Computational Results for BOMIP

10-12-2018

Algorithm	Instance	nNDP	nIPF	TT	IPT	LPT	nIP	nLex	RLIP	nScal	nGood	nLP	nBox	nSIS	nZL
ϵTM	21	15636	295	10050.9	7540.9	2505.9	15923	43	15837	0	0	86952	1	0	0
	22	18825	410	12925.5	10011.8	2909.0	19205	24	19157	0	0	98130	1	0	0
	23	16420	343	11192.4	8264.4	2923.6	16752	25	16702	0	0	102407	1	0	0
	24	18471	457	13834.5	10859.3	2971.3	18968	36	18896	0	0	101213	1	0	0
	25	13216	337	8365.9	6085.1	2278.0	13518	21	13476	0	0	79127	1	0	0
ϵTM-PWL	21	15636	295	3370.1	871.1	2495.5	634	43	548	0	0	86952	1	0	0
	22	18825	410	4114.2	1056.6	3053.7	846	24	798	0	0	98130	1	0	0
	23	16420	343	4062.1	1051.5	3006.4	715	25	665	0	0	102407	1	0	0
	24	18507	460	4829.1	1726.5	3098.6	1178	36	1106	0	0	101944	1	0	0
	25	13216	337	3202.3	877.1	2322.6	697	21	655	0	0	79127	1	0	0
BLM-Recursive	21	15725	294	6462.0	5014.4	1446.4	6552	1374	0	2737	1067	45193	2427	1067	1353
	22	18856	410	7820.4	6093.7	1725.4	8221	1772	0	3292	1385	53663	3123	1385	1716
	23	16463	343	7201.1	5595.2	1604.6	7097	1498	0	2959	1142	47527	2626	1142	1475
	24	18563	460	9512.4	7625.7	1885.2	9635	2063	0	3937	1572	57480	3621	1572	2069
	25	13248	337	5482.0	4261.4	1219.5	6417	1311	0	2786	1009	39407	2288	1009	1256
PureLex	21	15685	294	7025.3	5649.8	1374.2	7918	1598	3493	0	1229	41643	2813	1229	1577
	22	18824	410	8933.6	7287.5	1644.4	10126	2046	4463	0	1571	49956	3583	1571	1990
	23	16439	343	7951.3	6382.1	1567.7	8656	1737	3859	0	1323	43878	3047	1323	1714
	24	18526	460	11859.4	10033.4	1824.1	12708	2464	5816	0	1964	54459	4414	1964	2515
	25	13230	337	5970.9	4832.2	1137.4	7604	1533	3351	0	1187	35526	2688	1187	1478
SpureLex-0.05	21	15642	295	9573.2	7148.8	2420.7	15995	59	15877	0	0	80734	34	0	16
	22	18827	410	12466.7	9660.5	2802.4	19272	41	19190	0	0	90902	34	0	15
	23	16417	343	10969.1	8002.6	2962.7	16810	40	16730	0	0	92598	32	0	15
	24	18472	457	13252.1	10318.1	2930.0	19036	52	18932	0	0	95781	34	0	16
	25	13217	337	8118.8	5958.3	2157.5	13580	36	13508	0	0	72417	32	0	15
SpureLex-PWL-0.05	21	15642	295	3476.5	879.7	2594.0	731	59	613	0	0	80734	34	0	16
	22	18827	410	4058.9	1061.2	2994.6	941	41	859	0	0	90902	34	0	15
	23	16417	343	4130.8	1021.5	3106.1	805	40	725	0	0	92598	32	0	15
	24	18507	460	4755.5	1690.3	3061.3	1275	52	1171	0	0	96460	34	0	16
	25	13217	337	3209.4	865.6	2341.3	787	36	715	0	0	72417	32	0	15
SpureLex-0.005	21	15652	295	8964.6	7585.0	1376.3	16046	196	15642	0	12	44467	295	12	148
	22	18812	410	11837.0	9953.2	1880.0	19618	177	19262	0	2	61637	298	2	145
	23	16428	343	10100.1	8397.5	1699.1	17145	166	16811	0	2	50220	280	2	139
	24	18457	457	12841.0	10829.5	2007.5	19234	191	18845	0	7	62806	298	7	147
	25	13216	337	7370.1	6090.6	1276.7	13839	172	13487	0	8	43122	287	8	139
SPureLex-PWL-0.005	21	15652	295	2701.0	1193.9	1505.2	1522	196	1118	0	12	44467	295	12	148
	22	18812	410	3460.2	1430.1	2027.7	1731	177	1375	0	2	61637	298	2	145
	23	16428	343	3159.2	1296.0	1861.1	1550	166	1216	0	2	50220	280	2	139
	24	18482	460	4216.2	1961.6	2251.8	2056	191	1667	0	7	63157	298	7	147
	25	13216	337	2586.3	1146.8	1437.8	1554	172	1202	0	8	43122	287	8	139

