

# Tables of the statistical tests considering all the imbalanced databases.

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## 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	23.2263
Brins	10.5053
Cconf	26.5474
Cole	10.5053
ColStr	19.2895
Conf	10.5053
Cos	9.8842
Cover	9.6632
Dep	26.5474
ExCex	10.5053
Gain	18.0263
GR	10.5053
InfGain	26.5474
Jacc	9.5895
Klos	23.8263
Lap	15.4474
Lever	31.8211
Lift	26.5474
MDisc	12.4632
MultInf	13.7526

NetConf	24.2158
OddsR	10.3053
Pearson	19.4947
RelRisk	24.0579
SeBag	10.5053
Spec	23.7895
Streng	9.7211
Sup	14.5684
SupDif	9.9684
WRACC	9.9684
X2	15.1947
Zhang	10.5053

Table 1: Average Rankings of the algorithms

Friedman statistic considering reduction performance (distributed according to chi-square with 31 degrees of freedom: 1,636.791208.

P-value computed by Friedman Test: 0.0.

## 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	Jacc vs. Lever	16.333369	0	0.000101
495	Cover vs. Lever	16.279234	0	0.000108
494	Lever vs. Streng	16.236699	0	0.000108
493	Cos vs. Lever	16.116828	0	0.000108
492	Lever vs. SupDif	16.054959	0	0.000108
491	Lever vs. WRACC	16.054959	0	0.000108
490	Lever vs. OddsR	15.807484	0	0.000108
489	Brins vs. Lever	15.660546	0	0.000108
488	Cole vs. Lever	15.660546	0	0.000108
487	Conf vs. Lever	15.660546	0	0.000108
486	ExCex vs. Lever	15.660546	0	0.000108
485	GR vs. Lever	15.660546	0	0.000108
484	Lever vs. SeBag	15.660546	0	0.000108
483	Lever vs. Zhang	15.660546	0	0.000108
482	Lever vs. MDisc	14.222096	0	0.000108
481	Lever vs. MultInf	13.274729	0	0.000108
480	Lever vs. Sup	12.675375	0	0.000108
479	Cconf vs. Jacc	12.458834	0	0.000108
478	Dep vs. Jacc	12.458834	0	0.000108
477	InfGain vs. Jacc	12.458834	0	0.000108
476	Jacc vs. Lift	12.458834	0	0.000108
475	Cconf vs. Cover	12.404699	0	0.000108
474	Cover vs. Dep	12.404699	0	0.000108
473	Cover vs. InfGain	12.404699	0	0.000108
472	Cover vs. Lift	12.404699	0	0.000108
471	Cconf vs. Streng	12.362164	0	0.000108
470	Dep vs. Streng	12.362164	0	0.000108
469	InfGain vs. Streng	12.362164	0	0.000108
468	Lift vs. Streng	12.362164	0	0.000108
467	Cconf vs. Cos	12.242293	0	0.000108
466	Cos vs. Dep	12.242293	0	0.000108
465	Cos vs. InfGain	12.242293	0	0.000108
464	Cos vs. Lift	12.242293	0	0.000115
463	Lever vs. X2	12.215226	0	0.000115
462	Cconf vs. SupDif	12.180424	0	0.000115
461	Cconf vs. WRACC	12.180424	0	0.000115
460	Dep vs. SupDif	12.180424	0	0.000115
459	Dep vs. WRACC	12.180424	0	0.000115
458	InfGain vs. SupDif	12.180424	0	0.000115
457	InfGain vs. WRACC	12.180424	0	0.000115
456	Lift vs. SupDif	12.180424	0	0.000115

455	Lift vs. WRACC	12.180424	0	0.000115
454	Lap vs. Lever	12.029619	0	0.000115
453	Cconf vs. OddsR	11.932949	0	0.000115
452	Dep vs. OddsR	11.932949	0	0.000115
451	InfGain vs. OddsR	11.932949	0	0.000115
450	Lift vs. OddsR	11.932949	0	0.000115
449	Brins vs. Cconf	11.786011	0	0.000115
448	Brins vs. Dep	11.786011	0	0.000115
447	Brins vs. InfGain	11.786011	0	0.000115
446	Brins vs. Lift	11.786011	0	0.000115
445	Cconf vs. Cole	11.786011	0	0.000115
444	Cconf vs. Conf	11.786011	0	0.000115
443	Cconf vs. ExCex	11.786011	0	0.000115
442	Cconf vs. GR	11.786011	0	0.000115
441	Cconf vs. SeBag	11.786011	0	0.000115
440	Cconf vs. Zhang	11.786011	0	0.000115
439	Cole vs. Dep	11.786011	0	0.000115
438	Cole vs. InfGain	11.786011	0	0.000115
437	Cole vs. Lift	11.786011	0	0.000115
436	Conf vs. Dep	11.786011	0	0.000115
435	Conf vs. InfGain	11.786011	0	0.000115
434	Conf vs. Lift	11.786011	0	0.000122
433	Dep vs. ExCex	11.786011	0	0.000122
432	Dep vs. GR	11.786011	0	0.000122
431	Dep vs. SeBag	11.786011	0	0.000122
430	Dep vs. Zhang	11.786011	0	0.000122
429	ExCex vs. InfGain	11.786011	0	0.000122
428	ExCex vs. Lift	11.786011	0	0.000122
427	GR vs. InfGain	11.786011	0	0.000122
426	GR vs. Lift	11.786011	0	0.000122
425	InfGain vs. SeBag	11.786011	0	0.000122
424	InfGain vs. Zhang	11.786011	0	0.000122
423	Lift vs. SeBag	11.786011	0	0.000122
422	Lift vs. Zhang	11.786011	0	0.000122
421	Jacc vs. NetConf	10.745841	0	0.000122
420	Cover vs. NetConf	10.691706	0	0.000122
419	NetConf vs. Streng	10.649171	0	0.000122
418	Jacc vs. RelRisk	10.629837	0	0.000122
417	Cover vs. RelRisk	10.575702	0	0.000122
416	RelRisk vs. Streng	10.533167	0	0.000122
415	Cos vs. NetConf	10.5293	0	0.000122
414	NetConf vs. SupDif	10.467431	0	0.000122
413	NetConf vs. WRACC	10.467431	0	0.000122
412	Jacc vs. Klos	10.459698	0	0.000122
411	Jacc vs. Spec	10.43263	0	0.000122
410	Cos vs. RelRisk	10.413296	0	0.000122
409	Cover vs. Klos	10.405563	0	0.000122
408	Cover vs. Spec	10.378495	0	0.000123
407	Klos vs. Streng	10.363028	0	0.000123
406	RelRisk vs. SupDif	10.351427	0	0.000123

405	RelRisk vs. WRACC	10.351427	0	0.00013
404	Cconf vs. MDisc	10.347561	0	0.00013
403	Dep vs. MDisc	10.347561	0	0.00013
402	InfGain vs. MDisc	10.347561	0	0.00013
401	Lift vs. MDisc	10.347561	0	0.00013
400	Spec vs. Streng	10.33596	0	0.00013
399	Cos vs. Klos	10.243157	0	0.00013
398	NetConf vs. OddsR	10.219956	0	0.00013
397	Cos vs. Spec	10.216089	0	0.00013
396	Klos vs. SupDif	10.181288	0	0.00013
395	Klos vs. WRACC	10.181288	0	0.00013
394	Spec vs. SupDif	10.15422	0	0.00013
393	Spec vs. WRACC	10.15422	0	0.00013
392	Gain vs. Lever	10.134886	0	0.00013
391	OddsR vs. RelRisk	10.103952	0	0.00013
390	Brins vs. NetConf	10.073018	0	0.00013
389	Cole vs. NetConf	10.073018	0	0.00013
388	Conf vs. NetConf	10.073018	0	0.00013
387	ExCex vs. NetConf	10.073018	0	0.00013
386	GR vs. NetConf	10.073018	0	0.00013
385	NetConf vs. SeBag	10.073018	0	0.00013
384	NetConf vs. Zhang	10.073018	0	0.00013
383	ACC vs. Jacc	10.018882	0	0.000131
382	ACC vs. Cover	9.964747	0	0.000131
381	Brins vs. RelRisk	9.957014	0	0.000131
380	Cole vs. RelRisk	9.957014	0	0.000132
379	Conf vs. RelRisk	9.957014	0	0.000132
378	ExCex vs. RelRisk	9.957014	0	0.000132
377	GR vs. RelRisk	9.957014	0	0.000139
376	RelRisk vs. SeBag	9.957014	0	0.000139
375	RelRisk vs. Zhang	9.957014	0	0.000139
374	Klos vs. OddsR	9.933813	0	0.000139
373	ACC vs. Streng	9.922212	0	0.000139
372	OddsR vs. Spec	9.906745	0	0.000139
371	ACC vs. Cos	9.802342	0	0.000139
370	Brins vs. Klos	9.786874	0	0.000139
369	Cole vs. Klos	9.786874	0	0.000139
368	Conf vs. Klos	9.786874	0	0.000139
367	ExCex vs. Klos	9.786874	0	0.000139
366	GR vs. Klos	9.786874	0	0.000139
365	Klos vs. SeBag	9.786874	0	0.000139
364	Klos vs. Zhang	9.786874	0	0.000139
363	Brins vs. Spec	9.759807	0	0.000139
362	Cole vs. Spec	9.759807	0	0.000139
361	Conf vs. Spec	9.759807	0	0.000139
360	ExCex vs. Spec	9.759807	0	0.00014
359	GR vs. Spec	9.759807	0	0.00014
358	SeBag vs. Spec	9.759807	0	0.00014
357	Spec vs. Zhang	9.759807	0	0.00014
356	ACC vs. SupDif	9.740473	0	0.000141

