

Statistics for solved benchmarks

Benchmark	Category	#Var	#Con	Found objective	Solved by	Solver calls	Solving time	Total time
gear	INLP	5	1	0.0007	all-in-one + UBS	48	0.19	0.28
nvs04	INLP	3	1	0.72	all-in-one + UBS	55	0.32	0.38
nvs06	INLP	3	1	1.7703	one-by-one + naive	28	0.40	0.47
nvs07	INLP	4	3	4.0	all-in-one + hybrid	37	0.23	0.29
nvs16	INLP	3	1	0.7031	all-in-one + naive	36	0.24	0.28
prob02	IQCP	7	9	112235.0	bin-flattening + hybrid	36	17.71	17.76
prob03	IQCP	3	2	10.0	bin-flattening + UBS	5	0.00	0.03
nvs03	IQCQP	3	3	16.0	bin-flattening + naive	4	0.02	0.06
nvs10	IQCQP	3	3	-310.8	bin-flattening + hybrid	12	0.13	0.19
nvs11	IQCQP	4	4	-431.0	bin-flattening + naive	9	2.71	2.72
nvs12	IQCQP	5	5	-481.2	bin-flattening + naive	12	992.20	999.18
nvs15	IQP	4	2	1.0	bin-flattening + UBS	4	0.02	0.03
st_miqp2	IQP	5	4	2.0	all-in-one + hybrid	43	0.31	0.38
st_miqp3	IQP	3	2	-6.0	UBS	14	0.02	0.06
st_test1	IQP	6	2	-32.0059	bin-flattening + UBS	20	0.11	0.14
st_test2	IQP	7	3	-9.25	bin-flattening + naive	3	26.04	26.07
st_test3	IQP	14	11	-7.0	bin-flattening + UBS	6	41.77	41.93
st_test4	IQP	7	6	-7.0	UBS	14	0.06	0.08
st_testph4	IQP	4	11	-80.5	bin-flattening + naive	6	0.03	0.06
ex1221	MBNLP	6	6	7.6671	bin-flattening + hybrid	4	0.13	0.14
ex1226	MBNLP	6	6	-17.0	bin-flattening + hybrid	2	0.02	0.03
gear2	MBNLP	29	5	0.0003	all-in-one + naive	10	1.35	1.45
st_e15	MBNLP	6	6	7.6671	bin-flattening + hybrid	4	0.12	0.15
autocorr_bern20-03	MBQCP	22	2	-72.0	bin-flattening + naive	74	0.35	0.41
autocorr_bern25-03	MBQCP	27	2	-92.0	bin-flattening + naive	94	3.65	3.78
sporttournament06	MBQCP	17	2	12.0	bin-flattening + hybrid	12	0.05	0.07
st_e13	MBQCP	3	3	2.0	bin-flattening + naive	2	0.01	0.03
alan	MBQP	9	8	2.9252	bin-flattening + naive	7	0.06	0.08
gbd	MBQP	5	5	2.2	all-in-one + UBS	12	0.00	0.03
st_e27	MBQP	5	7	2.0	bin-flattening + hybrid	4	0.14	0.16
gear3	MINLP	9	5	0.0003	all-in-one + naive	50	0.29	0.37
gear4	MINLP	7	2	1.6434	bin-flattening + hybrid	52	18.97	19.37
nvs01	MINLP	4	4	12.4696	all-in-one + hybrid	92	1.73	1.87
nvs21	MINLP	4	3	-5.6844	one-by-one + UBS	157	1.78	1.96
st_e38	MINLP	5	4	7197.7277	all-in-one + UBS	56	2.37	2.48

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st_e40	MINLP	5	9	30.4142	bin-flattening + naive	5	0.62	0.67
tln2	MIQCP	9	13	5.3	bin-flattening + hybrid	8	0.06	0.08
chance	NLP	5	4	29.8946	UBS	14	0.24	0.26
ex14_1_1	NLP	4	5	0.0009	UBS	13	1.47	1.49
ex14_1_5	NLP	7	7	0.0	UBS	6	0.02	0.04
ex4_1_1	NLP	2	1	-7.4867	hybrid	4	0.02	0.04
ex4_1_3	NLP	2	1	-443.6709	naive	12	0.08	0.12
ex4_1_4	NLP	2	1	0.0	naive	6	0.02	0.05
ex4_1_5	NLP	3	1	0.0	UBS	31	0.15	0.18
ex4_1_6	NLP	2	1	7.0	naive	3	0.00	0.03
ex4_1_7	NLP	2	1	-7.5	naive	5	0.02	0.04
ex4_1_8	NLP	3	2	-16.7388	naive	5	0.03	0.05
ex4_1_9	NLP	3	3	-5.5078	hybrid	16	0.06	0.11
ex7_2_2	NLP	7	6	-0.3885	naive	12	123.07	123.11
ex7_3_1	NLP	5	8	0.3427	naive	60	5.57	5.67
ex7_3_2	NLP	5	8	1.0903	UBS	15	0.11	0.14
ex8_1_3	NLP	3	1	3.0	hybrid	10	0.28	0.30
ex8_1_4	NLP	3	1	0.0	hybrid	2	0.00	0.03
ex8_1_5	NLP	3	1	-1.0312	UBS	12	0.18	0.21
ex8_1_6	NLP	3	1	-10.086	naive	5	0.08	0.11
mathopt1	NLP	3	3	0.0	naive	18	0.09	0.12
mathopt2	NLP	3	5	0.0	hybrid	2	0.01	0.02
mathopt5_4	NLP	2	1	0.0	hybrid	4	0.02	0.04
mathopt5_7	NLP	2	1	-4.4365	naive	11	0.08	0.10
mathopt5_8	NLP	2	1	-0.6857	naive	6	0.03	0.05
prob09	NLP	4	2	0.0	naive	4	0.02	0.04
rbrock	NLP	3	1	0.0	UBS	42	0.19	0.24
st_e06	NLP	4	4	0.0	hybrid	2	0.01	0.02
st_e11	NLP	4	3	189.3116	naive	9	1.69	1.72
st_e12	NLP	5	4	-4.5139	UBS	16	1.86	1.88
st_e17	NLP	3	2	376.2924	UBS	18	0.07	0.10
st_e19	NLP	3	3	-118.7046	UBS	22	0.18	0.20
circle	QCP	4	11	4.5751	UBS	13	3.45	3.48
ex3_1_1	QCP	9	7	7049.2485	UBS	25	0.31	0.33
ex3_1_4	QCP	4	4	-3.9997	UBS	14	0.16	0.19
ex5_2_2_case1	QCP	10	7	-399.9995	UBS	28	0.48	0.50

