

# Tables of the statistical tests considering the imbalanced databases contained in the Bin1.

Octavio Loyola-González  
octavioloyola@bioplasmas.cu

José Fco. Martínez-Trinidad      Jesús Ariel Carrasco-Ochoa  
fmartine@inaoep.mx              ariel@inaoep.mx

Milton García-Borroto mgarciab@ceis.cujae.edu.cu

March 4, 2016

## Abstract

In this document we show supplementary material for the paper entitled “Effect of Class Imbalance on Quality Measures for Contrast Patterns: An Experimental Study” submitted to the journal Information Science since March, 2016.

## 1 Average rankings of Friedman test

Average ranks obtained by applying the Friedman procedure

Algorithm	Ranking
ACC	22.3125
Brins	12.4375
Cconf	27.6875
Cole	12.4375
ColStr	16.5
Conf	12.4375
Cos	9.8438
Cover	10.2812
Dep	27.6875
ExCex	12.4375
Gain	13.6875
GR	12.4375
InfGain	27.6875
Jacc	9.8438
Klos	19.625
Lap	15.2812
Lever	32
Lift	27.6875
MDisc	14.0312
MultInf	9.8125

NetConf	26.1875
OddsR	12.1562
Pearson	15.2812
RelRisk	25.0312
SeBag	12.4375
Spec	25.25
Streng	9.1562
Sup	14.625
SupDif	9.2812
WRACC	9.2812
X2	10.7188
Zhang	12.4375

Friedman statistic considering reduction performance (distributed according to chi-square with 31 degrees of freedom: 281.109375.

P-value computed by Friedman Test: 1.1359990725878788E-10.

## 2 Post hoc comparisons

Results achieved on post hoc comparisons for  $\alpha = 0.05$ ,  $\alpha = 0.10$  and adjusted p-values.

### 2.1 P-values for $\alpha = 0.05$

$i$	algorithms	$z = (R_0 - R_i)/SE$	$p$	Shaffer
496	Lever vs. Streng	6.88765	0	0.000101
495	Lever vs. SupDif	6.849961	0	0.000108
494	Lever vs. WRACC	6.849961	0	0.000108
493	Lever vs. MultInf	6.689783	0	0.000108
492	Cos vs. Lever	6.680361	0	0.000108
491	Jacc vs. Lever	6.680361	0	0.000108
490	Cover vs. Lever	6.54845	0	0.000108
489	Lever vs. X2	6.416538	0	0.000108
488	Lever vs. OddsR	5.983116	0	0.000108
487	Brins vs. Lever	5.898316	0	0.000108
486	Cole vs. Lever	5.898316	0	0.000108
485	Conf vs. Lever	5.898316	0	0.000108
484	ExCex vs. Lever	5.898316	0	0.000108
483	GR vs. Lever	5.898316	0	0.000108
482	Lever vs. SeBag	5.898316	0	0.000108
481	Lever vs. Zhang	5.898316	0	0.000108
480	Cconf vs. Streng	5.587382	0	0.000108
479	Dep vs. Streng	5.587382	0	0.000108
478	InfGain vs. Streng	5.587382	0	0.000108
477	Lift vs. Streng	5.587382	0	0.000108
476	Cconf vs. SupDif	5.549693	0	0.000108
475	Cconf vs. WRACC	5.549693	0	0.000108
474	Dep vs. SupDif	5.549693	0	0.000108
473	Dep vs. WRACC	5.549693	0	0.000108
472	InfGain vs. SupDif	5.549693	0	0.000108
471	InfGain vs. WRACC	5.549693	0	0.000108
470	Lift vs. SupDif	5.549693	0	0.000108
469	Lift vs. WRACC	5.549693	0	0.000108
468	Gain vs. Lever	5.521426	0	0.000108
467	Lever vs. MDisc	5.417782	0	0.000108
466	Cconf vs. MultInf	5.389515	0	0.000108
465	Dep vs. MultInf	5.389515	0	0.000108
464	InfGain vs. MultInf	5.389515	0	0.000115
463	Lift vs. MultInf	5.389515	0	0.000115
462	Cconf vs. Cos	5.380093	0	0.000115
461	Cconf vs. Jacc	5.380093	0	0.000115
460	Cos vs. Dep	5.380093	0	0.000115
459	Cos vs. InfGain	5.380093	0	0.000115
458	Cos vs. Lift	5.380093	0	0.000115
457	Dep vs. Jacc	5.380093	0	0.000115
456	InfGain vs. Jacc	5.380093	0	0.000115
455	Jacc vs. Lift	5.380093	0	0.000115
454	Cconf vs. Cover	5.248182	0	0.000115
453	Cover vs. Dep	5.248182	0	0.000115
452	Cover vs. InfGain	5.248182	0	0.000115
451	Cover vs. Lift	5.248182	0	0.000115
450	Lever vs. Sup	5.23876	0	0.000115
449	NetConf vs. Streng	5.135115	0	0.000115
448	Cconf vs. X2	5.116271	0	0.000115
447	Dep vs. X2	5.116271	0	0.000115
446	InfGain vs. X2	5.116271	0	0.000115
445	Lift vs. X2	5.116271	0	0.000115
444	NetConf vs. SupDif	5.097426	0	0.000115
443	NetConf vs. WRACC	5.097426	0	0.000115
442	Lap vs. Lever	5.040893	0	0.000115
441	Lever vs. Pearson	5.040893	0	0.000115
440	MultInf vs. NetConf	4.937248	0.000001	0.000115
439	Cos vs. NetConf	4.927826	0.000001	0.000115
438	Jacc vs. NetConf	4.927826	0.000001	0.000115
437	Spec vs. Streng	4.852448	0.000001	0.000115
436	Spec vs. SupDif	4.814759	0.000001	0.000115
435	Spec vs. WRACC	4.814759	0.000001	0.000115

434	Cover vs. NetConf	4.795915	0.000002	0.000122
433	RelRisk vs. Streng	4.786493	0.000002	0.000122
432	RelRisk vs. SupDif	4.748804	0.000002	0.000122
431	RelRisk vs. WRACC	4.748804	0.000002	0.000122
430	Cconf vs. OddsR	4.682848	0.000003	0.000122
429	Dep vs. OddsR	4.682848	0.000003	0.000122
428	InfGain vs. OddsR	4.682848	0.000003	0.000122
427	Lift vs. OddsR	4.682848	0.000003	0.000122
426	ColStr vs. Lever	4.673426	0.000003	0.000122
425	NetConf vs. X2	4.664004	0.000003	0.000122
424	MultiInf vs. Spec	4.654581	0.000003	0.000122
423	Cos vs. Spec	4.645159	0.000003	0.000122
422	Jacc vs. Spec	4.645159	0.000003	0.000122
421	Brins vs. Cconf	4.598048	0.000004	0.000122
420	Brins vs. Dep	4.598048	0.000004	0.000122
419	Brins vs. InfGain	4.598048	0.000004	0.000122
418	Brins vs. Lift	4.598048	0.000004	0.000122
417	Cconf vs. Cole	4.598048	0.000004	0.000122
416	Cconf vs. Conf	4.598048	0.000004	0.000122
415	Cconf vs. ExCex	4.598048	0.000004	0.000122
414	Cconf vs. GR	4.598048	0.000004	0.000122
413	Cconf vs. SeBag	4.598048	0.000004	0.000122
412	Cconf vs. Zhang	4.598048	0.000004	0.000122
411	Cole vs. Dep	4.598048	0.000004	0.000122
410	Cole vs. InfGain	4.598048	0.000004	0.000122
409	Cole vs. Lift	4.598048	0.000004	0.000122
408	Conf vs. Dep	4.598048	0.000004	0.000123
407	Conf vs. InfGain	4.598048	0.000004	0.000123
406	Conf vs. Lift	4.598048	0.000004	0.000123
405	Dep vs. ExCex	4.598048	0.000004	0.00013
404	Dep vs. GR	4.598048	0.000004	0.00013
403	Dep vs. SeBag	4.598048	0.000004	0.00013
402	Dep vs. Zhang	4.598048	0.000004	0.00013
401	ExCex vs. InfGain	4.598048	0.000004	0.00013
400	ExCex vs. Lift	4.598048	0.000004	0.00013
399	GR vs. InfGain	4.598048	0.000004	0.00013
398	GR vs. Lift	4.598048	0.000004	0.00013
397	InfGain vs. SeBag	4.598048	0.000004	0.00013
396	InfGain vs. Zhang	4.598048	0.000004	0.00013
395	Lift vs. SeBag	4.598048	0.000004	0.00013
394	Lift vs. Zhang	4.598048	0.000004	0.00013
393	MultiInf vs. RelRisk	4.588626	0.000004	0.00013
392	Cos vs. RelRisk	4.579204	0.000005	0.00013
391	Jacc vs. RelRisk	4.579204	0.000005	0.00013
390	Cover vs. Spec	4.513248	0.000006	0.00013
389	Cover vs. RelRisk	4.447292	0.000009	0.00013
388	Spec vs. X2	4.381337	0.000012	0.00013
387	RelRisk vs. X2	4.315381	0.000016	0.00013
386	NetConf vs. OddsR	4.230581	0.000023	0.00013
385	Cconf vs. Gain	4.221159	0.000024	0.00013
384	Dep vs. Gain	4.221159	0.000024	0.00013
383	Gain vs. InfGain	4.221159	0.000024	0.000131
382	Gain vs. Lift	4.221159	0.000024	0.000131
381	Brins vs. NetConf	4.145781	0.000034	0.000131
380	Cole vs. NetConf	4.145781	0.000034	0.000132
379	Conf vs. NetConf	4.145781	0.000034	0.000132
378	ExCex vs. NetConf	4.145781	0.000034	0.000132
377	GR vs. NetConf	4.145781	0.000034	0.000139
376	NetConf vs. SeBag	4.145781	0.000034	0.000139
375	NetConf vs. Zhang	4.145781	0.000034	0.000139
374	Cconf vs. MDisc	4.117514	0.000038	0.000139
373	Dep vs. MDisc	4.117514	0.000038	0.000139
372	InfGain vs. MDisc	4.117514	0.000038	0.000139
371	Lift vs. MDisc	4.117514	0.000038	0.000139
370	ACC vs. Streng	3.966759	0.000073	0.000139
369	OddsR vs. Spec	3.947914	0.000079	0.000139
368	Cconf vs. Sup	3.938492	0.000082	0.000139
367	Dep vs. Sup	3.938492	0.000082	0.000139
366	InfGain vs. Sup	3.938492	0.000082	0.000139
365	Lift vs. Sup	3.938492	0.000082	0.000139
364	ACC vs. SupDif	3.92907	0.000085	0.000139
363	ACC vs. WRACC	3.92907	0.000085	0.000139
362	OddsR vs. RelRisk	3.881959	0.000104	0.000139
361	Brins vs. Spec	3.863114	0.000112	0.000139

