0.0	1.819E-12	0
CAIM	395.0	425.0	≥ 0.2	1
Chi2	388.0	432.0	≥ 0.2	1
ChiMerge	337.0	483.0	≥ 0.2	1
ClusterAnalysis	418.5	361.5	≥ 0.2	0.685182
DIBD	711.0	109.0	1.6716E-5	0.000051
Distance	621.5	198.5	0.0037790000000000002	0.004248
EqualFrequency	240.0	540.0	≥ 0.2	1
EqualWidth	331.0	452.0	≥ 0.2	1
Extended Chi2	521.0	259.0	0.06824	0.066494
FFD	195.5	624.5	≥ 0.2	1
FUSINTER	371.0	449.0	≥ 0.2	1
HDD	477.0	303.0	≥ 0.2	0.222062
Heter-Disc	798.0	22.0	9.75E-10	0
ID3	511.5	308.5	≥ 0.2	0.364728
IDD	549.0	271.0	0.06218	0.060784
Khiops	252.0	528.0	≥ 0.2	1
MDLP	510.0	310.0	0.18312	0.176743
Modified Chi2	265.0	555.0	≥ 0.2	1
MODL	349.0	471.0	≥ 0.2	1
MVD	647.0	173.0	0.0010488	0.001411
PKID	103.5	716.5	≥ 0.2	1
UCPD	587.0	233.0	0.016506	0.017041
USD	439.0	381.0	≥ 0.2	0.691723
Zeta	574.0	246.0	0.02686	0.026773

Table 52: Results obtained by the Wilcoxon test for algorithm HellingerBD

18.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.01595 , 0.1185]	0.90276
Ameva	[-0.04235 , 0.0287]	0.90276
Bayesian	[0.04135 , 0.1187]	0.90276
CACC	[0.0017 , 0.0914]	0.90276
CADD	[0.22875 , 0.422]	0.90276
CAIM	[-0.0476 , 0.0223]	0.90276
Chi2	[-0.0369 , 0.02525]	0.90276
ChiMerge	[-0.0426 , 0.01]	0.90276
ClusterAnalysis	[-0.0203 , 0.04025]	0.90276
DIBD	[0.06005 , 0.1236]	0.90276
Distance	[0.02125 , 0.085]	0.90276
EqualFrequency	[-0.05205 , -0.00375]	0.90276
EqualWidth	[-0.0394 , 0.0085]	0.90276
Extended Chi2	[0.00275 , 0.11885]	0.90276
FFD	[-0.0693 , -0.014]	0.90276
FUSINTER	[-0.02985 , 0.01535]	0.90276
HDD	[-0.00645 , 0.05345]	0.90276
Heter-Disc	[0.1982 , 0.35725]	0.90276
ID3	[-0.0016 , 0.06285]	0.90276
IDD	[0.00485 , 0.0813]	0.90276
Khiops	[-0.05285 , -0.0017]	0.90276
MDLP	[-0.0056 , 0.06895]	0.90276
Modified Chi2	[-0.05745 , -0.00275]	0.90276
MODL	[-0.03515 , 0.0112]	0.90276
MVD	[0.0495 , 0.20635]	0.90276
PKID	[-0.06815 , -0.02805]	0.90276
UCPD	[0.01145 , 0.06305]	0.90276
USD	[-0.0203 , 0.0407]	0.90276
Zeta	[0.01045 , 0.0557]	0.90276

Table 53: Confidence intervals for algorithm HellingerBD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.00875 , 0.1369]	0.95024
Ameva	[-0.04895 , 0.0344]	0.95024
Bayesian	[0.03175 , 0.12745]	0.95024
CACC	[-0.0058 , 0.10235]	0.95024
CADD	[0.2124 , 0.4419]	0.95024
CAIM	[-0.0568 , 0.0264]	0.95024
Chi2	[-0.04125 , 0.02845]	0.95024
ChiMerge	[-0.0488 , 0.01505]	0.95024
ClusterAnalysis	[-0.02905 , 0.0452]	0.95024
DIBD	[0.05425 , 0.12865]	0.95024
Distance	[0.01605 , 0.09105]	0.95024
EqualFrequency	[-0.0581 , -0.00115]	0.95024
EqualWidth	[-0.0439 , 0.01475]	0.95024
Extended Chi2	[-0.00155 , 0.1405]	0.95024
FFD	[-0.07575 , -0.0109]	0.95024
FUSINTER	[-0.0346 , 0.01845]	0.95024
HDD	[-0.0134 , 0.0598]	0.95024
Heter-Disc	[0.18215 , 0.3734]	0.95024
ID3	[-0.00365 , 0.0702]	0.95024
IDD	[-0.002 , 0.09135]	0.95024
Khiops	[-0.0623 , 0.0001]	0.95024
MDLP	[-0.0102 , 0.0742]	0.95024
Modified Chi2	[-0.06235 , 0.00015]	0.95024
MODL	[-0.03955 , 0.0153]	0.95024
MVD	[0.038 , 0.23445]	0.95024
PKID	[-0.07225 , -0.0243]	0.95024
UCPD	[0.00675 , 0.0669]	0.95024
USD	[-0.0261 , 0.0484]	0.95024
Zeta	[0.0061 , 0.06225]	0.95024

Table 54: Confidence intervals for algorithm HellingerBD ($\alpha=0.95$)

19 Detailed results for Heter-Disc

19.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	150.0	633.0	≥ 0.2	1
Ameva	1.0	819.0	≥ 0.2	1
Bayesian	116.0	664.0	≥ 0.2	1
CACC	61.5	758.5	≥ 0.2	1
CADD	410.0	410.0	≥ 0.2	1
CAIM	15.0	805.0	≥ 0.2	1
Chi2	69.0	751.0	≥ 0.2	1
ChiMerge	10.0	810.0	≥ 0.2	1
ClusterAnalysis	19.0	761.0	≥ 0.2	1
DIBD	53.5	766.5	≥ 0.2	1
Distance	33.0	747.0	≥ 0.2	1
EqualFrequency	6.0	774.0	≥ 0.2	1
EqualWidth	15.0	805.0	≥ 0.2	1
Extended Chi2	110.0	670.0	≥ 0.2	1
FFD	0.0	820.0	≥ 0.2	1
FUSINTER	14.0	806.0	≥ 0.2	1
HDD	73.0	747.0	≥ 0.2	1
HellingerBD	22.0	798.0	≥ 0.2	1
ID3	79.0	741.0	≥ 0.2	1
IDD	105.0	678.0	≥ 0.2	1
Khiops	0.0	820.0	≥ 0.2	1
MDLP	36.5	783.5	≥ 0.2	1
Modified Chi2	9.0	811.0	≥ 0.2	1
MODL	9.0	811.0	≥ 0.2	1
MVD	220.5	564.5	≥ 0.2	1
PKID	5.0	815.0	≥ 0.2	1
UCPD	8.0	812.0	≥ 0.2	1
USD	60.0	760.0	≥ 0.2	1
Zeta	23.0	757.0	≥ 0.2	1

Table 55: Results obtained by the Wilcoxon test for algorithm Heter-Disc

19.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.26795 , -0.0905]	0.90276
Ameva	[-0.34795 , -0.199]	0.90276
Bayesian	[-0.2678 , -0.10565]	0.90276
CACC	[-0.27235 , -0.13815]	0.90276
CADD	[-0.02775 , 0.05135]	0.90276
CAIM	[-0.37835 , -0.20965]	0.90276
Chi2	[-0.3812 , -0.2305]	0.90276
ChiMerge	[-0.3668 , -0.21815]	0.90276
ClusterAnalysis	[-0.3242 , -0.1762]	0.90276
DIBD	[-0.24935 , -0.1138]	0.90276
Distance	[-0.27705 , -0.1342]	0.90276
EqualFrequency	[-0.39825 , -0.2362]	0.90276
EqualWidth	[-0.3843 , -0.2336]	0.90276
Extended Chi2	[-0.30855 , -0.1538]	0.90276
FFD	[-0.4096 , -0.25755]	0.90276
FUSINTER	[-0.3583 , -0.2119]	0.90276
HDD	[-0.3455 , -0.17155]	0.90276
HellingerBD	[-0.35725 , -0.1982]	0.90276
ID3	[-0.3333 , -0.15735]	0.90276
IDD	[-0.2808 , -0.1071]	0.90276
Khiops	[-0.38795 , -0.2382]	0.90276
MDLP	[-0.29035 , -0.14955]	0.90276
Modified Chi2	[-0.3956 , -0.24455]	0.90276
MODL	[-0.3574 , -0.2139]	0.90276
MVD	[-0.2056 , -0.03315]	0.90276
PKID	[-0.436 , -0.2659]	0.90276
UCPD	[-0.30975 , -0.17625]	0.90276
USD	[-0.3529 , -0.18405]	0.90276
Zeta	[-0.33075 , -0.1624]	0.90276