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ex5_2_2_case2	QCP	10	7	-599.9997	UBS	30	0.42	0.43
ex5_2_2_case3	QCP	10	7	-749.9996	UBS	30	0.47	0.52
ex5_3_2	QCP	23	17	1.8647	UBS	12	52.57	52.60
ex5_4_2	QCP	9	7	7512.2304	UBS	20	0.41	0.45
ex9_1_1	QCP	14	13	-13.0	naive	9	0.00	0.03
ex9_1_2	QCP	11	10	-16.0	naive	4	0.00	0.03
ex9_1_4	QCP	11	10	-37.0	naive	3	0.02	0.04
ex9_1_5	QCP	14	13	-1.0	hybrid	4	0.00	0.02
ex9_1_8	QCP	15	13	-3.25	naive	4	0.01	0.02
ex9_2_3	QCP	17	16	0.0002	UBS	18	0.36	0.38
haverly	QCP	13	10	-399.9997	UBS	28	0.58	0.62
house	QCP	9	9	-4499.9999	UBS	32	0.98	1.03
pointpack02	QCP	6	4	1.9999	UBS	14	0.17	0.18
st_e01	QCP	3	2	-6.666	UBS	16	253.42	253.46
st_e02	QCP	4	4	201.1593	naive	2	0.04	0.06
st_e05	QCP	6	4	7049.2495	UBS	34	0.83	0.85
st_e07	QCP	11	8	-399.9997	hybrid	53	205.10	205.15
st_e08	QCP	3	3	0.7419	UBS	12	0.06	0.09
st_e18	QCP	3	5	-2.8283	UBS	12	0.06	0.08
st_e30	QCP	15	16	-1.581	UBS	14	23.73	23.75
st_e33	QCP	10	7	-399.9997	UBS	28	193.08	193.14
st_e34	QCP	7	5	0.0156	naive	6	0.02	0.03
wastewater02m1	QCP	20	15	130.7026	naive	97	309.32	309.38
dispatch	QCQP	5	3	3155.2883	naive	69	38.64	38.77
ex5_2_4	QCQP	8	7	-449.9992	UBS	28	0.76	0.79
ex9_2_4	QCQP	9	8	0.5	naive	3	0.02	0.04
ex9_2_6	QCQP	17	13	-0.9992	UBS	12	0.31	0.34
ex9_2_8	QCQP	7	6	1.5	UBS	3	0.01	0.03
st_e09	QCQP	3	2	-0.499	UBS	10	0.04	0.06
ex2_1_3	QP	14	10	-14.999	hybrid	33	19.71	19.77
ex2_1_4	QP	7	6	-11.0	naive	3	0.01	0.03
immun	QP	22	8	0.0	UBS	76	24.21	24.26
nemhaus	QP	6	6	31.0	hybrid	2	0.01	0.02
sambal	QP	18	11	3.9686	UBS	30	219.76	219.78
st_bpaf1b	QP	11	11	-42.9625	UBS	22	0.35	0.39
st_bpk1	QP	5	7	-12.9994	UBS	18	0.13	0.14

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st_bpv1	QP	5	5	10.0	UBS	25	0.00	0.04
st_bpv2	QP	5	6	-7.9994	UBS	18	0.06	0.08
st_bsj2	QP	4	6	1.0005	hybrid	16	0.40	0.41
st_bsj3	QP	7	2	-86768.5498	UBS	44	5.15	5.22
st_cqpf	QP	5	7	-2.75	hybrid	4	0.01	0.03
st_cqpjk2	QP	4	2	-12.499	UBS	13	0.06	0.08
st_e22	QP	3	6	-84.9998	UBS	20	0.11	0.14
st_e25	QP	5	9	0.8908	naive	75	35.62	35.69
st_e26	QP	3	5	-185.7792	hybrid	18	0.11	0.12
st_glmp_fp1	QP	5	9	10.0	UBS	18	453.69	453.75
st_glmp_fp3	QP	5	9	-12.0	hybrid	4	0.01	0.02
st_glmp_kk90	QP	6	8	3.0001	UBS	16	405.05	405.09
st_glmp_kk92	QP	5	9	-12.0	hybrid	6	0.04	0.05
st_glmp_kky	QP	8	14	-2.4998	naive	46	827.40	827.46
st_glmp_ss1	QP	6	12	-24.5705	naive	115	901.45	901.52
st_ht	QP	3	4	-1.5997	UBS	14	0.08	0.10