Table SPLP opt

Strategy	**Optima**	$\bar{X}$ **rel. cost**	**Time**[s]	**Time LS**[%]	$\bar{X}$ **iters.**	$\bar{X}$ **local opt.**
res1/dc_bes_200_0/splp/	549/694	1.001013	29757	84.85	16.182	318.233
res1/dc_ran_200_0/splp/	570/694	1.001520	299267	97.41	29.932	2910.935
res1/dc_dishaumin_200_400/splp/	512/694	1.002234	2130662	9.94	29.973	1634.867
res1/dc_dishausum_200_400/splp/	576/694	1.002590	1254870	6.89	24.154	1357.674
res1/dc_dismsemin_200_400/splp/	507/694	1.002219	1943248	13.20	28.295	1901.599
res1/dc_dismsesum_200_400/splp/	619/694	1.000754	1146083	5.25	21.085	1496.866
res1/dc_discli_200_400/splp/	608/694	1.000842	1890203	2.58	21.412	1365.602
res1/dc_bes_400_0/splp/	570/694	1.000922	38159	77.42	16.408	459.124
res1/dc_ran_400_0/splp/	606/694	1.000945	455862	96.84	29.865	5399.463
res1/dc_dishaumin_400_600/splp/	538/694	1.001671	5852133	7.15	30.795	2966.291
res1/dc_dishausum_400_600/splp/	602/694	1.002375	3487680	5.05	24.870	2510.524
res1/dc_dismsemin_400_600/splp/	523/694	1.002209	5611763	9.75	28.755	3553.195
res1/dc_dismsesum_400_600/splp/	645/694	1.000442	3450418	3.18	21.599	2788.522
res1/dc_discli_400_600/splp/	640/694	1.000645	5628407	1.60	21.878	2405.316
res1/dc_bes_1000_0/splp/	605/694	1.000567	100314	80.02	16.771	753.559
res1/dc_ran_1000_0/splp/	647/694	1.000406	1267835	97.06	30.585	12719.461

Table SPLP bub

Strategy	**Better**	**Same**	**Worse**	$\bar{X}$ **rel. cost**	**Time**[s]	**Time LS**[%]
res1/dc_bes_200_0/splp/	9	46	40	1.000047	26001	86.78 243 246
res1/dc_ran_200_0/splp/	24	57	14	0.999959	255750	97.82 222 225
res1/dc_dishaumin_200_400/splp/	24	56	15	0.999967	1150736	15.44 280 283
res1/dc_dishausum_200_400/splp/	22	53	20	0.999968	632782	10.91 216 219
res1/dc_dismsemin_200_400/splp/	26	55	14	0.999966	1359372	16.75 285 288
res1/dc_dismsesum_200_400/splp/	27	56	12	0.999963	785040	6.28 173 176
res1/dc_discli_200_400/splp/	26	53	16	0.999964	1539104	2.77 184 187
res1/dc_bes_400_0/splp/	11	49	35	1.000033	31791	80.58 222 225
res1/dc_ran_400_0/splp/	28	54	13	0.999956	389419	97.43 186 189
res1/dc_dishaumin_400_600/splp/	28	56	11	0.999955	3060817	11.41 254 257
res1/dc_dishausum_400_600/splp/	25	53	17	0.999961	1709975	8.30 190 193
res1/dc_dismsemin_400_600/splp/	26	55	14	0.999959	3796601	12.65 269 272
res1/dc_dismsesum_400_600/splp/	27	57	11	0.999955	2047713	4.15 147 150
res1/dc_discli_400_600/splp/	27	57	11	0.999956	4519689	1.72 152 155
res1/dc_bes_1000_0/splp/	11	53	31	1.000011	84292	82.16 187 190
res1/dc_ran_1000_0/splp/	28	60	7	0.999950	1072913	97.61 145 148