Table 56: Confidence intervals for algorithm Heter-Disc ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.28655 , -0.0769]	0.95024
Ameva	[-0.36525 , -0.189]	0.95024
Bayesian	[-0.28515 , -0.09]	0.95024
CACC	[-0.28295 , -0.1272]	0.95024
CADD	[-0.03775 , 0.10645]	0.95024
CAIM	[-0.397 , -0.20055]	0.95024
Chi2	[-0.3957 , -0.2181]	0.95024
ChiMerge	[-0.3822 , -0.20545]	0.95024
ClusterAnalysis	[-0.3417 , -0.1676]	0.95024
DIBD	[-0.2651 , -0.10425]	0.95024
Distance	[-0.2915 , -0.1241]	0.95024
EqualFrequency	[-0.40885 , -0.2175]	0.95024
EqualWidth	[-0.39815 , -0.21545]	0.95024
Extended Chi2	[-0.32555 , -0.1384]	0.95024
FFD	[-0.4273 , -0.23765]	0.95024
FUSINTER	[-0.3779 , -0.20515]	0.95024
HDD	[-0.36395 , -0.158]	0.95024
HellingerBD	[-0.3734 , -0.18215]	0.95024
ID3	[-0.359 , -0.14445]	0.95024
IDD	[-0.2996 , -0.0986]	0.95024
Khiops	[-0.4066 , -0.227]	0.95024
MDLP	[-0.309 , -0.1361]	0.95024
Modified Chi2	[-0.4152 , -0.23065]	0.95024
MODL	[-0.3766 , -0.2057]	0.95024
MVD	[-0.2311 , -0.01635]	0.95024
PKID	[-0.45275 , -0.2471]	0.95024
UCPD	[-0.32135 , -0.1632]	0.95024
USD	[-0.36975 , -0.16975]	0.95024
Zeta	[-0.3545 , -0.1517]	0.95024

Table 57: Confidence intervals for algorithm Heter-Disc ($\alpha=0.95$)

20 Detailed results for ID3

20.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	472.0	348.0	≥ 0.2	0.400863
Ameva	300.0	520.0	≥ 0.2	1
Bayesian	625.0	195.0	0.003202	0.003772
CACC	377.0	403.0	≥ 0.2	1
CADD	788.0	32.0	5.03E-9	0
CAIM	270.5	509.5	≥ 0.2	1
Chi2	275.5	504.5	≥ 0.2	1
ChiMerge	285.0	535.0	≥ 0.2	1
ClusterAnalysis	294.0	486.0	≥ 0.2	1
DIBD	514.0	266.0	0.08484	0.082317
Distance	407.0	373.0	≥ 0.2	0.807066
EqualFrequency	206.0	574.0	≥ 0.2	1
EqualWidth	219.0	564.0	≥ 0.2	1
Extended Chi2	423.0	397.0	≥ 0.2	0.856008
FFD	128.0	655.0	≥ 0.2	1
FUSINTER	204.0	616.0	≥ 0.2	1
HDD	344.0	476.0	≥ 0.2	1
HellingerBD	308.5	511.5	≥ 0.2	1
Heter-Disc	741.0	79.0	1.2784E-6	0.000008
IDD	410.0	410.0	≥ 0.2	0.994638
Khiops	191.0	589.0	≥ 0.2	1
MDLP	339.0	481.0	≥ 0.2	1
Modified Chi2	124.0	696.0	≥ 0.2	1
MODL	211.0	609.0	≥ 0.2	1
MVD	580.5	239.5	0.021150000000000002	0.021317
PKID	73.0	747.0	≥ 0.2	1
UCPD	420.0	400.0	≥ 0.2	0.887764
USD	206.0	614.0	≥ 0.2	1
Zeta	418.0	402.0	≥ 0.2	0.909039

Table 58: Results obtained by the Wilcoxon test for algorithm ID3

20.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.02385 , 0.0978]	0.90276
Ameva	[-0.07765 , 0.00495]	0.90276
Bayesian	[0.01085 , 0.04685]	0.90276
CACC	[-0.02825 , 0.0259]	0.90276
CADD	[0.1899 , 0.37875]	0.90276
CAIM	[-0.08785 , -0.00025]	0.90276
Chi2	[-0.07615 , 0.00035]	0.90276
ChiMerge	[-0.09485 , -0.00005]	0.90276
ClusterAnalysis	[-0.0507 , 0.00615]	0.90276
DIBD	[0.0019 , 0.0938]	0.90276
Distance	[-0.0405 , 0.0526]	0.90276
EqualFrequency	[-0.0988 , -0.02085]	0.90276
EqualWidth	[-0.0796 , -0.01545]	0.90276
Extended Chi2	[-0.02575 , 0.06765]	0.90276
FFD	[-0.11035 , -0.0433]	0.90276
FUSINTER	[-0.07485 , -0.0187]	0.90276
HDD	[-0.0127 , 0.00335]	0.90276
HellingerBD	[-0.06285 , 0.0016]	0.90276
Heter-Disc	[0.15735 , 0.3333]	0.90276
IDD	[-0.0451 , 0.04865]	0.90276
Khiops	[-0.0985 , -0.0271]	0.90276
MDLP	[-0.06485 , 0.02345]	0.90276
Modified Chi2	[-0.0955 , -0.0321]	0.90276
MODL	[-0.07815 , -0.02445]	0.90276
MVD	[0.0226 , 0.16005]	0.90276
PKID	[-0.1228 , -0.06]	0.90276
UCPD	[-0.04225 , 0.0421]	0.90276
USD	[-0.02675 , -0.00735]	0.90276
Zeta	[-0.04545 , 0.0418]	0.90276

Table 59: Confidence intervals for algorithm ID3 ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.0333 , 0.11215]	0.95024
Ameva	[-0.08425 , 0.0126]	0.95024
Bayesian	[0.0084 , 0.05645]	0.95024
CACC	[-0.03335 , 0.0326]	0.95024
CADD	[0.1788 , 0.4022]	0.95024
CAIM	[-0.0983 , 0.006]	0.95024
Chi2	[-0.0828 , 0.00805]	0.95024
ChiMerge	[-0.09925 , 0.0053]	0.95024
ClusterAnalysis	[-0.0546 , 0.01345]	0.95024
DIBD	[-0.00495 , 0.1023]	0.95024
Distance	[-0.04925 , 0.06145]	0.95024
EqualFrequency	[-0.1049 , -0.01375]	0.95024
EqualWidth	[-0.08345 , -0.0071]	0.95024
Extended Chi2	[-0.029 , 0.08465]	0.95024
FFD	[-0.11425 , -0.03595]	0.95024
FUSINTER	[-0.08085 , -0.01325]	0.95024
HDD	[-0.0155 , 0.00475]	0.95024
HellingerBD	[-0.0702 , 0.00365]	0.95024
Heter-Disc	[0.14445 , 0.359]	0.95024
IDD	[-0.0496 , 0.06355]	0.95024
Khiops	[-0.10765 , -0.01855]	0.95024
MDLP	[-0.07035 , 0.034]	0.95024
Modified Chi2	[-0.0998 , -0.0262]	0.95024
MODL	[-0.08235 , -0.0165]	0.95024
MVD	[0.0116 , 0.17785]	0.95024
PKID	[-0.12665 , -0.0539]	0.95024
UCPD	[-0.0491 , 0.0514]	0.95024
USD	[-0.029 , -0.00595]	0.95024
Zeta	[-0.05145 , 0.0501]	0.95024

Table 60: Confidence intervals for algorithm ID3 ($\alpha=0.95$)

21 Detailed results for IDD

21.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	480.0	303.0	≥ 0.2	0.459769
Ameva	275.0	545.0	≥ 0.2	1
Bayesian	511.0	269.0	0.09288	0.089974
CACC	415.0	405.0	≥ 0.2	0.941068
CADD	790.5	29.5	1.3729E-8	0.000001
CAIM	250.0	570.0	≥ 0.2	1
Chi2	254.0	566.0	≥ 0.2	1
ChiMerge	239.0	581.0	≥ 0.2	1
ClusterAnalysis	335.0	445.0	≥ 0.2	1
DIBD	537.0	283.0	0.0892	0.086572
Distance	471.0	349.0	≥ 0.2	0.408441
EqualFrequency	173.0	647.0	≥ 0.2	1
EqualWidth	225.0	555.0	≥ 0.2	1
Extended Chi2	438.0	382.0	≥ 0.2	0.701663
FFD	98.0	722.0	≥ 0.2	1
FUSINTER	231.0	589.0	≥ 0.2	1
HDD	344.0	436.0	≥ 0.2	1
HellingerBD	271.0	549.0	≥ 0.2	1
Heter-Disc	678.0	105.0	8.94E-5	0.000194
ID3	410.0	410.0	≥ 0.2	0.994638
Khiops	152.0	668.0	≥ 0.2	1
MDLP	375.0	445.0	≥ 0.2	1
Modified Chi2	163.0	657.0	≥ 0.2	1
MODL	235.0	585.0	≥ 0.2	1
MVD	529.0	251.0	0.05256	0.051568
PKID	41.0	779.0	≥ 0.2	1
UCPD	391.0	429.0	≥ 0.2	1
USD	348.0	432.0	≥ 0.2	1
Zeta	383.0	437.0	≥ 0.2	1