360	Cole vs. Spec	3.863114	0.000112	0.00014
359	Conf vs. Spec	3.863114	0.000112	0.00014
358	ExCex vs. Spec	3.863114	0.000112	0.00014
357	GR vs. Spec	3.863114	0.000112	0.00014
356	SeBag vs. Spec	3.863114	0.000112	0.000141
355	Spec vs. Zhang	3.863114	0.000112	0.000141
354	Brins vs. RelRisk	3.797158	0.000146	0.000141
353	Cole vs. RelRisk	3.797158	0.000146	0.000142
352	Conf vs. RelRisk	3.797158	0.000146	0.000142
351	ExCex vs. RelRisk	3.797158	0.000146	0.000142
350	GR vs. RelRisk	3.797158	0.000146	0.000143
349	RelRisk vs. SeBag	3.797158	0.000146	0.000143
348	RelRisk vs. Zhang	3.797158	0.000146	0.000144
347	ACC vs. MultInf	3.768892	0.000164	0.000144
346	Gain vs. NetConf	3.768892	0.000164	0.000145
345	ACC vs. Cos	3.75947	0.00017	0.000145
344	ACC vs. Jacc	3.75947	0.00017	0.000145
343	Cconf vs. Lap	3.740625	0.000184	0.000146
342	Cconf vs. Pearson	3.740625	0.000184	0.000146
341	Dep vs. Lap	3.740625	0.000184	0.000147
340	Dep vs. Pearson	3.740625	0.000184	0.000147
339	InfGain vs. Lap	3.740625	0.000184	0.000147
338	InfGain vs. Pearson	3.740625	0.000184	0.000148
337	Lap vs. Lift	3.740625	0.000184	0.000148
336	Lift vs. Pearson	3.740625	0.000184	0.000149
335	Klos vs. Lever	3.731203	0.000191	0.000149
334	MDisc vs. NetConf	3.665247	0.000247	0.00015
333	ACC vs. Cover	3.627558	0.000286	0.00015
332	ACC vs. X2	3.495647	0.000473	0.000151
331	Gain vs. Spec	3.486225	0.00049	0.000151
330	NetConf vs. Sup	3.486225	0.00049	0.000152
329	Gain vs. RelRisk	3.420269	0.000626	0.000152
328	MDisc vs. Spec	3.38258	0.000718	0.000152
327	Cconf vs. ColStr	3.373158	0.000743	0.000153
326	ColStr vs. Dep	3.373158	0.000743	0.000153
325	ColStr vs. InfGain	3.373158	0.000743	0.000154
324	ColStr vs. Lift	3.373158	0.000743	0.000154
323	MDisc vs. RelRisk	3.316625	0.000911	0.000155
322	Lap vs. NetConf	3.288358	0.001008	0.000155
321	NetConf vs. Pearson	3.288358	0.001008	0.000156
320	Spec vs. Sup	3.203558	0.001357	0.000156
319	Klos vs. Streng	3.156447	0.001597	0.000157
318	RelRisk vs. Sup	3.137602	0.001703	0.000157
317	Klos vs. SupDif	3.118758	0.001816	0.000158
316	Klos vs. WRACC	3.118758	0.001816	0.000158
315	ACC vs. OddsR	3.062225	0.002197	0.000159
314	Lap vs. Spec	3.005691	0.00265	0.000159
313	Pearson vs. Spec	3.005691	0.00265	0.00016
312	ACC vs. Brins	2.977425	0.002907	0.00016
311	ACC vs. Cole	2.977425	0.002907	0.000161
310	ACC vs. Conf	2.977425	0.002907	0.000161
309	ACC vs. ExCex	2.977425	0.002907	0.000162
308	ACC vs. GR	2.977425	0.002907	0.000162
307	ACC vs. SeBag	2.977425	0.002907	0.000163
306	ACC vs. Zhang	2.977425	0.002907	0.000163
305	Klos vs. MultInf	2.95858	0.003091	0.000164
304	Cos vs. Klos	2.949158	0.003186	0.000164
303	Jacc vs. Klos	2.949158	0.003186	0.000165
302	Lap vs. RelRisk	2.939736	0.003285	0.000166
301	Pearson vs. RelRisk	2.939736	0.003285	0.000166
300	ACC vs. Lever	2.920891	0.00349	0.000167
299	ColStr vs. NetConf	2.920891	0.00349	0.000167
298	Cover vs. Klos	2.817247	0.004844	0.000168
297	Klos vs. X2	2.685335	0.007246	0.000168
296	ColStr vs. Spec	2.638224	0.008334	0.000169
295	ACC vs. Gain	2.600535	0.009308	0.000169
294	ColStr vs. RelRisk	2.572269	0.010103	0.00017
293	ACC vs. MDisc	2.496891	0.012529	0.000171
292	Cconf vs. Klos	2.430935	0.01506	0.000171
291	Dep vs. Klos	2.430935	0.01506	0.000172
290	InfGain vs. Klos	2.430935	0.01506	0.000172
289	Klos vs. Lift	2.430935	0.01506	0.000173
288	ACC vs. Sup	2.317868	0.020456	0.000174
287	Klos vs. OddsR	2.251913	0.024328	0.000174

286	ColStr vs. Streng	2.214224	0.026813	0.000175
285	ColStr vs. SupDif	2.176535	0.029515	0.000175
284	ColStr vs. WRACC	2.176535	0.029515	0.000176
283	Brins vs. Klos	2.167113	0.030226	0.000177
282	Cole vs. Klos	2.167113	0.030226	0.000177
281	Conf vs. Klos	2.167113	0.030226	0.000178
280	ExCex vs. Klos	2.167113	0.030226	0.000179
279	GR vs. Klos	2.167113	0.030226	0.000179
278	Klos vs. SeBag	2.167113	0.030226	0.00018
277	Klos vs. Zhang	2.167113	0.030226	0.000181
276	ACC vs. Lap	2.120002	0.034006	0.000181
275	ACC vs. Pearson	2.120002	0.034006	0.000182
274	Lever vs. RelRisk	2.101157	0.035627	0.000182
273	Lever vs. Spec	2.035202	0.041831	0.000183
272	ColStr vs. MultInf	2.016357	0.043763	0.000184
271	ColStr vs. Cos	2.006935	0.044757	0.000185
270	ColStr vs. Jacc	2.006935	0.044757	0.000185
269	Klos vs. NetConf	1.978668	0.047853	0.000186
268	ColStr vs. Cover	1.875024	0.060789	0.000187
267	Lap vs. Streng	1.846757	0.064782	0.000187
266	Pearson vs. Streng	1.846757	0.064782	0.000188
265	Lap vs. SupDif	1.809068	0.07044	0.000189
264	Lap vs. WRACC	1.809068	0.07044	0.000189
263	Pearson vs. SupDif	1.809068	0.07044	0.00019
262	Pearson vs. WRACC	1.809068	0.07044	0.000191
261	Gain vs. Klos	1.790224	0.073418	0.000192
260	ACC vs. ColStr	1.752535	0.079682	0.000192
259	Lever vs. NetConf	1.752535	0.079682	0.000193
258	ColStr vs. X2	1.743112	0.081314	0.000194
257	Klos vs. Spec	1.696001	0.089886	0.000195
256	Klos vs. MDisc	1.686579	0.091684	0.000195
255	Lap vs. MultInf	1.64889	0.09917	0.000196
254	MultInf vs. Pearson	1.64889	0.09917	0.000197
253	Streng vs. Sup	1.64889	0.09917	0.000198
252	Cos vs. Lap	1.639468	0.101116	0.000198
251	Cos vs. Pearson	1.639468	0.101116	0.000199
250	Jacc vs. Lap	1.639468	0.101116	0.0002
249	Jacc vs. Pearson	1.639468	0.101116	0.000201
248	Klos vs. RelRisk	1.630046	0.103092	0.000202
247	ACC vs. Cconf	1.620623	0.105098	0.000202
246	ACC vs. Dep	1.620623	0.105098	0.000203
245	ACC vs. InfGain	1.620623	0.105098	0.000204
244	ACC vs. Lift	1.620623	0.105098	0.000205
243	Sup vs. SupDif	1.611201	0.107136	0.000206
242	Sup vs. WRACC	1.611201	0.107136	0.000207
241	Cover vs. Lap	1.507557	0.131668	0.000207
240	Cover vs. Pearson	1.507557	0.131668	0.000208
239	Klos vs. Sup	1.507557	0.131668	0.000209
238	MDisc vs. Streng	1.469868	0.141598	0.00021
237	MultInf vs. Sup	1.451023	0.146773	0.000211
236	Cos vs. Sup	1.441601	0.149415	0.000212
235	Jacc vs. Sup	1.441601	0.149415	0.000213
234	MDisc vs. SupDif	1.432179	0.152093	0.000214
233	MDisc vs. WRACC	1.432179	0.152093	0.000215
232	Lap vs. X2	1.375646	0.168931	0.000216
231	Pearson vs. X2	1.375646	0.168931	0.000216
230	Gain vs. Streng	1.366223	0.171869	0.000217
229	Gain vs. SupDif	1.328534	0.184002	0.000218
228	Gain vs. WRACC	1.328534	0.184002	0.000219
227	ColStr vs. OddsR	1.30969	0.190301	0.00022
226	Cover vs. Sup	1.30969	0.190301	0.000221
225	Klos vs. Lap	1.30969	0.190301	0.000222
224	Klos vs. Pearson	1.30969	0.190301	0.000223
223	Cconf vs. Lever	1.300268	0.193509	0.000224
222	Dep vs. Lever	1.300268	0.193509	0.000225
221	InfGain vs. Lever	1.300268	0.193509	0.000226
220	Lever vs. Lift	1.300268	0.193509	0.000227
219	MDisc vs. MultInf	1.272001	0.203373	0.000228
218	Cos vs. MDisc	1.262579	0.206741	0.000229
217	Jacc vs. MDisc	1.262579	0.206741	0.00023
216	Brins vs. ColStr	1.22489	0.220617	0.000231
215	Cole vs. ColStr	1.22489	0.220617	0.000233
214	ColStr vs. Conf	1.22489	0.220617	0.000234
213	ColStr vs. ExCex	1.22489	0.220617	0.000235

212	ColStr vs. GR	1.22489	0.220617	0.000236
211	ColStr vs. SeBag	1.22489	0.220617	0.000237
210	ColStr vs. Zhang	1.22489	0.220617	0.000238
209	Sup vs. X2	1.177779	0.238885	0.000239
208	ACC vs. NetConf	1.168356	0.242663	0.00024
207	Gain vs. MultInf	1.168356	0.242663	0.000242
206	Cos vs. Gain	1.158934	0.246483	0.000243
205	Gain vs. Jacc	1.158934	0.246483	0.000244
204	Cover vs. MDisc	1.130668	0.258195	0.000245
203	Cover vs. Gain	1.027023	0.30441	0.000246
202	MDisc vs. X2	0.998756	0.317913	0.000248
201	Brins vs. Streng	0.989334	0.3225	0.000249
200	Cole vs. Streng	0.989334	0.3225	0.00025
199	Conf vs. Streng	0.989334	0.3225	0.000251
198	ExCex vs. Streng	0.989334	0.3225	0.000253
197	GR vs. Streng	0.989334	0.3225	0.000254
196	SeBag vs. Streng	0.989334	0.3225	0.000255
195	Streng vs. Zhang	0.989334	0.3225	0.000256
194	Brins vs. SupDif	0.951645	0.341277	0.000258
193	Brins vs. WRACC	0.951645	0.341277	0.000259
192	Cole vs. SupDif	0.951645	0.341277	0.00026
191	Cole vs. WRACC	0.951645	0.341277	0.000262
190	Conf vs. SupDif	0.951645	0.341277	0.000263
189	Conf vs. WRACC	0.951645	0.341277	0.000265
188	ExCex vs. SupDif	0.951645	0.341277	0.000266
187	ExCex vs. WRACC	0.951645	0.341277	0.000267
186	GR vs. SupDif	0.951645	0.341277	0.000269
185	GR vs. WRACC	0.951645	0.341277	0.00027
184	SeBag vs. SupDif	0.951645	0.341277	0.000272
183	SeBag vs. WRACC	0.951645	0.341277	0.000273
182	SupDif vs. Zhang	0.951645	0.341277	0.000275
181	WRACC vs. Zhang	0.951645	0.341277	0.000276
180	ColStr vs. Klos	0.942223	0.346079	0.000278
179	Lap vs. OddsR	0.942223	0.346079	0.000279
178	OddsR vs. Pearson	0.942223	0.346079	0.000281
177	OddsR vs. Streng	0.904534	0.365712	0.000282
176	Gain vs. X2	0.895112	0.370727	0.000284
175	ACC vs. Spec	0.88569	0.375785	0.000286
174	OddsR vs. SupDif	0.866845	0.386027	0.000287
173	OddsR vs. WRACC	0.866845	0.386027	0.000289
172	Brins vs. Lap	0.857423	0.391211	0.000291
171	Brins vs. Pearson	0.857423	0.391211	0.000292
170	Cole vs. Lap	0.857423	0.391211	0.000294
169	Cole vs. Pearson	0.857423	0.391211	0.000296
168	Conf vs. Lap	0.857423	0.391211	0.000298
167	Conf vs. Pearson	0.857423	0.391211	0.000299
166	ExCex vs. Lap	0.857423	0.391211	0.000301
165	ExCex vs. Pearson	0.857423	0.391211	0.000303
164	GR vs. Lap	0.857423	0.391211	0.000305
163	GR vs. Pearson	0.857423	0.391211	0.000307
162	Lap vs. SeBag	0.857423	0.391211	0.000309
161	Lap vs. Zhang	0.857423	0.391211	0.000311
160	Pearson vs. SeBag	0.857423	0.391211	0.000312
159	Pearson vs. Zhang	0.857423	0.391211	0.000314
158	ColStr vs. Gain	0.848001	0.396438	0.000316
157	ACC vs. RelRisk	0.819734	0.412368	0.000318
156	ACC vs. Klos	0.810312	0.417761	0.000321
155	Cconf vs. RelRisk	0.80089	0.423196	0.000323
154	Dep vs. RelRisk	0.80089	0.423196	0.000325
153	InfGain vs. RelRisk	0.80089	0.423196	0.000327
152	Lift vs. RelRisk	0.80089	0.423196	0.000329
151	Brins vs. MultInf	0.791467	0.428671	0.000331
150	Cole vs. MultInf	0.791467	0.428671	0.000333
149	Conf vs. MultInf	0.791467	0.428671	0.000336
148	ExCex vs. MultInf	0.791467	0.428671	0.000338
147	GR vs. MultInf	0.791467	0.428671	0.00034
146	MultInf vs. SeBag	0.791467	0.428671	0.000342
145	MultInf vs. Zhang	0.791467	0.428671	0.000345
144	Brins vs. Cos	0.782045	0.434188	0.000347
143	Brins vs. Jacc	0.782045	0.434188	0.00035
142	Cole vs. Cos	0.782045	0.434188	0.000352
141	Cole vs. Jacc	0.782045	0.434188	0.000355
140	Conf vs. Cos	0.782045	0.434188	0.000357
139	Conf vs. Jacc	0.782045	0.434188	0.00036