Table p-median normal opt

Strategy	**Optima**	$\bar{X}$ **rel. cost**	**Time**[s]	**Time LS**[%]	$\bar{X}$ **iters.**	$\bar{X}$ **local opt.**
res1/dc_bes_200_0/pmedian/	23/35	1.000976	8926	87.70	31.000	1180.971
res1/dc_ran_200_0/pmedian/	30/35	1.000074	46574	97.36	31.000	1928.314
res1/dc_dishaumin_200_400/pmedian/	28/35	1.000218	869309	5.36	31.000	1268.829
res1/dc_dishausum_200_400/pmedian/	26/35	1.000639	523778	3.19	31.000	635.371
res1/dc_dismsemin_200_400/pmedian/	31/35	1.000133	450592	4.10	31.000	1761.286
res1/dc_dismsesum_200_400/pmedian/	30/35	1.000146	358897	3.65	31.000	2008.029
res1/dc_discli_200_400/pmedian/	29/35	1.000206	722348	2.76	31.000	2200.943
res1/dc_bes_400_0/pmedian/	23/35	1.000925	16664	85.80	31.000	1903.714
res1/dc_ran_400_0/pmedian/	32/35	1.000043	103353	97.52	31.000	3481.371
res1/dc_dishaumin_400_600/pmedian/	28/35	1.000200	2525136	3.82	31.000	2458.714
res1/dc_dishausum_400_600/pmedian/	27/35	1.000577	1451053	2.22	31.000	1054.171
res1/dc_dismsemin_400_600/pmedian/	33/35	1.000061	824826	5.10	31.000	3147.171
res1/dc_dismsesum_400_600/pmedian/	30/35	1.000133	953179	3.51	31.000	3504.571
res1/dc_discli_400_600/pmedian/	30/35	1.000084	2762511	1.83	31.000	3856.657
res1/dc_bes_1000_0/pmedian/	24/35	1.000782	43403	85.85	31.000	3877.143
res1/dc_ran_1000_0/pmedian/	33/35	1.000022	264556	97.42	31.000	7573.143

Table p-median large opt

Strategy	**Optima**	$\bar{X}$ **rel. cost**	**Time**[s]	**Time LS**[%]	$\bar{X}$ **iters.**	$\bar{X}$ **local opt.**
res1/dc_dishaumin_50_100/pmedianlarge/	1/5	1.004014	186359	7.91	152.000	2892.000
res1/dc_dishausum_50_100/pmedianlarge/	0/5	1.004425	164381	5.11	152.000	2308.600
res1/dc_dismsemin_50_100/pmedianlarge/	1/5	1.003305	36894	18.68	152.000	5341.400
res1/dc_dismsesum_50_100/pmedianlarge/	1/5	1.002176	39147	16.11	152.000	5543.000
res1/dc_discli_50_100/pmedianlarge/	1/5	1.002671	75223	10.60	152.000	5859.400
res1/dc_bes_200_0/pmedianlarge/	0/5	1.003885	20020	92.85	152.000	13217.800
res1/dc_ran_200_0/pmedianlarge/	1/5	1.001530	107801	98.61	152.000	15401.400
res1/dc_bes_400_0/pmedianlarge/	1/5	1.003808	24504	91.43	152.000	25768.200
res1/dc_ran_400_0/pmedianlarge/	0/5	1.002256	161634	98.64	152.000	30139.800
res1/dc_bes_1000_0/pmedianlarge/	1/5	1.003989	65189	92.20	152.000	56039.600
res1/dc_ran_1000_0/pmedianlarge/	3/5	1.001343	400812	98.72	152.000	70873.400

Results on splp with known optima for dc_bes_200_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	217/220	-	0.040-0.960	3-10
CLSC	11/30	5/30	1.004207	2.700-3.100	16-16
Chess	13/30	0/30	1.003794	6.660-8.550	19-21
Euclid	17/30	0/30	1.002610	4.010-6.960	13-18
Fpp11	28/30	28/30	1.000097	4.280-6.860	17-23
Fpp17	26/30	26/30	1.000115	32.930-60.260	23-35
GalvaoRaggi	48/50	39/50	1.000527	0.950-102.610	18-88
GapA	23/30	19/30	1.011793	2.080-2.510	13-15
GapB	9/30	5/30	1.020206	2.460-2.900	16-17
KoerkelGhosh-asym	0/1	0/1	1.000240	48.730-48.730	33-33
KoerkelGhosh-sym	0/1	0/1	1.000008	45.350-45.350	34-34
M	15/15	13/15	-	0.850-9.560	6-7
ORLIB	40/40	39/40	-	0.090-17.350	6-18
PCodes	19/32	3/32	1.000139	5.790-6.670	20-21
Uniform	25/30	11/30	1.001881	2.290-2.910	14-17