Table 61: Results obtained by the Wilcoxon test for algorithm IDD

21.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.0035 , 0.03165]	0.90276
Ameva	[-0.10825 , -0.0044]	0.90276
Bayesian	[0.0011 , 0.0703]	0.90276
CACC	[-0.0473 , 0.0477]	0.90276
CADD	[0.16035 , 0.3133]	0.90276
CAIM	[-0.116 , -0.00845]	0.90276
Chi2	[-0.10725 , -0.0106]	0.90276
ChiMerge	[-0.1226 , -0.00905]	0.90276
ClusterAnalysis	[-0.07075 , 0.0165]	0.90276
DIBD	[0.0007 , 0.0682]	0.90276
Distance	[-0.02425 , 0.0489]	0.90276
EqualFrequency	[-0.1161 , -0.0306]	0.90276
EqualWidth	[-0.1073 , -0.01195]	0.90276
Extended Chi2	[-0.05865 , 0.0746]	0.90276
FFD	[-0.12185 , -0.05395]	0.90276
FUSINTER	[-0.0928 , -0.01385]	0.90276
HDD	[-0.06765 , 0.0274]	0.90276
HellingerBD	[-0.0813 , -0.00485]	0.90276
Heter-Disc	[0.1071 , 0.2808]	0.90276
ID3	[-0.04865 , 0.0451]	0.90276
Khiops	[-0.11805 , -0.0408]	0.90276
MDLP	[-0.04055 , 0.02005]	0.90276
Modified Chi2	[-0.112 , -0.02435]	0.90276
MODL	[-0.09595 , -0.0146]	0.90276
MVD	[0.01045 , 0.1043]	0.90276
PKID	[-0.13265 , -0.0572]	0.90276
UCPD	[-0.05775 , 0.0329]	0.90276
USD	[-0.07385 , 0.0284]	0.90276
Zeta	[-0.0745 , 0.03535]	0.90276

Table 62: Confidence intervals for algorithm IDD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.0062 , 0.03505]	0.95024
Ameva	[-0.1203 , 0.0017]	0.95024
Bayesian	[-0.00635 , 0.07745]	0.95024
CACC	[-0.061 , 0.0586]	0.95024
CADD	[0.1504 , 0.33305]	0.95024
CAIM	[-0.13095 , -0.00275]	0.95024
Chi2	[-0.1196 , -0.00215]	0.95024
ChiMerge	[-0.13365 , -0.00375]	0.95024
ClusterAnalysis	[-0.08055 , 0.02285]	0.95024
DIBD	[-0.0062 , 0.0732]	0.95024
Distance	[-0.0339 , 0.05595]	0.95024
EqualFrequency	[-0.1262 , -0.0233]	0.95024
EqualWidth	[-0.11645 , -0.00625]	0.95024
Extended Chi2	[-0.0738 , 0.0945]	0.95024
FFD	[-0.1358 , -0.0423]	0.95024
FUSINTER	[-0.1005 , -0.00945]	0.95024
HDD	[-0.07855 , 0.03255]	0.95024
HellingerBD	[-0.09135 , 0.002]	0.95024
Heter-Disc	[0.0986 , 0.2996]	0.95024
ID3	[-0.06355 , 0.0496]	0.95024
Khiops	[-0.1278 , -0.03255]	0.95024
MDLP	[-0.0498 , 0.0262]	0.95024
Modified Chi2	[-0.1323 , -0.0202]	0.95024
MODL	[-0.10715 , -0.0096]	0.95024
MVD	[0 , 0.1203]	0.95024
PKID	[-0.144 , -0.05355]	0.95024
UCPD	[-0.06905 , 0.0399]	0.95024
USD	[-0.09085 , 0.0354]	0.95024
Zeta	[-0.09465 , 0.04265]	0.95024

Table 63: Confidence intervals for algorithm IDD ($\alpha=0.95$)

22 Detailed results for Khiops

22.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	724.0	96.0	5.846E-6	0.000024
Ameva	568.5	251.5	0.03265	0.032293
Bayesian	675.0	105.0	2.38E-5	0.000068
CACC	671.0	149.0	2.64E-4	0.00044
CADD	820.0	0.0	1.819E-12	0
CAIM	508.0	312.0	0.1922	0.185514
Chi2	525.0	295.0	0.12472	0.12055
ChiMerge	489.0	331.0	≥ 0.2	0.285258
ClusterAnalysis	614.0	206.0	0.005332	0.005898
DIBD	788.0	32.0	5.03E-9	0
Distance	720.0	100.0	8.152E-6	0.00003
EqualFrequency	398.0	422.0	≥ 0.2	1
EqualWidth	507.5	312.5	≥ 0.2	0.396225
Extended Chi2	609.0	211.0	0.006658	0.007328
FFD	351.0	429.0	≥ 0.2	1
FUSINTER	524.5	295.5	0.12641	0.120911
HDD	556.5	223.5	0.019331	0.019567
HellingerBD	528.0	252.0	0.05434	0.05285
Heter-Disc	820.0	0.0	1.819E-12	0
ID3	589.0	191.0	0.00472	0.005289
IDD	668.0	152.0	3.168E-4	0.000512
MDLP	624.0	196.0	0.003358	0.003937
Modified Chi2	450.0	370.0	≥ 0.2	0.586185
MODL	475.0	345.0	≥ 0.2	0.37864
MVD	755.0	65.0	3.14E-7	0.000003
PKID	264.0	516.0	≥ 0.2	1
UCPD	691.0	89.0	6.288E-6	0.000026
USD	579.0	241.0	0.02236	0.022709
Zeta	615.0	165.0	0.0012464	0.00165

Table 64: Results obtained by the Wilcoxon test for algorithm Khiops

22.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.0503 , 0.1568]	0.90276
Ameva	[0.0058 , 0.05105]	0.90276
Bayesian	[0.0682 , 0.152]	0.90276
CACC	[0.03725 , 0.11615]	0.90276
CADD	[0.28075 , 0.45625]	0.90276
CAIM	[-0.00395 , 0.0397]	0.90276
Chi2	[-0.00255 , 0.04685]	0.90276
ChiMerge	[-0.00365 , 0.0274]	0.90276
ClusterAnalysis	[0.01685 , 0.0665]	0.90276
DIBD	[0.09365 , 0.14925]	0.90276
Distance	[0.05035 , 0.11405]	0.90276
EqualFrequency	[-0.01065 , 0.0161]	0.90276
EqualWidth	[-0.00335 , 0.0398]	0.90276
Extended Chi2	[0.01675 , 0.13645]	0.90276
FFD	[-0.0122 , 0.00535]	0.90276
FUSINTER	[-0.00155 , 0.03405]	0.90276
HDD	[0.0146 , 0.088]	0.90276
HellingerBD	[0.0017 , 0.05285]	0.90276
Heter-Disc	[0.2382 , 0.38795]	0.90276
ID3	[0.0271 , 0.0985]	0.90276
IDD	[0.0408 , 0.11805]	0.90276
MDLP	[0.0164 , 0.10125]	0.90276
Modified Chi2	[-0.01125 , 0.01995]	0.90276
MODL	[-0.008 , 0.03995]	0.90276
MVD	[0.0799 , 0.21555]	0.90276
PKID	[-0.02945 , -0.0004]	0.90276
UCPD	[0.0445 , 0.0843]	0.90276
USD	[0.01175 , 0.07645]	0.90276
Zeta	[0.02785 , 0.0929]	0.90276

Table 65: Confidence intervals for algorithm Khiops ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.04015 , 0.1723]	0.95024
Ameva	[0.0017 , 0.05535]	0.95024
Bayesian	[0.06 , 0.16405]	0.95024
CACC	[0.03305 , 0.1252]	0.95024
CADD	[0.2603 , 0.4727]	0.95024
CAIM	[-0.00885 , 0.04515]	0.95024
Chi2	[-0.0072 , 0.0509]	0.95024
ChiMerge	[-0.0074 , 0.0322]	0.95024
ClusterAnalysis	[0.0128 , 0.071]	0.95024
DIBD	[0.08925 , 0.1584]	0.95024
Distance	[0.04445 , 0.127]	0.95024
EqualFrequency	[-0.01375 , 0.0188]	0.95024
EqualWidth	[-0.00625 , 0.0445]	0.95024
Extended Chi2	[0.01345 , 0.15345]	0.95024
FFD	[-0.01415 , 0.00695]	0.95024
FUSINTER	[-0.00535 , 0.0387]	0.95024
HDD	[0.00855 , 0.09475]	0.95024
HellingerBD	[-0.0001 , 0.0623]	0.95024
Heter-Disc	[0.227 , 0.4066]	0.95024
ID3	[0.01855 , 0.10765]	0.95024
IDD	[0.03255 , 0.1278]	0.95024
MDLP	[0.0122 , 0.1105]	0.95024
Modified Chi2	[-0.0147 , 0.0227]	0.95024
MODL	[-0.01035 , 0.04385]	0.95024
MVD	[0.0705 , 0.2361]	0.95024
PKID	[-0.03265 , 0.001]	0.95024
UCPD	[0.0418 , 0.0876]	0.95024
USD	[0.0054 , 0.08035]	0.95024
Zeta	[0.02135 , 0.0992]	0.95024