Table 1: Reults for Historical intances

Algorithm	Instance	nNDP	nIPF	TT	IPT	LPT	nIP	nLex	RLIP	nScal	nGood	nLP	nBox	nSIS	nZL
ϵTM	A	22502	7501	36296.0	35481.4	675.1	37141	369	36403	0	0	36403	1	0	0
	B	22508	7501	36222.6	35415.6	669.5	37138	382	36374	0	0	36365	1	0	0
	C	22506	7501	36086.3	35286.2	663.6	37138	381	36376	0	0	36370	1	0	0
ϵTM-PWL	A	22501	7501	58944.1	58124.7	668.2	30010	369	29272	0	0	36403	1	0	0
	B	22500	7501	59383.5	58563.4	670.1	30013	382	29249	0	0	36365	1	0	0
	C	22502	7501	59776.6	58910.1	710.7	30011	381	29249	0	0	36370	1	0	0
BLM-Recursive	A	22502	7501	6101.1	3265.4	2648.3	44513	5303	0	33907	0	110266	5275	1	5249
	B	22502	7501	5898.9	3088.8	2623.6	44530	5381	0	33768	0	110205	5343	1	5307
	C	22504	7501	5778.7	3004.2	2589.2	44493	5259	0	33975	0	110033	5228	1	5199
PureLex	A	22502	7501	5600.5	2667.8	2727.5	116515	21896	72723	0	0	115994	21834	7954	21766
	B	22502	7501	5590.9	2661.6	2722.4	116357	21850	72657	0	0	115849	21797	7939	21742
	C	22502	7501	5603.5	2663.7	2732.3	116375	21849	72677	0	0	115879	21797	7960	21747
SpureLex-0.05	A	22502	7501	1927.4	1058.6	761.9	37273	391	36491	0	0	36573	46	7	22
	B	22502	7501	1963.7	1074.7	778.2	37257	404	36449	0	0	36532	46	7	22
	C	22502	7501	1939.4	1063.4	765.3	37256	404	36448	0	0	36527	46	7	20
SpureLex-PWL-0.05	A	22502	7501	2211.3	1310.1	777.9	30149	391	29367	0	0	36573	46	7	22
	B	22502	7501	2229.7	1323.5	784.6	30146	404	29338	0	0	36532	46	7	22
	C	22502	7501	2178.0	1299.2	758.0	30142	404	29334	0	0	36527	46	7	20
SpureLex-0.005	A	22502	7501	1790.9	865.2	821.7	38357	583	37191	0	0	38084	434	40	213
	B	22502	7501	1782.6	863.7	816.3	38353	594	37165	0	0	38042	434	42	215
	C	22502	7501	1786.6	866.0	813.1	38354	597	37160	0	0	38032	434	46	211
SPureLex-PWL-0.005	A	22502	7501	1832.3	904.3	810.0	31343	583	30177	0	0	38084	434	40	213
	B	22502	7501	1820.3	901.0	804.3	31351	594	30163	0	0	38042	434	42	215
	C	22502	7501	1837.8	909.7	810.4	31346	597	30152	0	0	38032	434	46	211