Results on splp with known optima for dc_ran_200_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	18/220	-	0.060-3.900	4-16
CLSC	1/30	0/30	1.005336	21.840-28.850	32-36
Chess	12/30	0/30	1.000106	104.710-126.400	56-56
Euclid	30/30	0/30	-	16.370-20.920	25-29
Fpp11	29/30	0/30	1.000331	43.480-48.460	41-41
Fpp17	15/30	0/30	1.000237	699.340-745.850	66-66
GalvaoRaggi	50/50	0/50	-	3.340-752.490	28-100
GapA	19/30	0/30	1.029915	24.380-31.920	32-36
GapB	7/30	0/30	1.024653	26.670-34.450	35-40
KoerkelGhosh-asym	1/1	0/1	-	674.200-674.200	64-64
KoerkelGhosh-sym	1/1	0/1	-	559.550-559.550	65-65
M	15/15	0/15	-	1.680-17.250	7-8
ORLIB	40/40	0/40	-	0.190-62.300	10-32
PCodes	20/32	0/32	1.000109	78.560-86.880	49-49
Uniform	29/30	0/30	1.000649	19.830-26.880	27-32

Results on splp with known optima for dc_dishaumin_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	177/220	-	0.090-59.260	4-17
CLSC	2/30	0/30	1.018220	402.790-1180.280	26-41
Chess	7/30	0/30	1.005625	1030.440-4149.260	39-67
Euclid	30/30	0/30	-	208.500-335.780	26-30
Fpp11	14/30	6/30	1.000278	747.920-2121.570	28-52
Fpp17	3/30	2/30	1.000615	5777.720-19841.301	45-70
GalvaoRaggi	50/50	19/50	-	136.610-29799.191	35-100
GapA	10/30	1/30	1.012523	490.480-1242.920	29-47
GapB	3/30	0/30	1.023531	404.620-1322.710	27-45
KoerkelGhosh-asym	0/1	0/1	1.000062	5359.150-5359.150	62-62
KoerkelGhosh-sym	1/1	0/1	-	7612.160-7612.160	73-73
M	15/15	8/15	-	9.070-89.260	7-9
ORLIB	40/40	20/40	-	1.240-189.030	11-39
PCodes	9/32	0/32	1.000215	905.590-3616.140	32-65
Uniform	28/30	0/30	1.001079	286.100-528.590	27-36

Results on splp with known optima for dc_dishausum_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	206/220	-	0.080-34.420	3-14
CLSC	5/30	1/30	1.028597	345.610-421.240	24-27
Chess	15/30	0/30	1.004247	680.160-1061.780	33-42
Euclid	30/30	0/30	-	208.720-315.530	25-30
Fpp11	30/30	12/30	-	1128.780-1904.610	32-39
Fpp17	23/30	7/30	1.000141	10088.350-17160.750	56-63
GalvaoRaggi	50/50	28/50	-	40.390-5552.590	27-99
GapA	16/30	4/30	1.017628	217.520-307.470	22-27
GapB	5/30	0/30	1.030755	335.760-459.720	24-29
KoerkelGhosh-asym	1/1	0/1	-	2421.640-2421.640	43-43
KoerkelGhosh-sym	1/1	0/1	-	2601.830-2601.830	44-44
M	15/15	6/15	-	7.810-86.440	7-8
ORLIB	40/40	27/40	-	1.100-72.080	7-31
PCodes	23/32	1/32	1.000097	677.520-1378.160	34-43
Uniform	27/30	0/30	1.001332	118.490-171.860	19-23

Results on splp with known optima for dc_dismsemin_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	219/220	164/220	1.001826	0.090-69.620	4-16
CLSC	0/30	0/30	1.007746	533.700-774.950	28-33
Chess	4/30	1/30	1.002674	1061.050-1550.180	31-44
Euclid	30/30	0/30	-	137.550-192.550	19-23
Fpp11	15/30	5/30	1.000300	852.660-1448.910	31-39
Fpp17	1/30	1/30	1.000517	4043.750-7277.590	50-60
GalvaoRaggi	49/50	20/50	1.000372	141.440-13144.551	38-100
GapA	14/30	1/30	1.030879	454.070-845.630	29-38
GapB	2/30	0/30	1.025448	512.450-1120.100	29-37
KoerkelGhosh-asym	1/1	0/1	-	5866.110-5866.110	64-64
KoerkelGhosh-sym	1/1	0/1	-	6291.420-6291.420	67-67
M	15/15	2/15	-	10.050-88.820	7-8
ORLIB	40/40	19/40	-	1.260-193.720	11-46
PCodes	8/32	4/32	1.000250	556.130-1427.300	32-46
Uniform	27/30	0/30	1.002378	402.230-662.170	27-36

