## March 15, 2017

## Abstract

1

Table 1: Maxit = 100;  $\alpha$  = 0.5; 1 X 10 instancias; media; arvore, antigo LCR

	GREED			LS	GRASP	
V	obser.	tempo (s)	obser.	tempo (s)	obser.	tempo (s)
10	4.2	1	4.1	1	4	1
20	8.4	1	8.1	1	8	1
30	12.2	1	12.1	1	11.9	1
40	16.4	1	16.3	1	16.1	1
50	20.5	1	20.3	1	19.8	1
60	25.4	1	24.9	1	24.5	1
70	30.1	1	29.9	1	28.9	1
80	32.7	1	32.1	1	31.8	1
90	37	1	36.5	1	36.2	1
100	41.9	1	41.2	1	41.3	1
150	63	1	62	1	62.8	1
200	85.7	1	84.8	1	85.8	1
250	106.6	1	105.5	1	108.5	1
300	126.9	1	125	1	130.9	1
350	150.3	1	148	1	154.2	1

Table 2: Maxit = 100;  $\alpha$  = 0.5; 1 X 10 instancias; media; grafo, antigo LCR

	GREED		LS		GRASP		
V	obser.	tempo (s)	obser.	tempo (s)	obser.	tempo (s)	loops
10	6	1	5.9	1	5.8	1	1
20	11.6	1	11.4	1	11.1	1	1
30	18.3	1	18.1	1	16.9	1	1
40	23.8	1	23.4	1	22.3	1	1
50	28.8	1	28.1	1	27.6	1	1
60	36.1	1	35.7	1	34.3	1	1
70	41.9	1	41.7	1	39.3	1	1
80	46.4	1	45.7	1	44.8	1	1
90	52.2	1	51.3	1	51	1	1
100	58.5	1	57.8	1	56.7	1	1

Table 3: Maxit = 100;  $\alpha$  = 0.1; 1 X 10 instancias; media; grafo, antigo LCR

	GREED		LS		GRASP		
V	obser.	tempo (s)	obser.	tempo (s)	obser.	tempo (s)	loops
10	4.2	0	4.1	0	4.1	0.0016	101
20	8.4	0	8.1	0	8	0.0084	101.5
30	12.2	0	12.1	0	11.9	0.0216	103
40	16.4	0	16.3	0	16.1	0.04	104.7
50	20.5	0	20.3	0	19.7	0.066	102.7
60	25.4	0	24.9	0	24.3	0.1136	108.7
70	30.1	0	29.9	0	28.6	0.1828	119
80	32.7	0.0004	32.1	0	31.3	0.286	126
90	37	0.0008	36.5	0.0008	35.3	0.3872	125.4
100	41.9	0.0008	41.2	0	40.2	0.5272	129.4
150	63	0.0008	62	0.0012	60.9	1.8872	142.4
200	85.7	0.0008	84.8	0.0036	83.6	4.7916	138.7
250	106.6	0.002	105.5	0.008	103.8	14.1964	159
300	126.9	0.0044	125	0.0196	123.9	34.302	159.9
350	150.3	0.0064	148	0.0464	146.7	59.822	141.5

Table 4: Maxit = 100;  $\alpha$  = 0.2; 1 X 10 instancias; media; grafo, antigo LCR

	GREED			LS		GRASP		
V	obser.	tempo (s)	obser.	tempo (s)	obser.	tempo (s)	loops	
10	4.2	0	4.1	0	4	0.0012	101.6	
20	8.4	0	8.1	0	8	0.0092	101.9	
30	12.2	0	12.1	0	11.9	0.024	103.9	
40	16.4	0.0004	16.3	0	16.1	0.0488	105.8	
50	20.5	0	20.3	0	19.7	0.0912	111.8	
60	25.4	0	24.9	0	24.3	0.1612	121	
70	30.1	0	29.9	0	28.7	0.2532	122.3	
80	32.7	0	32.1	0	31.4	0.4544	144.8	
90	37	0	36.5	0.0004	35.6	0.5072	114	
100	41.9	0.0004	41.2	0.0004	40.2	0.7764	133	
150	63	0.0008	62	0.0016	61.4	2.7844	132.7	
200	85.7	0.0008	84.8	0.0028	84.2	9.362	157.6	
250	106.6	0.002	105.5	0.0064	105.9	26.8912	165.1	
300	126.9	0.0048	125	0.0212	125.7	64.6456	165.6	
350	150.3	0.0072	148	0.0368	150	132.015	168.6	

Table 5: Maxit = 100; Reativo; B = 10 ; 1 X 10 instancias; media; arvores, antigo LCR