138	Cos vs. ExCex	0.782045	0.434188	0.000362
137	Cos vs. GR	0.782045	0.434188	0.000365
136	Cos vs. SeBag	0.782045	0.434188	0.000368
135	Cos vs. Zhang	0.782045	0.434188	0.00037
134	ExCex vs. Jacc	0.782045	0.434188	0.000373
133	GR vs. Jacc	0.782045	0.434188	0.000376
132	Jacc vs. SeBag	0.782045	0.434188	0.000379
131	Jacc vs. Zhang	0.782045	0.434188	0.000382
130	ColStr vs. MDisc	0.744356	0.456661	0.000385
129	OddsR vs. Sup	0.744356	0.456661	0.000388
128	Cconf vs. Spec	0.734934	0.46238	0.000391
127	Dep vs. Spec	0.734934	0.46238	0.000394
126	InfGain vs. Spec	0.734934	0.46238	0.000397
125	Lift vs. Spec	0.734934	0.46238	0.0004
124	MultInf vs. OddsR	0.706667	0.479773	0.000403
123	Cos vs. OddsR	0.697245	0.485649	0.000407
122	Jacc vs. OddsR	0.697245	0.485649	0.00041
121	Brins vs. Sup	0.659556	0.509539	0.000413
120	Cole vs. Sup	0.659556	0.509539	0.000417
119	Conf vs. Sup	0.659556	0.509539	0.00042
118	ExCex vs. Sup	0.659556	0.509539	0.000424
117	GR vs. Sup	0.659556	0.509539	0.000427
116	SeBag vs. Sup	0.659556	0.509539	0.000431
115	Sup vs. Zhang	0.659556	0.509539	0.000435
114	Brins vs. Cover	0.650134	0.515606	0.000439
113	Cole vs. Cover	0.650134	0.515606	0.000442
112	Conf vs. Cover	0.650134	0.515606	0.000446
111	Cover vs. ExCex	0.650134	0.515606	0.00045
110	Cover vs. GR	0.650134	0.515606	0.000455
109	Cover vs. SeBag	0.650134	0.515606	0.000459
108	Cover vs. Zhang	0.650134	0.515606	0.000463
107	ColStr vs. Sup	0.565334	0.571847	0.000467
106	Cover vs. OddsR	0.565334	0.571847	0.000472
105	MDisc vs. OddsR	0.565334	0.571847	0.000476
104	Brins vs. X2	0.518223	0.604303	0.000481
103	Cole vs. X2	0.518223	0.604303	0.000485
102	Conf vs. X2	0.518223	0.604303	0.00049
101	ExCex vs. X2	0.518223	0.604303	0.000495
100	GR vs. X2	0.518223	0.604303	0.0005
99	SeBag vs. X2	0.518223	0.604303	0.000505
98	X2 vs. Zhang	0.518223	0.604303	0.00051
97	Brins vs. MDisc	0.480534	0.630848	0.000515
96	Cole vs. MDisc	0.480534	0.630848	0.000521
95	Conf vs. MDisc	0.480534	0.630848	0.000526
94	ExCex vs. MDisc	0.480534	0.630848	0.000532
93	Gain vs. Lap	0.480534	0.630848	0.000538
92	Gain vs. Pearson	0.480534	0.630848	0.000543
91	GR vs. MDisc	0.480534	0.630848	0.000549
90	MDisc vs. SeBag	0.480534	0.630848	0.000556
89	MDisc vs. Zhang	0.480534	0.630848	0.000562
88	Streng vs. X2	0.471111	0.637561	0.000568
87	Gain vs. OddsR	0.461689	0.644304	0.000575
86	Cconf vs. NetConf	0.452267	0.651077	0.000581
85	Dep vs. NetConf	0.452267	0.651077	0.000588
84	InfGain vs. NetConf	0.452267	0.651077	0.000595
83	Lift vs. NetConf	0.452267	0.651077	0.000602
82	OddsR vs. X2	0.433423	0.664708	0.00061
81	SupDif vs. X2	0.433423	0.664708	0.000617
80	WRACC vs. X2	0.433423	0.664708	0.000625
79	Brins vs. Gain	0.376889	0.706256	0.000633
78	Cole vs. Gain	0.376889	0.706256	0.000641
77	Conf vs. Gain	0.376889	0.706256	0.000649
76	ExCex vs. Gain	0.376889	0.706256	0.000658
75	Gain vs. GR	0.376889	0.706256	0.000667
74	Gain vs. SeBag	0.376889	0.706256	0.000676
73	Gain vs. Zhang	0.376889	0.706256	0.000685
72	Lap vs. MDisc	0.376889	0.706256	0.000694
71	MDisc vs. Pearson	0.376889	0.706256	0.000704
70	ColStr vs. Lap	0.367467	0.713271	0.000714
69	ColStr vs. Pearson	0.367467	0.713271	0.000725
68	NetConf vs. RelRisk	0.348622	0.727373	0.000735
67	Cover vs. Streng	0.3392	0.734459	0.000746
66	Cover vs. SupDif	0.301511	0.763025	0.000758
65	Cover vs. WRACC	0.301511	0.763025	0.000769



64	Gain vs. Sup	0.282667	0.777432	0.000781
63	NetConf vs. Spec	0.282667	0.777432	0.000794
62	MultInf vs. X2	0.273245	0.784665	0.000806
61	Cos vs. X2	0.263822	0.791917	0.00082
60	Jacc vs. X2	0.263822	0.791917	0.000833
59	Cos vs. Streng	0.207289	0.835784	0.000847
58	Jacc vs. Streng	0.207289	0.835784	0.000862
57	Lap vs. Sup	0.197867	0.843149	0.000877
56	MultInf vs. Streng	0.197867	0.843149	0.000893
55	Pearson vs. Sup	0.197867	0.843149	0.000909
54	MDisc vs. Sup	0.179022	0.85792	0.000926
53	Cos vs. SupDif	0.1696	0.865325	0.000943
52	Cos vs. WRACC	0.1696	0.865325	0.000962
51	Jacc vs. SupDif	0.1696	0.865325	0.00098
50	Jacc vs. WRACC	0.1696	0.865325	0.001
49	MultInf vs. SupDif	0.160178	0.872741	0.00102
48	MultInf vs. WRACC	0.160178	0.872741	0.001042
47	Cover vs. MultInf	0.141333	0.887607	0.001064
46	Cos vs. Cover	0.131911	0.895055	0.001087
45	Cover vs. Jacc	0.131911	0.895055	0.001111
44	Cover vs. X2	0.131911	0.895055	0.001136
43	Gain vs. MDisc	0.103645	0.917451	0.001163
42	Brins vs. OddsR	0.0848	0.93242	0.00119
41	Cole vs. OddsR	0.0848	0.93242	0.00122
40	Conf vs. OddsR	0.0848	0.93242	0.00125
39	ExCex vs. OddsR	0.0848	0.93242	0.001282
38	GR vs. OddsR	0.0848	0.93242	0.001316
37	OddsR vs. SeBag	0.0848	0.93242	0.001351
36	OddsR vs. Zhang	0.0848	0.93242	0.001389
35	RelRisk vs. Spec	0.065956	0.947413	0.001429
34	Streng vs. SupDif	0.037689	0.969936	0.001471
33	Streng vs. WRACC	0.037689	0.969936	0.001515
32	Cos vs. MultInf	0.009422	0.992482	0.001562
31	Jacc vs. MultInf	0.009422	0.992482	0.001613
30	Brins vs. Cole	0	1	0.001667
29	Brins vs. Conf	0	1	0.001724
28	Brins vs. ExCex	0	1	0.001786
27	Brins vs. GR	0	1	0.001852
26	Brins vs. SeBag	0	1	0.001923
25	Brins vs. Zhang	0	1	0.002
24	Cconf vs. Dep	0	1	0.002083
23	Cconf vs. InfGain	0	1	0.002174
22	Cconf vs. Lift	0	1	0.002273
21	Cole vs. Conf	0	1	0.002381
20	Cole vs. ExCex	0	1	0.0025
19	Cole vs. GR	0	1	0.002632
18	Cole vs. SeBag	0	1	0.002778
17	Cole vs. Zhang	0	1	0.002941
16	Conf vs. ExCex	0	1	0.003125
15	Conf vs. GR	0	1	0.003333
14	Conf vs. SeBag	0	1	0.003571
13	Conf vs. Zhang	0	1	0.003846
12	Cos vs. Jacc	0	1	0.004167
11	Dep vs. InfGain	0	1	0.004545
10	Dep vs. Lift	0	1	0.005
9	ExCex vs. GR	0	1	0.005556
8	ExCex vs. SeBag	0	1	0.00625
7	ExCex vs. Zhang	0	1	0.007143
6	GR vs. SeBag	0	1	0.008333
5	GR vs. Zhang	0	1	0.01
4	InfGain vs. Lift	0	1	0.0125
3	Lap vs. Pearson	0	1	0.016667
2	SeBag vs. Zhang	0	1	0.025
1	SupDif vs. WRACC	0	1	0.05

Table 2: P-values Table for  $\alpha = 0.05$

Shaffer's procedure rejects those hypotheses that have an unadjusted p-value  $\leq 0.000101$ .