Results on splp with known optima for dc_dismsesum_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	201/220	-	0.070-27.290	3-13
CLSC	6/30	3/30	1.000220	210.620-225.740	19-22
Chess	21/30	0/30	1.000078	644.270-725.440	26-30
Euclid	30/30	0/30	-	107.380-128.440	19-23
Fpp11	30/30	30/30	-	848.110-998.740	31-37
Fpp17	29/30	28/30	1.000092	5574.020-8959.190	48-63
GalvaoRaggi	50/50	35/50	-	61.340-2019.180	22-94
GapA	24/30	9/30	1.027459	372.140-459.090	17-23
GapB	12/30	1/30	1.019639	235.050-270.100	20-22
KoerkelGhosh-asym	1/1	0/1	-	2173.960-2173.960	38-38
KoerkelGhosh-sym	0/1	0/1	1.000008	2604.780-2604.780	39-39
M	15/15	5/15	-	7.370-190.780	6-7
ORLIB	40/40	21/40	-	1.100-57.730	6-27
PCodes	30/32	4/32	1.000021	693.330-812.260	29-35
Uniform	28/30	1/30	1.001296	123.130-154.720	17-19

Results on splp with known optima for dc_discli_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	186/220	-	0.190-92.360	4-14
CLSC	5/30	3/30	1.000296	275.170-329.630	20-22
Chess	19/30	0/30	1.000075	652.360-768.000	29-33
Euclid	30/30	0/30	-	284.980-389.090	26-34
Fpp11	30/30	30/30	-	697.940-807.450	23-24
Fpp17	28/30	28/30	1.000165	5592.610-6602.990	35-35
GalvaoRaggi	50/50	22/50	-	82.470-2847.020	31-97
GapA	20/30	5/30	1.008375	263.780-296.450	19-23
GapB	9/30	2/30	1.023591	281.940-333.210	21-23
KoerkelGhosh-asym	1/1	0/1	-	3765.470-3765.470	38-38
KoerkelGhosh-sym	0/1	0/1	1.000008	3782.770-3782.770	38-38
M	15/15	12/15	-	27.710-475.940	7-8
ORLIB	40/40	20/40	-	1.630-671.220	6-40
PCodes	32/32	3/32	-	615.910-663.630	28-30
Uniform	30/30	0/30	-	258.030-307.710	19-22

Results on splp with known optima for dc_bes_400_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	219/220	-	0.070-1.560	3-10
CLSC	14/30	9/30	1.004901	4.900-5.820	16-16
Chess	18/30	0/30	1.000180	11.750-15.110	19-20
Euclid	17/30	0/30	1.003101	6.830-10.980	13-17
Fpp11	30/30	30/30	-	9.990-13.750	19-23
Fpp17	27/30	27/30	1.000104	56.690-97.770	23-35
GalvaoRaggi	46/50	43/50	1.000706	1.420-150.380	18-87
GapA	24/30	20/30	1.013754	3.860-4.710	13-15
GapB	12/30	9/30	1.023537	5.540-6.410	16-17
KoerkelGhosh-asym	0/1	0/1	1.000147	75.570-75.570	34-34
KoerkelGhosh-sym	0/1	0/1	1.000008	72.390-72.390	34-34
M	15/15	15/15	-	1.400-16.420	6-8
ORLIB	40/40	39/40	-	0.230-34.360	6-18
PCodes	21/32	5/32	1.000126	8.790-10.280	20-21
Uniform	26/30	13/30	1.001272	4.320-5.310	14-18

Results on splp with known optima for dc_ran_400_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	54/220	-	0.090-5.830	3-17
CLSC	6/30	0/30	1.003354	29.780-38.290	33-37
Chess	13/30	0/30	1.000107	153.220-175.860	51-51
Euclid	30/30	0/30	-	27.290-36.090	26-30
Fpp11	30/30	0/30	-	77.460-89.460	40-40
Fpp17	21/30	0/30	1.000173	1085.160-1177.640	65-65
GalvaoRaggi	50/50	0/50	-	5.920-1024.130	30-100
GapA	28/30	0/30	1.040935	38.060-48.810	34-38
GapB	9/30	0/30	1.023519	37.880-48.600	35-39
KoerkelGhosh-asym	1/1	0/1	-	952.070-952.070	67-67
KoerkelGhosh-sym	1/1	0/1	-	1056.720-1056.720	66-66
M	15/15	0/15	-	2.440-26.550	7-8
ORLIB	40/40	6/40	-	0.330-135.190	11-30
PCodes	30/32	0/32	1.000166	106.800-120.080	48-48
Uniform	30/30	0/30	-	28.740-38.420	27-31

