

Annex 1: Results for all algorithms

Total Problem Count
131

Problem Classes Table			
Problem Class	Variable Count	Clause Count	Amount of Problems in Class
blocksworld	1087	13772	2
glass	400	1600	10
graphcoloring	500	3100	4
hgen2	274	959	10
logistics	828	6718	4
qcp	4413	47171	10
qwh-rand	1933	14543	10
ransat_050	50	213	10
ransat_100	100	426	10
ransat_150	150	639	10
ransat_200	200	852	10
ransat_250	250	1065	10
ransat_300	300	1278	9
ransat_400	400	1704	7
ransat_500	500	2130	8
ransat_600	600	2556	7

Median Flips																
	blocksworld	glass	graphcoloring	hgen2	logistics	qcp	qwhrand	ransat_050	ransat_100	ransat_150	ransat_200	ransat_250	ransat_300	ransat_400	ransat_500	ransat_600
GSAT	730361	3.32E+08	16509	45327030	2.52E+08	62227296	1.06E+08	543	2556	33706	162303	3140876	2106724	3.58E+08	3.07E+08	2.7E+08
GSATRW_0.25	810659	3.39E+08	13674	37123597	2.03E+08	73280212	1.09E+08	474	967	20745	119046	1253653	1429131	3.35E+08	2.93E+08	2.61E+08
GSATRW_0.5	510315	3.89E+08	61255	1.2E+08	1.72E+08	70671492	1.26E+08	198	1721	25604	68747	2086824	4385942	38175650	3.1E+08	2.8E+08
GSATRW_0.75	1.59E+08	3.84E+08	11739481	4.89E+08	1.89E+08	98571264	1.23E+08	1353	9955	3331156	4	11832758	4.42E+08	3.97E+08	3.57E+08	3.27E+08
HSAT	608114	3.54E+08	681	639596	2.5E+08	73547504	1.14E+08	243	501	3868	9762	21418	26126	1322263	5287845	2758649
HSATBounded_10	167542	2.77E+08	2974	18680643	2.45E+08	66865204	9827208	47	602	19022	42160	472589	512319	1.68E+08	2.27E+08	1.94E+08
HSATRW_0.25	61717	3.59E+08	668	5117235	2.11E+08	66189020	1.14E+08	247	540	8087	10014	65693	139864	7706897	66607828	41769179
HSATRW_0.5	51332	4.01E+08	3662	33574185	1.85E+08	69784672	1.26E+08	340	1185	23657	39779	222600	767388	76853963	3.16E+08	2.85E+08
HSATRW_0.75	67428711	3.8E+08	2225974	5E+08	1.88E+08	96821064	1.22E+08	843	13531	1023485	4	21804768	4.48E+08	4E+08	3.64E+08	3.31E+08
WalkSATMemory_0.7	24747	1.13E+09	1386859	96229922	2387589	3.83E+08	6.5E+08	96	647	4777	39702	361066	639056	50917276	8.73E+08	8.55E+08
WalkSATMemory_0.8	11157	1.16E+09	78605	1208527	85857	3.25E+08	6.87E+08	182	178	470	4595	8283	7972	319482	249217	634057
WalkSATMemory_0.9	2025	1.21E+09	2101	1242642	43123	889153	2479737	130	693	2265	7293	7986	30459	328638	463822	456777
WalkSAT_0.25	1190349	1.06E+09	1.99E+08	1.03E+09	6.86E+08	3.99E+08	5.64E+08	425	5640	677030	1047603	4.27E+08	8.72E+08	8.51E+08	8.19E+08	8.02E+08
WalkSAT_0.5	28138	1.1E+09	11189	1384906	772391	3.09E+08	6.4E+08	195	432	11265	21577	20895	44542	959477	226718	1128336
WalkSAT_0.75	200998	1.17E+09	4602	1014988	147117	330398	1285214	68	647	8612	7716	47085	86990	840328	1033932	265115