## 2.2 P-values for $\alpha = 0.10$

$i$	algorithms	$z = (R_0 - R_i)/SE$	$p$	Shaffer
496	Lever vs. Streng	6.88765	0	0.000202
495	Lever vs. SupDif	6.849961	0	0.000215
494	Lever vs. WRACC	6.849961	0	0.000215
493	Lever vs. MultInf	6.689783	0	0.000215
492	Cos vs. Lever	6.680361	0	0.000215
491	Jacc vs. Lever	6.680361	0	0.000215
490	Cover vs. Lever	6.54845	0	0.000215
489	Lever vs. X2	6.416538	0	0.000215
488	Lever vs. OddsR	5.983116	0	0.000215
487	Brins vs. Lever	5.898316	0	0.000215
486	Cole vs. Lever	5.898316	0	0.000215
485	Conf vs. Lever	5.898316	0	0.000215
484	ExCex vs. Lever	5.898316	0	0.000215
483	GR vs. Lever	5.898316	0	0.000215
482	Lever vs. SeBag	5.898316	0	0.000215
481	Lever vs. Zhang	5.898316	0	0.000215
480	Cconf vs. Streng	5.587382	0	0.000215
479	Dep vs. Streng	5.587382	0	0.000215
478	InfGain vs. Streng	5.587382	0	0.000215
477	Lift vs. Streng	5.587382	0	0.000215
476	Cconf vs. SupDif	5.549693	0	0.000215
475	Cconf vs. WRACC	5.549693	0	0.000215
474	Dep vs. SupDif	5.549693	0	0.000215
473	Dep vs. WRACC	5.549693	0	0.000215
472	InfGain vs. SupDif	5.549693	0	0.000215
471	InfGain vs. WRACC	5.549693	0	0.000215
470	Lift vs. SupDif	5.549693	0	0.000215
469	Lift vs. WRACC	5.549693	0	0.000215
468	Gain vs. Lever	5.521426	0	0.000215
467	Lever vs. MDisc	5.417782	0	0.000215
466	Cconf vs. MultInf	5.389515	0	0.000215
465	Dep vs. MultInf	5.389515	0	0.000215
464	InfGain vs. MultInf	5.389515	0	0.000229
463	Lift vs. MultInf	5.389515	0	0.000229
462	Cconf vs. Cos	5.380093	0	0.000229
461	Cconf vs. Jacc	5.380093	0	0.000229
460	Cos vs. Dep	5.380093	0	0.000229
459	Cos vs. InfGain	5.380093	0	0.000229
458	Cos vs. Lift	5.380093	0	0.000229
457	Dep vs. Jacc	5.380093	0	0.000229
456	InfGain vs. Jacc	5.380093	0	0.000229
455	Jacc vs. Lift	5.380093	0	0.000229
454	Cconf vs. Cover	5.248182	0	0.000229
453	Cover vs. Dep	5.248182	0	0.000229
452	Cover vs. InfGain	5.248182	0	0.000229
451	Cover vs. Lift	5.248182	0	0.000229
450	Lever vs. Sup	5.23876	0	0.000229
449	NetConf vs. Streng	5.135115	0	0.000229
448	Cconf vs. X2	5.116271	0	0.000229
447	Dep vs. X2	5.116271	0	0.000229
446	InfGain vs. X2	5.116271	0	0.000229
445	Lift vs. X2	5.116271	0	0.000229
444	NetConf vs. SupDif	5.097426	0	0.000229
443	NetConf vs. WRACC	5.097426	0	0.000229
442	Lap vs. Lever	5.040893	0	0.000229
441	Lever vs. Pearson	5.040893	0	0.000229
440	MultInf vs. NetConf	4.937248	0.000001	0.000229
439	Cos vs. NetConf	4.927826	0.000001	0.000229
438	Jacc vs. NetConf	4.927826	0.000001	0.000229
437	Spec vs. Streng	4.852448	0.000001	0.000229
436	Spec vs. SupDif	4.814759	0.000001	0.000229
435	Spec vs. WRACC	4.814759	0.000001	0.00023
434	Cover vs. NetConf	4.795915	0.000002	0.000244
433	RelRisk vs. Streng	4.786493	0.000002	0.000244
432	RelRisk vs. SupDif	4.748804	0.000002	0.000244
431	RelRisk vs. WRACC	4.748804	0.000002	0.000244
430	Cconf vs. OddsR	4.682848	0.000003	0.000244
429	Dep vs. OddsR	4.682848	0.000003	0.000244
428	InfGain vs. OddsR	4.682848	0.000003	0.000244
427	Lift vs. OddsR	4.682848	0.000003	0.000244
426	ColStr vs. Lever	4.673426	0.000003	0.000244

425	NetConf vs. X2	4.664004	0.000003	0.000244
424	MultiInf vs. Spec	4.654581	0.000003	0.000244
423	Cos vs. Spec	4.645159	0.000003	0.000244
422	Jacc vs. Spec	4.645159	0.000003	0.000244
421	Brins vs. Cconf	4.598048	0.000004	0.000244
420	Brins vs. Dep	4.598048	0.000004	0.000244
419	Brins vs. InfGain	4.598048	0.000004	0.000244
418	Brins vs. Lift	4.598048	0.000004	0.000244
417	Cconf vs. Cole	4.598048	0.000004	0.000244
416	Cconf vs. Conf	4.598048	0.000004	0.000244
415	Cconf vs. ExCex	4.598048	0.000004	0.000244
414	Cconf vs. GR	4.598048	0.000004	0.000244
413	Cconf vs. SeBag	4.598048	0.000004	0.000244
412	Cconf vs. Zhang	4.598048	0.000004	0.000244
411	Cole vs. Dep	4.598048	0.000004	0.000244
410	Cole vs. InfGain	4.598048	0.000004	0.000244
409	Cole vs. Lift	4.598048	0.000004	0.000244
408	Conf vs. Dep	4.598048	0.000004	0.000246
407	Conf vs. InfGain	4.598048	0.000004	0.000246
406	Conf vs. Lift	4.598048	0.000004	0.000246
405	Dep vs. ExCex	4.598048	0.000004	0.000026
404	Dep vs. GR	4.598048	0.000004	0.000026
403	Dep vs. SeBag	4.598048	0.000004	0.000026
402	Dep vs. Zhang	4.598048	0.000004	0.000026
401	ExCex vs. InfGain	4.598048	0.000004	0.000026
400	ExCex vs. Lift	4.598048	0.000004	0.000026
399	GR vs. InfGain	4.598048	0.000004	0.000026
398	GR vs. Lift	4.598048	0.000004	0.000026
397	InfGain vs. SeBag	4.598048	0.000004	0.000026
396	InfGain vs. Zhang	4.598048	0.000004	0.000026
395	Lift vs. SeBag	4.598048	0.000004	0.000026
394	Lift vs. Zhang	4.598048	0.000004	0.000026
393	MultiInf vs. RelRisk	4.588626	0.000004	0.000026
392	Cos vs. RelRisk	4.579204	0.000005	0.000026
391	Jacc vs. RelRisk	4.579204	0.000005	0.000026
390	Cover vs. Spec	4.513248	0.000006	0.000026
389	Cover vs. RelRisk	4.447292	0.000009	0.000026
388	Spec vs. X2	4.381337	0.000012	0.000026
387	RelRisk vs. X2	4.315381	0.000016	0.000026
386	NetConf vs. OddsR	4.230581	0.000023	0.000026
385	Cconf vs. Gain	4.221159	0.000024	0.000026
384	Dep vs. Gain	4.221159	0.000024	0.000026
383	Gain vs. InfGain	4.221159	0.000024	0.000262
382	Gain vs. Lift	4.221159	0.000024	0.000262
381	Brins vs. NetConf	4.145781	0.000034	0.000262
380	Cole vs. NetConf	4.145781	0.000034	0.000263
379	Conf vs. NetConf	4.145781	0.000034	0.000264
378	ExCex vs. NetConf	4.145781	0.000034	0.000265
377	GR vs. NetConf	4.145781	0.000034	0.000277
376	NetConf vs. SeBag	4.145781	0.000034	0.000277
375	NetConf vs. Zhang	4.145781	0.000034	0.000277
374	Cconf vs. MDisc	4.117514	0.000038	0.000277
373	Dep vs. MDisc	4.117514	0.000038	0.000277
372	InfGain vs. MDisc	4.117514	0.000038	0.000277
371	Lift vs. MDisc	4.117514	0.000038	0.000277
370	ACC vs. Streng	3.966759	0.000073	0.000277
369	OddsR vs. Spec	3.947914	0.000079	0.000277
368	Cconf vs. Sup	3.938492	0.000082	0.000277
367	Dep vs. Sup	3.938492	0.000082	0.000277
366	InfGain vs. Sup	3.938492	0.000082	0.000277
365	Lift vs. Sup	3.938492	0.000082	0.000277
364	ACC vs. SupDif	3.92907	0.000085	0.000277
363	ACC vs. WRACC	3.92907	0.000085	0.000277
362	OddsR vs. RelRisk	3.881959	0.000104	0.000277
361	Brins vs. Spec	3.863114	0.000112	0.000277
360	Cole vs. Spec	3.863114	0.000112	0.000028
359	Conf vs. Spec	3.863114	0.000112	0.000028
358	ExCex vs. Spec	3.863114	0.000112	0.000028
357	GR vs. Spec	3.863114	0.000112	0.000028
356	SeBag vs. Spec	3.863114	0.000112	0.000282
355	Spec vs. Zhang	3.863114	0.000112	0.000282
354	Brins vs. RelRisk	3.797158	0.000146	0.000282
353	Cole vs. RelRisk	3.797158	0.000146	0.000283
352	Conf vs. RelRisk	3.797158	0.000146	0.000284

351	ExCex vs. RelRisk	3.797158	0.000146	0.000285
350	GR vs. RelRisk	3.797158	0.000146	0.000294
349	RelRisk vs. SeBag	3.797158	0.000146	0.000294
348	RelRisk vs. Zhang	3.797158	0.000146	0.000294
347	ACC vs. MultInf	3.768892	0.000164	0.000294
346	Gain vs. NetConf	3.768892	0.000164	0.000294
345	ACC vs. Cos	3.75947	0.00017	0.000294
344	ACC vs. Jacc	3.75947	0.00017	0.000294
343	Cconf vs. Lap	3.740625	0.000184	0.000294
342	Cconf vs. Pearson	3.740625	0.000184	0.000294
341	Dep vs. Lap	3.740625	0.000184	0.000294
340	Dep vs. Pearson	3.740625	0.000184	0.000294
339	InfGain vs. Lap	3.740625	0.000184	0.000299
338	InfGain vs. Pearson	3.740625	0.000184	0.000299
337	Lap vs. Lift	3.740625	0.000184	0.000299
336	Lift vs. Pearson	3.740625	0.000184	0.000299
335	Klos vs. Lever	3.731203	0.000191	0.000299
334	MDisc vs. NetConf	3.665247	0.000247	0.000301
333	ACC vs. Cover	3.627558	0.000286	0.000301
332	ACC vs. X2	3.495647	0.000473	0.000301
331	Gain vs. Spec	3.486225	0.00049	0.000302
330	NetConf vs. Sup	3.486225	0.00049	0.000303
329	Gain vs. RelRisk	3.420269	0.000626	0.000304
328	MDisc vs. Spec	3.38258	0.000718	0.000305
327	Cconf vs. ColStr	3.373158	0.000743	0.000306
326	ColStr vs. Dep	3.373158	0.000743	0.000307
325	ColStr vs. InfGain	3.373158	0.000743	0.000308
324	ColStr vs. Lift	3.373158	0.000743	0.000309
323	MDisc vs. RelRisk	3.316625	0.000911	0.00031
322	Lap vs. NetConf	3.288358	0.001008	0.000311
321	NetConf vs. Pearson	3.288358	0.001008	0.000312
320	Spec vs. Sup	3.203558	0.001357	0.000312
319	Klos vs. Streng	3.156447	0.001597	0.000313
318	RelRisk vs. Sup	3.137602	0.001703	0.000314
317	Klos vs. SupDif	3.118758	0.001816	0.000315
316	Klos vs. WRACC	3.118758	0.001816	0.000316
315	ACC vs. OddsR	3.062225	0.002197	0.000317
314	Lap vs. Spec	3.005691	0.00265	0.000318
313	Pearson vs. Spec	3.005691	0.00265	0.000319
312	ACC vs. Brins	2.977425	0.002907	0.000321
311	ACC vs. Cole	2.977425	0.002907	0.000322
310	ACC vs. Conf	2.977425	0.002907	0.000323
309	ACC vs. ExCex	2.977425	0.002907	0.000324
308	ACC vs. GR	2.977425	0.002907	0.000325
307	ACC vs. SeBag	2.977425	0.002907	0.000326
306	ACC vs. Zhang	2.977425	0.002907	0.000327
305	Klos vs. MultInf	2.95858	0.003091	0.000328
304	Cos vs. Klos	2.949158	0.003186	0.000329
303	Jacc vs. Klos	2.949158	0.003186	0.00033
302	Lap vs. RelRisk	2.939736	0.003285	0.000331
301	Pearson vs. RelRisk	2.939736	0.003285	0.000332
300	ACC vs. Lever	2.920891	0.00349	0.000333
299	ColStr vs. NetConf	2.920891	0.00349	0.000334
298	Cover vs. Klos	2.817247	0.004844	0.000336
297	Klos vs. X2	2.685335	0.007246	0.000337
296	ColStr vs. Spec	2.638224	0.008334	0.000338
295	ACC vs. Gain	2.600535	0.009308	0.000339
294	ColStr vs. RelRisk	2.572269	0.010103	0.00034
293	ACC vs. MDisc	2.496891	0.012529	0.000341
292	Cconf vs. Klos	2.430935	0.01506	0.000342
291	Dep vs. Klos	2.430935	0.01506	0.000344
290	InfGain vs. Klos	2.430935	0.01506	0.000345
289	Klos vs. Lift	2.430935	0.01506	0.000346
288	ACC vs. Sup	2.317868	0.020456	0.000347
287	Klos vs. OddsR	2.251913	0.024328	0.000348
286	ColStr vs. Streng	2.214224	0.026813	0.00035
285	ColStr vs. SupDif	2.176535	0.029515	0.000351
284	ColStr vs. WRACC	2.176535	0.029515	0.000352
283	Brins vs. Klos	2.167113	0.030226	0.000353
282	Cole vs. Klos	2.167113	0.030226	0.000355
281	Conf vs. Klos	2.167113	0.030226	0.000356
280	ExCex vs. Klos	2.167113	0.030226	0.000357
279	GR vs. Klos	2.167113	0.030226	0.000358
278	Klos vs. SeBag	2.167113	0.030226	0.00036