Results on splp with known optima for dc_dishaumin_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	181/220	-	0.090-137.860	3-17
CLSC	3/30	0/30	1.003022	1404.530-3250.660	26-42
Chess	12/30	0/30	1.000188	3286.610-13919.120	40-75
Euclid	30/30	0/30	-	686.370-984.980	26-32
Fpp11	17/30	5/30	1.000265	2413.580-5425.970	28-51
Fpp17	4/30	2/30	1.000641	17302.201-44975.691	45-71
GalvaoRaggi	50/50	19/50	-	372.480-67092.055	37-100
GapA	19/30	1/30	1.037375	1548.200-4767.930	31-47
GapB	3/30	0/30	1.023653	1351.610-3362.200	27-45
KoerkelGhosh-asym	1/1	0/1	-	14331.110-14331.110	63-63
KoerkelGhosh-sym	1/1	0/1	-	18195.580-18195.580	69-69
M	15/15	10/15	-	18.940-162.790	7-9
ORLIB	40/40	27/40	-	1.880-467.050	12-42
PCodes	10/32	0/32	1.000293	2930.550-9387.370	38-61
Uniform	29/30	0/30	1.002525	906.270-1599.550	26-37

Results on splp with known optima for dc_dishausum_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	211/220	-	0.080-79.620	3-14
CLSC	8/30	1/30	1.022822	949.010-1128.210	24-30
Chess	18/30	0/30	1.005228	2262.850-3321.020	36-42
Euclid	30/30	0/30	-	605.500-924.700	26-32
Fpp11	30/30	15/30	-	2781.790-4798.760	34-40
Fpp17	27/30	8/30	1.000159	29276.209-51110.316	57-64
GalvaoRaggi	50/50	29/50	-	134.460-16475.820	30-99
GapA	21/30	4/30	1.027324	607.050-841.710	22-27
GapB	6/30	0/30	1.034922	899.390-1064.360	25-29
KoerkelGhosh-asym	0/1	0/1	1.000070	5958.600-5958.600	43-43
KoerkelGhosh-sym	0/1	0/1	1.000016	7779.640-7779.640	45-45
M	15/15	8/15	-	17.840-151.860	7-8
ORLIB	40/40	30/40	-	2.070-229.940	6-30
PCodes	30/32	3/32	1.000093	2426.060-3819.830	38-43
Uniform	29/30	0/30	1.002525	365.370-511.870	19-23

Results on splp with known optima for dc_dismsemin_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	219/220	166/220	1.001127	0.120-280.020	3-16
CLSC	0/30	0/30	1.012331	1109.890-1697.410	27-33
Chess	7/30	0/30	1.000227	2142.640-4109.030	36-47
Euclid	30/30	0/30	-	348.200-409.440	20-24
Fpp11	21/30	6/30	1.000236	2419.860-3817.920	33-37
Fpp17	3/30	1/30	1.000416	16030.529-30295.449	48-60
GalvaoRaggi	49/50	20/50	1.000372	426.940-38207.668	38-100
GapA	17/30	1/30	1.037992	1225.470-2276.870	30-38
GapB	4/30	0/30	1.024594	1157.700-1983.040	29-37
KoerkelGhosh-asym	1/1	0/1	-	16305.920-16305.920	65-65
KoerkelGhosh-sym	1/1	0/1	-	16347.510-16347.510	66-66
M	15/15	4/15	-	19.970-411.870	7-9
ORLIB	40/40	26/40	-	1.940-887.240	11-45
PCodes	7/32	5/32	1.000267	1834.820-4039.790	35-48
Uniform	28/30	0/30	1.003360	1065.690-1743.930	27-35