Table 66: Confidence intervals for algorithm Khiops ($\alpha=0.95$)

23 Detailed results for MDLP

23.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	506.0	314.0	≥ 0.2	0.194602
Ameva	309.0	471.0	≥ 0.2	1
Bayesian	556.0	264.0	0.04976	0.048936
CACC	560.0	260.0	0.04362	0.043082
CADD	770.5	49.5	2.1510000000000001E-7	0.000003
CAIM	221.0	559.0	≥ 0.2	1
Chi2	312.0	508.0	≥ 0.2	1
ChiMerge	211.0	569.0	≥ 0.2	1
ClusterAnalysis	402.0	418.0	≥ 0.2	1
DIBD	532.0	248.0	0.0475	0.046747
Distance	568.5	216.5	0.10914	0.104903
EqualFrequency	209.5	570.5	≥ 0.2	1
EqualWidth	271.0	509.0	≥ 0.2	1
Extended Chi2	469.0	311.0	≥ 0.2	0.267248
FFD	182.0	638.0	≥ 0.2	1
FUSINTER	259.5	560.5	≥ 0.2	1
HDD	401.0	379.0	≥ 0.2	0.872501
HellingerBD	310.0	510.0	≥ 0.2	1
Heter-Disc	783.5	36.5	3.898E-8	0.000001
ID3	481.0	339.0	≥ 0.2	0.335713
IDD	445.0	375.0	≥ 0.2	0.632672
Khiops	196.0	624.0	≥ 0.2	1
Modified Chi2	217.5	602.5	≥ 0.2	1
MODL	270.0	510.0	≥ 0.2	1
MVD	540.0	240.0	0.03594	0.035709
PKID	115.0	705.0	≥ 0.2	1
UCPD	440.0	380.0	≥ 0.2	0.681836
USD	428.0	392.0	≥ 0.2	0.803621
Zeta	402.0	378.0	≥ 0.2	0.861522

Table 67: Results obtained by the Wilcoxon test for algorithm MDLP

23.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.0095 , 0.08625]	0.90276
Ameva	[-0.0536 , 0.00595]	0.90276
Bayesian	[0.011 , 0.1057]	0.90276
CACC	[0.00635 , 0.0636]	0.90276
CADD	[0.17025 , 0.3759]	0.90276
CAIM	[-0.0726 , -0.0114]	0.90276
Chi2	[-0.0846 , 0.01005]	0.90276
ChiMerge	[-0.0859 , -0.0099]	0.90276
ClusterAnalysis	[-0.051 , 0.0282]	0.90276
DIBD	[0.01205 , 0.0898]	0.90276
Distance	[0.0034 , 0.0293]	0.90276
EqualFrequency	[-0.0922 , -0.01085]	0.90276
EqualWidth	[-0.06785 , 0.0001]	0.90276
Extended Chi2	[-0.0175 , 0.0651]	0.90276
FFD	[-0.1093 , -0.0254]	0.90276
FUSINTER	[-0.07635 , -0.00365]	0.90276
HDD	[-0.0362 , 0.04555]	0.90276
HellingerBD	[-0.06895 , 0.0056]	0.90276
Heter-Disc	[0.14955 , 0.29035]	0.90276
ID3	[-0.02345 , 0.06485]	0.90276
IDD	[-0.02005 , 0.04055]	0.90276
Khiops	[-0.10125 , -0.0164]	0.90276
Modified Chi2	[-0.0974 , -0.01395]	0.90276
MODL	[-0.06735 , -0.0002]	0.90276
MVD	[0.0119 , 0.17535]	0.90276
PKID	[-0.11725 , -0.03365]	0.90276
UCPD	[-0.03595 , 0.0456]	0.90276
USD	[-0.0439 , 0.0458]	0.90276
Zeta	[-0.0288 , 0.02505]	0.90276

Table 68: Confidence intervals for algorithm MDLP ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.01585 , 0.1037]	0.95024
Ameva	[-0.0664 , 0.00905]	0.95024
Bayesian	[0.0003 , 0.11355]	0.95024
CACC	[0.0021 , 0.0686]	0.95024
CADD	[0.15445 , 0.3895]	0.95024
CAIM	[-0.07995 , -0.0059]	0.95024
Chi2	[-0.09275 , 0.0163]	0.95024
ChiMerge	[-0.095 , -0.0078]	0.95024
ClusterAnalysis	[-0.06 , 0.03265]	0.95024
DIBD	[0.00165 , 0.09445]	0.95024
Distance	[0.0019 , 0.0316]	0.95024
EqualFrequency	[-0.10155 , -0.0061]	0.95024
EqualWidth	[-0.0778 , 0.00415]	0.95024
Extended Chi2	[-0.0247 , 0.075]	0.95024
FFD	[-0.11995 , -0.02005]	0.95024
FUSINTER	[-0.0877 , -0.00035]	0.95024
HDD	[-0.0476 , 0.0514]	0.95024
HellingerBD	[-0.0742 , 0.0102]	0.95024
Heter-Disc	[0.1361 , 0.309]	0.95024
ID3	[-0.034 , 0.07035]	0.95024
IDD	[-0.0262 , 0.0498]	0.95024
Khiops	[-0.1105 , -0.0122]	0.95024
Modified Chi2	[-0.10565 , -0.00835]	0.95024
MODL	[-0.08115 , 0.00305]	0.95024
MVD	[0.0036 , 0.20355]	0.95024
PKID	[-0.1236 , -0.02855]	0.95024
UCPD	[-0.04615 , 0.0505]	0.95024
USD	[-0.0517 , 0.05435]	0.95024
Zeta	[-0.0352 , 0.03105]	0.95024

Table 69: Confidence intervals for algorithm MDLP ($\alpha=0.95$)

24 Detailed results for Modified Chi2

24.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	691.0	129.0	7.198E-5	0.000154
Ameva	515.5	304.5	0.15977000000000002	0.152837
Bayesian	769.0	51.0	6.46E-8	0.000001
CACC	724.5	95.5	5.609E-6	0.000022
CADD	820.0	0.0	1.819E-12	0
CAIM	462.0	358.0	≥ 0.2	0.480395
Chi2	505.0	275.0	0.11072	0.107005
ChiMerge	508.0	312.0	0.1922	0.184775
ClusterAnalysis	611.0	209.0	0.006096	0.00676
DIBD	775.0	45.0	3.062E-8	0.000001
Distance	705.5	114.5	2.544E-5	0.000067
EqualFrequency	367.0	453.0	≥ 0.2	1
EqualWidth	495.5	324.5	≥ 0.2	0.246906
Extended Chi2	722.0	98.0	6.91E-6	0.000027
FFD	261.5	558.5	≥ 0.2	1
FUSINTER	476.5	303.5	≥ 0.2	0.223097
HDD	637.5	182.5	0.0017265	0.002142
HellingerBD	555.0	265.0	0.0514	0.050499
Heter-Disc	811.0	9.0	6.002E-11	0
ID3	696.0	124.0	5.078E-5	0.000118
IDD	657.0	163.0	6.032E-4	0.000861
Khiops	370.0	450.0	≥ 0.2	1
MDLP	602.5	217.5	0.008809	0.009362
MODL	524.5	295.5	≥ 0.2	0.273551
MVD	733.0	87.0	2.674E-6	0.000014
PKID	208.0	612.0	≥ 0.2	1
UCPD	695.0	125.0	5.45E-5	0.000124
USD	650.0	170.0	8.912E-4	0.001227
Zeta	637.0	183.0	0.0017706	0.002229

Table 70: Results obtained by the Wilcoxon test for algorithm Modified Chi2

24.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.03825 , 0.1675]	0.90276
Ameva	[-0.00235 , 0.0364]	0.90276
Bayesian	[0.0721 , 0.1489]	0.90276
CACC	[0.0375 , 0.09365]	0.90276
CADD	[0.2888 , 0.4529]	0.90276
CAIM	[-0.013 , 0.0322]	0.90276
Chi2	[-0.0007 , 0.0398]	0.90276
ChiMerge	[-0.0038 , 0.02925]	0.90276
ClusterAnalysis	[0.01145 , 0.0606]	0.90276
DIBD	[0.0844 , 0.1499]	0.90276
Distance	[0.0376 , 0.11375]	0.90276
EqualFrequency	[-0.0264 , 0.0114]	0.90276
EqualWidth	[-0.004 , 0.03555]	0.90276
Extended Chi2	[0.02025 , 0.1041]	0.90276
FFD	[-0.0321 , -0.00265]	0.90276
FUSINTER	[-0.00295 , 0.0291]	0.90276
HDD	[0.0175 , 0.0821]	0.90276
HellingerBD	[0.00275 , 0.05745]	0.90276
Heter-Disc	[0.24455 , 0.3956]	0.90276
ID3	[0.0321 , 0.0955]	0.90276
IDD	[0.02435 , 0.112]	0.90276
Khiops	[-0.01995 , 0.01125]	0.90276
MDLP	[0.01395 , 0.0974]	0.90276
MODL	[-0.00105 , 0.0288]	0.90276
MVD	[0.06945 , 0.26705]	0.90276
PKID	[-0.0457 , -0.00805]	0.90276
UCPD	[0.0355 , 0.0981]	0.90276
USD	[0.01745 , 0.06285]	0.90276
Zeta	[0.0278 , 0.08865]	0.90276