355	ACC vs. WRACC	9.740473	0	0.000141
354	ACC vs. OddsR	9.492997	0	0.000141
353	Cconf vs. MultInf	9.400194	0	0.000142
352	Dep vs. MultInf	9.400194	0	0.000142
351	InfGain vs. MultInf	9.400194	0	0.000142
350	Lift vs. MultInf	9.400194	0	0.000147
349	ACC vs. Brins	9.346059	0	0.000147
348	ACC vs. Cole	9.346059	0	0.000147
347	ACC vs. Conf	9.346059	0	0.000147
346	ACC vs. ExCex	9.346059	0	0.000147
345	ACC vs. GR	9.346059	0	0.000147
344	ACC vs. SeBag	9.346059	0	0.000147
343	ACC vs. Zhang	9.346059	0	0.000147
342	ColStr vs. Lever	9.206854	0	0.000147
341	Lever vs. Pearson	9.056049	0	0.000147
340	Cconf vs. Sup	8.80084	0	0.000147
339	Dep vs. Sup	8.80084	0	0.000149
338	InfGain vs. Sup	8.80084	0	0.000149
337	Lift vs. Sup	8.80084	0	0.000149
336	MDisc vs. NetConf	8.634568	0	0.000149
335	MDisc vs. RelRisk	8.518563	0	0.000149
334	Klos vs. MDisc	8.348424	0	0.000151
333	Cconf vs. X2	8.340691	0	0.000151
332	Dep vs. X2	8.340691	0	0.000151
331	InfGain vs. X2	8.340691	0	0.000151
330	Lift vs. X2	8.340691	0	0.000152
329	MDisc vs. Spec	8.321357	0	0.000152
328	Cconf vs. Lap	8.155084	0	0.000152
327	Dep vs. Lap	8.155084	0	0.000153
326	InfGain vs. Lap	8.155084	0	0.000153
325	Lap vs. Lift	8.155084	0	0.000154
324	ACC vs. MDisc	7.907609	0	0.000156
323	MultInf vs. NetConf	7.687201	0	0.000156
322	MultInf vs. RelRisk	7.571197	0	0.000156
321	Klos vs. MultInf	7.401058	0	0.000156
320	MultInf vs. Spec	7.37399	0	0.000159
319	Jacc vs. Pearson	7.27732	0	0.000159
318	Cover vs. Pearson	7.223185	0	0.000159
317	Pearson vs. Streng	7.18065	0	0.000159
316	ColStr vs. Jacc	7.126515	0	0.000159
315	NetConf vs. Sup	7.087847	0	0.000159
314	ColStr vs. Cover	7.07238	0	0.000161
313	Cos vs. Pearson	7.060779	0	0.000161
312	ColStr vs. Streng	7.029845	0	0.000161
311	Pearson vs. SupDif	6.998911	0	0.000161
310	Pearson vs. WRACC	6.998911	0	0.000161
309	RelRisk vs. Sup	6.971843	0	0.000162
308	ACC vs. MultInf	6.960243	0	0.000163
307	ColStr vs. Cos	6.909974	0	0.000163
306	ColStr vs. SupDif	6.848105	0	0.000163

305	ColStr vs. WRACC	6.848105	0	0.000164
304	Klos vs. Sup	6.801704	0	0.000164
303	Spec vs. Sup	6.774636	0	0.000165
302	OddsR vs. Pearson	6.751435	0	0.000166
301	NetConf vs. X2	6.627698	0	0.000166
300	Brins vs. Pearson	6.604497	0	0.000167
299	Cole vs. Pearson	6.604497	0	0.000168
298	Conf vs. Pearson	6.604497	0	0.000168
297	ExCex vs. Pearson	6.604497	0	0.000168
296	GR vs. Pearson	6.604497	0	0.000171
295	Pearson vs. SeBag	6.604497	0	0.000171
294	Pearson vs. Zhang	6.604497	0	0.000171
293	ColStr vs. OddsR	6.60063	0	0.000171
292	RelRisk vs. X2	6.511694	0	0.000171
291	Brins vs. ColStr	6.453692	0	0.000172
290	Cole vs. ColStr	6.453692	0	0.000173
289	ColStr vs. Conf	6.453692	0	0.000173
288	ColStr vs. ExCex	6.453692	0	0.000174
287	ColStr vs. GR	6.453692	0	0.000174
286	ColStr vs. SeBag	6.453692	0	0.000175
285	ColStr vs. Zhang	6.453692	0	0.000175
284	Lap vs. NetConf	6.442091	0	0.000176
283	ACC vs. Sup	6.360888	0	0.000177
282	Klos vs. X2	6.341554	0	0.000177
281	Lap vs. RelRisk	6.326087	0	0.000178
280	ACC vs. Lever	6.314487	0	0.000179
279	Spec vs. X2	6.314487	0	0.000179
278	Cconf vs. Gain	6.260351	0	0.00018
277	Dep vs. Gain	6.260351	0	0.000181
276	Gain vs. InfGain	6.260351	0	0.000181
275	Gain vs. Lift	6.260351	0	0.000182
274	Gain vs. Jacc	6.198483	0	0.000182
273	Klos vs. Lap	6.155948	0	0.000185
272	Cover vs. Gain	6.144347	0	0.000185
271	Lap vs. Spec	6.12888	0	0.000185
270	Gain vs. Streng	6.101813	0	0.000186
269	Cos vs. Gain	5.981942	0	0.000186
268	Gain vs. SupDif	5.920073	0	0.000187
267	Gain vs. WRACC	5.920073	0	0.000187
266	Lever vs. Spec	5.900739	0	0.000188
265	ACC vs. X2	5.900739	0	0.000189
264	Klos vs. Lever	5.873671	0	0.000189
263	ACC vs. Lap	5.715132	0	0.00019
262	Lever vs. RelRisk	5.703532	0	0.000191
261	Gain vs. OddsR	5.672598	0	0.000192
260	Lever vs. NetConf	5.587528	0	0.000192
259	Brins vs. Gain	5.525659	0	0.000193
258	Cole vs. Gain	5.525659	0	0.000194
257	Conf vs. Gain	5.525659	0	0.000195
256	ExCex vs. Gain	5.525659	0	0.000195

255	Gain vs. GR	5.525659	0	0.000196
254	Gain vs. SeBag	5.525659	0	0.000197
253	Gain vs. Zhang	5.525659	0	0.000198
252	Cconf vs. ColStr	5.332319	0	0.000198
251	ColStr vs. Dep	5.332319	0	0.000199
250	ColStr vs. InfGain	5.332319	0	0.000201
249	ColStr vs. Lift	5.332319	0	0.000201
248	Cconf vs. Pearson	5.181514	0	0.000202
247	Dep vs. Pearson	5.181514	0	0.000202
246	InfGain vs. Pearson	5.181514	0	0.000203
245	Lift vs. Pearson	5.181514	0	0.000204
244	MDisc vs. Pearson	5.166047	0	0.000205
243	ColStr vs. MDisc	5.015241	0.000001	0.000206
242	Gain vs. NetConf	4.547358	0.000005	0.000207
241	Gain vs. RelRisk	4.431354	0.000009	0.000207
240	Jacc vs. Lap	4.30375	0.000017	0.000208
239	Gain vs. Klos	4.261215	0.00002	0.000209
238	Cover vs. Lap	4.249615	0.000021	0.00021
237	Gain vs. Spec	4.234148	0.000023	0.000211
236	MultInf vs. Pearson	4.21868	0.000025	0.000212
235	Lap vs. Streng	4.20708	0.000026	0.000213
234	Jacc vs. X2	4.118143	0.000038	0.000214
233	Gain vs. MDisc	4.087209	0.000044	0.000215
232	Cos vs. Lap	4.087209	0.000044	0.000216
231	ColStr vs. MultInf	4.067875	0.000047	0.000216
230	Cover vs. X2	4.064008	0.000048	0.000217
229	Lap vs. SupDif	4.02534	0.000057	0.000218
228	Lap vs. WRACC	4.02534	0.000057	0.000219
227	Streng vs. X2	4.021473	0.000058	0.00022
226	Cos vs. X2	3.901603	0.000096	0.000221
225	Cconf vs. Lever	3.874535	0.000107	0.000222
224	Dep vs. Lever	3.874535	0.000107	0.000223
223	InfGain vs. Lever	3.874535	0.000107	0.000224
222	Lever vs. Lift	3.874535	0.000107	0.000225
221	SupDif vs. X2	3.839734	0.000123	0.000226
220	WRACC vs. X2	3.839734	0.000123	0.000227
219	ACC vs. Gain	3.8204	0.000133	0.000228
218	Lap vs. OddsR	3.777865	0.000158	0.000229
217	Jacc vs. Sup	3.657994	0.000254	0.00023
216	Brins vs. Lap	3.630927	0.000282	0.000231
215	Cole vs. Lap	3.630927	0.000282	0.000233
214	Conf vs. Lap	3.630927	0.000282	0.000234
213	ExCex vs. Lap	3.630927	0.000282	0.000235
212	GR vs. Lap	3.630927	0.000282	0.000236
211	Lap vs. SeBag	3.630927	0.000282	0.000237
210	Lap vs. Zhang	3.630927	0.000282	0.000238
209	Pearson vs. Sup	3.619326	0.000295	0.000239
208	ColStr vs. NetConf	3.619326	0.000295	0.00024
207	Cover vs. Sup	3.603859	0.000314	0.000242
206	OddsR vs. X2	3.592259	0.000328	0.000243



205	Streng vs. Sup	3.561324	0.000369	0.000244
204	ColStr vs. RelRisk	3.503322	0.000459	0.000245
203	ColStr vs. Sup	3.468521	0.000523	0.000246
202	NetConf vs. Pearson	3.468521	0.000523	0.000248
201	Brins vs. X2	3.44532	0.00057	0.000249
200	Cole vs. X2	3.44532	0.00057	0.00025
199	Conf vs. X2	3.44532	0.00057	0.000251
198	ExCex vs. X2	3.44532	0.00057	0.000253
197	GR vs. X2	3.44532	0.00057	0.000254
196	SeBag vs. X2	3.44532	0.00057	0.000255
195	X2 vs. Zhang	3.44532	0.00057	0.000256
194	Cos vs. Sup	3.441453	0.000579	0.000258
193	Sup vs. SupDif	3.379584	0.000726	0.000259
192	Sup vs. WRACC	3.379584	0.000726	0.00026
191	Pearson vs. RelRisk	3.352517	0.000801	0.000262
190	ColStr vs. Klos	3.333183	0.000859	0.000263
189	ColStr vs. Spec	3.306115	0.000946	0.000265
188	Klos vs. Pearson	3.182378	0.001461	0.000266
187	Pearson vs. X2	3.159177	0.001582	0.000267
186	Pearson vs. Spec	3.15531	0.001603	0.000269
185	Gain vs. MultInf	3.139843	0.00169	0.00027
184	OddsR vs. Sup	3.132109	0.001736	0.000272
183	Jacc vs. MultInf	3.05864	0.002223	0.000273
182	ColStr vs. X2	3.008371	0.002627	0.000275
181	Cover vs. MultInf	3.004505	0.00266	0.000276
180	Brins vs. Sup	2.985171	0.002834	0.000278
179	Cole vs. Sup	2.985171	0.002834	0.000279
178	Conf vs. Sup	2.985171	0.002834	0.000281
177	ExCex vs. Sup	2.985171	0.002834	0.000282
176	GR vs. Sup	2.985171	0.002834	0.000284
175	SeBag vs. Sup	2.985171	0.002834	0.000286
174	Sup vs. Zhang	2.985171	0.002834	0.000287
173	Lap vs. Pearson	2.97357	0.002944	0.000289
172	MultInf vs. Streng	2.96197	0.003057	0.000291
171	ACC vs. ColStr	2.892367	0.003824	0.000292
170	Cos vs. MultInf	2.842099	0.004482	0.000294
169	ColStr vs. Lap	2.822765	0.004761	0.000296
168	MultInf vs. SupDif	2.78023	0.005432	0.000298
167	MultInf vs. WRACC	2.78023	0.005432	0.000299
166	ACC vs. Pearson	2.741562	0.006115	0.000301
165	Gain vs. Sup	2.540489	0.01107	0.000303
164	MultInf vs. OddsR	2.532755	0.011317	0.000305
163	ACC vs. Cconf	2.439952	0.014689	0.000307
162	ACC vs. Dep	2.439952	0.014689	0.000309
161	ACC vs. InfGain	2.439952	0.014689	0.000311
160	ACC vs. Lift	2.439952	0.014689	0.000312
159	Brins vs. MultInf	2.385816	0.017041	0.000314
158	Cole vs. MultInf	2.385816	0.017041	0.000316
157	Conf vs. MultInf	2.385816	0.017041	0.000318
156	ExCex vs. MultInf	2.385816	0.017041	0.000321