Table 2: Reults for Rand intances

Algorithm	Instance	nNDP	nIPF	TT	IPT	LPT	nIP	nLex	RLIP	nScal	nGood	nLP	nBox	nSIS	nZL
ϵTM	1000.A	3003	1001	101.8	84.7	15.0	4956	54	4848	0	0	4849	1	0	0
	1500.A	4503	1501	251.4	215.0	31.8	7434	77	7280	0	0	7281	1	0	0
	2000.A	6003	2001	508.9	445.5	55.1	9896	114	9668	0	0	9669	1	0	0
	5000.A	15003	5001	6004.5	5605.0	339.9	24772	239	24294	0	0	24295	1	0	0
	7500.A	22502	7501	18920.8	18058.4	716.8	37142	370	36402	0	0	36403	1	0	0
	10000.A	30004	10001	42413.0	40947.7	1189.7	49528	490	48548	0	0	48546	1	0	0
ϵTM-PWL	1000.A	3003	1001	232.2	214.5	15.3	4007	54	3899	0	0	4849	1	0	0
	1500.A	4503	1501	649.4	611.8	32.4	6008	77	5854	0	0	7281	1	0	0
	2000.A	6003	2001	1522.5	1457.0	55.6	8007	114	7779	0	0	9669	1	0	0
	5000.A	15003	5001	21483.9	21105.3	315.4	20056	239	19578	0	0	24295	1	0	0
	7500.A	22502	7501	60424.9	59557.6	707.7	30009	370	29269	0	0	36403	1	0	0
	10000.A	29996	10001	145835.9	144329.0	1205.9	40014	490	39034	0	0	48546	1	0	0
BLM-Recursive	1000.A	3003	1001	385.3	331.1	50.6	5919	999	0	3921	0	14050	997	2	997
	1500.A	4503	1501	1690.2	1571.4	110.4	8874	1487	0	5900	0	21072	1485	2	1485
	2000.A	6004	2001	4638.5	4428.2	194.8	11803	1997	0	7809	0	28053	1995	2	1995
	5000.A	15003	5001	84915.2	83826.7	986.1	29559	4996	0	19567	0	69979	4994	2	4994
PureLex	1000.A	3003	1001	118.4	55.5	59.1	15489	2901	9687	0	0	15439	2898	1029	2897
	1500.A	4503	1501	251.1	118.6	124.3	23342	4405	14532	0	0	23193	4378	1964	4353
	2000.A	6003	2001	427.8	201.9	211.5	30890	5781	19328	0	0	30789	5779	2043	5777
	5000.A	15003	5001	2539.1	1199.5	1248.6	77607	14620	48367	0	0	77499	14578	5875	14532
	7500.A	22502	7501	5764.6	2701.7	2856.4	116393	21830	72733	0	0	115969	21798	8512	21760
	10000.A	30002	10001	9681.7	4527.0	4810.1	155070	29202	96666	0	0	154872	29126	11660	29044
SpureLex-0.05	1000.A	3003	1001	39.6	21.4	16.3	5074	73	4928	0	0	5006	44	5	21
	1500.A	4503	1501	86.3	46.1	36.0	7562	98	7366	0	0	7450	46	8	22
	2000.A	6003	2001	145.3	78.7	59.4	10022	136	9750	0	0	9834	46	7	21
	5000.A	15003	5001	883.8	482.1	355.9	24901	261	24379	0	0	24464	46	5	22
	7500.A	22502	7501	2000.3	1088.5	801.2	37274	392	36490	0	0	36569	46	7	22
	10000.A	30002	10001	3485.3	1902.5	1389.1	49652	511	48630	0	0	48718	46	6	22
SpureLex-PWL-0.05	1000.A	3003	1001	44.2	25.8	16.2	4136	73	3990	0	0	5006	44	5	21
	1500.A	4503	1501	92.7	54.0	34.2	6141	98	5945	0	0	7450	46	8	22
	2000.A	6003	2001	165.8	96.9	60.5	8139	136	7867	0	0	9834	46	7	21
	5000.A	15003	5001	991.3	588.6	351.1	20150	261	19628	0	0	24464	46	5	22
	7500.A	22502	7501	2249.3	1324.8	799.6	30151	392	29367	0	0	36569	46	7	22
	10000.A	30002	10001	3870.2	2291.8	1365.1	40147	511	39125	0	0	48718	46	6	22
SpureLex-0.005	1000.A	3003	1001	43.2	20.8	20.3	6006	230	5546	0	0	6268	366	37	181
	1500.A	4503	1501	86.7	41.4	40.8	8563	266	8031	0	0	8784	392	43	193
	2000.A	6003	2001	151.3	72.2	71.1	11038	299	10440	0	0	11216	404	39	200
	5000.A	15003	5001	836.2	402.1	386.8	25988	449	25090	0	0	25969	428	39	212
	7500.A	22502	7501	1824.5	882.5	838.0	38350	586	37178	0	0	38041	434	45	208
	10000.A	30002	10001	3100.2	1504.2	1416.8	50711	704	49303	0	0	50286	436	52	216
SPureLex-PWL-0.005	1000.A	3003	1001	46.6	22.7	21.4	5087	230	4627	0	0	6268	366	37	181
	1500.A	4503	1501	92.2	44.9	42.2	7174	266	6642	0	0	8784	392	43	193
	2000.A	6003	2001	152.3	74.4	69.1	9197	299	8599	0	0	11216	404	39	200
	5000.A	15003	5001	841.9	413.4	376.3	21300	449	20402	0	0	25969	428	39	212
	7500.A	22502	7501	1876.8	923.9	835.5	31322	586	30150	0	0	38041	434	45	208
	10000.A	30002	10001	3206.9	1583.1	1421.9	41319	704	39911	0	0	50286	436	52	216

Table 3: Reults for Bent intances