Table 71: Confidence intervals for algorithm Modified Chi2 ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.03295 , 0.18075]	0.95024
Ameva	[-0.0055 , 0.03995]	0.95024
Bayesian	[0.0634 , 0.1559]	0.95024
CACC	[0.03425 , 0.09855]	0.95024
CADD	[0.2741 , 0.46805]	0.95024
CAIM	[-0.0165 , 0.0413]	0.95024
Chi2	[-0.0035 , 0.0433]	0.95024
ChiMerge	[-0.00605 , 0.03335]	0.95024
ClusterAnalysis	[0.0086 , 0.06735]	0.95024
DIBD	[0.07995 , 0.15895]	0.95024
Distance	[0.0322 , 0.12135]	0.95024
EqualFrequency	[-0.02955 , 0.01385]	0.95024
EqualWidth	[-0.0075 , 0.0396]	0.95024
Extended Chi2	[0.01835 , 0.13715]	0.95024
FFD	[-0.03515 , -0.00025]	0.95024
FUSINTER	[-0.0064 , 0.03155]	0.95024
HDD	[0.0132 , 0.08785]	0.95024
HellingerBD	[-0.00015 , 0.06235]	0.95024
Heter-Disc	[0.23065 , 0.4152]	0.95024
ID3	[0.0262 , 0.0998]	0.95024
IDD	[0.0202 , 0.1323]	0.95024
Khiops	[-0.0227 , 0.0147]	0.95024
MDLP	[0.00835 , 0.10565]	0.95024
MODL	[-0.0029 , 0.0332]	0.95024
MVD	[0.0591 , 0.29635]	0.95024
PKID	[-0.0488 , -0.00665]	0.95024
UCPD	[0.03205 , 0.10315]	0.95024
USD	[0.0126 , 0.0681]	0.95024
Zeta	[0.02025 , 0.0956]	0.95024

Table 72: Confidence intervals for algorithm Modified Chi2 ($\alpha=0.95$)

25 Detailed results for MODL

25.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	632.0	188.0	0.002276	0.002783
Ameva	459.0	321.0	≥ 0.2	0.33211
Bayesian	757.0	63.0	2.536E-7	0.000003
CACC	692.0	128.0	6.718E-5	0.000146
CADD	817.0	3.0	9.094E-12	0
CAIM	377.5	402.5	≥ 0.2	1
Chi2	404.0	416.0	≥ 0.2	1
ChiMerge	401.0	379.0	≥ 0.2	0.872501
ClusterAnalysis	505.0	315.0	≥ 0.2	0.199267
DIBD	746.0	74.0	7.88E-7	0.000006
Distance	634.0	186.0	0.00206	0.002548
EqualFrequency	293.0	527.0	≥ 0.2	1
EqualWidth	411.0	409.0	≥ 0.2	0.983887
Extended Chi2	588.0	192.0	0.004948	0.005604
FFD	227.0	593.0	≥ 0.2	1
FUSINTER	423.5	396.5	≥ 0.2	1
HDD	564.0	216.0	0.014286	0.014886
HellingerBD	471.0	349.0	≥ 0.2	0.407653
Heter-Disc	811.0	9.0	6.002E-11	0
ID3	609.0	211.0	0.006658	0.007328
IDD	585.0	235.0	0.017832	0.018327
Khiops	345.0	475.0	≥ 0.2	1
MDLP	510.0	270.0	0.09568	0.092651
Modified Chi2	295.5	524.5	≥ 0.2	1
MVD	679.0	141.0	1.5974E-4	0.000292
PKID	184.0	636.0	≥ 0.2	1
UCPD	584.0	236.0	0.018526	0.018801
USD	572.0	248.0	0.02884	0.028947
Zeta	531.0	289.0	0.10582	0.102444

Table 73: Results obtained by the Wilcoxon test for algorithm MODL

25.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.034 , 0.1525]	0.90276
Ameva	[-0.0085 , 0.02585]	0.90276
Bayesian	[0.05625 , 0.1319]	0.90276
CACC	[0.02535 , 0.0742]	0.90276
CADD	[0.24575 , 0.424]	0.90276
CAIM	[-0.02705 , 0.01985]	0.90276
Chi2	[-0.0309 , 0.02955]	0.90276
ChiMerge	[-0.0264 , 0.0222]	0.90276
ClusterAnalysis	[-0.00605 , 0.04825]	0.90276
DIBD	[0.06745 , 0.1285]	0.90276
Distance	[0.0266 , 0.099]	0.90276
EqualFrequency	[-0.0514 , 0.0016]	0.90276
EqualWidth	[-0.0284 , 0.0305]	0.90276
Extended Chi2	[0.01265 , 0.0735]	0.90276
FFD	[-0.0543 , -0.00905]	0.90276
FUSINTER	[-0.0249 , 0.02195]	0.90276
HDD	[0.0095 , 0.05355]	0.90276
HellingerBD	[-0.0112 , 0.03515]	0.90276
Heter-Disc	[0.2139 , 0.3574]	0.90276
ID3	[0.02445 , 0.07815]	0.90276
IDD	[0.0146 , 0.09595]	0.90276
Khiops	[-0.03995 , 0.008]	0.90276
MDLP	[0.0002 , 0.06735]	0.90276
Modified Chi2	[-0.0288 , 0.00105]	0.90276
MVD	[0.0576 , 0.20765]	0.90276
PKID	[-0.06635 , -0.0174]	0.90276
UCPD	[0.0115 , 0.06235]	0.90276
USD	[0.00735 , 0.0457]	0.90276
Zeta	[-0.0007 , 0.0678]	0.90276

Table 74: Confidence intervals for algorithm MODL ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.0267 , 0.16325]	0.95024
Ameva	[-0.0122 , 0.03]	0.95024
Bayesian	[0.05225 , 0.13715]	0.95024
CACC	[0.02085 , 0.0806]	0.95024
CADD	[0.23225 , 0.44725]	0.95024
CAIM	[-0.03105 , 0.0238]	0.95024
Chi2	[-0.038 , 0.03675]	0.95024
ChiMerge	[-0.0337 , 0.0259]	0.95024
ClusterAnalysis	[-0.01055 , 0.0527]	0.95024
DIBD	[0.0623 , 0.13245]	0.95024
Distance	[0.02255 , 0.1093]	0.95024
EqualFrequency	[-0.0558 , 0.00615]	0.95024
EqualWidth	[-0.0357 , 0.03585]	0.95024
Extended Chi2	[0.0091 , 0.08555]	0.95024
FFD	[-0.0574 , -0.00585]	0.95024
FUSINTER	[-0.0291 , 0.0274]	0.95024
HDD	[0.0053 , 0.0598]	0.95024
HellingerBD	[-0.0153 , 0.03955]	0.95024
Heter-Disc	[0.2057 , 0.3766]	0.95024
ID3	[0.0165 , 0.08235]	0.95024
IDD	[0.0096 , 0.10715]	0.95024
Khiops	[-0.04385 , 0.01035]	0.95024
MDLP	[-0.00305 , 0.08115]	0.95024
Modified Chi2	[-0.0332 , 0.0029]	0.95024
MVD	[0.0497 , 0.2242]	0.95024
PKID	[-0.0705 , -0.01305]	0.95024
UCPD	[0.0054 , 0.06815]	0.95024
USD	[0.00395 , 0.0492]	0.95024
Zeta	[-0.005 , 0.0766]	0.95024

Table 75: Confidence intervals for algorithm MODL ($\alpha=0.95$)

26 Detailed results for MVD

26.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	318.0	462.0	≥ 0.2	1
Ameva	176.0	644.0	≥ 0.2	1
Bayesian	339.0	481.0	≥ 0.2	1
CACC	294.5	525.5	≥ 0.2	1
CADD	646.5	136.5	8.022000000000001E-4	0.001125
CAIM	190.0	630.0	≥ 0.2	1
Chi2	153.0	667.0	≥ 0.2	1
ChiMerge	155.0	665.0	≥ 0.2	1
ClusterAnalysis	176.0	644.0	≥ 0.2	1
DIBD	351.0	429.0	≥ 0.2	1
Distance	306.0	474.0	≥ 0.2	1
EqualFrequency	110.0	670.0	≥ 0.2	1
EqualWidth	160.0	660.0	≥ 0.2	1
Extended Chi2	281.0	539.0	≥ 0.2	1
FFD	61.0	759.0	≥ 0.2	1
FUSINTER	133.0	687.0	≥ 0.2	1
HDD	209.0	611.0	≥ 0.2	1
HellingerBD	173.0	647.0	≥ 0.2	1
Heter-Disc	564.5	220.5	0.12471000000000002	0.119704
ID3	239.5	580.5	≥ 0.2	1
IDD	251.0	529.0	≥ 0.2	1
Khiops	65.0	755.0	≥ 0.2	1
MDLP	240.0	540.0	≥ 0.2	1
Modified Chi2	87.0	733.0	≥ 0.2	1
MODL	141.0	679.0	≥ 0.2	1
PKID	38.0	782.0	≥ 0.2	1
UCPD	264.0	556.0	≥ 0.2	1
USD	210.0	610.0	≥ 0.2	1
Zeta	258.0	522.0	≥ 0.2	1