277	Klos vs. Zhang	2.167113	0.030226	0.000361
276	ACC vs. Lap	2.120002	0.034006	0.000362
275	ACC vs. Pearson	2.120002	0.034006	0.000364
274	Lever vs. RelRisk	2.101157	0.035627	0.000365
273	Lever vs. Spec	2.035202	0.041831	0.000366
272	ColStr vs. MultInf	2.016357	0.043763	0.000368
271	ColStr vs. Cos	2.006935	0.044757	0.000369
270	ColStr vs. Jacc	2.006935	0.044757	0.00037
269	Klos vs. NetConf	1.978668	0.047853	0.000372
268	ColStr vs. Cover	1.875024	0.060789	0.000373
267	Lap vs. Streng	1.846757	0.064782	0.000375
266	Pearson vs. Streng	1.846757	0.064782	0.000376
265	Lap vs. SupDif	1.809068	0.07044	0.000377
264	Lap vs. WRACC	1.809068	0.07044	0.000379
263	Pearson vs. SupDif	1.809068	0.07044	0.00038
262	Pearson vs. WRACC	1.809068	0.07044	0.000382
261	Gain vs. Klos	1.790224	0.073418	0.000383
260	ACC vs. ColStr	1.752535	0.079682	0.000385
259	Lever vs. NetConf	1.752535	0.079682	0.000386
258	ColStr vs. X2	1.743112	0.081314	0.000388
257	Klos vs. Spec	1.696001	0.089886	0.000389
256	Klos vs. MDisc	1.686579	0.091684	0.000391
255	Lap vs. MultInf	1.64889	0.09917	0.000392
254	MultInf vs. Pearson	1.64889	0.09917	0.000394
253	Streng vs. Sup	1.64889	0.09917	0.000395
252	Cos vs. Lap	1.639468	0.101116	0.000397
251	Cos vs. Pearson	1.639468	0.101116	0.000398
250	Jacc vs. Lap	1.639468	0.101116	0.0004
249	Jacc vs. Pearson	1.639468	0.101116	0.000402
248	Klos vs. RelRisk	1.630046	0.103092	0.000403
247	ACC vs. Cconf	1.620623	0.105098	0.000405
246	ACC vs. Dep	1.620623	0.105098	0.000407
245	ACC vs. InfGain	1.620623	0.105098	0.000408
244	ACC vs. Lift	1.620623	0.105098	0.00041
243	Sup vs. SupDif	1.611201	0.107136	0.000412
242	Sup vs. WRACC	1.611201	0.107136	0.000413
241	Cover vs. Lap	1.507557	0.131668	0.000415
240	Cover vs. Pearson	1.507557	0.131668	0.000417
239	Klos vs. Sup	1.507557	0.131668	0.000418
238	MDisc vs. Streng	1.469868	0.141598	0.00042
237	MultInf vs. Sup	1.451023	0.146773	0.000422
236	Cos vs. Sup	1.441601	0.149415	0.000424
235	Jacc vs. Sup	1.441601	0.149415	0.000426
234	MDisc vs. SupDif	1.432179	0.152093	0.000427
233	MDisc vs. WRACC	1.432179	0.152093	0.000429
232	Lap vs. X2	1.375646	0.168931	0.000431
231	Pearson vs. X2	1.375646	0.168931	0.000433
230	Gain vs. Streng	1.366223	0.171869	0.000435
229	Gain vs. SupDif	1.328534	0.184002	0.000437
228	Gain vs. WRACC	1.328534	0.184002	0.000439
227	ColStr vs. OddsR	1.30969	0.190301	0.000441
226	Cover vs. Sup	1.30969	0.190301	0.000442
225	Klos vs. Lap	1.30969	0.190301	0.000444
224	Klos vs. Pearson	1.30969	0.190301	0.000446
223	Cconf vs. Lever	1.300268	0.193509	0.000448
222	Dep vs. Lever	1.300268	0.193509	0.00045
221	InfGain vs. Lever	1.300268	0.193509	0.000452
220	Lever vs. Lift	1.300268	0.193509	0.000455
219	MDisc vs. MultInf	1.272001	0.203373	0.000457
218	Cos vs. MDisc	1.262579	0.206741	0.000459
217	Jacc vs. MDisc	1.262579	0.206741	0.000461
216	Brins vs. ColStr	1.22489	0.220617	0.000463
215	Cole vs. ColStr	1.22489	0.220617	0.000465
214	ColStr vs. Conf	1.22489	0.220617	0.000467
213	ColStr vs. ExCex	1.22489	0.220617	0.000469
212	ColStr vs. GR	1.22489	0.220617	0.000472
211	ColStr vs. SeBag	1.22489	0.220617	0.000474
210	ColStr vs. Zhang	1.22489	0.220617	0.000476
209	Sup vs. X2	1.177779	0.238885	0.000478
208	ACC vs. NetConf	1.168356	0.242663	0.000481
207	Gain vs. MultInf	1.168356	0.242663	0.000483
206	Cos vs. Gain	1.158934	0.246483	0.000485
205	Gain vs. Jacc	1.158934	0.246483	0.000488
204	Cover vs. MDisc	1.130668	0.258195	0.00049

203	Cover vs. Gain	1.027023	0.30441	0.000493
202	MDisc vs. X2	0.998756	0.317913	0.000495
201	Brins vs. Streng	0.989334	0.3225	0.000498
200	Cole vs. Streng	0.989334	0.3225	0.0005
199	Conf vs. Streng	0.989334	0.3225	0.000503
198	ExCex vs. Streng	0.989334	0.3225	0.000505
197	GR vs. Streng	0.989334	0.3225	0.000508
196	SeBag vs. Streng	0.989334	0.3225	0.00051
195	Streng vs. Zhang	0.989334	0.3225	0.000513
194	Brins vs. SupDif	0.951645	0.341277	0.000515
193	Brins vs. WRACC	0.951645	0.341277	0.000518
192	Cole vs. SupDif	0.951645	0.341277	0.000521
191	Cole vs. WRACC	0.951645	0.341277	0.000524
190	Conf vs. SupDif	0.951645	0.341277	0.000526
189	Conf vs. WRACC	0.951645	0.341277	0.000529
188	ExCex vs. SupDif	0.951645	0.341277	0.000532
187	ExCex vs. WRACC	0.951645	0.341277	0.000535
186	GR vs. SupDif	0.951645	0.341277	0.000538
185	GR vs. WRACC	0.951645	0.341277	0.000541
184	SeBag vs. SupDif	0.951645	0.341277	0.000543
183	SeBag vs. WRACC	0.951645	0.341277	0.000546
182	SupDif vs. Zhang	0.951645	0.341277	0.000549
181	WRACC vs. Zhang	0.951645	0.341277	0.000552
180	ColStr vs. Klos	0.942223	0.346079	0.000556
179	Lap vs. OddsR	0.942223	0.346079	0.000559
178	OddsR vs. Pearson	0.942223	0.346079	0.000562
177	OddsR vs. Streng	0.904534	0.365712	0.000565
176	Gain vs. X2	0.895112	0.370727	0.000568
175	ACC vs. Spec	0.88569	0.375785	0.000571
174	OddsR vs. SupDif	0.866845	0.386027	0.000575
173	OddsR vs. WRACC	0.866845	0.386027	0.000578
172	Brins vs. Lap	0.857423	0.391211	0.000581
171	Brins vs. Pearson	0.857423	0.391211	0.000585
170	Cole vs. Lap	0.857423	0.391211	0.000588
169	Cole vs. Pearson	0.857423	0.391211	0.000592
168	Conf vs. Lap	0.857423	0.391211	0.000595
167	Conf vs. Pearson	0.857423	0.391211	0.000599
166	ExCex vs. Lap	0.857423	0.391211	0.000602
165	ExCex vs. Pearson	0.857423	0.391211	0.000606
164	GR vs. Lap	0.857423	0.391211	0.00061
163	GR vs. Pearson	0.857423	0.391211	0.000613
162	Lap vs. SeBag	0.857423	0.391211	0.000617
161	Lap vs. Zhang	0.857423	0.391211	0.000621
160	Pearson vs. SeBag	0.857423	0.391211	0.000625
159	Pearson vs. Zhang	0.857423	0.391211	0.000629
158	ColStr vs. Gain	0.848001	0.396438	0.000633
157	ACC vs. RelRisk	0.819734	0.412368	0.000637
156	ACC vs. Klos	0.810312	0.417761	0.000641
155	Cconf vs. RelRisk	0.80089	0.423196	0.000645
154	Dep vs. RelRisk	0.80089	0.423196	0.000649
153	InfGain vs. RelRisk	0.80089	0.423196	0.000654
152	Lift vs. RelRisk	0.80089	0.423196	0.000658
151	Brins vs. MultInf	0.791467	0.428671	0.000662
150	Cole vs. MultInf	0.791467	0.428671	0.000667
149	Conf vs. MultInf	0.791467	0.428671	0.000671
148	ExCex vs. MultInf	0.791467	0.428671	0.000676
147	GR vs. MultInf	0.791467	0.428671	0.00068
146	MultInf vs. SeBag	0.791467	0.428671	0.000685
145	MultInf vs. Zhang	0.791467	0.428671	0.00069
144	Brins vs. Cos	0.782045	0.434188	0.000694
143	Brins vs. Jacc	0.782045	0.434188	0.000699
142	Cole vs. Cos	0.782045	0.434188	0.000704
141	Cole vs. Jacc	0.782045	0.434188	0.000709
140	Conf vs. Cos	0.782045	0.434188	0.000714
139	Conf vs. Jacc	0.782045	0.434188	0.000719
138	Cos vs. ExCex	0.782045	0.434188	0.000725
137	Cos vs. GR	0.782045	0.434188	0.00073
136	Cos vs. SeBag	0.782045	0.434188	0.000735
135	Cos vs. Zhang	0.782045	0.434188	0.000741
134	ExCex vs. Jacc	0.782045	0.434188	0.000746
133	GR vs. Jacc	0.782045	0.434188	0.000752
132	Jacc vs. SeBag	0.782045	0.434188	0.000758
131	Jacc vs. Zhang	0.782045	0.434188	0.000763
130	ColStr vs. MDisc	0.744356	0.456661	0.000769

