

Results for instances from collection
Dispersion-QKP with strategy ran

File dispersion-qkp-ran_0300_005.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	5.0 %
Edges (m)	2,201

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	3,836.0	0.34	1.80	0.00	—	21.24	6.50	0.00	0.00	0.00	0.3	2.7	120.0	4.5	1.1	0.4	9.0
5.0	7,396.0	0.35	1.48	0.00	—	52.94	0.79	0.00	0.00	0.00	0.5	5.8	120.0	5.7	1.4	0.3	8.0
10.0	14,088.0	0.16	0.54	0.00	—	61.52	2.06	0.00	0.00	0.00	0.7	4.4	120.0	7.6	1.2	0.3	3.0
25.0	32,567.0	0.07	0.07	0.00	—	54.45	21.75	0.00	0.00	0.00	1.1	5.4	120.0	12.4	1.9	0.4	13.0
50.0	61,016.0	0.20	0.11	0.00	—	33.45	0.45	0.00	0.00	0.01	1.5	3.5	120.0	12.3	1.6	0.7	12.0
75.0	87,934.0	0.04	0.06	0.00	—	22.17	1.15	0.00	0.00	0.00	1.9	2.0	120.0	10.9	1.5	0.2	17.0
Avg		0.19	0.68	0.00	—	40.96	5.45	0.00	0.00	0.00	1.0	4.0	120.0	8.9	1.5	0.4	10.3
Min		0.04	0.06	0.00	—	21.24	0.45	0.00	0.00	0.00	0.3	2.0	120.0	4.5	1.1	0.2	3.0
Max		0.35	1.80	0.00	—	61.52	21.75	0.00	0.00	0.01	1.9	5.8	120.0	12.4	1.9	0.7	17.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	21
Running time in seconds for writing input file (t^{write})	0.0042
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0150
Running time in seconds for reading result file (t^{read})	0.0079

File dispersion-qkp-ran_0300_010.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	10.0 %
Edges (m)	4,528

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	7,186.0	1.57	0.07	0.00	—	50.59	—	0.00	0.00	0.00	0.3	2.9	120.0	3.6	120.0	0.6	7.0
5.0	13,916.0	0.89	0.14	0.00	—	106.56	—	0.00	0.00	0.00	0.5	3.1	120.0	4.4	120.0	0.5	7.0
10.0	26,913.0	0.20	0.00	0.00	—	117.43	—	0.00	0.00	0.00	0.7	7.5	120.0	6.9	120.0	1.0	22.0
25.0	63,706.0	0.22	0.11	0.00	—	77.11	—	0.00	0.00	0.01	1.1	5.0	120.0	11.4	120.0	4.9	54.0
50.0	123,347.0	0.51	0.00	0.00	—	44.66	—	0.00	0.00	0.00	1.5	3.7	120.0	11.0	120.0	4.3	120.0
75.0	180,546.0	0.02	0.02	0.00	—	21.29	—	0.00	0.00	0.00	1.8	2.0	120.0	10.9	120.0	1.2	55.0
Avg		0.57	0.06	0.00	—	69.61	—	0.00	0.00	0.00	1.0	4.0	120.0	8.0	120.0	2.1	44.2
Min		0.02	0.00	0.00	—	21.29	—	0.00	0.00	0.00	0.3	2.0	120.0	3.6	120.0	0.5	7.0
Max		1.57	0.14	0.00	—	117.43	—	0.00	0.00	0.01	1.8	7.5	120.0	11.4	120.0	4.9	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	13
Running time in seconds for writing input file (t^{write})	0.0129
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0150
Running time in seconds for reading result file (t^{read})	0.0089

File dispersion-qkp-ran_0300_025.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	25.0 %
Edges (m)	11,187