Table 76: Results obtained by the Wilcoxon test for algorithm MVD

26.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.0858 , 0.0201]	0.90276
Ameva	[-0.1788 , -0.03325]	0.90276
Bayesian	[-0.1167 , 0.027]	0.90276
CACC	[-0.13515 , 0.00355]	0.90276
CADD	[0.07255 , 0.2403]	0.90276
CAIM	[-0.2601 , -0.0432]	0.90276
Chi2	[-0.2277 , -0.06595]	0.90276
ChiMerge	[-0.22785 , -0.04725]	0.90276
ClusterAnalysis	[-0.1698 , -0.0412]	0.90276
DIBD	[-0.0939 , 0.029]	0.90276
Distance	[-0.16085 , 0.0172]	0.90276
EqualFrequency	[-0.2553 , -0.06035]	0.90276
EqualWidth	[-0.23125 , -0.0541]	0.90276
Extended Chi2	[-0.1539 , -0.00185]	0.90276
FFD	[-0.26685 , -0.07875]	0.90276
FUSINTER	[-0.21015 , -0.05305]	0.90276
HDD	[-0.16785 , -0.0395]	0.90276
HellingerBD	[-0.20635 , -0.0495]	0.90276
Heter-Disc	[0.03315 , 0.2056]	0.90276
ID3	[-0.16005 , -0.0226]	0.90276
IDD	[-0.1043 , -0.01045]	0.90276
Khiops	[-0.21555 , -0.0799]	0.90276
MDLP	[-0.17535 , -0.0119]	0.90276
Modified Chi2	[-0.26705 , -0.06945]	0.90276
MODL	[-0.20765 , -0.0576]	0.90276
PKID	[-0.2815 , -0.09335]	0.90276
UCPD	[-0.1992 , -0.00755]	0.90276
USD	[-0.19545 , -0.0391]	0.90276
Zeta	[-0.2227 , -0.0061]	0.90276

Table 77: Confidence intervals for algorithm MVD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.10025 , 0.0303]	0.95024
Ameva	[-0.2003 , -0.02755]	0.95024
Bayesian	[-0.1309 , 0.0336]	0.95024
CACC	[-0.14345 , 0.0108]	0.95024
CADD	[0.0651 , 0.25215]	0.95024
CAIM	[-0.28645 , -0.034]	0.95024
Chi2	[-0.23805 , -0.0518]	0.95024
ChiMerge	[-0.24865 , -0.03935]	0.95024
ClusterAnalysis	[-0.19075 , -0.0326]	0.95024
DIBD	[-0.11565 , 0.03865]	0.95024
Distance	[-0.1871 , 0.02545]	0.95024
EqualFrequency	[-0.29705 , -0.0507]	0.95024
EqualWidth	[-0.2603 , -0.0416]	0.95024
Extended Chi2	[-0.16865 , 0.0121]	0.95024
FFD	[-0.307 , -0.07245]	0.95024
FUSINTER	[-0.2367 , -0.04485]	0.95024
HDD	[-0.18775 , -0.02675]	0.95024
HellingerBD	[-0.23445 , -0.038]	0.95024
Heter-Disc	[0.01635 , 0.2311]	0.95024
ID3	[-0.17785 , -0.0116]	0.95024
IDD	[-0.1203 , 0]	0.95024
Khiops	[-0.2361 , -0.0705]	0.95024
MDLP	[-0.20355 , -0.0036]	0.95024
Modified Chi2	[-0.29635 , -0.0591]	0.95024
MODL	[-0.2242 , -0.0497]	0.95024
PKID	[-0.3194 , -0.08685]	0.95024
UCPD	[-0.2177 , -0.00125]	0.95024
USD	[-0.2162 , -0.0296]	0.95024
Zeta	[-0.24245 , 0.00465]	0.95024

Table 78: Confidence intervals for algorithm MVD ($\alpha=0.95$)

27 Detailed results for PKID

27.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	764.0	56.0	1.1634E-7	0.000002
Ameva	674.0	146.0	2.192E-4	0.000369
Bayesian	773.0	47.0	3.948E-8	0.000001
CACC	699.0	81.0	3.05E-6	0.000016
CADD	820.0	0.0	1.819E-12	0
CAIM	615.0	205.0	0.005096	0.005742
Chi2	627.0	153.0	6.288E-4	0.000919
ChiMerge	566.0	254.0	0.0356	0.035417
ClusterAnalysis	699.0	81.0	3.05E-6	0.000016
DIBD	799.0	21.0	8.13E-10	0
Distance	721.0	59.0	3.258E-7	0.000004
EqualFrequency	507.0	273.0	0.1045	0.101065
EqualWidth	648.0	135.0	7.294E-4	0.001061
Extended Chi2	714.0	106.0	1.3218E-5	0.000043
FFD	592.0	228.0	0.03846	0.037747
FUSINTER	620.5	159.5	9.166E-4	0.001241
HDD	681.0	99.0	1.469E-5	0.000047
HellingerBD	716.5	103.5	4.112E-5	0.000105
Heter-Disc	815.0	5.0	1.819E-11	0
ID3	747.0	73.0	1.0948E-5	0.000043
IDD	779.0	41.0	1.811E-8	0.000001
Khiops	516.0	264.0	0.0798	0.076995
MDLP	705.0	115.0	2.64E-5	0.000071
Modified Chi2	612.0	208.0	0.005832	0.006492
MODL	636.0	184.0	0.0018628	0.002292
MVD	782.0	38.0	1.2008E-8	0.000001
UCPD	785.0	35.0	7.84E-9	0
USD	708.5	111.5	2.027E-5	0.000057
Zeta	702.0	78.0	2.3E-6	0.000013

Table 79: Results obtained by the Wilcoxon test for algorithm PKID

27.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[0.0775 , 0.1829]	0.90276
Ameva	[0.02545 , 0.07685]	0.90276
Bayesian	[0.10085 , 0.1801]	0.90276
CACC	[0.06255 , 0.149]	0.90276
CADD	[0.32705 , 0.4868]	0.90276
CAIM	[0.0107 , 0.0627]	0.90276
Chi2	[0.0233 , 0.0898]	0.90276
ChiMerge	[0.0039 , 0.05295]	0.90276
ClusterAnalysis	[0.03875 , 0.0866]	0.90276
DIBD	[0.10775 , 0.1766]	0.90276
Distance	[0.0695 , 0.1393]	0.90276
EqualFrequency	[-0.00035 , 0.0253]	0.90276
EqualWidth	[0.01395 , 0.06465]	0.90276
Extended Chi2	[0.042 , 0.1824]	0.90276
FFD	[0.00225 , 0.0261]	0.90276
FUSINTER	[0.01495 , 0.0587]	0.90276
HDD	[0.04485 , 0.1043]	0.90276
HellingerBD	[0.02805 , 0.06815]	0.90276
Heter-Disc	[0.2659 , 0.436]	0.90276
ID3	[0.06 , 0.1228]	0.90276
IDD	[0.0572 , 0.13265]	0.90276
Khiops	[0.0004 , 0.02945]	0.90276
MDLP	[0.03365 , 0.11725]	0.90276
Modified Chi2	[0.00805 , 0.0457]	0.90276
MODL	[0.0174 , 0.06635]	0.90276
MVD	[0.09335 , 0.2815]	0.90276
UCPD	[0.0642 , 0.11595]	0.90276
USD	[0.0512 , 0.10385]	0.90276
Zeta	[0.05515 , 0.1056]	0.90276