155	GR vs. MultInf	2.385816	0.017041	0.000323
154	MultInf vs. SeBag	2.385816	0.017041	0.000325
153	MultInf vs. Zhang	2.385816	0.017041	0.000327
152	Lap vs. MDisc	2.192476	0.028345	0.000329
151	Jacc vs. MDisc	2.111274	0.034749	0.000331
150	Gain vs. X2	2.080339	0.037494	0.000333
149	Cover vs. MDisc	2.057138	0.039673	0.000336
148	Cconf vs. Spec	2.026204	0.042744	0.000338
147	Dep vs. Spec	2.026204	0.042744	0.00034
146	InfGain vs. Spec	2.026204	0.042744	0.000342
145	Lift vs. Spec	2.026204	0.042744	0.000345
144	MDisc vs. Streng	2.014604	0.043946	0.000347
143	MDisc vs. X2	2.00687	0.044764	0.00035
142	Cconf vs. Klos	1.999136	0.045594	0.000352
141	Dep vs. Klos	1.999136	0.045594	0.000355
140	InfGain vs. Klos	1.999136	0.045594	0.000357
139	Klos vs. Lift	1.999136	0.045594	0.00036
138	Gain vs. Lap	1.894733	0.058128	0.000362
137	Cos vs. MDisc	1.894733	0.058128	0.000365
136	MDisc vs. SupDif	1.832864	0.066823	0.000368
135	MDisc vs. WRACC	1.832864	0.066823	0.00037
134	Cconf vs. RelRisk	1.828997	0.0674	0.000373
133	Dep vs. RelRisk	1.828997	0.0674	0.000376
132	InfGain vs. RelRisk	1.828997	0.0674	0.000379
131	Lift vs. RelRisk	1.828997	0.0674	0.000382
130	Cconf vs. NetConf	1.712993	0.086714	0.000385
129	Dep vs. NetConf	1.712993	0.086714	0.000388
128	InfGain vs. NetConf	1.712993	0.086714	0.000391
127	Lift vs. NetConf	1.712993	0.086714	0.000394
126	MDisc vs. OddsR	1.585389	0.112878	0.000397
125	MDisc vs. Sup	1.546721	0.121931	0.0004
124	Brins vs. MDisc	1.43845	0.150306	0.000403
123	Cole vs. MDisc	1.43845	0.150306	0.000407
122	Conf vs. MDisc	1.43845	0.150306	0.00041
121	ExCex vs. MDisc	1.43845	0.150306	0.000413
120	GR vs. MDisc	1.43845	0.150306	0.000417
119	MDisc vs. SeBag	1.43845	0.150306	0.00042
118	MDisc vs. Zhang	1.43845	0.150306	0.000424
117	Lap vs. MultInf	1.24511	0.213091	0.000427
116	Gain vs. Pearson	1.078838	0.28066	0.000431
115	MultInf vs. X2	1.059504	0.28937	0.000435
114	MDisc vs. MultInf	0.947366	0.343452	0.000439
113	ColStr vs. Gain	0.928032	0.353391	0.000442
112	ACC vs. NetConf	0.726959	0.467251	0.000446
111	Brins vs. Jacc	0.672823	0.50106	0.00045
110	Cole vs. Jacc	0.672823	0.50106	0.000455
109	Conf vs. Jacc	0.672823	0.50106	0.000459
108	ExCex vs. Jacc	0.672823	0.50106	0.000463
107	GR vs. Jacc	0.672823	0.50106	0.000467
106	Jacc vs. SeBag	0.672823	0.50106	0.000472

105	Jacc vs. Zhang	0.672823	0.50106	0.000476
104	Lap vs. Sup	0.645756	0.518437	0.000481
103	Brins vs. Cover	0.618688	0.536122	0.000485
102	Cole vs. Cover	0.618688	0.536122	0.00049
101	Conf vs. Cover	0.618688	0.536122	0.000495
100	Cover vs. ExCex	0.618688	0.536122	0.0005
99	Cover vs. GR	0.618688	0.536122	0.000505
98	Cover vs. SeBag	0.618688	0.536122	0.00051
97	Cover vs. Zhang	0.618688	0.536122	0.000515
96	ACC vs. RelRisk	0.610955	0.54123	0.000521
95	MultInf vs. Sup	0.599354	0.548937	0.000526
94	Brins vs. Streng	0.576153	0.564511	0.000532
93	Cole vs. Streng	0.576153	0.564511	0.000538
92	Conf vs. Streng	0.576153	0.564511	0.000543
91	ExCex vs. Streng	0.576153	0.564511	0.000549
90	GR vs. Streng	0.576153	0.564511	0.000556
89	SeBag vs. Streng	0.576153	0.564511	0.000562
88	Streng vs. Zhang	0.576153	0.564511	0.000568
87	Jacc vs. OddsR	0.525885	0.598968	0.000575
86	Cover vs. OddsR	0.47175	0.637105	0.000581
85	Sup vs. X2	0.460149	0.645409	0.000588
84	Brins vs. Cos	0.456283	0.648187	0.000595
83	Cole vs. Cos	0.456283	0.648187	0.000602
82	Conf vs. Cos	0.456283	0.648187	0.00061
81	Cos vs. ExCex	0.456283	0.648187	0.000617
80	Cos vs. GR	0.456283	0.648187	0.000625
79	Cos vs. SeBag	0.456283	0.648187	0.000633
78	Cos vs. Zhang	0.456283	0.648187	0.000641
77	ACC vs. Klos	0.440815	0.659347	0.000649
76	OddsR vs. Streng	0.429215	0.667767	0.000658
75	ACC vs. Spec	0.413748	0.679059	0.000667
74	Brins vs. SupDif	0.394414	0.693276	0.000676
73	Brins vs. WRACC	0.394414	0.693276	0.000685
72	Cole vs. SupDif	0.394414	0.693276	0.000694
71	Cole vs. WRACC	0.394414	0.693276	0.000704
70	Conf vs. SupDif	0.394414	0.693276	0.000714
69	Conf vs. WRACC	0.394414	0.693276	0.000725
68	ExCex vs. SupDif	0.394414	0.693276	0.000735
67	ExCex vs. WRACC	0.394414	0.693276	0.000746
66	GR vs. SupDif	0.394414	0.693276	0.000758
65	GR vs. WRACC	0.394414	0.693276	0.000769
64	SeBag vs. SupDif	0.394414	0.693276	0.000781
63	SeBag vs. WRACC	0.394414	0.693276	0.000794
62	SupDif vs. Zhang	0.394414	0.693276	0.000806
61	WRACC vs. Zhang	0.394414	0.693276	0.00082
60	NetConf vs. Spec	0.313211	0.75412	0.000833
59	Cos vs. OddsR	0.309344	0.75706	0.000847
58	Klos vs. NetConf	0.286143	0.774768	0.000862
57	Jacc vs. SupDif	0.27841	0.780698	0.000877
56	Jacc vs. WRACC	0.27841	0.780698	0.000893

55	OddsR vs. SupDif	0.247475	0.80454	0.000909
54	OddsR vs. WRACC	0.247475	0.80454	0.000926
53	Cover vs. SupDif	0.224274	0.822544	0.000943
52	Cover vs. WRACC	0.224274	0.822544	0.000962
51	Cos vs. Jacc	0.216541	0.828566	0.00098
50	RelRisk vs. Spec	0.197207	0.843666	0.001
49	Lap vs. X2	0.185606	0.852753	0.00102
48	Streng vs. SupDif	0.18174	0.855787	0.001042
47	Streng vs. WRACC	0.18174	0.855787	0.001064
46	Klos vs. RelRisk	0.170139	0.864901	0.001087
45	Cos vs. Cover	0.162406	0.870986	0.001111
44	ColStr vs. Pearson	0.150805	0.880129	0.001136
43	Brins vs. OddsR	0.146938	0.883181	0.001163
42	Cole vs. OddsR	0.146938	0.883181	0.00119
41	Conf vs. OddsR	0.146938	0.883181	0.00122
40	ExCex vs. OddsR	0.146938	0.883181	0.00125
39	GR vs. OddsR	0.146938	0.883181	0.001282
38	OddsR vs. SeBag	0.146938	0.883181	0.001316
37	OddsR vs. Zhang	0.146938	0.883181	0.001351
36	Cos vs. Streng	0.119871	0.904585	0.001389
35	NetConf vs. RelRisk	0.116004	0.907649	0.001429
34	Jacc vs. Streng	0.09667	0.922988	0.001471
33	Cos vs. SupDif	0.061869	0.950667	0.001515
32	Cos vs. WRACC	0.061869	0.950667	0.001562
31	Cover vs. Jacc	0.054135	0.956827	0.001613
30	Cover vs. Streng	0.042535	0.966072	0.001667
29	Klos vs. Spec	0.027068	0.978406	0.001724
28	Brins vs. Cole	0	1	0.001786
27	Brins vs. Conf	0	1	0.001852
26	Brins vs. ExCex	0	1	0.001923
25	Brins vs. GR	0	1	0.002
24	Brins vs. SeBag	0	1	0.002083
23	Brins vs. Zhang	0	1	0.002174
22	Cconf vs. Dep	0	1	0.002273
21	Cconf vs. InfGain	0	1	0.002381
20	Cconf vs. Lift	0	1	0.0025
19	Cole vs. Conf	0	1	0.002632
18	Cole vs. ExCex	0	1	0.002778
17	Cole vs. GR	0	1	0.002941
16	Cole vs. SeBag	0	1	0.003125
15	Cole vs. Zhang	0	1	0.003333
14	Conf vs. ExCex	0	1	0.003571
13	Conf vs. GR	0	1	0.003846
12	Conf vs. SeBag	0	1	0.004167
11	Conf vs. Zhang	0	1	0.004545
10	Dep vs. InfGain	0	1	0.005
9	Dep vs. Lift	0	1	0.005556
8	ExCex vs. GR	0	1	0.00625
7	ExCex vs. SeBag	0	1	0.007143
6	ExCex vs. Zhang	0	1	0.008333