Results on splp with known optima for dc_dismsesum_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	204/220	-	0.080-79.810	3-12
CLSC	14/30	9/30	1.000157	632.800-679.560	19-23
Chess	27/30	0/30	1.000117	1429.090-1572.530	27-31
Euclid	30/30	0/30	-	651.720-796.930	19-25
Fpp11	30/30	30/30	-	2763.060-3634.730	31-39
Fpp17	30/30	30/30	-	21628.000-53886.883	48-62
GalvaoRaggi	50/50	39/50	-	92.880-5753.600	23-95
GapA	24/30	12/30	1.027370	665.680-830.220	19-24
GapB	20/30	3/30	1.014150	1368.670-1735.880	20-23
KoerkelGhosh-asym	0/1	0/1	1.000047	6195.010-6195.010	39-39
KoerkelGhosh-sym	0/1	0/1	1.000008	6479.140-6479.140	40-40
M	15/15	7/15	-	16.590-153.830	6-7
ORLIB	40/40	24/40	-	2.290-141.440	6-27
PCodes	32/32	4/32	-	1611.310-1867.430	29-34
Uniform	29/30	0/30	1.002525	439.470-564.890	17-19

Results on splp with known optima for dc_discli_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	188/220	-	0.090-215.950	3-14
CLSC	8/30	5/30	1.003435	877.440-931.050	20-22
Chess	29/30	0/30	1.000083	2024.140-2235.570	30-33
Euclid	30/30	0/30	-	915.590-1225.330	27-35
Fpp11	30/30	30/30	-	2095.980-2207.040	23-24
Fpp17	29/30	29/30	1.000092	18279.770-20624.369	35-36
GalvaoRaggi	50/50	23/50	-	194.030-9691.979	31-99
GapA	24/30	7/30	1.027305	857.840-1054.830	20-23
GapB	17/30	4/30	1.016317	910.870-991.260	22-24
KoerkelGhosh-asym	1/1	0/1	-	10862.391-10862.391	39-39
KoerkelGhosh-sym	1/1	0/1	-	10106.660-10106.660	39-39
M	15/15	12/15	-	70.500-1250.570	7-8
ORLIB	40/40	27/40	-	2.950-1817.060	6-39
PCodes	32/32	4/32	-	2070.480-2326.760	29-32
Uniform	30/30	0/30	-	734.860-828.920	20-23

Results on splp with known optima for dc_bes_1000_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	220/220	-	0.130-4.400	3-11
CLSC	18/30	15/30	1.000128	11.830-13.270	16-16
Chess	21/30	0/30	1.000074	28.040-34.570	19-20
Euclid	23/30	0/30	1.002998	17.490-26.420	13-18
Fpp11	30/30	30/30	-	24.080-34.950	19-23
Fpp17	28/30	28/30	1.000119	139.310-246.510	23-35
GalvaoRaggi	48/50	45/50	1.000816	4.040-350.240	19-87
GapA	26/30	24/30	1.020520	11.070-12.750	14-15
GapB	16/30	14/30	1.020176	11.580-13.480	16-17
KoerkelGhosh-asym	0/1	0/1	1.000109	184.540-184.540	35-35
KoerkelGhosh-sym	0/1	0/1	1.000008	176.090-176.090	35-35
M	15/15	15/15	-	3.600-39.270	7-8
ORLIB	40/40	39/40	-	0.570-83.400	6-18
PCodes	27/32	10/32	1.000083	28.820-32.780	20-21
Uniform	29/30	18/30	1.002525	11.930-15.340	15-18

Results on splp with known optima for dc_ran_1000_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
BildeKrarup	220/220	87/220	-	0.150-16.450	3-17
CLSC	12/30	0/30	1.000200	101.440-116.340	34-37
Chess	24/30	0/30	1.000048	438.090-484.480	51-51
Euclid	30/30	0/30	-	83.590-109.940	27-31
Fpp11	30/30	0/30	-	226.200-249.210	41-41
Fpp17	29/30	0/30	1.000092	3287.450-3439.110	67-67
GalvaoRaggi	50/50	0/50	-	19.070-2794.390	33-100
GapA	27/30	0/30	1.000295	112.570-135.690	35-39
GapB	18/30	0/30	1.023489	114.970-148.630	36-41
KoerkelGhosh-asym	1/1	0/1	-	2722.920-2722.920	66-66
KoerkelGhosh-sym	1/1	0/1	-	2975.150-2975.150	71-71
M	15/15	0/15	-	8.120-80.030	7-9
ORLIB	40/40	13/40	-	1.210-393.890	11-32
PCodes	32/32	0/32	-	318.220-358.320	51-51
Uniform	30/30	0/30	-	84.680-110.530	29-32