Table 80: Confidence intervals for algorithm PKID ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[0.07065 , 0.1964]	0.95024
Ameva	[0.019 , 0.08225]	0.95024
Bayesian	[0.0967 , 0.19005]	0.95024
CACC	[0.0553 , 0.1626]	0.95024
CADD	[0.30775 , 0.5022]	0.95024
CAIM	[0.0083 , 0.0704]	0.95024
Chi2	[0.0185 , 0.09675]	0.95024
ChiMerge	[0.0011 , 0.0598]	0.95024
ClusterAnalysis	[0.03405 , 0.0924]	0.95024
DIBD	[0.10235 , 0.19265]	0.95024
Distance	[0.0638 , 0.14525]	0.95024
EqualFrequency	[-0.0016 , 0.02915]	0.95024
EqualWidth	[0.0105 , 0.06855]	0.95024
Extended Chi2	[0.0343 , 0.20315]	0.95024
FFD	[0.00145 , 0.02885]	0.95024
FUSINTER	[0.0115 , 0.06465]	0.95024
HDD	[0.03915 , 0.10935]	0.95024
HellingerBD	[0.0243 , 0.07225]	0.95024
Heter-Disc	[0.2471 , 0.45275]	0.95024
ID3	[0.0539 , 0.12665]	0.95024
IDD	[0.05355 , 0.144]	0.95024
Khiops	[-0.001 , 0.03265]	0.95024
MDLP	[0.02855 , 0.1236]	0.95024
Modified Chi2	[0.00665 , 0.0488]	0.95024
MODL	[0.01305 , 0.0705]	0.95024
MVD	[0.08685 , 0.3194]	0.95024
UCPD	[0.0608 , 0.1222]	0.95024
USD	[0.0452 , 0.1089]	0.95024
Zeta	[0.05105 , 0.11075]	0.95024

Table 81: Confidence intervals for algorithm PKID ($\alpha=0.95$)

28 Detailed results for UCPD

28.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	474.0	346.0	≥ 0.2	0.385962
Ameva	254.0	566.0	≥ 0.2	1
Bayesian	550.0	270.0	0.06026	0.058959
CACC	441.0	379.0	≥ 0.2	0.672003
CADD	793.0	27.0	2.294E-9	0
CAIM	233.0	587.0	≥ 0.2	1
Chi2	242.0	578.0	≥ 0.2	1
ChiMerge	233.5	586.5	≥ 0.2	1
ClusterAnalysis	310.0	510.0	≥ 0.2	1
DIBD	658.0	162.0	5.698E-4	0.000837
Distance	463.0	357.0	≥ 0.2	0.471328
EqualFrequency	130.0	690.0	≥ 0.2	1
EqualWidth	216.0	604.0	≥ 0.2	1
Extended Chi2	419.5	400.5	≥ 0.2	0.892897
FFD	34.0	786.0	≥ 0.2	1
FUSINTER	181.0	639.0	≥ 0.2	1
HDD	355.0	465.0	≥ 0.2	1
HellingerBD	233.0	587.0	≥ 0.2	1
Heter-Disc	812.0	8.0	4.548E-11	0
ID3	400.0	420.0	≥ 0.2	1
IDD	429.0	391.0	≥ 0.2	0.79324
Khiops	89.0	691.0	≥ 0.2	1
MDLP	380.0	440.0	≥ 0.2	1
Modified Chi2	125.0	695.0	≥ 0.2	1
MODL	236.0	584.0	≥ 0.2	1
MVD	556.0	264.0	0.04976	0.048936
PKID	35.0	785.0	≥ 0.2	1
USD	337.0	483.0	≥ 0.2	1
Zeta	393.0	427.0	≥ 0.2	1

Table 82: Results obtained by the Wilcoxon test for algorithm UCPD

28.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.0249 , 0.11485]	0.90276
Ameva	[-0.0636 , -0.00535]	0.90276
Bayesian	[0.00665 , 0.095]	0.90276
CACC	[-0.0237 , 0.05075]	0.90276
CADD	[0.19305 , 0.38995]	0.90276
CAIM	[-0.0634 , -0.01275]	0.90276
Chi2	[-0.08285 , -0.01435]	0.90276
ChiMerge	[-0.0694 , -0.01455]	0.90276
ClusterAnalysis	[-0.0536 , 0.00535]	0.90276
DIBD	[0.0329 , 0.0802]	0.90276
Distance	[-0.01535 , 0.05275]	0.90276
EqualFrequency	[-0.08645 , -0.0372]	0.90276
EqualWidth	[-0.0723 , -0.0207]	0.90276
Extended Chi2	[-0.0371 , 0.0709]	0.90276
FFD	[-0.09555 , -0.0545]	0.90276
FUSINTER	[-0.07395 , -0.02765]	0.90276
HDD	[-0.0498 , 0.0246]	0.90276
HellingerBD	[-0.06305 , -0.01145]	0.90276
Heter-Disc	[0.17625 , 0.30975]	0.90276
ID3	[-0.0421 , 0.04225]	0.90276
IDD	[-0.0329 , 0.05775]	0.90276
Khiops	[-0.0843 , -0.0445]	0.90276
MDLP	[-0.0456 , 0.03595]	0.90276
Modified Chi2	[-0.0981 , -0.0355]	0.90276
MODL	[-0.06235 , -0.0115]	0.90276
MVD	[0.00755 , 0.1992]	0.90276
PKID	[-0.11595 , -0.0642]	0.90276
USD	[-0.05735 , 0.0188]	0.90276
Zeta	[-0.03155 , 0.0285]	0.90276

Table 83: Confidence intervals for algorithm UCPD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.033 , 0.12735]	0.95024
Ameva	[-0.0722 , -0.00135]	0.95024
Bayesian	[-0.00215 , 0.1052]	0.95024
CACC	[-0.03035 , 0.05825]	0.95024
CADD	[0.17615 , 0.4081]	0.95024
CAIM	[-0.0719 , -0.0091]	0.95024
Chi2	[-0.09075 , -0.00815]	0.95024
ChiMerge	[-0.07665 , -0.00835]	0.95024
ClusterAnalysis	[-0.05725 , 0.01305]	0.95024
DIBD	[0.0275 , 0.087]	0.95024
Distance	[-0.02 , 0.06085]	0.95024
EqualFrequency	[-0.09165 , -0.03265]	0.95024
EqualWidth	[-0.0804 , -0.0139]	0.95024
Extended Chi2	[-0.0485 , 0.08445]	0.95024
FFD	[-0.10035 , -0.0514]	0.95024
FUSINTER	[-0.0789 , -0.02205]	0.95024
HDD	[-0.05675 , 0.03375]	0.95024
HellingerBD	[-0.0669 , -0.00675]	0.95024
Heter-Disc	[0.1632 , 0.32135]	0.95024
ID3	[-0.0514 , 0.0491]	0.95024
IDD	[-0.0399 , 0.06905]	0.95024
Khiops	[-0.0876 , -0.0418]	0.95024
MDLP	[-0.0505 , 0.04615]	0.95024
Modified Chi2	[-0.10315 , -0.03205]	0.95024
MODL	[-0.06815 , -0.0054]	0.95024
MVD	[0.00125 , 0.2177]	0.95024
PKID	[-0.1222 , -0.0608]	0.95024
USD	[-0.067 , 0.02445]	0.95024
Zeta	[-0.03795 , 0.0347]	0.95024

Table 84: Confidence intervals for algorithm UCPD ($\alpha=0.95$)

29 Detailed results for USD

29.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	521.0	299.0	0.13868	0.13395
Ameva	333.0	487.0	≥ 0.2	1
Bayesian	761.0	59.0	1.6344E-7	0.000002
CACC	471.0	309.0	≥ 0.2	0.255399
CADD	797.0	23.0	1.1642E-9	0
CAIM	288.0	492.0	≥ 0.2	1
Chi2	334.0	486.0	≥ 0.2	1
ChiMerge	328.0	492.0	≥ 0.2	1
ClusterAnalysis	338.0	482.0	≥ 0.2	1
DIBD	601.0	219.0	0.009382	0.010053
Distance	484.0	336.0	≥ 0.2	0.316645
EqualFrequency	212.0	568.0	≥ 0.2	1
EqualWidth	277.0	543.0	≥ 0.2	1
Extended Chi2	517.0	303.0	0.15378	0.148475
FFD	143.0	637.0	≥ 0.2	1
FUSINTER	292.5	527.5	≥ 0.2	1
HDD	493.5	326.5	≥ 0.2	0.257266
HellingerBD	381.0	439.0	≥ 0.2	1
Heter-Disc	760.0	60.0	1.8268E-7	0.000002
ID3	614.0	206.0	0.005332	0.005815
IDD	432.0	348.0	≥ 0.2	0.553123
Khiops	241.0	579.0	≥ 0.2	1
MDLP	392.0	428.0	≥ 0.2	1
Modified Chi2	170.0	650.0	≥ 0.2	1
MODL	248.0	572.0	≥ 0.2	1
MVD	610.0	210.0	0.006372	0.007039
PKID	111.5	708.5	≥ 0.2	1
UCPD	483.0	337.0	≥ 0.2	0.323184
Zeta	432.0	348.0	≥ 0.2	0.553123