5	GR vs. SeBag	0	1	0.01
4	GR vs. Zhang	0	1	0.0125
3	InfGain vs. Lift	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	Jacc vs. Lever	16.333369	0	0.000202
495	Cover vs. Lever	16.279234	0	0.000215
494	Lever vs. Streng	16.236699	0	0.000215
493	Cos vs. Lever	16.116828	0	0.000215
492	Lever vs. SupDif	16.054959	0	0.000215
491	Lever vs. WRACC	16.054959	0	0.000215
490	Lever vs. OddsR	15.807484	0	0.000215
489	Brins vs. Lever	15.660546	0	0.000215
488	Cole vs. Lever	15.660546	0	0.000215
487	Conf vs. Lever	15.660546	0	0.000215
486	ExCex vs. Lever	15.660546	0	0.000215
485	GR vs. Lever	15.660546	0	0.000215
484	Lever vs. SeBag	15.660546	0	0.000215
483	Lever vs. Zhang	15.660546	0	0.000215
482	Lever vs. MDisc	14.222096	0	0.000215
481	Lever vs. MultInf	13.274729	0	0.000215
480	Lever vs. Sup	12.675375	0	0.000215
479	Cconf vs. Jacc	12.458834	0	0.000215
478	Dep vs. Jacc	12.458834	0	0.000215
477	InfGain vs. Jacc	12.458834	0	0.000215
476	Jacc vs. Lift	12.458834	0	0.000215
475	Cconf vs. Cover	12.404699	0	0.000215
474	Cover vs. Dep	12.404699	0	0.000215
473	Cover vs. InfGain	12.404699	0	0.000215
472	Cover vs. Lift	12.404699	0	0.000215
471	Cconf vs. Streng	12.362164	0	0.000215
470	Dep vs. Streng	12.362164	0	0.000215
469	InfGain vs. Streng	12.362164	0	0.000215
468	Lift vs. Streng	12.362164	0	0.000215
467	Cconf vs. Cos	12.242293	0	0.000215
466	Cos vs. Dep	12.242293	0	0.000215
465	Cos vs. InfGain	12.242293	0	0.000215
464	Cos vs. Lift	12.242293	0	0.000229
463	Lever vs. X2	12.215226	0	0.000229
462	Cconf vs. SupDif	12.180424	0	0.000229
461	Cconf vs. WRACC	12.180424	0	0.000229
460	Dep vs. SupDif	12.180424	0	0.000229
459	Dep vs. WRACC	12.180424	0	0.000229
458	InfGain vs. SupDif	12.180424	0	0.000229
457	InfGain vs. WRACC	12.180424	0	0.000229
456	Lift vs. SupDif	12.180424	0	0.000229
455	Lift vs. WRACC	12.180424	0	0.000229
454	Lap vs. Lever	12.029619	0	0.000229
453	Cconf vs. OddsR	11.932949	0	0.000229
452	Dep vs. OddsR	11.932949	0	0.000229
451	InfGain vs. OddsR	11.932949	0	0.000229
450	Lift vs. OddsR	11.932949	0	0.000229

449	Brins vs. Cconf	11.786011	0	0.000229
448	Brins vs. Dep	11.786011	0	0.000229
447	Brins vs. InfGain	11.786011	0	0.000229
446	Brins vs. Lift	11.786011	0	0.000229
445	Cconf vs. Cole	11.786011	0	0.000229
444	Cconf vs. Conf	11.786011	0	0.000229
443	Cconf vs. ExCex	11.786011	0	0.000229
442	Cconf vs. GR	11.786011	0	0.000229
441	Cconf vs. SeBag	11.786011	0	0.000229
440	Cconf vs. Zhang	11.786011	0	0.000229
439	Cole vs. Dep	11.786011	0	0.000229
438	Cole vs. InfGain	11.786011	0	0.000229
437	Cole vs. Lift	11.786011	0	0.000229
436	Conf vs. Dep	11.786011	0	0.000229
435	Conf vs. InfGain	11.786011	0	0.00023
434	Conf vs. Lift	11.786011	0	0.000244
433	Dep vs. ExCex	11.786011	0	0.000244
432	Dep vs. GR	11.786011	0	0.000244
431	Dep vs. SeBag	11.786011	0	0.000244
430	Dep vs. Zhang	11.786011	0	0.000244
429	ExCex vs. InfGain	11.786011	0	0.000244
428	ExCex vs. Lift	11.786011	0	0.000244
427	GR vs. InfGain	11.786011	0	0.000244
426	GR vs. Lift	11.786011	0	0.000244
425	InfGain vs. SeBag	11.786011	0	0.000244
424	InfGain vs. Zhang	11.786011	0	0.000244
423	Lift vs. SeBag	11.786011	0	0.000244
422	Lift vs. Zhang	11.786011	0	0.000244
421	Jacc vs. NetConf	10.745841	0	0.000244
420	Cover vs. NetConf	10.691706	0	0.000244
419	NetConf vs. Streng	10.649171	0	0.000244
418	Jacc vs. RelRisk	10.629837	0	0.000244
417	Cover vs. RelRisk	10.575702	0	0.000244
416	RelRisk vs. Streng	10.533167	0	0.000244
415	Cos vs. NetConf	10.5293	0	0.000244
414	NetConf vs. SupDif	10.467431	0	0.000244
413	NetConf vs. WRACC	10.467431	0	0.000244
412	Jacc vs. Klos	10.459698	0	0.000244
411	Jacc vs. Spec	10.43263	0	0.000244
410	Cos vs. RelRisk	10.413296	0	0.000244
409	Cover vs. Klos	10.405563	0	0.000244
408	Cover vs. Spec	10.378495	0	0.000246
407	Klos vs. Streng	10.363028	0	0.000246
406	RelRisk vs. SupDif	10.351427	0	0.000246
405	RelRisk vs. WRACC	10.351427	0	0.00026
404	Cconf vs. MDisc	10.347561	0	0.00026
403	Dep vs. MDisc	10.347561	0	0.00026
402	InfGain vs. MDisc	10.347561	0	0.00026
401	Lift vs. MDisc	10.347561	0	0.00026
400	Spec vs. Streng	10.33596	0	0.00026

399	Cos vs. Klos	10.243157	0	0.00026
398	NetConf vs. OddsR	10.219956	0	0.00026
397	Cos vs. Spec	10.216089	0	0.00026
396	Klos vs. SupDif	10.181288	0	0.00026
395	Klos vs. WRACC	10.181288	0	0.00026
394	Spec vs. SupDif	10.15422	0	0.00026
393	Spec vs. WRACC	10.15422	0	0.00026
392	Gain vs. Lever	10.134886	0	0.00026
391	OddsR vs. RelRisk	10.103952	0	0.00026
390	Brins vs. NetConf	10.073018	0	0.00026
389	Cole vs. NetConf	10.073018	0	0.00026
388	Conf vs. NetConf	10.073018	0	0.00026
387	ExCex vs. NetConf	10.073018	0	0.00026
386	GR vs. NetConf	10.073018	0	0.00026
385	NetConf vs. SeBag	10.073018	0	0.00026
384	NetConf vs. Zhang	10.073018	0	0.00026
383	ACC vs. Jacc	10.018882	0	0.000262
382	ACC vs. Cover	9.964747	0	0.000262
381	Brins vs. RelRisk	9.957014	0	0.000262
380	Cole vs. RelRisk	9.957014	0	0.000263
379	Conf vs. RelRisk	9.957014	0	0.000264
378	ExCex vs. RelRisk	9.957014	0	0.000265
377	GR vs. RelRisk	9.957014	0	0.000277
376	RelRisk vs. SeBag	9.957014	0	0.000277
375	RelRisk vs. Zhang	9.957014	0	0.000277
374	Klos vs. OddsR	9.933813	0	0.000277
373	ACC vs. Streng	9.922212	0	0.000277
372	OddsR vs. Spec	9.906745	0	0.000277
371	ACC vs. Cos	9.802342	0	0.000277
370	Brins vs. Klos	9.786874	0	0.000277
369	Cole vs. Klos	9.786874	0	0.000277
368	Conf vs. Klos	9.786874	0	0.000277
367	ExCex vs. Klos	9.786874	0	0.000277
366	GR vs. Klos	9.786874	0	0.000277
365	Klos vs. SeBag	9.786874	0	0.000277
364	Klos vs. Zhang	9.786874	0	0.000277
363	Brins vs. Spec	9.759807	0	0.000277
362	Cole vs. Spec	9.759807	0	0.000277
361	Conf vs. Spec	9.759807	0	0.000277
360	ExCex vs. Spec	9.759807	0	0.00028
359	GR vs. Spec	9.759807	0	0.00028
358	SeBag vs. Spec	9.759807	0	0.00028
357	Spec vs. Zhang	9.759807	0	0.00028
356	ACC vs. SupDif	9.740473	0	0.000282
355	ACC vs. WRACC	9.740473	0	0.000282
354	ACC vs. OddsR	9.492997	0	0.000282
353	Cconf vs. MultInf	9.400194	0	0.000283
352	Dep vs. MultInf	9.400194	0	0.000284
351	InfGain vs. MultInf	9.400194	0	0.000285
350	Lift vs. MultInf	9.400194	0	0.000294



349	ACC vs. Brins	9.346059	0	0.000294
348	ACC vs. Cole	9.346059	0	0.000294
347	ACC vs. Conf	9.346059	0	0.000294
346	ACC vs. ExCex	9.346059	0	0.000294
345	ACC vs. GR	9.346059	0	0.000294
344	ACC vs. SeBag	9.346059	0	0.000294
343	ACC vs. Zhang	9.346059	0	0.000294
342	ColStr vs. Lever	9.206854	0	0.000294
341	Lever vs. Pearson	9.056049	0	0.000294
340	Cconf vs. Sup	8.80084	0	0.000294
339	Dep vs. Sup	8.80084	0	0.000299
338	InfGain vs. Sup	8.80084	0	0.000299
337	Lift vs. Sup	8.80084	0	0.000299
336	MDisc vs. NetConf	8.634568	0	0.000299
335	MDisc vs. RelRisk	8.518563	0	0.000299
334	Klos vs. MDisc	8.348424	0	0.000301
333	Cconf vs. X2	8.340691	0	0.000301
332	Dep vs. X2	8.340691	0	0.000301
331	InfGain vs. X2	8.340691	0	0.000302
330	Lift vs. X2	8.340691	0	0.000304
329	MDisc vs. Spec	8.321357	0	0.000304
328	Cconf vs. Lap	8.155084	0	0.000305
327	Dep vs. Lap	8.155084	0	0.000306
326	InfGain vs. Lap	8.155084	0	0.000307
325	Lap vs. Lift	8.155084	0	0.000308
324	ACC vs. MDisc	7.907609	0	0.000312
323	MultInf vs. NetConf	7.687201	0	0.000312
322	MultInf vs. RelRisk	7.571197	0	0.000312
321	Klos vs. MultInf	7.401058	0	0.000312
320	MultInf vs. Spec	7.37399	0	0.000317
319	Jacc vs. Pearson	7.27732	0	0.000317
318	Cover vs. Pearson	7.223185	0	0.000317
317	Pearson vs. Streng	7.18065	0	0.000317
316	ColStr vs. Jacc	7.126515	0	0.000317
315	NetConf vs. Sup	7.087847	0	0.000317
314	ColStr vs. Cover	7.07238	0	0.000322
313	Cos vs. Pearson	7.060779	0	0.000322
312	ColStr vs. Streng	7.029845	0	0.000322
311	Pearson vs. SupDif	6.998911	0	0.000322
310	Pearson vs. WRACC	6.998911	0	0.000323
309	RelRisk vs. Sup	6.971843	0	0.000324
308	ACC vs. MultInf	6.960243	0	0.000326
307	ColStr vs. Cos	6.909974	0	0.000326
306	ColStr vs. SupDif	6.848105	0	0.000327
305	ColStr vs. WRACC	6.848105	0	0.000328
304	Klos vs. Sup	6.801704	0	0.000329
303	Spec vs. Sup	6.774636	0	0.00033
302	OddsR vs. Pearson	6.751435	0	0.000331
301	NetConf vs. X2	6.627698	0	0.000332
300	Brins vs. Pearson	6.604497	0	0.000333