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	16,668.0	1.71	0.00	0.00	—	415.24	4,648.72	0.00	0.00	0.00	0.3	2.7	120.0	2.4	1.5	4.4	20.0
5.0	32,139.0	0.00	0.00	0.00	—	310.56	—	0.00	0.00	0.00	0.5	3.3	120.0	4.4	120.0	9.1	40.0
10.0	61,174.0	0.02	0.21	0.00	—	227.26	—	0.00	0.04	0.00	0.7	5.2	120.0	6.8	120.0	37.4	120.0
25.0	151,655.0	0.01	0.01	0.00	—	145.00	—	0.00	0.01	0.00	1.1	4.3	120.0	11.4	120.0	22.9	120.0
50.0	292,807.0	0.04	0.04	0.00	—	72.11	—	0.00	0.05	0.01	1.6	3.7	120.0	11.7	120.0	18.4	120.0
75.0	430,482.0	0.05	0.02	0.00	—	32.47	—	0.00	0.29	0.00	2.0	2.0	120.0	10.8	120.0	34.9	120.0
Avg		0.30	0.05	0.00	—	200.44	—	0.00	0.07	0.00	1.0	3.5	120.0	7.9	100.2	21.2	90.0
Min		0.00	0.00	0.00	—	32.47	4,648.72	0.00	0.00	0.00	0.3	2.0	120.0	2.4	1.5	4.4	20.0
Max		1.71	0.21	0.00	—	415.24	—	0.00	0.29	0.01	2.0	5.2	120.0	11.7	120.0	37.4	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	9
Running time in seconds for writing input file (t^{write})	0.0170
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0160
Running time in seconds for reading result file (t^{read})	0.0086

File dispersion-qkp-ran_0300_050.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	50.0 %
Edges (m)	22,322

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	33,849.0	0.53	0.44	0.00	—	285.66	—	0.00	0.00	0.00	0.4	2.9	120.0	3.7	120.0	3.4	54.0
5.0	63,941.0	1.03	0.13	0.00	—	385.91	—	0.00	0.00	0.00	0.5	6.0	120.0	4.5	120.0	30.2	120.0
10.0	120,417.0	0.06	0.06	0.00	—	332.87	—	0.00	0.61	0.00	0.8	7.0	120.0	7.4	120.0	120.3	120.0
25.0	294,808.0	0.55	0.29	0.00	—	192.41	—	0.00	1.08	0.01	1.2	5.6	120.0	10.2	120.0	120.5	120.0
50.0	577,776.0	0.22	0.05	0.00	—	82.68	—	0.00	0.93	0.01	1.7	3.4	120.0	9.5	120.0	120.6	120.0
75.0	855,682.0	0.40	0.18	0.00	—	34.73	—	0.00	0.84	0.00	2.0	2.1	120.0	9.8	120.0	120.1	120.0
Avg		0.47	0.19	0.00	—	219.04	—	0.00	0.58	0.00	1.1	4.5	120.0	7.5	120.0	85.9	109.0
Min		0.06	0.05	0.00	—	34.73	—	0.00	0.00	0.00	0.4	2.1	120.0	3.7	120.0	3.4	54.0
Max		1.03	0.44	0.00	—	385.91	—	0.00	1.08	0.01	2.0	7.0	120.0	10.2	120.0	120.6	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	7
Running time in seconds for writing input file (t^{write})	0.0341
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0085

File dispersion-qkp-ran_0300_075.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	75.0 %
Edges (m)	33,514

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	47,288.0	0.00	0.00	0.00	—	341.74	—	0.00	0.00	0.00	0.3	2.7	120.0	3.5	120.0	6.5	77.0
5.0	91,363.0	0.40	0.00	0.00	—	450.48	—	0.00	0.00	0.00	0.5	3.2	120.0	4.7	120.0	113.3	120.0
10.0	176,858.0	1.43	0.81	0.00	—	429.40	—	0.00	1.36	0.00	0.7	5.7	120.0	6.4	120.0	120.3	120.0
25.0	440,392.0	0.72	0.38	0.00	—	220.07	—	0.00	1.85	0.00	1.2	5.4	120.0	10.1	120.0	120.8	120.0
50.0	855,143.0	0.24	0.11	0.00	—	84.03	—	0.00	2.56	0.01	1.6	3.1	120.0	9.7	120.0	120.2	120.0
75.0	1,269,346.0	0.03	0.00	0.00	—	35.12	—	0.00	1.99	0.00	1.9	2.4	120.0	9.8	120.0	65.6	120.0
Avg		0.47	0.22	0.00	—	260.14	—	0.00	1.29	0.00	1.0	3.7	120.0	7.4	120.0	91.1	112.8
Min		0.00	0.00	0.00	—	35.12	—	0.00	0.00	0.00	0.3	2.4	120.0	3.5	120.0	6.5	77.0
Max		1.43	0.81	0.00	—	450.48	—	0.00	2.56	0.01	1.9	5.7	120.0	10.1	120.0	120.8	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	6
Running time in seconds for writing input file (t^{write})	0.0497
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0150
Running time in seconds for reading result file (t^{read})	0.0083