129	OddsR vs. Sup	0.744356	0.456661	0.000775
128	Cconf vs. Spec	0.734934	0.46238	0.000781
127	Dep vs. Spec	0.734934	0.46238	0.000787
126	InfGain vs. Spec	0.734934	0.46238	0.000794
125	Lift vs. Spec	0.734934	0.46238	0.0008
124	MultInf vs. OddsR	0.706667	0.479773	0.000806
123	Cos vs. OddsR	0.697245	0.485649	0.000813
122	Jacc vs. OddsR	0.697245	0.485649	0.00082
121	Brins vs. Sup	0.659556	0.509539	0.000826
120	Cole vs. Sup	0.659556	0.509539	0.000833
119	Conf vs. Sup	0.659556	0.509539	0.00084
118	ExCex vs. Sup	0.659556	0.509539	0.000847
117	GR vs. Sup	0.659556	0.509539	0.000855
116	SeBag vs. Sup	0.659556	0.509539	0.000862
115	Sup vs. Zhang	0.659556	0.509539	0.00087
114	Brins vs. Cover	0.650134	0.515606	0.000877
113	Cole vs. Cover	0.650134	0.515606	0.000885
112	Conf vs. Cover	0.650134	0.515606	0.000893
111	Cover vs. ExCex	0.650134	0.515606	0.000901
110	Cover vs. GR	0.650134	0.515606	0.000909
109	Cover vs. SeBag	0.650134	0.515606	0.000917
108	Cover vs. Zhang	0.650134	0.515606	0.000926
107	ColStr vs. Sup	0.565334	0.571847	0.000935
106	Cover vs. OddsR	0.565334	0.571847	0.000943
105	MDisc vs. OddsR	0.565334	0.571847	0.000952
104	Brins vs. X2	0.518223	0.604303	0.000962
103	Cole vs. X2	0.518223	0.604303	0.000971
102	Conf vs. X2	0.518223	0.604303	0.00098
101	ExCex vs. X2	0.518223	0.604303	0.00099
100	GR vs. X2	0.518223	0.604303	0.001
99	SeBag vs. X2	0.518223	0.604303	0.00101
98	X2 vs. Zhang	0.518223	0.604303	0.00102
97	Brins vs. MDisc	0.480534	0.630848	0.001031
96	Cole vs. MDisc	0.480534	0.630848	0.001042
95	Conf vs. MDisc	0.480534	0.630848	0.001053
94	ExCex vs. MDisc	0.480534	0.630848	0.001064
93	Gain vs. Lap	0.480534	0.630848	0.001075
92	Gain vs. Pearson	0.480534	0.630848	0.001087
91	GR vs. MDisc	0.480534	0.630848	0.001099
90	MDisc vs. SeBag	0.480534	0.630848	0.001111
89	MDisc vs. Zhang	0.480534	0.630848	0.001124
88	Streng vs. X2	0.471111	0.637561	0.001136
87	Gain vs. OddsR	0.461689	0.644304	0.001149
86	Cconf vs. NetConf	0.452267	0.651077	0.001163
85	Dep vs. NetConf	0.452267	0.651077	0.001176
84	InfGain vs. NetConf	0.452267	0.651077	0.00119
83	Lift vs. NetConf	0.452267	0.651077	0.001205
82	OddsR vs. X2	0.433423	0.664708	0.00122
81	SupDif vs. X2	0.433423	0.664708	0.001235
80	WRACC vs. X2	0.433423	0.664708	0.00125
79	Brins vs. Gain	0.376889	0.706256	0.001266
78	Cole vs. Gain	0.376889	0.706256	0.001282
77	Conf vs. Gain	0.376889	0.706256	0.001299
76	ExCex vs. Gain	0.376889	0.706256	0.001316
75	Gain vs. GR	0.376889	0.706256	0.001333
74	Gain vs. SeBag	0.376889	0.706256	0.001351
73	Gain vs. Zhang	0.376889	0.706256	0.00137
72	Lap vs. MDisc	0.376889	0.706256	0.001389
71	MDisc vs. Pearson	0.376889	0.706256	0.001408
70	ColStr vs. Lap	0.367467	0.713271	0.001429
69	ColStr vs. Pearson	0.367467	0.713271	0.001449
68	NetConf vs. RelRisk	0.348622	0.727373	0.001471
67	Cover vs. Streng	0.3392	0.734459	0.001493
66	Cover vs. SupDif	0.301511	0.763025	0.001515
65	Cover vs. WRACC	0.301511	0.763025	0.001538
64	Gain vs. Sup	0.282667	0.777432	0.001562
63	NetConf vs. Spec	0.282667	0.777432	0.001587
62	MultInf vs. X2	0.273245	0.784665	0.001613
61	Cos vs. X2	0.263822	0.791917	0.001639
60	Jacc vs. X2	0.263822	0.791917	0.001667
59	Cos vs. Streng	0.207289	0.835784	0.001695
58	Jacc vs. Streng	0.207289	0.835784	0.001724
57	Lap vs. Sup	0.197867	0.843149	0.001754
56	MultInf vs. Streng	0.197867	0.843149	0.001786

55	Pearson vs. Sup	0.197867	0.843149	0.001818
54	MDisc vs. Sup	0.179022	0.85792	0.001852
53	Cos vs. SupDif	0.1696	0.865325	0.001887
52	Cos vs. WRACC	0.1696	0.865325	0.001923
51	Jacc vs. SupDif	0.1696	0.865325	0.001961
50	Jacc vs. WRACC	0.1696	0.865325	0.002
49	MultInf vs. SupDif	0.160178	0.872741	0.002041
48	MultInf vs. WRACC	0.160178	0.872741	0.002083
47	Cover vs. MultInf	0.141333	0.887607	0.002128
46	Cos vs. Cover	0.131911	0.895055	0.002174
45	Cover vs. Jacc	0.131911	0.895055	0.002222
44	Cover vs. X2	0.131911	0.895055	0.002273
43	Gain vs. MDisc	0.103645	0.917451	0.002326
42	Brins vs. OddsR	0.0848	0.93242	0.002381
41	Cole vs. OddsR	0.0848	0.93242	0.002439
40	Conf vs. OddsR	0.0848	0.93242	0.0025
39	ExCex vs. OddsR	0.0848	0.93242	0.002564
38	GR vs. OddsR	0.0848	0.93242	0.002632
37	OddsR vs. SeBag	0.0848	0.93242	0.002703
36	OddsR vs. Zhang	0.0848	0.93242	0.002778
35	RelRisk vs. Spec	0.065956	0.947413	0.002857
34	Streng vs. SupDif	0.037689	0.969936	0.002941
33	Streng vs. WRACC	0.037689	0.969936	0.00303
32	Cos vs. MultInf	0.009422	0.992482	0.003125
31	Jacc vs. MultInf	0.009422	0.992482	0.003226
30	Brins vs. Cole	0	1	0.003333
29	Brins vs. Conf	0	1	0.003448
28	Brins vs. ExCex	0	1	0.003571
27	Brins vs. GR	0	1	0.003704
26	Brins vs. SeBag	0	1	0.003846
25	Brins vs. Zhang	0	1	0.004
24	Cconf vs. Dep	0	1	0.004167
23	Cconf vs. InfGain	0	1	0.004348
22	Cconf vs. Lift	0	1	0.004545
21	Cole vs. Conf	0	1	0.004762
20	Cole vs. ExCex	0	1	0.005
19	Cole vs. GR	0	1	0.005263
18	Cole vs. SeBag	0	1	0.005556
17	Cole vs. Zhang	0	1	0.005882
16	Conf vs. ExCex	0	1	0.00625
15	Conf vs. GR	0	1	0.006667
14	Conf vs. SeBag	0	1	0.007143
13	Conf vs. Zhang	0	1	0.007692
12	Cos vs. Jacc	0	1	0.008333
11	Dep vs. InfGain	0	1	0.009091
10	Dep vs. Lift	0	1	0.01
9	ExCex vs. GR	0	1	0.011111
8	ExCex vs. SeBag	0	1	0.0125
7	ExCex vs. Zhang	0	1	0.014286
6	GR vs. SeBag	0	1	0.016667
5	GR vs. Zhang	0	1	0.02
4	InfGain vs. Lift	0	1	0.025
3	Lap vs. Pearson	0	1	0.033333
2	SeBag vs. Zhang	0	1	0.05
1	SupDif vs. WRACC	0	1	0.1

Table 3: P-values Table for  $\alpha = 0.10$

Shaffer's procedure rejects those hypotheses that have an unadjusted p-value  $\leq 0.000202$ .



## 2.3 Adjusted p-values

i	hypothesis	unadjusted $p$	$p_{Shaf}$
1	Lever vs .Streng	0	0
2	Lever vs .SupDif	0	0
3	Lever vs .WRACC	0	0
4	Lever vs .MultInf	0	0
5	Cos vs .Lever	0	0
6	Jacc vs .Lever	0	0
7	Cover vs .Lever	0	0
8	Lever vs .X2	0	0
9	Lever vs .OddsR	0	0.000001
10	Brins vs .Lever	0	0.000002
11	Cole vs .Lever	0	0.000002
12	Conf vs .Lever	0	0.000002
13	ExCex vs .Lever	0	0.000002
14	GR vs .Lever	0	0.000002
15	Lever vs .SeBag	0	0.000002
16	Lever vs .Zhang	0	0.000002
17	Cconf vs .Streng	0	0.000011
18	Dep vs .Streng	0	0.000011
19	InfGain vs .Streng	0	0.000011
20	Lift vs .Streng	0	0.000011
21	Cconf vs .SupDif	0	0.000013
22	Cconf vs .WRACC	0	0.000013
23	Dep vs .SupDif	0	0.000013
24	Dep vs .WRACC	0	0.000013
25	InfGain vs .SupDif	0	0.000013
26	InfGain vs .WRACC	0	0.000013
27	Lift vs .SupDif	0	0.000013
28	Lift vs .WRACC	0	0.000013
29	Gain vs .Lever	0	0.000016
30	Lever vs .MDisc	0	0.000028
31	Cconf vs .MultInf	0	0.000033
32	Dep vs .MultInf	0	0.000033
33	InfGain vs .MultInf	0	0.000033
34	Lift vs .MultInf	0	0.000033
35	Cconf vs .Cos	0	0.000033
36	Cconf vs .Jacc	0	0.000033
37	Cos vs .Dep	0	0.000033
38	Cos vs .InfGain	0	0.000033
39	Cos vs .Lift	0	0.000033
40	Dep vs .Jacc	0	0.000033
41	InfGain vs .Jacc	0	0.000033
42	Jacc vs .Lift	0	0.000033
43	Cconf vs .Cover	0	0.000067
44	Cover vs .Dep	0	0.000067
45	Cover vs .InfGain	0	0.000067
46	Cover vs .Lift	0	0.000067
47	Lever vs .Sup	0	0.00007
48	NetConf vs .Streng	0	0.000123
49	Cconf vs .X2	0	0.000136
50	Dep vs .X2	0	0.000136
51	InfGain vs .X2	0	0.000136
52	Lift vs .X2	0	0.000136
53	NetConf vs .SupDif	0	0.00015
54	NetConf vs .WRACC	0	0.00015
55	Lap vs .Lever	0	0.000202
56	Lever vs .Pearson	0	0.000202
57	MultInf vs .NetConf	0.000001	0.000345
58	Cos vs .NetConf	0.000001	0.000363
59	Jacc vs .NetConf	0.000001	0.000363
60	Spec vs .Streng	0.000001	0.000532
61	Spec vs .SupDif	0.000001	0.000643
62	Spec vs .WRACC	0.000001	0.000643
63	Cover vs .NetConf	0.000002	0.000662
64	RelRisk vs .Streng	0.000002	0.000694
65	RelRisk vs .SupDif	0.000002	0.000837
66	RelRisk vs .WRACC	0.000002	0.000837
67	Cconf vs .OddsR	0.000003	0.001157
68	Dep vs .OddsR	0.000003	0.001157
69	InfGain vs .OddsR	0.000003	0.001157
70	Lift vs .OddsR	0.000003	0.001157