299	Cole vs. Pearson	6.604497	0	0.000337
298	Conf vs. Pearson	6.604497	0	0.000337
297	ExCex vs. Pearson	6.604497	0	0.000337
296	GR vs. Pearson	6.604497	0	0.000342
295	Pearson vs. SeBag	6.604497	0	0.000342
294	Pearson vs. Zhang	6.604497	0	0.000342
293	ColStr vs. OddsR	6.60063	0	0.000342
292	RelRisk vs. X2	6.511694	0	0.000342
291	Brins vs. ColStr	6.453692	0	0.000344
290	Cole vs. ColStr	6.453692	0	0.000346
289	ColStr vs. Conf	6.453692	0	0.000346
288	ColStr vs. ExCex	6.453692	0	0.000347
287	ColStr vs. GR	6.453692	0	0.000348
286	ColStr vs. SeBag	6.453692	0	0.00035
285	ColStr vs. Zhang	6.453692	0	0.000351
284	Lap vs. NetConf	6.442091	0	0.000352
283	ACC vs. Sup	6.360888	0	0.000353
282	Klos vs. X2	6.341554	0	0.000355
281	Lap vs. RelRisk	6.326087	0	0.000356
280	ACC vs. Lever	6.314487	0	0.000357
279	Spec vs. X2	6.314487	0	0.000358
278	Cconf vs. Gain	6.260351	0	0.00036
277	Dep vs. Gain	6.260351	0	0.000361
276	Gain vs. InfGain	6.260351	0	0.000362
275	Gain vs. Lift	6.260351	0	0.000364
274	Gain vs. Jacc	6.198483	0	0.000365
273	Klos vs. Lap	6.155948	0	0.000369
272	Cover vs. Gain	6.144347	0	0.000369
271	Lap vs. Spec	6.12888	0	0.000369
270	Gain vs. Streng	6.101813	0	0.000372
269	Cos vs. Gain	5.981942	0	0.000372
268	Gain vs. SupDif	5.920073	0	0.000373
267	Gain vs. WRACC	5.920073	0	0.000375
266	Lever vs. Spec	5.900739	0	0.000376
265	ACC vs. X2	5.900739	0	0.000377
264	Klos vs. Lever	5.873671	0	0.000379
263	ACC vs. Lap	5.715132	0	0.00038
262	Lever vs. RelRisk	5.703532	0	0.000382
261	Gain vs. OddsR	5.672598	0	0.000383
260	Lever vs. NetConf	5.587528	0	0.000385
259	Brins vs. Gain	5.525659	0	0.000386
258	Cole vs. Gain	5.525659	0	0.000388
257	Conf vs. Gain	5.525659	0	0.000389
256	ExCex vs. Gain	5.525659	0	0.000391
255	Gain vs. GR	5.525659	0	0.000392
254	Gain vs. SeBag	5.525659	0	0.000394
253	Gain vs. Zhang	5.525659	0	0.000395
252	Cconf vs. ColStr	5.332319	0	0.000397
251	ColStr vs. Dep	5.332319	0	0.000398
250	ColStr vs. InfGain	5.332319	0	0.000402

249	ColStr vs. Lift	5.332319	0	0.000402
248	Cconf vs. Pearson	5.181514	0	0.000403
247	Dep vs. Pearson	5.181514	0	0.000405
246	InfGain vs. Pearson	5.181514	0	0.000407
245	Lift vs. Pearson	5.181514	0	0.000408
244	MDisc vs. Pearson	5.166047	0	0.00041
243	ColStr vs. MDisc	5.015241	0.000001	0.000412
242	Gain vs. NetConf	4.547358	0.000005	0.000413
241	Gain vs. RelRisk	4.431354	0.000009	0.000415
240	Jacc vs. Lap	4.30375	0.000017	0.000417
239	Gain vs. Klos	4.261215	0.00002	0.000418
238	Cover vs. Lap	4.249615	0.000021	0.00042
237	Gain vs. Spec	4.234148	0.000023	0.000422
236	MultInf vs. Pearson	4.21868	0.000025	0.000424
235	Lap vs. Streng	4.20708	0.000026	0.000426
234	Jacc vs. X2	4.118143	0.000038	0.000427
233	Gain vs. MDisc	4.087209	0.000044	0.000429
232	Cos vs. Lap	4.087209	0.000044	0.000431
231	ColStr vs. MultInf	4.067875	0.000047	0.000433
230	Cover vs. X2	4.064008	0.000048	0.000435
229	Lap vs. SupDif	4.02534	0.000057	0.000437
228	Lap vs. WRACC	4.02534	0.000057	0.000439
227	Streng vs. X2	4.021473	0.000058	0.000441
226	Cos vs. X2	3.901603	0.000096	0.000442
225	Cconf vs. Lever	3.874535	0.000107	0.000444
224	Dep vs. Lever	3.874535	0.000107	0.000446
223	InfGain vs. Lever	3.874535	0.000107	0.000448
222	Lever vs. Lift	3.874535	0.000107	0.00045
221	SupDif vs. X2	3.839734	0.000123	0.000452
220	WRACC vs. X2	3.839734	0.000123	0.000455
219	ACC vs. Gain	3.8204	0.000133	0.000457
218	Lap vs. OddsR	3.777865	0.000158	0.000459
217	Jacc vs. Sup	3.657994	0.000254	0.000461
216	Brins vs. Lap	3.630927	0.000282	0.000463
215	Cole vs. Lap	3.630927	0.000282	0.000465
214	Conf vs. Lap	3.630927	0.000282	0.000467
213	ExCex vs. Lap	3.630927	0.000282	0.000469
212	GR vs. Lap	3.630927	0.000282	0.000472
211	Lap vs. SeBag	3.630927	0.000282	0.000474
210	Lap vs. Zhang	3.630927	0.000282	0.000476
209	Pearson vs. Sup	3.619326	0.000295	0.000478
208	ColStr vs. NetConf	3.619326	0.000295	0.000481
207	Cover vs. Sup	3.603859	0.000314	0.000483
206	OddsR vs. X2	3.592259	0.000328	0.000485
205	Streng vs. Sup	3.561324	0.000369	0.000488
204	ColStr vs. RelRisk	3.503322	0.000459	0.00049
203	ColStr vs. Sup	3.468521	0.000523	0.000493
202	NetConf vs. Pearson	3.468521	0.000523	0.000495
201	Brins vs. X2	3.44532	0.00057	0.000498
200	Cole vs. X2	3.44532	0.00057	0.0005

199	Conf vs. X2	3.44532	0.00057	0.000503
198	ExCex vs. X2	3.44532	0.00057	0.000505
197	GR vs. X2	3.44532	0.00057	0.000508
196	SeBag vs. X2	3.44532	0.00057	0.00051
195	X2 vs. Zhang	3.44532	0.00057	0.000513
194	Cos vs. Sup	3.441453	0.000579	0.000515
193	Sup vs. SupDif	3.379584	0.000726	0.000518
192	Sup vs. WRACC	3.379584	0.000726	0.000521
191	Pearson vs. RelRisk	3.352517	0.000801	0.000524
190	ColStr vs. Klos	3.333183	0.000859	0.000526
189	ColStr vs. Spec	3.306115	0.000946	0.000529
188	Klos vs. Pearson	3.182378	0.001461	0.000532
187	Pearson vs. X2	3.159177	0.001582	0.000535
186	Pearson vs. Spec	3.15531	0.001603	0.000538
185	Gain vs. MultInf	3.139843	0.00169	0.000541
184	OddsR vs. Sup	3.132109	0.001736	0.000543
183	Jacc vs. MultInf	3.05864	0.002223	0.000546
182	ColStr vs. X2	3.008371	0.002627	0.000549
181	Cover vs. MultInf	3.004505	0.00266	0.000552
180	Brins vs. Sup	2.985171	0.002834	0.000556
179	Cole vs. Sup	2.985171	0.002834	0.000559
178	Conf vs. Sup	2.985171	0.002834	0.000562
177	ExCex vs. Sup	2.985171	0.002834	0.000565
176	GR vs. Sup	2.985171	0.002834	0.000568
175	SeBag vs. Sup	2.985171	0.002834	0.000571
174	Sup vs. Zhang	2.985171	0.002834	0.000575
173	Lap vs. Pearson	2.97357	0.002944	0.000578
172	MultInf vs. Streng	2.96197	0.003057	0.000581
171	ACC vs. ColStr	2.892367	0.003824	0.000585
170	Cos vs. MultInf	2.842099	0.004482	0.000588
169	ColStr vs. Lap	2.822765	0.004761	0.000592
168	MultInf vs. SupDif	2.78023	0.005432	0.000595
167	MultInf vs. WRACC	2.78023	0.005432	0.000599
166	ACC vs. Pearson	2.741562	0.006115	0.000602
165	Gain vs. Sup	2.540489	0.01107	0.000606
164	MultInf vs. OddsR	2.532755	0.011317	0.00061
163	ACC vs. Cconf	2.439952	0.014689	0.000613
162	ACC vs. Dep	2.439952	0.014689	0.000617
161	ACC vs. InfGain	2.439952	0.014689	0.000621
160	ACC vs. Lift	2.439952	0.014689	0.000625
159	Brins vs. MultInf	2.385816	0.017041	0.000629
158	Cole vs. MultInf	2.385816	0.017041	0.000633
157	Conf vs. MultInf	2.385816	0.017041	0.000637
156	ExCex vs. MultInf	2.385816	0.017041	0.000641
155	GR vs. MultInf	2.385816	0.017041	0.000645
154	MultInf vs. SeBag	2.385816	0.017041	0.000649
153	MultInf vs. Zhang	2.385816	0.017041	0.000654
152	Lap vs. MDisc	2.192476	0.028345	0.000658
151	Jacc vs. MDisc	2.111274	0.034749	0.000662
150	Gain vs. X2	2.080339	0.037494	0.000667