Median Flips Log Scale (Base e)																
	blockswor ld	glass	graphcolori ng	hgen2	logistic s	qcp	qwh- rand	ransat_0 50	ransat_1 00	ransat_1 50	ransat_2 00	ransat_2 50	ransat_3 00	ransat_4 00	ransat_5 00	ransat_6 00
GSAT	13.50129	19.6209 4	9.711661	17.6294 1	19.3431	17.9463	18.4779 4	6.297109	7.846199	10.42543	11.99722	14.96001	14.56064	19.69691	19.54088	19.41226
GSATRW_0.25	13.6056	19.6419 1	9.523251	17.4297 6	19.1302 8	18.1098	18.5113 1	6.161207	6.874198	9.940061	11.68727	14.04157	14.17258	19.63103	19.49449	19.38102
GSATRW_0.5	13.14278	19.7785 8	11.0228	18.6066 1	18.9638 7	18.0735 5	18.6498 6	5.288267	7.450661	10.1505	11.13819	14.55115	15.29391	17.45771	19.55232	19.4517
GSATRW_0.75	18.883	19.7663	16.27847	20.0084 3	19.0581	18.4062 9	18.6313 1	7.21008	9.20583	15.01883	16.28638	19.96994	19.90629	19.79911	19.69354	19.60421
HSAT	13.31812	19.6852	6.523562	13.3685 9	19.3385 3	18.1134 4	18.5503 4	5.493061	6.216606	8.260493	9.186253	9.971987	10.17069	14.09486	15.48092	14.83025
HSATBounded_10	12.02899	19.4398 2	7.997663	16.743	19.3174 2	18.0181 9	18.4032 5	3.850148	6.400257	9.853351	10.64923	13.06598	13.1467	18.9421	19.2386	19.08313
HSATRW_0.25	11.03031	19.6997 5	6.504288	15.4481 2	19.1668 4	18.0080 3	18.5524 1	5.509388	6.291569	8.998013	9.211739	11.09275	11.84843	15.85763	18.01433	17.54767
HSATRW_0.5	10.84607	19.8103 7	8.205765	17.3292 7	19.0343 2	18.0609 2	18.6497 1	5.828946	7.077498	10.07141	10.59109	12.31313	13.55075	18.15742	19.57134	19.46802
HSATRW_0.75	18.02658	19.7563 6	14.61571	20.0291 5	19.0499 9	18.3883 8	18.6228 7	6.736967	9.512739	13.83872	16.89764	19.97707	19.91963	19.80789	19.71223	19.61669
WalkSATMemory_ 0.7	10.11646	20.8455 5	14.14255	18.3822 5	14.6857 9	19.7647 1	20.2926 4	4.564348	6.472346	8.471568	10.58916	12.79682	13.36775	17.74571	20.58687	20.56661
WalkSATMemory_ 0.8	9.319822	20.8729 3	11.27219	14.0049 1	11.3604 4	19.5992 7	20.3479 9	5.204007	5.181784	6.152733	8.432724	9.021961	8.983691	12.67446	12.42608	13.35989
WalkSATMemory_ 0.9	7.613325	20.9118 3	7.650169	14.0327 5	10.6718 1	13.6980 2	14.7236 6	4.867534	6.54103	7.72533	8.89467	8.985445	10.32414	12.70271	13.04726	13.03195
WalkSAT_0.25	13.98976	20.7853	19.10952	20.7560 7	20.3465 2	19.8046 6	20.1508 8	6.052089	8.637639	13.42547	13.86202	19.87258	20.58611	20.56197	20.5239	20.50272
WalkSAT_0.5	10.24488	20.8169 7	9.322686	14.1411 4	13.5572 5	19.5479 8	20.2762 5	5.273	6.068426	9.329456	9.979383	9.947265	10.70419	13.77414	12.33146	13.93625
WalkSAT_0.75	12.21105	20.8786 2	8.434246	13.8303 9	11.8989 8	12.7080 5	14.0664 4	4.219508	6.472346	9.060912	8.951051	10.75971	11.37355	13.64155	13.84888	12.48792