71	ColStr vs .Lever	0.000003	0.001212
72	NetConf vs .X2	0.000003	0.001268
73	MultInf vs .Spec	0.000003	0.001328
74	Cos vs .Spec	0.000003	0.00139
75	Jacc vs .Spec	0.000003	0.00139
76	Brins vs .Cconf	0.000004	0.001744
77	Brins vs .Dep	0.000004	0.001744
78	Brins vs .InfGain	0.000004	0.001744
79	Brins vs .Lift	0.000004	0.001744
80	Cconf vs .Cole	0.000004	0.001744
81	Cconf vs .Conf	0.000004	0.001744
82	Cconf vs .ExCex	0.000004	0.001744
83	Cconf vs .GR	0.000004	0.001744
84	Cconf vs .SeBag	0.000004	0.001744
85	Cconf vs .Zhang	0.000004	0.001744
86	Cole vs .Dep	0.000004	0.001744
87	Cole vs .InfGain	0.000004	0.001744
88	Cole vs .Lift	0.000004	0.001744
89	Conf vs .Dep	0.000004	0.001744
90	Conf vs .InfGain	0.000004	0.001744
91	Conf vs .Lift	0.000004	0.001744
92	Dep vs .ExCex	0.000004	0.001744
93	Dep vs .GR	0.000004	0.001744
94	Dep vs .SeBag	0.000004	0.001744
95	Dep vs .Zhang	0.000004	0.001744
96	ExCex vs .InfGain	0.000004	0.001744
97	ExCex vs .Lift	0.000004	0.001744
98	GR vs .InfGain	0.000004	0.001744
99	GR vs .Lift	0.000004	0.001744
100	InfGain vs .SeBag	0.000004	0.001744
101	InfGain vs .Zhang	0.000004	0.001744
102	Lift vs .SeBag	0.000004	0.001744
103	Lift vs .Zhang	0.000004	0.001744
104	MultInf vs .RelRisk	0.000004	0.001744
105	Cos vs .RelRisk	0.000005	0.001792
106	Jacc vs .RelRisk	0.000005	0.001792
107	Cover vs .Spec	0.000006	0.002452
108	Cover vs .RelRisk	0.000009	0.003339
109	Spec vs .X2	0.000012	0.004529
110	RelRisk vs .X2	0.000016	0.006118
111	NetConf vs .OddsR	0.000023	0.008951
112	Cconf vs .Gain	0.000024	0.009333
113	Dep vs .Gain	0.000024	0.009333
114	Gain vs .InfGain	0.000024	0.009333
115	Gain vs .Lift	0.000024	0.009333
116	Brins vs .NetConf	0.000034	0.012903
117	Cole vs .NetConf	0.000034	0.012903
118	Conf vs .NetConf	0.000034	0.012903
119	ExCex vs .NetConf	0.000034	0.012903
120	GR vs .NetConf	0.000034	0.012903
121	NetConf vs .SeBag	0.000034	0.012903
122	NetConf vs .Zhang	0.000034	0.012903
123	Cconf vs .MDisc	0.000038	0.013826
124	Dep vs .MDisc	0.000038	0.013826
125	InfGain vs .MDisc	0.000038	0.013826
126	Lift vs .MDisc	0.000038	0.013826
127	ACC vs .Streng	0.000073	0.026301
128	OddsR vs .Spec	0.000079	0.028459
129	Cconf vs .Sup	0.000082	0.0296
130	Dep vs .Sup	0.000082	0.0296
131	InfGain vs .Sup	0.000082	0.0296
132	Lift vs .Sup	0.000082	0.0296
133	ACC vs .SupDif	0.000085	0.030784
134	ACC vs .WRACC	0.000085	0.030784
135	OddsR vs .RelRisk	0.000104	0.037406
136	Brins vs .Spec	0.000112	0.040414
137	Cole vs .Spec	0.000112	0.040414
138	Conf vs .Spec	0.000112	0.040414
139	ExCex vs .Spec	0.000112	0.040414
140	GR vs .Spec	0.000112	0.040414
141	SeBag vs .Spec	0.000112	0.040414
142	Spec vs .Zhang	0.000112	0.040414
143	Brins vs .RelRisk	0.000146	0.051813
144	Cole vs .RelRisk	0.000146	0.051813

145	Conf vs .RelRisk	0.000146	0.051813
146	ExCex vs .RelRisk	0.000146	0.051813
147	GR vs .RelRisk	0.000146	0.051813
148	RelRisk vs .SeBag	0.000146	0.051813
149	RelRisk vs .Zhang	0.000146	0.051813
150	ACC vs .MultInf	0.000164	0.055751
151	Gain vs .NetConf	0.000164	0.055751
152	ACC vs .Cos	0.00017	0.057893
153	ACC vs .Jacc	0.00017	0.057893
154	Cconf vs .Lap	0.000184	0.062411
155	Cconf vs .Pearson	0.000184	0.062411
156	Dep vs .Lap	0.000184	0.062411
157	Dep vs .Pearson	0.000184	0.062411
158	InfGain vs .Lap	0.000184	0.062411
159	InfGain vs .Pearson	0.000184	0.062411
160	Lap vs .Lift	0.000184	0.062411
161	Lift vs .Pearson	0.000184	0.062411
162	Klos vs .Lever	0.000191	0.06384
163	MDisc vs .NetConf	0.000247	0.082037
164	ACC vs .Cover	0.000286	0.09499
165	ACC vs .X2	0.000473	0.157007
166	Gain vs .Spec	0.00049	0.162153
167	NetConf vs .Sup	0.00049	0.162153
168	Gain vs .RelRisk	0.000626	0.20582
169	MDisc vs .Spec	0.000718	0.235531
170	Cconf vs .ColStr	0.000743	0.242998
171	ColStr vs .Dep	0.000743	0.242998
172	ColStr vs .InfGain	0.000743	0.242998
173	ColStr vs .Lift	0.000743	0.242998
174	MDisc vs .RelRisk	0.000911	0.292469
175	Lap vs .NetConf	0.001008	0.323483
176	NetConf vs .Pearson	0.001008	0.323483
177	Spec vs .Sup	0.001357	0.427583
178	Klos vs .Streng	0.001597	0.503068
179	RelRisk vs .Sup	0.001703	0.536558
180	Klos vs .SupDif	0.001816	0.572087
181	Klos vs .WRACC	0.001816	0.572087
182	ACC vs .OddsR	0.002197	0.69205
183	Lap vs .Spec	0.00265	0.824081
184	Pearson vs .Spec	0.00265	0.824081
185	ACC vs .Brins	0.002907	0.904019
186	ACC vs .Cole	0.002907	0.904019
187	ACC vs .Conf	0.002907	0.904019
188	ACC vs .ExCex	0.002907	0.904019
189	ACC vs .GR	0.002907	0.904019
190	ACC vs .SeBag	0.002907	0.904019
191	ACC vs .Zhang	0.002907	0.904019
192	Klos vs .MultInf	0.003091	0.942633
193	Cos vs .Klos	0.003186	0.968669
194	Jacc vs .Klos	0.003186	0.968669
195	Lap vs .RelRisk	0.003285	0.992047
196	Pearson vs .RelRisk	0.003285	0.992047
197	ACC vs .Lever	0.00349	1.047095
198	ColStr vs .NetConf	0.00349	1.047095
199	Cover vs .Klos	0.004844	1.438588
200	Klos vs .X2	0.007246	2.151974
201	ColStr vs .Spec	0.008334	2.43357
202	ACC vs .Gain	0.009308	2.71789
203	ColStr vs .RelRisk	0.010103	2.950206
204	ACC vs .MDisc	0.012529	3.658396
205	Cconf vs .Klos	0.01506	4.397493
206	Dep vs .Klos	0.01506	4.397493
207	InfGain vs .Klos	0.01506	4.397493
208	Klos vs .Lift	0.01506	4.397493
209	ACC vs .Sup	0.020456	5.891464
210	Klos vs .OddsR	0.024328	6.982073
211	ColStr vs .Streng	0.026813	7.668626
212	ColStr vs .SupDif	0.029515	8.411854
213	ColStr vs .WRACC	0.029515	8.411854
214	Brins vs .Klos	0.030226	8.55403
215	Cole vs .Klos	0.030226	8.55403
216	Conf vs .Klos	0.030226	8.55403
217	ExCex vs .Klos	0.030226	8.55403
218	GR vs .Klos	0.030226	8.55403

219	Klos vs .SeBag	0.030226	8.55403
220	Klos vs .Zhang	0.030226	8.55403
221	ACC vs .Lap	0.034006	9.38563
222	ACC vs .Pearson	0.034006	9.38563
223	Lever vs .RelRisk	0.035627	9.761845
224	Lever vs .Spec	0.041831	11.336091
225	ColStr vs .MultInf	0.043763	11.859677
226	ColStr vs .Cos	0.044757	12.129038
227	ColStr vs .Jacc	0.044757	12.129038
228	Klos vs .NetConf	0.047853	12.872558
229	ColStr vs .Cover	0.060789	16.291577
230	Lap vs .Streng	0.064782	17.296892
231	Pearson vs .Streng	0.064782	17.296892
232	Lap vs .SupDif	0.07044	18.666714
233	Lap vs .WRACC	0.07044	18.666714
234	Pearson vs .SupDif	0.07044	18.666714
235	Pearson vs .WRACC	0.07044	18.666714
236	Gain vs .Klos	0.073418	19.16209
237	ACC vs .ColStr	0.079682	20.717297
238	Lever vs .NetConf	0.079682	20.717297
239	ColStr vs .X2	0.081314	20.979005
240	Klos vs .Spec	0.089886	23.100607
241	Klos vs .MDisc	0.091684	23.471185
242	Lap vs .MultInf	0.09917	25.288385
243	MultInf vs .Pearson	0.09917	25.288385
244	Streng vs .Sup	0.09917	25.288385
245	Cos vs .Lap	0.101116	25.481192
246	Cos vs .Pearson	0.101116	25.481192
247	Jacc vs .Lap	0.101116	25.481192
248	Jacc vs .Pearson	0.101116	25.481192
249	Klos vs .RelRisk	0.103092	25.566776
250	ACC vs .Cconf	0.105098	25.959308
251	ACC vs .Dep	0.105098	25.959308
252	ACC vs .InfGain	0.105098	25.959308
253	ACC vs .Lift	0.105098	25.959308
254	Sup vs .SupDif	0.107136	26.034015
255	Sup vs .WRACC	0.107136	26.034015
256	Cover vs .Lap	0.131668	31.731992
257	Cover vs .Pearson	0.131668	31.731992
258	Klos vs .Sup	0.131668	31.731992
259	MDisc vs .Streng	0.141598	33.700219
260	MultInf vs .Sup	0.146773	34.785286
261	Cos vs .Sup	0.149415	35.261924
262	Jacc vs .Sup	0.149415	35.261924
263	MDisc vs .SupDif	0.152093	35.589676
264	MDisc vs .WRACC	0.152093	35.589676
265	Lap vs .X2	0.168931	39.192087
266	Pearson vs .X2	0.168931	39.192087
267	Gain vs .Streng	0.171869	39.529845
268	Gain vs .SupDif	0.184002	42.136375
269	Gain vs .WRACC	0.184002	42.136375
270	ColStr vs .OddsR	0.190301	43.198273
271	Cover vs .Sup	0.190301	43.198273
272	Klos vs .Lap	0.190301	43.198273
273	Klos vs .Pearson	0.190301	43.198273
274	Cconf vs .Lever	0.193509	43.198273
275	Dep vs .Lever	0.193509	43.198273
276	InfGain vs .Lever	0.193509	43.198273
277	Lever vs .Lift	0.193509	43.198273
278	MDisc vs .MultInf	0.203373	44.538636
279	Cos vs .MDisc	0.206741	45.069452
280	Jacc vs .MDisc	0.206741	45.069452
281	Brins vs .ColStr	0.220617	47.653214
282	Cole vs .ColStr	0.220617	47.653214
283	ColStr vs .Conf	0.220617	47.653214
284	ColStr vs .ExCex	0.220617	47.653214
285	ColStr vs .GR	0.220617	47.653214
286	ColStr vs .SeBag	0.220617	47.653214
287	ColStr vs .Zhang	0.220617	47.653214
288	Sup vs .X2	0.238885	49.926933
289	ACC vs .NetConf	0.242663	50.473906
290	Gain vs .MultInf	0.242663	50.473906
291	Cos vs .Gain	0.246483	50.775497
292	Gain vs .Jacc	0.246483	50.775497