Table 85: Results obtained by the Wilcoxon test for algorithm USD

29.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.0046 , 0.13305]	0.90276
Ameva	[-0.05735 , 0.0166]	0.90276
Bayesian	[0.02555 , 0.0694]	0.90276
CACC	[-0.0083 , 0.0427]	0.90276
CADD	[0.22315 , 0.38995]	0.90276
CAIM	[-0.07085 , 0.003]	0.90276
Chi2	[-0.05015 , 0.01585]	0.90276
ChiMerge	[-0.06855 , 0.0158]	0.90276
ClusterAnalysis	[-0.03255 , 0.00915]	0.90276
DIBD	[0.02845 , 0.11485]	0.90276
Distance	[-0.01285 , 0.07315]	0.90276
EqualFrequency	[-0.08005 , -0.0107]	0.90276
EqualWidth	[-0.0679 , -0.0014]	0.90276
Extended Chi2	[-0.00345 , 0.0673]	0.90276
FFD	[-0.0882 , -0.0355]	0.90276
FUSINTER	[-0.0531 , 0.0009]	0.90276
HDD	[-0.00405 , 0.0196]	0.90276
HellingerBD	[-0.0407 , 0.0203]	0.90276
Heter-Disc	[0.18405 , 0.3529]	0.90276
ID3	[0.00735 , 0.02675]	0.90276
IDD	[-0.0284 , 0.07385]	0.90276
Khiops	[-0.07645 , -0.01175]	0.90276
MDLP	[-0.0458 , 0.0439]	0.90276
Modified Chi2	[-0.06285 , -0.01745]	0.90276
MODL	[-0.0457 , -0.00735]	0.90276
MVD	[0.0391 , 0.19545]	0.90276
PKID	[-0.10385 , -0.0512]	0.90276
UCPD	[-0.0188 , 0.05735]	0.90276
Zeta	[-0.0293 , 0.0545]	0.90276

Table 86: Confidence intervals for algorithm USD ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.01235 , 0.14385]	0.95024
Ameva	[-0.0636 , 0.02235]	0.95024
Bayesian	[0.02375 , 0.0793]	0.95024
CACC	[-0.0106 , 0.05055]	0.95024
CADD	[0.2118 , 0.40875]	0.95024
CAIM	[-0.07725 , 0.01065]	0.95024
Chi2	[-0.05655 , 0.02055]	0.95024
ChiMerge	[-0.07405 , 0.02325]	0.95024
ClusterAnalysis	[-0.0368 , 0.01495]	0.95024
DIBD	[0.0201 , 0.1194]	0.95024
Distance	[-0.02235 , 0.0819]	0.95024
EqualFrequency	[-0.0883 , -0.0078]	0.95024
EqualWidth	[-0.07235 , 0.0031]	0.95024
Extended Chi2	[-0.0078 , 0.07685]	0.95024
FFD	[-0.0933 , -0.03085]	0.95024
FUSINTER	[-0.06035 , 0.00845]	0.95024
HDD	[-0.0068 , 0.0213]	0.95024
HellingerBD	[-0.0484 , 0.0261]	0.95024
Heter-Disc	[0.16975 , 0.36975]	0.95024
ID3	[0.00595 , 0.029]	0.95024
IDD	[-0.0354 , 0.09085]	0.95024
Khiops	[-0.08035 , -0.0054]	0.95024
MDLP	[-0.05435 , 0.0517]	0.95024
Modified Chi2	[-0.0681 , -0.0126]	0.95024
MODL	[-0.0492 , -0.00395]	0.95024
MVD	[0.0296 , 0.2162]	0.95024
PKID	[-0.1089 , -0.0452]	0.95024
UCPD	[-0.02445 , 0.067]	0.95024
Zeta	[-0.0373 , 0.05985]	0.95024

Table 87: Confidence intervals for algorithm USD ($\alpha=0.95$)

30 Detailed results for Zeta

30.1 Results

VS	R^+	R^-	Exact P-value	Asymptotic P-value
1R	487.0	333.0	≥ 0.2	0.297551
Ameva	256.0	564.0	≥ 0.2	1
Bayesian	511.0	269.0	0.09288	0.089974
CACC	470.0	350.0	≥ 0.2	0.416104
CADD	761.0	19.0	1.1168E-9	0
CAIM	111.0	669.0	≥ 0.2	1
Chi2	323.0	497.0	≥ 0.2	1
ChiMerge	122.0	698.0	≥ 0.2	1
ClusterAnalysis	346.0	474.0	≥ 0.2	1
DIBD	547.0	233.0	0.02782	0.027955
Distance	458.0	322.0	≥ 0.2	0.339114
EqualFrequency	174.5	645.5	≥ 0.2	1
EqualWidth	243.0	537.0	≥ 0.2	1
Extended Chi2	459.0	361.0	≥ 0.2	0.50583
FFD	162.0	658.0	≥ 0.2	1
FUSINTER	219.0	601.0	≥ 0.2	1
HDD	363.0	457.0	≥ 0.2	1
HellingerBD	246.0	574.0	≥ 0.2	1
Heter-Disc	757.0	23.0	2.328E-9	0
ID3	402.0	418.0	≥ 0.2	1
IDD	437.0	383.0	≥ 0.2	0.711654
Khiops	165.0	615.0	≥ 0.2	1
MDLP	378.0	402.0	≥ 0.2	1
Modified Chi2	183.0	637.0	≥ 0.2	1
MODL	289.0	531.0	≥ 0.2	1
MVD	522.0	258.0	0.0661	0.064452
PKID	78.0	702.0	≥ 0.2	1
UCPD	427.0	393.0	≥ 0.2	0.814036
USD	348.0	432.0	≥ 0.2	1

Table 88: Results obtained by the Wilcoxon test for algorithm Zeta

30.2 Confidence intervals for Median of differences

$\alpha=0.90$	Confidence interval	Exact confidence
1R	[-0.0172 , 0.1366]	0.90276
Ameva	[-0.05545 , -0.00545]	0.90276
Bayesian	[0.00145 , 0.11715]	0.90276
CACC	[-0.0242 , 0.0581]	0.90276
CADD	[0.21955 , 0.38625]	0.90276
CAIM	[-0.0542 , -0.0205]	0.90276
Chi2	[-0.0696 , 0.0132]	0.90276
ChiMerge	[-0.061 , -0.02735]	0.90276
ClusterAnalysis	[-0.0513 , 0.02115]	0.90276
DIBD	[0.0113 , 0.09255]	0.90276
Distance	[-0.0098 , 0.04305]	0.90276
EqualFrequency	[-0.07695 , -0.0166]	0.90276
EqualWidth	[-0.06015 , -0.0067]	0.90276
Extended Chi2	[-0.0173 , 0.0641]	0.90276
FFD	[-0.0979 , -0.03415]	0.90276
FUSINTER	[-0.0744 , -0.0138]	0.90276
HDD	[-0.05595 , 0.02545]	0.90276
HellingerBD	[-0.0557 , -0.01045]	0.90276
Heter-Disc	[0.1624 , 0.33075]	0.90276
ID3	[-0.0418 , 0.04545]	0.90276
IDD	[-0.03535 , 0.0745]	0.90276
Khiops	[-0.0929 , -0.02785]	0.90276
MDLP	[-0.02505 , 0.0288]	0.90276
Modified Chi2	[-0.08865 , -0.0278]	0.90276
MODL	[-0.0678 , 0.0007]	0.90276
MVD	[0.0061 , 0.2227]	0.90276
PKID	[-0.1056 , -0.05515]	0.90276
UCPD	[-0.0285 , 0.03155]	0.90276
USD	[-0.0545 , 0.0293]	0.90276

Table 89: Confidence intervals for algorithm Zeta ($\alpha=0.90$)

$\alpha=0.95$	Confidence interval	Exact confidence
1R	[-0.02815 , 0.16255]	0.95024
Ameva	[-0.06145 , -0.0017]	0.95024
Bayesian	[-0.00455 , 0.131]	0.95024
CACC	[-0.0343 , 0.072]	0.95024
CADD	[0.1911 , 0.4018]	0.95024
CAIM	[-0.05675 , -0.0176]	0.95024
Chi2	[-0.0758 , 0.0196]	0.95024
ChiMerge	[-0.06355 , -0.02355]	0.95024
ClusterAnalysis	[-0.05795 , 0.03185]	0.95024
DIBD	[0.0067 , 0.0995]	0.95024
Distance	[-0.0139 , 0.0472]	0.95024
EqualFrequency	[-0.08185 , -0.0132]	0.95024
EqualWidth	[-0.06805 , -0.0008]	0.95024
Extended Chi2	[-0.02515 , 0.0782]	0.95024
FFD	[-0.1029 , -0.02585]	0.95024
FUSINTER	[-0.0794 , -0.0082]	0.95024
HDD	[-0.06485 , 0.04025]	0.95024
HellingerBD	[-0.06225 , -0.0061]	0.95024
Heter-Disc	[0.1517 , 0.3545]	0.95024
ID3	[-0.0501 , 0.05145]	0.95024
IDD	[-0.04265 , 0.09465]	0.95024
Khiops	[-0.0992 , -0.02135]	0.95024
MDLP	[-0.03105 , 0.0352]	0.95024
Modified Chi2	[-0.0956 , -0.02025]	0.95024
MODL	[-0.0766 , 0.005]	0.95024
MVD	[-0.00465 , 0.24245]	0.95024
PKID	[-0.11075 , -0.05105]	0.95024
UCPD	[-0.0347 , 0.03795]	0.95024
USD	[-0.05985 , 0.0373]	0.95024

Table 90: Confidence intervals for algorithm Zeta ($\alpha=0.95$)