149	Cover vs. MDisc	2.057138	0.039673	0.000671
148	Cconf vs. Spec	2.026204	0.042744	0.000676
147	Dep vs. Spec	2.026204	0.042744	0.00068
146	InfGain vs. Spec	2.026204	0.042744	0.000685
145	Lift vs. Spec	2.026204	0.042744	0.00069
144	MDisc vs. Streng	2.014604	0.043946	0.000694
143	MDisc vs. X2	2.00687	0.044764	0.000699
142	Cconf vs. Klos	1.999136	0.045594	0.000704
141	Dep vs. Klos	1.999136	0.045594	0.000709
140	InfGain vs. Klos	1.999136	0.045594	0.000714
139	Klos vs. Lift	1.999136	0.045594	0.000719
138	Gain vs. Lap	1.894733	0.058128	0.000725
137	Cos vs. MDisc	1.894733	0.058128	0.00073
136	MDisc vs. SupDif	1.832864	0.066823	0.000735
135	MDisc vs. WRACC	1.832864	0.066823	0.000741
134	Cconf vs. RelRisk	1.828997	0.0674	0.000746
133	Dep vs. RelRisk	1.828997	0.0674	0.000752
132	InfGain vs. RelRisk	1.828997	0.0674	0.000758
131	Lift vs. RelRisk	1.828997	0.0674	0.000763
130	Cconf vs. NetConf	1.712993	0.086714	0.000769
129	Dep vs. NetConf	1.712993	0.086714	0.000775
128	InfGain vs. NetConf	1.712993	0.086714	0.000781
127	Lift vs. NetConf	1.712993	0.086714	0.000787
126	MDisc vs. OddsR	1.585389	0.112878	0.000794
125	MDisc vs. Sup	1.546721	0.121931	0.0008
124	Brins vs. MDisc	1.43845	0.150306	0.000806
123	Cole vs. MDisc	1.43845	0.150306	0.000813
122	Conf vs. MDisc	1.43845	0.150306	0.00082
121	ExCex vs. MDisc	1.43845	0.150306	0.000826
120	GR vs. MDisc	1.43845	0.150306	0.000833
119	MDisc vs. SeBag	1.43845	0.150306	0.00084
118	MDisc vs. Zhang	1.43845	0.150306	0.000847
117	Lap vs. MultInf	1.24511	0.213091	0.000855
116	Gain vs. Pearson	1.078838	0.28066	0.000862
115	MultInf vs. X2	1.059504	0.28937	0.00087
114	MDisc vs. MultInf	0.947366	0.343452	0.000877
113	ColStr vs. Gain	0.928032	0.353391	0.000885
112	ACC vs. NetConf	0.726959	0.467251	0.000893
111	Brins vs. Jacc	0.672823	0.50106	0.000901
110	Cole vs. Jacc	0.672823	0.50106	0.000909
109	Conf vs. Jacc	0.672823	0.50106	0.000917
108	ExCex vs. Jacc	0.672823	0.50106	0.000926
107	GR vs. Jacc	0.672823	0.50106	0.000935
106	Jacc vs. SeBag	0.672823	0.50106	0.000943
105	Jacc vs. Zhang	0.672823	0.50106	0.000952
104	Lap vs. Sup	0.645756	0.518437	0.000962
103	Brins vs. Cover	0.618688	0.536122	0.000971
102	Cole vs. Cover	0.618688	0.536122	0.00098
101	Conf vs. Cover	0.618688	0.536122	0.00099
100	Cover vs. ExCex	0.618688	0.536122	0.001

99	Cover vs. GR	0.618688	0.536122	0.00101
98	Cover vs. SeBag	0.618688	0.536122	0.00102
97	Cover vs. Zhang	0.618688	0.536122	0.001031
96	ACC vs. RelRisk	0.610955	0.54123	0.001042
95	MultInf vs. Sup	0.599354	0.548937	0.001053
94	Brins vs. Streng	0.576153	0.564511	0.001064
93	Cole vs. Streng	0.576153	0.564511	0.001075
92	Conf vs. Streng	0.576153	0.564511	0.001087
91	ExCex vs. Streng	0.576153	0.564511	0.001099
90	GR vs. Streng	0.576153	0.564511	0.001111
89	SeBag vs. Streng	0.576153	0.564511	0.001124
88	Streng vs. Zhang	0.576153	0.564511	0.001136
87	Jacc vs. OddsR	0.525885	0.598968	0.001149
86	Cover vs. OddsR	0.47175	0.637105	0.001163
85	Sup vs. X2	0.460149	0.645409	0.001176
84	Brins vs. Cos	0.456283	0.648187	0.00119
83	Cole vs. Cos	0.456283	0.648187	0.001205
82	Conf vs. Cos	0.456283	0.648187	0.00122
81	Cos vs. ExCex	0.456283	0.648187	0.001235
80	Cos vs. GR	0.456283	0.648187	0.00125
79	Cos vs. SeBag	0.456283	0.648187	0.001266
78	Cos vs. Zhang	0.456283	0.648187	0.001282
77	ACC vs. Klos	0.440815	0.659347	0.001299
76	OddsR vs. Streng	0.429215	0.667767	0.001316
75	ACC vs. Spec	0.413748	0.679059	0.001333
74	Brins vs. SupDif	0.394414	0.693276	0.001351
73	Brins vs. WRACC	0.394414	0.693276	0.00137
72	Cole vs. SupDif	0.394414	0.693276	0.001389
71	Cole vs. WRACC	0.394414	0.693276	0.001408
70	Conf vs. SupDif	0.394414	0.693276	0.001429
69	Conf vs. WRACC	0.394414	0.693276	0.001449
68	ExCex vs. SupDif	0.394414	0.693276	0.001471
67	ExCex vs. WRACC	0.394414	0.693276	0.001493
66	GR vs. SupDif	0.394414	0.693276	0.001515
65	GR vs. WRACC	0.394414	0.693276	0.001538
64	SeBag vs. SupDif	0.394414	0.693276	0.001562
63	SeBag vs. WRACC	0.394414	0.693276	0.001587
62	SupDif vs. Zhang	0.394414	0.693276	0.001613
61	WRACC vs. Zhang	0.394414	0.693276	0.001639
60	NetConf vs. Spec	0.313211	0.75412	0.001667
59	Cos vs. OddsR	0.309344	0.75706	0.001695
58	Klos vs. NetConf	0.286143	0.774768	0.001724
57	Jacc vs. SupDif	0.27841	0.780698	0.001754
56	Jacc vs. WRACC	0.27841	0.780698	0.001786
55	OddsR vs. SupDif	0.247475	0.80454	0.001818
54	OddsR vs. WRACC	0.247475	0.80454	0.001852
53	Cover vs. SupDif	0.224274	0.822544	0.001887
52	Cover vs. WRACC	0.224274	0.822544	0.001923
51	Cos vs. Jacc	0.216541	0.828566	0.001961
50	RelRisk vs. Spec	0.197207	0.843666	0.002

49	Lap vs. X2	0.185606	0.852753	0.002041
48	Streng vs. SupDif	0.18174	0.855787	0.002083
47	Streng vs. WRACC	0.18174	0.855787	0.002128
46	Klos vs. RelRisk	0.170139	0.864901	0.002174
45	Cos vs. Cover	0.162406	0.870986	0.002222
44	ColStr vs. Pearson	0.150805	0.880129	0.002273
43	Brins vs. OddsR	0.146938	0.883181	0.002326
42	Cole vs. OddsR	0.146938	0.883181	0.002381
41	Conf vs. OddsR	0.146938	0.883181	0.002439
40	ExCex vs. OddsR	0.146938	0.883181	0.0025
39	GR vs. OddsR	0.146938	0.883181	0.002564
38	OddsR vs. SeBag	0.146938	0.883181	0.002632
37	OddsR vs. Zhang	0.146938	0.883181	0.002703
36	Cos vs. Streng	0.119871	0.904585	0.002778
35	NetConf vs. RelRisk	0.116004	0.907649	0.002857
34	Jacc vs. Streng	0.09667	0.922988	0.002941
33	Cos vs. SupDif	0.061869	0.950667	0.00303
32	Cos vs. WRACC	0.061869	0.950667	0.003125
31	Cover vs. Jacc	0.054135	0.956827	0.003226
30	Cover vs. Streng	0.042535	0.966072	0.003333
29	Klos vs. Spec	0.027068	0.978406	0.003448
28	Brins vs. Cole	0	1	0.003571
27	Brins vs. Conf	0	1	0.003704
26	Brins vs. ExCex	0	1	0.003846
25	Brins vs. GR	0	1	0.004
24	Brins vs. SeBag	0	1	0.004167
23	Brins vs. Zhang	0	1	0.004348
22	Cconf vs. Dep	0	1	0.004545
21	Cconf vs. InfGain	0	1	0.004762
20	Cconf vs. Lift	0	1	0.005
19	Cole vs. Conf	0	1	0.005263
18	Cole vs. ExCex	0	1	0.005556
17	Cole vs. GR	0	1	0.005882
16	Cole vs. SeBag	0	1	0.00625
15	Cole vs. Zhang	0	1	0.006667
14	Conf vs. ExCex	0	1	0.007143
13	Conf vs. GR	0	1	0.007692
12	Conf vs. SeBag	0	1	0.008333
11	Conf vs. Zhang	0	1	0.009091
10	Dep vs. InfGain	0	1	0.01
9	Dep vs. Lift	0	1	0.011111
8	ExCex vs. GR	0	1	0.0125
7	ExCex vs. SeBag	0	1	0.014286
6	ExCex vs. Zhang	0	1	0.016667
5	GR vs. SeBag	0	1	0.02
4	GR vs. Zhang	0	1	0.025
3	InfGain vs. Lift	0	1	0.033333
2	SeBag vs. Zhang	0	1	0.05
1	SupDif vs. WRACC	0	1	0.1

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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	Jacc vs .Lever	0	0
2	Cover vs .Lever	0	0
3	Lever vs .Streng	0	0
4	Cos vs .Lever	0	0
5	Lever vs .SupDif	0	0
6	Lever vs .WRACC	0	0
7	Lever vs .OddsR	0	0
8	Brins vs .Lever	0	0
9	Cole vs .Lever	0	0
10	Conf vs .Lever	0	0
11	ExCex vs .Lever	0	0
12	GR vs .Lever	0	0
13	Lever vs .SeBag	0	0
14	Lever vs .Zhang	0	0
15	Lever vs .MDisc	0	0
16	Lever vs .MultInf	0	0
17	Lever vs .Sup	0	0
18	Cconf vs .Jacc	0	0
19	Dep vs .Jacc	0	0
20	InfGain vs .Jacc	0	0
21	Jacc vs .Lift	0	0
22	Cconf vs .Cover	0	0
23	Cover vs .Dep	0	0
24	Cover vs .InfGain	0	0
25	Cover vs .Lift	0	0
26	Cconf vs .Streng	0	0
27	Dep vs .Streng	0	0
28	InfGain vs .Streng	0	0
29	Lift vs .Streng	0	0
30	Cconf vs .Cos	0	0
31	Cos vs .Dep	0	0
32	Cos vs .InfGain	0	0
33	Cos vs .Lift	0	0
34	Lever vs .X2	0	0
35	Cconf vs .SupDif	0	0
36	Cconf vs .WRACC	0	0
37	Dep vs .SupDif	0	0
38	Dep vs .WRACC	0	0
39	InfGain vs .SupDif	0	0
40	InfGain vs .WRACC	0	0
41	Lift vs .SupDif	0	0
42	Lift vs .WRACC	0	0
43	Lap vs .Lever	0	0
44	Cconf vs .OddsR	0	0
45	Dep vs .OddsR	0	0
46	InfGain vs .OddsR	0	0