293	Cover vs .MDisc	0.258195	52.67179
294	Cover vs .Gain	0.30441	61.795154
295	MDisc vs .X2	0.317913	64.218375
296	Brins vs .Streng	0.3225	64.822441
297	Cole vs .Streng	0.3225	64.822441
298	Conf vs .Streng	0.3225	64.822441
299	ExCex vs .Streng	0.3225	64.822441
300	GR vs .Streng	0.3225	64.822441
301	SeBag vs .Streng	0.3225	64.822441
302	Streng vs .Zhang	0.3225	64.822441
303	Brins vs .SupDif	0.341277	66.20773
304	Brins vs .WRACC	0.341277	66.20773
305	Cole vs .SupDif	0.341277	66.20773
306	Cole vs .WRACC	0.341277	66.20773
307	Conf vs .SupDif	0.341277	66.20773
308	Conf vs .WRACC	0.341277	66.20773
309	ExCex vs .SupDif	0.341277	66.20773
310	ExCex vs .WRACC	0.341277	66.20773
311	GR vs .SupDif	0.341277	66.20773
312	GR vs .WRACC	0.341277	66.20773
313	SeBag vs .SupDif	0.341277	66.20773
314	SeBag vs .WRACC	0.341277	66.20773
315	SupDif vs .Zhang	0.341277	66.20773
316	WRACC vs .Zhang	0.341277	66.20773
317	ColStr vs .Klos	0.346079	66.20773
318	Lap vs .OddsR	0.346079	66.20773
319	OddsR vs .Pearson	0.346079	66.20773
320	OddsR vs .Streng	0.365712	66.20773
321	Gain vs .X2	0.370727	66.20773
322	ACC vs .Spec	0.375785	66.20773
323	OddsR vs .SupDif	0.386027	67.168677
324	OddsR vs .WRACC	0.386027	67.168677
325	Brins vs .Lap	0.391211	67.288329
326	Brins vs .Pearson	0.391211	67.288329
327	Cole vs .Lap	0.391211	67.288329
328	Cole vs .Pearson	0.391211	67.288329
329	Conf vs .Lap	0.391211	67.288329
330	Conf vs .Pearson	0.391211	67.288329
331	ExCex vs .Lap	0.391211	67.288329
332	ExCex vs .Pearson	0.391211	67.288329
333	GR vs .Lap	0.391211	67.288329
334	GR vs .Pearson	0.391211	67.288329
335	Lap vs .SeBag	0.391211	67.288329
336	Lap vs .Zhang	0.391211	67.288329
337	Pearson vs .SeBag	0.391211	67.288329
338	Pearson vs .Zhang	0.391211	67.288329
339	ColStr vs .Gain	0.396438	67.288329
340	ACC vs .RelRisk	0.412368	67.288329
341	ACC vs .Klos	0.417761	67.288329
342	Cconf vs .RelRisk	0.423196	67.288329
343	Dep vs .RelRisk	0.423196	67.288329
344	InfGain vs .RelRisk	0.423196	67.288329
345	Lift vs .RelRisk	0.423196	67.288329
346	Brins vs .MultInf	0.428671	67.288329
347	Cole vs .MultInf	0.428671	67.288329
348	Conf vs .MultInf	0.428671	67.288329
349	ExCex vs .MultInf	0.428671	67.288329
350	GR vs .MultInf	0.428671	67.288329
351	MultInf vs .SeBag	0.428671	67.288329
352	MultInf vs .Zhang	0.428671	67.288329
353	Brins vs .Cos	0.434188	67.288329
354	Brins vs .Jacc	0.434188	67.288329
355	Cole vs .Cos	0.434188	67.288329
356	Cole vs .Jacc	0.434188	67.288329
357	Conf vs .Cos	0.434188	67.288329
358	Conf vs .Jacc	0.434188	67.288329
359	Cos vs .ExCex	0.434188	67.288329
360	Cos vs .GR	0.434188	67.288329
361	Cos vs .SeBag	0.434188	67.288329
362	Cos vs .Zhang	0.434188	67.288329
363	ExCex vs .Jacc	0.434188	67.288329
364	GR vs .Jacc	0.434188	67.288329
365	Jacc vs .SeBag	0.434188	67.288329
366	Jacc vs .Zhang	0.434188	67.288329

367	ColStr vs .MDisc	0.456661	67.288329
368	OddsR vs .Sup	0.456661	67.288329
369	Cconf vs .Spec	0.46238	67.288329
370	Dep vs .Spec	0.46238	67.288329
371	InfGain vs .Spec	0.46238	67.288329
372	Lift vs .Spec	0.46238	67.288329
373	MultiInf vs .OddsR	0.479773	67.288329
374	Cos vs .OddsR	0.485649	67.288329
375	Jacc vs .OddsR	0.485649	67.288329
376	Brins vs .Sup	0.509539	67.288329
377	Cole vs .Sup	0.509539	67.288329
378	Conf vs .Sup	0.509539	67.288329
379	ExCex vs .Sup	0.509539	67.288329
380	GR vs .Sup	0.509539	67.288329
381	SeBag vs .Sup	0.509539	67.288329
382	Sup vs .Zhang	0.509539	67.288329
383	Brins vs .Cover	0.515606	67.288329
384	Cole vs .Cover	0.515606	67.288329
385	Conf vs .Cover	0.515606	67.288329
386	Cover vs .ExCex	0.515606	67.288329
387	Cover vs .GR	0.515606	67.288329
388	Cover vs .SeBag	0.515606	67.288329
389	Cover vs .Zhang	0.515606	67.288329
390	ColStr vs .Sup	0.571847	67.288329
391	Cover vs .OddsR	0.571847	67.288329
392	MDisc vs .OddsR	0.571847	67.288329
393	Brins vs .X2	0.604303	67.288329
394	Cole vs .X2	0.604303	67.288329
395	Conf vs .X2	0.604303	67.288329
396	ExCex vs .X2	0.604303	67.288329
397	GR vs .X2	0.604303	67.288329
398	SeBag vs .X2	0.604303	67.288329
399	X2 vs .Zhang	0.604303	67.288329
400	Brins vs .MDisc	0.630848	67.288329
401	Cole vs .MDisc	0.630848	67.288329
402	Conf vs .MDisc	0.630848	67.288329
403	ExCex vs .MDisc	0.630848	67.288329
404	Gain vs .Lap	0.630848	67.288329
405	Gain vs .Pearson	0.630848	67.288329
406	GR vs .MDisc	0.630848	67.288329
407	MDisc vs .SeBag	0.630848	67.288329
408	MDisc vs .Zhang	0.630848	67.288329
409	Streng vs .X2	0.637561	67.288329
410	Gain vs .OddsR	0.644304	67.288329
411	Cconf vs .NetConf	0.651077	67.288329
412	Dep vs .NetConf	0.651077	67.288329
413	InfGain vs .NetConf	0.651077	67.288329
414	Lift vs .NetConf	0.651077	67.288329
415	OddsR vs .X2	0.664708	67.288329
416	SupDif vs .X2	0.664708	67.288329
417	WRACC vs .X2	0.664708	67.288329
418	Brins vs .Gain	0.706256	67.288329
419	Cole vs .Gain	0.706256	67.288329
420	Conf vs .Gain	0.706256	67.288329
421	ExCex vs .Gain	0.706256	67.288329
422	Gain vs .GR	0.706256	67.288329
423	Gain vs .SeBag	0.706256	67.288329
424	Gain vs .Zhang	0.706256	67.288329
425	Lap vs .MDisc	0.706256	67.288329
426	MDisc vs .Pearson	0.706256	67.288329
427	ColStr vs .Lap	0.713271	67.288329
428	ColStr vs .Pearson	0.713271	67.288329
429	NetConf vs .RelRisk	0.727373	67.288329
430	Cover vs .Streng	0.734459	67.288329
431	Cover vs .SupDif	0.763025	67.288329
432	Cover vs .WRACC	0.763025	67.288329
433	Gain vs .Sup	0.777432	67.288329
434	NetConf vs .Spec	0.777432	67.288329
435	MultiInf vs .X2	0.784665	67.288329
436	Cos vs .X2	0.791917	67.288329
437	Jacc vs .X2	0.791917	67.288329
438	Cos vs .Streng	0.835784	67.288329
439	Jacc vs .Streng	0.835784	67.288329
440	Lap vs .Sup	0.843149	67.288329

441	MultInf vs .Streng	0.843149	67.288329
442	Pearson vs .Sup	0.843149	67.288329
443	MDisc vs .Sup	0.85792	67.288329
444	Cos vs .SupDif	0.865325	67.288329
445	Cos vs .WRACC	0.865325	67.288329
446	Jacc vs .SupDif	0.865325	67.288329
447	Jacc vs .WRACC	0.865325	67.288329
448	MultInf vs .SupDif	0.872741	67.288329
449	MultInf vs .WRACC	0.872741	67.288329
450	Cover vs .MultInf	0.887607	67.288329
451	Cos vs .Cover	0.895055	67.288329
452	Cover vs .Jacc	0.895055	67.288329
453	Cover vs .X2	0.895055	67.288329
454	Gain vs .MDisc	0.917451	67.288329
455	Brins vs .OddsR	0.93242	67.288329
456	Cole vs .OddsR	0.93242	67.288329
457	Conf vs .OddsR	0.93242	67.288329
458	ExCex vs .OddsR	0.93242	67.288329
459	GR vs .OddsR	0.93242	67.288329
460	OddsR vs .SeBag	0.93242	67.288329
461	OddsR vs .Zhang	0.93242	67.288329
462	RelRisk vs .Spec	0.947413	67.288329
463	Streng vs .SupDif	0.969936	67.288329
464	Streng vs .WRACC	0.969936	67.288329
465	Cos vs .MultInf	0.992482	67.288329
466	Jacc vs .MultInf	0.992482	67.288329
467	Brins vs .Cole	1	67.288329
468	Brins vs .Conf	1	67.288329
469	Brins vs .ExCex	1	67.288329
470	Brins vs .GR	1	67.288329
471	Brins vs .SeBag	1	67.288329
472	Brins vs .Zhang	1	67.288329
473	Cconf vs .Dep	1	67.288329
474	Cconf vs .InfGain	1	67.288329
475	Cconf vs .Lift	1	67.288329
476	Cole vs .Conf	1	67.288329
477	Cole vs .ExCex	1	67.288329
478	Cole vs .GR	1	67.288329
479	Cole vs .SeBag	1	67.288329
480	Cole vs .Zhang	1	67.288329
481	Conf vs .ExCex	1	67.288329
482	Conf vs .GR	1	67.288329
483	Conf vs .SeBag	1	67.288329
484	Conf vs .Zhang	1	67.288329
485	Cos vs .Jacc	1	67.288329
486	Dep vs .InfGain	1	67.288329
487	Dep vs .Lift	1	67.288329
488	ExCex vs .GR	1	67.288329
489	ExCex vs .SeBag	1	67.288329
490	ExCex vs .Zhang	1	67.288329
491	GR vs .SeBag	1	67.288329
492	GR vs .Zhang	1	67.288329
493	InfGain vs .Lift	1	67.288329
494	Lap vs .Pearson	1	67.288329
495	SeBag vs .Zhang	1	67.288329
496	SupDif vs .WRACC	1	67.288329

Table 4: Adjusted  $p$ -values