

TABLE 1. Association Rules enumeration ($\beta = 90\%$): ECLAT-Z vs. CP vs. SAT.

Instance	α	ARs				MNRs			
		ECLAT-Z	CP	SAT	#Model	ECLAT-Z	CP	SAT	#Model
vote	10%	3.68	5.13	0.59	453517	15.03	5.50	1.09	271525
vote	30%	0.26	2.29	0.00	1229	0.40	2.26	0.00	1229
vote	5%	8.80	10.64	2.99	2268791	58.79	7.65	5.19	519666
zoo	30%	1.24	3.50	0.00	198971	0.83	2.07	0.00	2260
zoo	50%	0.12	1.79	0.00	365	0.30	1.75	0.00	207
zoo	5%	28.98	70.04	4.46	30792317	12.23	3.39	0.10	13986
anneal	70%	TO	TO	696.35	775694258	222.68	5.75	0.99	251502
anneal	80%	92.50	265.26	12.70	90260885	8.99	4.39	0.30	48351
anneal	90%	1.10	4.55	0.10	187480	0.57	2.78	0.10	2551
chess	40%	1402.64	TO	239.10	837385660	TO	461.00	114.19	67306702
chess	50%	135.02	514.96	43.89	111156487	737.35	128.07	29.89	17948429
chess	60%	20.48	87.35	9.60	17595820	77.09	37.20	7.99	4650326
connect	85%	28.16	1643.84	70.78	37071100	77.14	96.09	51.29	996257
connect	90%	5.82	176.38	25.70	3640704	12.94	33.04	24.69	319352
connect	95%	2.43	12.24	8.59	78656	2.79	11.51	10.19	25549
mushroom	10%	19.36	66.50	7.29	14331056	6.41	5.05	6.49	11420
mushroom	20%	3.40	9.32	1.99	1012996	2.20	4.30	2.30	2645
mushroom	5%	252.41	459.10	31.40	114415031	30.30	6.34	20.09	28611
pumsb	80%	48.24	1357.45	417.96	19754613	98.01	411.77	219.87	3690165
pumsb	85%	9.03	98.42	68.79	1196070	12.36	61.44	52.89	501028
pumsb	90%	4.58	14.78	15.59	71488	4.93	15.36	17.29	36640
retail	0.1%	9.73	65.60	64.28	255	21.87	195.98	89.34	253
retail	0.3%	8.66	12.05	12.99	75	8.94	23.97	14.89	75
retail	0.5%	8.51	10.48	4.99	37	8.36	18.78	5.99	37
T10I4D100K	0.02%	20.57	65.72	109.39	1303932	1278.51	380.09	205.98	257318
T10I4D100K	0.1%	4.29	16.18	26.22	160171	42.52	33.70	34.28	147543
T10I4D100K	0.5%	1.72	8.42	5.33	532	2.12	12.70	6.40	532
T40I10D100K	0.3%	TO	TO	TO	??	TO	TO	TO	??
T40I10D100K	1.0%	9.94	159.72	223.58	2875027	124.39	266.11	315.30	2875027
T40I10D100K	1.6%	3.32	15.72	77.09	648	6.65	31.45	98.66	648
kosarak	0.5%	MO	MO	96.58	1516	MO	MO	121.27	1516
kosarak	2%	MO	MO	16.39	41	MO	MO	18.39	41
kosarak	5%	MO	MO	6.59	8	MO	MO	7.60	8

TABLE 2. Association Rules enumeration ($\beta = 75\%$): ECLAT-Z vs. CP vs. SAT.

Instance	α	ARs				MNRs			
		ECLAT-Z	CP	SAT	#Model	ECLAT-Z	CP	SAT	#Model
vote	10%	4.70	8.64	1.48	1875960	15.52	8.97	2.47	1288014
	30%	0.42	2.84	0.00	3836	0.44	2.51	0.00	3836
	5%	13.03	26.96	5.59	8455184	55.96	13.36	10.35	2520334
zoo	30%	1.53	3.91	0.00	387113	1.18	2.71	0.00	6462
	50%	0.13	1.83	0.00	867	0.32	1.86	0.00	548
	5%	55.04	143.48	8.80	60865572	12.99	4.36	0.16	40804
anneal	70%	TO	TO	1166.29	48151597	243.58	8.08	1.69	716860
	80%	104.27	336.06	16.00	111119768	10.07	4.47	0.39	78954
	90%	1.11	4.49	0.10	187590	0.80	2.73	0.10	2557
chess	40%	TO	TO	982.46	3617072999	TO	TO	453.56	346164794
	50%	466.60	TO	166.96	477566469	TO	563.36	102.05	83324019
	60%	43.73	296.68	28.50	62457693	882.45	126.53	21.18	17970343
connect	85%	29.65	TO	100.37	43896880	107.11	113.71	60.11	1349555
	90%	5.75	175.59	26.09	3640704	12.77	33.62	24.03	319352
	95%	2.47	11.84	8.59	78656	2.55	11.83	10.23	25549
mushroom	10%	21.35	79.55	8.59	17406340	6.85	5.69	7.05	22756
	20%	3.67	11.60	2.29	1373250	2.32	4.20	2.38	5262
	5%	279.27	529.54	36.49	129322936	31.19	6.45	22.46	55371
pumsb	75%	700.81	TO	TO	??	TO	TO	1578.32	39406675
	80%	53.95	1738.93	639.80	28276846	126.87	526.54	286.11	5504722
	85%	8.67	113.11	77.07	1408950	12.31	72.81	58.04	580651
retail	0.1%	9.95	67.77	63.47	1425	23.33	194.73	102.50	1412
	0.3%	8.79	12.02	11.89	244	8.85	24.23	16.51	244
	0.5%	8.22	10.00	4.97	117	7.98	16.81	6.01	117
T10I4D100K	0.02%	21.86	69.43	109.35	1752672	1333.98	372.72	217.59	516743
	0.1%	4.82	18.02	26.29	296921	42.27	36.54	34.37	280831
	0.5%	1.62	8.27	5.28	964	2.03	13.04	5.67	964
T40I10D100K	0.3%	TO	TO	TO	–	TO	TO	TO	444178969
	1.0%	9.95	189.36	239.74	3545811	125.28	319.74	357.84	3545811
	1.6%	3.48	15.35	77.73	1080	6.26	31.81	101.16	1080
kosarak	0.5%	MO	MO	96.85	2865	MO	MO	125.18	2865
	2%	MO	MO	16.44	116	MO	MO	18.53	116
	5%	MO	MO	6.62	30	MO	MO	8.13	30