Results on splp with **unknown** optima for dc_bes_200_0

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	4/44	21/44	1.000066	4.580-1925.180	5-65
KoerkelGhosh-sym	4/44	19/44	1.000080	4.540-2048.730	5-64
M	1/7	6/7	0.999721	20.710-421.840	7-8

Results on splp with **unknown** optima for dc_ran_200_0

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	16/44	25/44	0.999971	9.220-18916.461	6-100
KoerkelGhosh-sym	7/44	26/44	0.999984	9.240-15933.580	6-100
M	1/7	6/7	0.999721	47.400-949.360	8-9

Results on splp with **unknown** optima for dc_dishaumin_200_400

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	17/44	24/44	0.999984	45.360-90582.711	6-100
KoerkelGhosh-sym	6/44	26/44	0.999988	52.130-85579.086	6-100
M	1/7	6/7	0.999721	202.020-1673.110	8-9

Results on splp with **unknown** optima for dc_dishausum_200_400

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	14/44	24/44	0.999976	55.210-38123.570	6-76
KoerkelGhosh-sym	7/44	23/44	1.000000	50.660-41289.340	6-76
M	1/7	6/7	0.999721	194.760-1823.160	8-9

Results on splp with **unknown** optima for dc_dismsemin_200_400

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	17/44	26/44	0.999971	52.930-81656.859	6-100
KoerkelGhosh-sym	8/44	23/44	1.000000	57.020-84506.789	6-100
M	1/7	6/7	0.999721	206.530-1468.540	8-9

Results on splp with **unknown** optima for dc_dismsesum_200_400

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	17/44	23/44	0.999978	47.000-50147.551	5-71
KoerkelGhosh-sym	9/44	27/44	0.999987	87.830-57953.090	5-70
M	1/7	6/7	0.999721	202.570-2519.120	7-8

Results on splp with **unknown** optima for dc_discli_200_400

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	16/44	24/44	0.999975	300.350-76117.539	6-71
KoerkelGhosh-sym	9/44	23/44	0.999991	304.980-74597.578	6-71
M	1/7	6/7	0.999721	2218.820-36572.070	7-8

Results on splp with **unknown** optima for dc_bes_400_0

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	4/44	22/44	1.000052	8.320-2771.500	5-65
KoerkelGhosh-sym	6/44	21/44	1.000064	8.210-2111.560	5-64
M	1/7	6/7	0.999721	39.890-654.960	7-8

Results on splp with **unknown** optima for dc_ran_400_0

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	19/44	24/44	0.999964	15.460-25735.979	6-100
KoerkelGhosh-sym	8/44	24/44	0.999985	15.580-25557.170	6-100
M	1/7	6/7	0.999721	74.900-1390.590	8-10

Results on splp with **unknown** optima for dc_dishaumin_400_600

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	19/44	24/44	0.999964	118.550-191209.109	6-95
KoerkelGhosh-sym	8/44	26/44	0.999984	98.020-199222.328	6-100
M	1/7	6/7	0.999721	456.940-3801.020	8-9

Results on splp with **unknown** optima for dc_dishausum_400_600

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	16/44	25/44	0.999973	103.000-125819.031	6-80
KoerkelGhosh-sym	8/44	22/44	0.999987	125.870-113843.547	6-77
M	1/7	6/7	0.999721	395.440-4651.680	8-9

Results on splp with **unknown** optima for dc_dismsemin_400_600

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	18/44	24/44	0.999970	114.980-249036.719	6-100
KoerkelGhosh-sym	7/44	25/44	0.999985	106.250-251980.500	6-100
M	1/7	6/7	0.999721	389.370-7077.350	8-9

Results on splp with **unknown** optima for dc_dismsesum_400_600

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	17/44	24/44	0.999968	86.320-128968.023	6-71
KoerkelGhosh-sym	9/44	27/44	0.999979	94.460-123568.078	6-70
M	1/7	6/7	0.999721	369.340-3188.700	7-8

Results on splp with **unknown** optima for dc_discli_400_600

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	17/44	25/44	0.999969	765.980-233987.188	6-71
KoerkelGhosh-sym	9/44	26/44	0.999980	812.660-231541.562	6-71
M	1/7	6/7	0.999721	4600.160-87217.484	7-9