	GREED		LS		GRASP			
V	obser.	tempo (s)	obser.	tempo (s)	obser.	tempo (s)	loops	
10	4.2	0	4.1	0	4	0.0008	103.6	
20	8.3	0	8.2	0	8	0.0128	104.4	
30	12.2	0.0004	12.2	0	11.9	0.0364	104.1	
40	16.4	0	16.2	0	16.2	0.0828	111.6	
50	20.5	0.0004	20.2	0.0004	19.9	0.1472	110.4	
60	25.4	0.0004	25	0	25	0.286	115.5	
70	30.1	0	29.8	0	29.2	0.4792	120.7	
80	32.7	0.0004	32.5	0.0008	31.9	0.882	145.6	
90	36.8	0.0004	36.3	0.0004	36.3	1.1288	127.6	
100	42.1	0.0004	41.2	0.0008	42.3	1.45	119.3	
150	62.9	0	62.1	0.0012	64.1	5.6732	118.2	
200	85.8	0.0008	84.7	0.0044	86.5	17.7372	131.5	
250	106.6	0.0032	105.7	0.0072	110.4	45.5888	109.7	
300	126.9	0.0032	124.9	0.02	132.1	112.125	114.7	
350	150.3	0.0072	148.4	0.0352	153.8	247.522	124.9	

Table 6: Maxit = 100; Reativo; B = 20 ; 1 X 10 instancias; media; arvores, antigo LCR

	GREED		LS		GRASP		
V	obser.	tempo (s)	obser.	tempo (s)	obser.	tempo (s)	loops
10	4.2	0	4.2	0	4	0.0012	102.6
20	8.3	0	8.2	0	8	0.0124	103.5
30	12.2	0	12.2	0	11.9	0.0344	103.5
40	16.3	0	16.3	0.0004	16.2	0.0764	107.7
50	20.5	0	20.4	0	19.8	0.1428	107.2
60	25.4	0	25.2	0	24.5	0.2704	113.8
70	30.1	0.0004	29.7	0	29.1	0.4504	118.2
80	32.8	0.0004	32.4	0.0004	32.3	0.7344	123.2
90	37	0	36.3	0.0008	36.2	1.044	120.2
100	41.8	0	41.4	0.0008	41.3	1.366	114.4
150	62.9	0.0004	62.2	0.0008	63.9	5.594	125.9
200	85.6	0.0008	84.9	0.0032	86.5	15.7508	121.8
250	106.7	0.0028	104.9	0.0088	108.7	47.0552	127.1
300	126.9	0.004	124.9	0.0212	131.4	112.871	124.3
350	150.3	0.006	147.6	0.0464	153.5	241.822	134.3

Table 7: Maxit = 100;  $\alpha$  = 0.1; 1 X 10 instancias; media; arvore

	GREED		LS		GRASP		
V	obser.	tempo (s)	obser.	tempo (s)	obser.	tempo (s)	loops
10	4.2	0	4.1	0	4	0.0012	102.4
20	8.4	0	8.2	0	8	0.012	103.2
30	12.2	0	12.2	0	11.9	0.0348	106.4
40	16.4	0	16.3	0	16.1	0.076	107.6
50	20.5	0	20.1	0	19.9	0.1756	131.6
60	25.3	0	25.2	0.0008	24.7	0.2852	121.9
70	30.1	0.0008	29.8	0	29.1	0.5012	129.7
80	32.8	0.0004	32.1	0.0004	32.2	0.9048	150.2
90	36.9	0.0004	36.3	0.0004	36.3	1.2616	144.4
100	41.9	0	40.9	0.0004	41.3	2.0428	164.8
150	62.9	0	62.2	0.0012	63.3	7.0532	156.1
200	85.7	0.0008	84.5	0.0032	88	19.0184	144.6
250	106.8	0.002	104.8	0.0104	110.4	54.4192	151.8
300	126.9	0.0044	125.3	0.0196	133.1	153.018	159
350	150.3	0.0064	148.3	0.0452	157.7	274.915	140.2

Table 8: Maxit = 100;  $\alpha$  = 0.2; 1 X 10 instancias; media; arvore

	C1	REED	LS GRASP			CRASP		
V	obser.	tempo (s)	obser.	tempo (s)	obser.	tempo (s)	loops	
10	4.2	0	4.1	0	4	0.0024	102	
20	8.4	0	8.3	0	8	0.0116	103.5	
30	12.2	0	12.1	0	11.9	0.0356	110.5	
40	16.3	0	16.3	0	16.1	0.082	115.1	
50	20.5	0	20.2	0	20	0.1468	110.6	
60	25.3	0	25	0	24.8	0.2944	124.1	
70	30.1	0	29.9	0	29.1	0.5292	137.3	
80	32.7	0	32.5	0.0004	32.2	0.924	155	
90	36.9	0	36.5	0.0004	36.3	1.2568	141.3	
100	42	0.0008	41.3	0	41.4	1.7708	144.6	
150	62.9	0	62.3	0.0008	63.7	7.3932	155.7	
200	85.7	0.0004	84.6	0.0032	87.2	20.4132	152.5	
250	106.9	0.0028	104.8	0.0112	110.5	62.992	161.6	
300	127	0.004	124.9	0.0208	132.2	168.999	181.4	
350	150.3	0.0056	147.9	0.0408	157.2	337.108	173.1	