47	Lift vs .OddsR	0	0
48	Brins vs .Cconf	0	0
49	Brins vs .Dep	0	0
50	Brins vs .InfGain	0	0
51	Brins vs .Lift	0	0
52	Cconf vs .Cole	0	0
53	Cconf vs .Conf	0	0
54	Cconf vs .ExCex	0	0
55	Cconf vs .GR	0	0
56	Cconf vs .SeBag	0	0
57	Cconf vs .Zhang	0	0
58	Cole vs .Dep	0	0
59	Cole vs .InfGain	0	0
60	Cole vs .Lift	0	0
61	Conf vs .Dep	0	0
62	Conf vs .InfGain	0	0
63	Conf vs .Lift	0	0
64	Dep vs .ExCex	0	0
65	Dep vs .GR	0	0
66	Dep vs .SeBag	0	0
67	Dep vs .Zhang	0	0
68	ExCex vs .InfGain	0	0
69	ExCex vs .Lift	0	0
70	GR vs .InfGain	0	0
71	GR vs .Lift	0	0
72	InfGain vs .SeBag	0	0
73	InfGain vs .Zhang	0	0
74	Lift vs .SeBag	0	0
75	Lift vs .Zhang	0	0
76	Jacc vs .NetConf	0	0
77	Cover vs .NetConf	0	0
78	NetConf vs .Streng	0	0
79	Jacc vs .RelRisk	0	0
80	Cover vs .RelRisk	0	0
81	RelRisk vs .Streng	0	0
82	Cos vs .NetConf	0	0
83	NetConf vs .SupDif	0	0
84	NetConf vs .WRACC	0	0
85	Jacc vs .Klos	0	0
86	Jacc vs .Spec	0	0
87	Cos vs .RelRisk	0	0
88	Cover vs .Klos	0	0
89	Cover vs .Spec	0	0
90	Klos vs .Streng	0	0
91	RelRisk vs .SupDif	0	0
92	RelRisk vs .WRACC	0	0
93	Cconf vs .MDisc	0	0
94	Dep vs .MDisc	0	0
95	InfGain vs .MDisc	0	0
96	Lift vs .MDisc	0	0

97	Spec vs .Streng	0	0
98	Cos vs .Klos	0	0
99	NetConf vs .OddsR	0	0
100	Cos vs .Spec	0	0
101	Klos vs .SupDif	0	0
102	Klos vs .WRACC	0	0
103	Spec vs .SupDif	0	0
104	Spec vs .WRACC	0	0
105	Gain vs .Lever	0	0
106	OddsR vs .RelRisk	0	0
107	Brins vs .NetConf	0	0
108	Cole vs .NetConf	0	0
109	Conf vs .NetConf	0	0
110	ExCex vs .NetConf	0	0
111	GR vs .NetConf	0	0
112	NetConf vs .SeBag	0	0
113	NetConf vs .Zhang	0	0
114	ACC vs .Jacc	0	0
115	ACC vs .Cover	0	0
116	Brins vs .RelRisk	0	0
117	Cole vs .RelRisk	0	0
118	Conf vs .RelRisk	0	0
119	ExCex vs .RelRisk	0	0
120	GR vs .RelRisk	0	0
121	RelRisk vs .SeBag	0	0
122	RelRisk vs .Zhang	0	0
123	Klos vs .OddsR	0	0
124	ACC vs .Streng	0	0
125	OddsR vs .Spec	0	0
126	ACC vs .Cos	0	0
127	Brins vs .Klos	0	0
128	Cole vs .Klos	0	0
129	Conf vs .Klos	0	0
130	ExCex vs .Klos	0	0
131	GR vs .Klos	0	0
132	Klos vs .SeBag	0	0
133	Klos vs .Zhang	0	0
134	Brins vs .Spec	0	0
135	Cole vs .Spec	0	0
136	Conf vs .Spec	0	0
137	ExCex vs .Spec	0	0
138	GR vs .Spec	0	0
139	SeBag vs .Spec	0	0
140	Spec vs .Zhang	0	0
141	ACC vs .SupDif	0	0
142	ACC vs .WRACC	0	0
143	ACC vs .OddsR	0	0
144	Cconf vs .MultInf	0	0
145	Dep vs .MultInf	0	0
146	InfGain vs .MultInf	0	0

147	Lift vs .MultInf	0	0
148	ACC vs .Brins	0	0
149	ACC vs .Cole	0	0
150	ACC vs .Conf	0	0
151	ACC vs .ExCex	0	0
152	ACC vs .GR	0	0
153	ACC vs .SeBag	0	0
154	ACC vs .Zhang	0	0
155	ColStr vs .Lever	0	0
156	Lever vs .Pearson	0	0
157	Cconf vs .Sup	0	0
158	Dep vs .Sup	0	0
159	InfGain vs .Sup	0	0
160	Lift vs .Sup	0	0
161	MDisc vs .NetConf	0	0
162	MDisc vs .RelRisk	0	0
163	Klos vs .MDisc	0	0
164	Cconf vs .X2	0	0
165	Dep vs .X2	0	0
166	InfGain vs .X2	0	0
167	Lift vs .X2	0	0
168	MDisc vs .Spec	0	0
169	Cconf vs .Lap	0	0
170	Dep vs .Lap	0	0
171	InfGain vs .Lap	0	0
172	Lap vs .Lift	0	0
173	ACC vs .MDisc	0	0
174	MultInf vs .NetConf	0	0
175	MultInf vs .RelRisk	0	0
176	Klos vs .MultInf	0	0
177	MultInf vs .Spec	0	0
178	Jacc vs .Pearson	0	0
179	Cover vs .Pearson	0	0
180	Pearson vs .Streng	0	0
181	ColStr vs .Jacc	0	0
182	NetConf vs .Sup	0	0
183	ColStr vs .Cover	0	0
184	Cos vs .Pearson	0	0
185	ColStr vs .Streng	0	0
186	Pearson vs .SupDif	0	0
187	Pearson vs .WRACC	0	0
188	RelRisk vs .Sup	0	0
189	ACC vs .MultInf	0	0
190	ColStr vs .Cos	0	0
191	ColStr vs .SupDif	0	0
192	ColStr vs .WRACC	0	0
193	Klos vs .Sup	0	0
194	Spec vs .Sup	0	0
195	OddsR vs .Pearson	0	0
196	NetConf vs .X2	0	0

197	Brins vs .Pearson	0	0
198	Cole vs .Pearson	0	0
199	Conf vs .Pearson	0	0
200	ExCex vs .Pearson	0	0
201	GR vs .Pearson	0	0
202	Pearson vs .SeBag	0	0
203	Pearson vs .Zhang	0	0
204	ColStr vs .OddsR	0	0
205	RelRisk vs .X2	0	0
206	Brins vs .ColStr	0	0
207	Cole vs .ColStr	0	0
208	ColStr vs .Conf	0	0
209	ColStr vs .ExCex	0	0
210	ColStr vs .GR	0	0
211	ColStr vs .SeBag	0	0
212	ColStr vs .Zhang	0	0
213	Lap vs .NetConf	0	0
214	ACC vs .Sup	0	0
215	Klos vs .X2	0	0
216	Lap vs .RelRisk	0	0
217	ACC vs .Lever	0	0
218	Spec vs .X2	0	0
219	Cconf vs .Gain	0	0
220	Dep vs .Gain	0	0
221	Gain vs .InfGain	0	0
222	Gain vs .Lift	0	0
223	Gain vs .Jacc	0	0
224	Klos vs .Lap	0	0
225	Cover vs .Gain	0	0
226	Lap vs .Spec	0	0
227	Gain vs .Streng	0	0
228	Cos vs .Gain	0	0.000001
229	Gain vs .SupDif	0	0.000001
230	Gain vs .WRACC	0	0.000001
231	Lever vs .Spec	0	0.000001
232	ACC vs .X2	0	0.000001
233	Klos vs .Lever	0	0.000001
234	ACC vs .Lap	0	0.000003
235	Lever vs .RelRisk	0	0.000003
236	Gain vs .OddsR	0	0.000004
237	Lever vs .NetConf	0	0.000006
238	Brins vs .Gain	0	0.000009
239	Cole vs .Gain	0	0.000009
240	Conf vs .Gain	0	0.000009
241	ExCex vs .Gain	0	0.000009
242	Gain vs .GR	0	0.000009
243	Gain vs .SeBag	0	0.000009
244	Gain vs .Zhang	0	0.000009
245	Cconf vs .ColStr	0	0.000024
246	ColStr vs .Dep	0	0.000024

247	ColStr vs .InfGain	0	0.000024
248	ColStr vs .Lift	0	0.000024
249	Cconf vs .Pearson	0	0.000055
250	Dep vs .Pearson	0	0.000055
251	InfGain vs .Pearson	0	0.000055
252	Lift vs .Pearson	0	0.000055
253	MDisc vs .Pearson	0	0.000058
254	ColStr vs .MDisc	0.000001	0.000129
255	Gain vs .NetConf	0.000005	0.001315
256	Gain vs .RelRisk	0.000009	0.002257
257	Jacc vs .Lap	0.000017	0.00403
258	Gain vs .Klos	0.00002	0.004859
259	Cover vs .Lap	0.000021	0.005096
260	Gain vs .Spec	0.000023	0.005437
261	MultInf vs .Pearson	0.000025	0.005799
262	Lap vs .Streng	0.000026	0.006079
263	Jacc vs .X2	0.000038	0.008937
264	Gain vs .MDisc	0.000044	0.010173
265	Cos vs .Lap	0.000044	0.010173
266	ColStr vs .MultInf	0.000047	0.01096
267	Cover vs .X2	0.000048	0.011095
268	Lap vs .SupDif	0.000057	0.013028
269	Lap vs .WRACC	0.000057	0.013028
270	Streng vs .X2	0.000058	0.013129
271	Cos vs .X2	0.000096	0.021596
272	Cconf vs .Lever	0.000107	0.024036
273	Dep vs .Lever	0.000107	0.024036
274	InfGain vs .Lever	0.000107	0.024036
275	Lever vs .Lift	0.000107	0.024036
276	SupDif vs .X2	0.000123	0.02722
277	WRACC vs .X2	0.000123	0.02722
278	ACC vs .Gain	0.000133	0.029179
279	Lap vs .OddsR	0.000158	0.034483
280	Jacc vs .Sup	0.000254	0.055161
281	Brins vs .Lap	0.000282	0.061
282	Cole vs .Lap	0.000282	0.061
283	Conf vs .Lap	0.000282	0.061
284	ExCex vs .Lap	0.000282	0.061
285	GR vs .Lap	0.000282	0.061
286	Lap vs .SeBag	0.000282	0.061
287	Lap vs .Zhang	0.000282	0.061
288	Pearson vs .Sup	0.000295	0.061733
289	ColStr vs .NetConf	0.000295	0.061733
290	Cover vs .Sup	0.000314	0.0649
291	OddsR vs .X2	0.000328	0.067532
292	Streng vs .Sup	0.000369	0.075643
293	ColStr vs .RelRisk	0.000459	0.093737
294	ColStr vs .Sup	0.000523	0.106236
295	NetConf vs .Pearson	0.000523	0.106236
296	Brins vs .X2	0.00057	0.114647