Results on splp with **unknown** optima for dc_bes_1000_0

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	6/44	24/44	1.000023	20.720-7543.610	5-66
KoerkelGhosh-sym	4/44	23/44	1.000045	20.770-5410.590	5-64
M	1/7	6/7	0.999721	96.780-1745.480	7-8

Results on splp with **unknown** optima for dc_ran_1000_0

Benchmark	Better	Same	Mean rel. cost	CPU time [s]	Iters.
KoerkelGhosh-asym	19/44	25/44	0.999961	43.550-69778.930	6-100
KoerkelGhosh-sym	8/44	29/44	0.999975	45.370-71947.766	6-100
M	1/7	6/7	0.999721	213.030-3819.300	8-10

Results on pmedian with known optima for dc_bes_200_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	23/35	18/35	1.002846	1.000-2296.790	5-100

Results on pmedian with known optima for dc_ran_200_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	30/35	0/35	1.000517	1.310-15051.090	5-100

Results on pmedian with known optima for dc_dishaumin_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	28/35	4/35	1.001090	44.460-205455.500	5-100

Results on pmedian with known optima for dc_dishausum_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	26/35	4/35	1.002485	62.570-115680.852	5-100

Results on pmedian with known optima for dc_dismsemin_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	31/35	4/35	1.001161	134.580-98790.812	5-100

Results on pmedian with known optima for dc_dismsesum_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	30/35	6/35	1.001023	46.060-82141.000	5-100

Results on pmedian with known optima for dc_discli_200_400

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	29/35	5/35	1.001201	110.150-164988.672	5-100

Results on pmedian with known optima for dc_bes_400_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	23/35	20/35	1.002698	3.310-4250.390	5-100

Results on pmedian with known optima for dc_ran_400_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	32/35	0/35	1.000505	4.110-33544.918	5-100

Results on pmedian with known optima for dc_dishaumin_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	28/35	3/35	1.001000	126.140-653827.562	5-100

Results on pmedian with known optima for dc_dishausum_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	27/35	4/35	1.002525	122.200-331824.000	5-100

Results on pmedian with known optima for dc_dismsemin_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	33/35	3/35	1.001066	110.180-186226.922	5-100

Results on pmedian with known optima for dc_dismsesum_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	30/35	5/35	1.000931	111.310-225826.484	5-100

Results on pmedian with known optima for dc_discli_400_600

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	30/35	5/35	1.000590	511.530-659009.438	5-100

Results on pmedian with known optima for dc_bes_1000_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	24/35	20/35	1.002488	5.600-11436.310	5-100

Results on pmedian with known optima for dc_ran_1000_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
pmed	33/35	0/35	1.000387	6.830-85934.625	5-100

Results on pmedianlarge with known optima for dc_dishaumin_50_100

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	1/5	0/5	1.005017	17550.330-62116.270	120-200

Results on pmedianlarge with known optima for dc_dishausum_50_100

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	0/5	0/5	1.004425	14667.311-72696.070	120-200

Results on pmedianlarge with known optima for dc_dismsemin_50_100

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	1/5	0/5	1.004131	3359.940-11623.230	120-200

Results on pmedianlarge with known optima for dc_dismsesum_50_100

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	1/5	0/5	1.002720	3579.970-12136.899	120-200

Results on pmedianlarge with known optima for dc_discli_50_100

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	1/5	0/5	1.003339	6422.070-22675.150	120-200

Results on pmedianlarge with known optima for dc_bes_200_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	0/5	0/5	1.003885	1219.800-5992.150	120-200

Results on pmedianlarge with known optima for dc_ran_200_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	1/5	0/5	1.001912	7591.880-37231.648	120-200

Results on pmedianlarge with known optima for dc_bes_400_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	1/5	0/5	1.004760	1731.450-6880.880	120-200

Results on pmedianlarge with known optima for dc_ran_400_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	0/5	0/5	1.002256	11312.120-55115.199	120-200

Results on pmedianlarge with known optima for dc_bes_1000_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	1/5	0/5	1.004987	4711.430-17560.000	120-200

Results on pmedianlarge with known optima for dc_ran_1000_0

Benchmark	Optima	Opt. pre-LS	Non opt. cost	CPU time [s]	Iters.
plarge	3/5	0/5	1.003357	28889.701-124242.461	120-200