Median CPU Time																
	blockswor ld	glass	graphcolori ng	hgen2	logistics	qcp	qwh- rand	ransat_05 0	ransat_10 0	ransat_15 0	ransat_20 0	ransat_25 0	ransat_30 0	ransat_40 0	ransat_50 0	ransat_60 0
GSAT	1.13	600	0.030382	58.44	600	600.01	600.03	0.001165	0.002348	0.032968	0.178579	3.86	2.91	600	600	600
GSATRW_0.25	1.5	600	0.030076	47.21	600	600.05	600.03	0.000937	0.001331	0.02335	0.151653	1.73	2.13	600	600	600
GSATRW_0.5	1.04	600	0.126012	153.69	600	600.02	600.01	0.000701	0.002202	0.03221	0.089923	2.93	6.5	65.19	600	600
GSATRW_0.75	304.08	600	21.26	600	600	600.02	600.03	0.001874	0.010079	3.63	13.7	600	600	600	600	600
HSAT	0.893846	600	0.002539	0.71518 9	600	600.02	600.02	0.000785	0.000752	0.004105	0.011046	0.026304	0.036518	2.12	9.82	5.94
HSATBounded_10	0.261218	600	0.007306	29.46	600	600.02	600.03	0.000555	0.000898	0.023118	0.061575	0.749623	0.92521	381.54	600	600
HSATRW_0.25	0.11504	600	0.002855	6.84	600	600.02	600.02	0.000762	0.000989	0.009472	0.013884	0.090968	0.214907	13.55	132.49	93.12
HSATRW_0.5	0.10467	600	0.009549	44.21	600	600.01	600.02	0.000713	0.001668	0.027383	0.051874	0.309833	1.13	129	600	600
HSATRW_0.75	128.72	600	4.09	600	600	600.02	600.01	0.001206	0.013799	1.06	25.53	600	600	600	600	600
WalkSATMemory_ 0.7	0.024221	600.0 1	0.836505	53.19	1.72	600.65	601.63	0.00063	0.000761	0.003354	0.025094	0.233661	0.412216	33.62	600	600.11
WalkSATMemory_ 0.8	0.011334	600.0 3	0.048358	0.65779 1	0.06432 9	605.4	602.27	0.000631	0.00045	0.000773	0.003433	0.006144	0.005973	0.206628	0.164297	0.421755
WalkSATMemory_ 0.9	0.003748	600.0 3	0.002843	0.59297 4	0.03178 5	1.61	2.03	0.000631	0.00067	0.001718	0.004133	0.005367	0.017965	0.164296	0.25902	0.264883
WalkSAT_0.25	1.12	600.0 4	120.46	600.01	600.1	605.38	602.84	0.001038	0.003676	0.427351	0.679043	284.05	600.01	600.05	600.09	600.1
WalkSAT_0.5	0.027394	600.0 2	0.008237	0.76857 2	0.60501 2	604.5	603.67	0.000605	0.000596	0.007481	0.013866	0.015258	0.029702	0.63778	0.154537	0.770218
WalkSAT_0.75	0.153482	600	0.00424	0.50293 9	0.11206 7	0.68821 3	0.95401 5	0.000592	0.000695	0.004938	0.005063	0.027361	0.044623	0.461342	0.58809	0.160523

Success Count																	
	blocksworl d	glas s	graphcolori ng	hgen 2	logistic s	qc p	qwh - rand	ransat_05 0	ransat_10 0	ransat_15 0	ransat_20 0	ransat_25 0	ransat_30 0	ransat_40 0	ransat_50 0	ransat_60 0	Total Successe s
GSAT	1	0	4	10	0	1	0	10	10	10	10	10	9	3	1	0	79
GSATRW_0.25	2	1	4	9	0	2	0	10	10	10	10	10	9	3	3	2	85
GSATRW_0.5	2	1	4	8	0	2	0	10	10	10	10	10	9	5	3	0	84
GSATRW_0.75	1	0	2	0	0	0	0	10	10	10	10	4	3	0	0	0	50
HSAT	2	0	4	10	0	1	0	10	10	10	10	10	9	7	8	6	97
HSATBounded_10	1	0	4	9	0	1	0	10	10	10	10	10	9	5	0	0	79
HSATRW_0.25	2	1	4	10	0	2	0	10	10	10	10	10	9	7	6	5	96
HSATRW_0.5	2	1	4	9	0	2	0	10	10	10	10	10	9	6	2	1	86
HSATRW_0.75	1	0	2	0	0	0	0	10	10	10	10	4	3	0	0	0	50
WalkSATMemory_ 0.7	2	1	3	8	4	1	0	10	10	10	10	10	9	5	3	2	88
WalkSATMemory_ 0.8	2	1	4	10	4	2	0	10	10	10	10	10	9	7	8	7	104
WalkSATMemory_ 0.9	2	1	4	10	4	10	10	10	10	10	10	10	9	7	8	7	122
WalkSAT_0.25	1	0	2	0	0	0	0	10	10	10	10	9	4	0	0	0	56
WalkSAT_0.5	2	1	4	10	4	2	0	10	10	10	10	10	9	7	8	7	104
WalkSAT_0.75	2	1	4	10	4	10	10	10	10	10	10	10	9	7	8	7	122