297	Cole vs .X2	0.00057	0.114647
298	Conf vs .X2	0.00057	0.114647
299	ExCex vs .X2	0.00057	0.114647
300	GR vs .X2	0.00057	0.114647
301	SeBag vs .X2	0.00057	0.114647
302	X2 vs .Zhang	0.00057	0.114647
303	Cos vs .Sup	0.000579	0.114647
304	Sup vs .SupDif	0.000726	0.140109
305	Sup vs .WRACC	0.000726	0.140109
306	Pearson vs .RelRisk	0.000801	0.152954
307	ColStr vs .Klos	0.000859	0.163131
308	ColStr vs .Spec	0.000946	0.178792
309	Klos vs .Pearson	0.001461	0.274614
310	Pearson vs .X2	0.001582	0.295863
311	Pearson vs .Spec	0.001603	0.298209
312	Gain vs .MultInf	0.00169	0.312721
313	OddsR vs .Sup	0.001736	0.319342
314	Jacc vs .MultInf	0.002223	0.40689
315	ColStr vs .X2	0.002627	0.478026
316	Cover vs .MultInf	0.00266	0.481485
317	Brins vs .Sup	0.002834	0.510156
318	Cole vs .Sup	0.002834	0.510156
319	Conf vs .Sup	0.002834	0.510156
320	ExCex vs .Sup	0.002834	0.510156
321	GR vs .Sup	0.002834	0.510156
322	SeBag vs .Sup	0.002834	0.510156
323	Sup vs .Zhang	0.002834	0.510156
324	Lap vs .Pearson	0.002944	0.510156
325	MultInf vs .Streng	0.003057	0.525766
326	ACC vs .ColStr	0.003824	0.653819
327	Cos vs .MultInf	0.004482	0.761899
328	ColStr vs .Lap	0.004761	0.804634
329	MultInf vs .SupDif	0.005432	0.912582
330	MultInf vs .WRACC	0.005432	0.912582
331	ACC vs .Pearson	0.006115	1.015053
332	Gain vs .Sup	0.01107	1.826512
333	MultInf vs .OddsR	0.011317	1.855989
334	ACC vs .Cconf	0.014689	2.394344
335	ACC vs .Dep	0.014689	2.394344
336	ACC vs .InfGain	0.014689	2.394344
337	ACC vs .Lift	0.014689	2.394344
338	Brins vs .MultInf	0.017041	2.709559
339	Cole vs .MultInf	0.017041	2.709559
340	Conf vs .MultInf	0.017041	2.709559
341	ExCex vs .MultInf	0.017041	2.709559
342	GR vs .MultInf	0.017041	2.709559
343	MultInf vs .SeBag	0.017041	2.709559
344	MultInf vs .Zhang	0.017041	2.709559
345	Lap vs .MDisc	0.028345	4.308459
346	Jacc vs .MDisc	0.034749	5.24707

347	Gain vs .X2	0.037494	5.624165
348	Cover vs .MDisc	0.039673	5.911265
349	Cconf vs .Spec	0.042744	6.326096
350	Dep vs .Spec	0.042744	6.326096
351	InfGain vs .Spec	0.042744	6.326096
352	Lift vs .Spec	0.042744	6.326096
353	MDisc vs .Streng	0.043946	6.328254
354	MDisc vs .X2	0.044764	6.401183
355	Cconf vs .Klos	0.045594	6.474292
356	Dep vs .Klos	0.045594	6.474292
357	InfGain vs .Klos	0.045594	6.474292
358	Klos vs .Lift	0.045594	6.474292
359	Gain vs .Lap	0.058128	8.02164
360	Cos vs .MDisc	0.058128	8.02164
361	MDisc vs .SupDif	0.066823	9.087903
362	MDisc vs .WRACC	0.066823	9.087903
363	Cconf vs .RelRisk	0.0674	9.087903
364	Dep vs .RelRisk	0.0674	9.087903
365	InfGain vs .RelRisk	0.0674	9.087903
366	Lift vs .RelRisk	0.0674	9.087903
367	Cconf vs .NetConf	0.086714	11.272797
368	Dep vs .NetConf	0.086714	11.272797
369	InfGain vs .NetConf	0.086714	11.272797
370	Lift vs .NetConf	0.086714	11.272797
371	MDisc vs .OddsR	0.112878	14.222637
372	MDisc vs .Sup	0.121931	15.24133
373	Brins vs .MDisc	0.150306	18.637991
374	Cole vs .MDisc	0.150306	18.637991
375	Conf vs .MDisc	0.150306	18.637991
376	ExCex vs .MDisc	0.150306	18.637991
377	GR vs .MDisc	0.150306	18.637991
378	MDisc vs .SeBag	0.150306	18.637991
379	MDisc vs .Zhang	0.150306	18.637991
380	Lap vs .MultInf	0.213091	24.931682
381	Gain vs .Pearson	0.28066	32.556575
382	MultInf vs .X2	0.28937	33.277607
383	MDisc vs .MultInf	0.343452	39.153543
384	ColStr vs .Gain	0.353391	39.93316
385	ACC vs .NetConf	0.467251	52.332143
386	Brins vs .Jacc	0.50106	55.617618
387	Cole vs .Jacc	0.50106	55.617618
388	Conf vs .Jacc	0.50106	55.617618
389	ExCex vs .Jacc	0.50106	55.617618
390	GR vs .Jacc	0.50106	55.617618
391	Jacc vs .SeBag	0.50106	55.617618
392	Jacc vs .Zhang	0.50106	55.617618
393	Lap vs .Sup	0.518437	55.617618
394	Brins vs .Cover	0.536122	55.617618
395	Cole vs .Cover	0.536122	55.617618
396	Conf vs .Cover	0.536122	55.617618



397	Cover vs .ExCex	0.536122	55.617618
398	Cover vs .GR	0.536122	55.617618
399	Cover vs .SeBag	0.536122	55.617618
400	Cover vs .Zhang	0.536122	55.617618
401	ACC vs .RelRisk	0.54123	55.617618
402	MultInf vs .Sup	0.548937	55.617618
403	Brins vs .Streng	0.564511	55.617618
404	Cole vs .Streng	0.564511	55.617618
405	Conf vs .Streng	0.564511	55.617618
406	ExCex vs .Streng	0.564511	55.617618
407	GR vs .Streng	0.564511	55.617618
408	SeBag vs .Streng	0.564511	55.617618
409	Streng vs .Zhang	0.564511	55.617618
410	Jacc vs .OddsR	0.598968	55.617618
411	Cover vs .OddsR	0.637105	55.617618
412	Sup vs .X2	0.645409	55.617618
413	Brins vs .Cos	0.648187	55.617618
414	Cole vs .Cos	0.648187	55.617618
415	Conf vs .Cos	0.648187	55.617618
416	Cos vs .ExCex	0.648187	55.617618
417	Cos vs .GR	0.648187	55.617618
418	Cos vs .SeBag	0.648187	55.617618
419	Cos vs .Zhang	0.648187	55.617618
420	ACC vs .Klos	0.659347	55.617618
421	OddsR vs .Streng	0.667767	55.617618
422	ACC vs .Spec	0.679059	55.617618
423	Brins vs .SupDif	0.693276	55.617618
424	Brins vs .WRACC	0.693276	55.617618
425	Cole vs .SupDif	0.693276	55.617618
426	Cole vs .WRACC	0.693276	55.617618
427	Conf vs .SupDif	0.693276	55.617618
428	Conf vs .WRACC	0.693276	55.617618
429	ExCex vs .SupDif	0.693276	55.617618
430	ExCex vs .WRACC	0.693276	55.617618
431	GR vs .SupDif	0.693276	55.617618
432	GR vs .WRACC	0.693276	55.617618
433	SeBag vs .SupDif	0.693276	55.617618
434	SeBag vs .WRACC	0.693276	55.617618
435	SupDif vs .Zhang	0.693276	55.617618
436	WRACC vs .Zhang	0.693276	55.617618
437	NetConf vs .Spec	0.75412	55.617618
438	Cos vs .OddsR	0.75706	55.617618
439	Klos vs .NetConf	0.774768	55.617618
440	Jacc vs .SupDif	0.780698	55.617618
441	Jacc vs .WRACC	0.780698	55.617618
442	OddsR vs .SupDif	0.80454	55.617618
443	OddsR vs .WRACC	0.80454	55.617618
444	Cover vs .SupDif	0.822544	55.617618
445	Cover vs .WRACC	0.822544	55.617618
446	Cos vs .Jacc	0.828566	55.617618

447	RelRisk vs .Spec	0.843666	55.617618
448	Lap vs .X2	0.852753	55.617618
449	Streng vs .SupDif	0.855787	55.617618
450	Streng vs .WRACC	0.855787	55.617618
451	Klos vs .RelRisk	0.864901	55.617618
452	Cos vs .Cover	0.870986	55.617618
453	ColStr vs .Pearson	0.880129	55.617618
454	Brins vs .OddsR	0.883181	55.617618
455	Cole vs .OddsR	0.883181	55.617618
456	Conf vs .OddsR	0.883181	55.617618
457	ExCex vs .OddsR	0.883181	55.617618
458	GR vs .OddsR	0.883181	55.617618
459	OddsR vs .SeBag	0.883181	55.617618
460	OddsR vs .Zhang	0.883181	55.617618
461	Cos vs .Streng	0.904585	55.617618
462	NetConf vs .RelRisk	0.907649	55.617618
463	Jacc vs .Streng	0.922988	55.617618
464	Cos vs .SupDif	0.950667	55.617618
465	Cos vs .WRACC	0.950667	55.617618
466	Cover vs .Jacc	0.956827	55.617618
467	Cover vs .Streng	0.966072	55.617618
468	Klos vs .Spec	0.978406	55.617618
469	Brins vs .Cole	1	55.617618
470	Brins vs .Conf	1	55.617618
471	Brins vs .ExCex	1	55.617618
472	Brins vs .GR	1	55.617618
473	Brins vs .SeBag	1	55.617618
474	Brins vs .Zhang	1	55.617618
475	Cconf vs .Dep	1	55.617618
476	Cconf vs .InfGain	1	55.617618
477	Cconf vs .Lift	1	55.617618
478	Cole vs .Conf	1	55.617618
479	Cole vs .ExCex	1	55.617618
480	Cole vs .GR	1	55.617618
481	Cole vs .SeBag	1	55.617618
482	Cole vs .Zhang	1	55.617618
483	Conf vs .ExCex	1	55.617618
484	Conf vs .GR	1	55.617618
485	Conf vs .SeBag	1	55.617618
486	Conf vs .Zhang	1	55.617618
487	Dep vs .InfGain	1	55.617618
488	Dep vs .Lift	1	55.617618
489	ExCex vs .GR	1	55.617618
490	ExCex vs .SeBag	1	55.617618
491	ExCex vs .Zhang	1	55.617618
492	GR vs .SeBag	1	55.617618
493	GR vs .Zhang	1	55.617618
494	InfGain vs .Lift	1	55.617618
495	SeBag vs .Zhang	1	55.617618

496	SupDif vs .WRACC	1	55.617618
Table 4: Adjusted $p$ -values			