File dispersion-qkp-ran_0300_100.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	100.0 %
Edges (m)	44,850

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	65,033.0	0.00	0.00	0.00	—	570.72	15,165.96	0.00	0.00	0.01	0.4	4.1	120.0	3.2	2.5	10.3	87.0
5.0	124,204.0	0.85	0.58	0.00	—	484.76	518.36	0.14	0.00	0.00	0.5	5.4	120.0	4.6	4.1	121.2	120.0
10.0	241,306.0	1.47	1.34	0.00	—	433.16	1,110.10	0.00	0.90	0.00	0.7	7.8	120.0	6.9	2.4	97.3	120.0
25.0	597,277.0	0.04	0.00	0.00	—	222.71	—	0.00	2.03	0.00	1.2	9.4	120.0	10.2	120.0	28.9	120.0
50.0	1,151,475.0	0.44	0.34	0.00	—	80.59	—	0.28	1.47	0.01	1.6	3.2	120.0	11.3	120.0	120.1	120.0
75.0	1,706,068.0	0.11	0.04	0.00	—	28.04	—	0.02	1.76	0.00	1.9	2.4	120.0	10.6	120.0	120.1	120.0
Avg		0.48	0.38	0.00	—	303.33	—	0.07	1.03	0.00	1.0	5.4	120.0	7.8	61.5	83.0	114.5
Min		0.00	0.00	0.00	—	28.04	518.36	0.00	0.00	0.00	0.4	2.4	120.0	3.2	2.4	10.3	87.0
Max		1.47	1.34	0.00	—	570.72	—	0.28	2.03	0.01	1.9	9.4	120.0	11.3	120.0	121.2	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	5
Running time in seconds for writing input file (t^{write})	0.0673
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0150
Running time in seconds for reading result file (t^{read})	0.0087

File dispersion-qkp-ran_0500_005.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	5.0 %
Edges (m)	6,096

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	9,486.0	2.03	1.25	0.03	—	70.49	—	0.00	0.00	0.01	1.0	6.2	120.0	24.7	120.0	1.1	27.0
5.0	17,823.0	0.32	0.34	0.00	—	64.31	—	0.00	0.00	0.00	1.5	4.7	120.0	37.1	120.0	2.6	24.0
10.0	34,386.0	0.41	0.00	0.00	—	94.02	—	0.00	0.00	0.00	2.2	9.3	120.0	51.3	120.0	4.6	52.0
25.0	82,600.0	0.23	0.12	0.00	—	81.93	—	0.00	0.00	0.01	3.7	7.2	120.0	82.6	120.0	13.3	120.0
50.0	161,344.0	0.24	0.05	0.00	—	48.76	—	0.00	0.00	0.01	5.2	6.4	120.0	63.2	120.0	8.2	74.0
75.0	239,021.0	0.03	0.04	0.00	—	19.84	—	0.00	0.00	0.01	6.3	4.4	120.0	67.3	120.0	0.7	20.0
Avg		0.54	0.30	0.01	—	63.22	—	0.00	0.00	0.01	3.3	6.4	120.0	54.4	120.0	5.1	52.8
Min		0.03	0.00	0.00	—	19.84	—	0.00	0.00	0.00	1.0	4.4	120.0	24.7	120.0	0.7	20.0
Max		2.03	1.25	0.03	—	94.02	—	0.00	0.00	0.01	6.3	9.3	120.0	82.6	120.0	13.3	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	17
Running time in seconds for writing input file (t^{write})	0.0108
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0098

File dispersion-qkp-ran_0500_010.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	10.0 %
Edges (m)	12,209

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	16,261.0	1.09	0.48	0.00	—	97.27	—	0.00	0.00	0.01	1.1	2.0	120.0	23.2	120.0	2.2	54.0
5.0	32,331.0	0.00	0.20	0.00	—	167.80	—	0.00	0.00	0.00	1.6	2.5	120.0	29.8	120.0	5.6	120.0
10.0	63,785.0	0.15	0.02	0.00	—	140.63	—	0.00	0.00	0.01	2.3	6.5	120.0	48.2	120.0	14.5	120.0
25.0	158,584.0	0.17	0.03	0.00	—	113.46	—	0.00	0.04	0.01	3.7	10.0	120.0	74.4	120.0	19.9	120.0
50.0	315,622.0	0.01	0.01	0.00	—	69.97	—	0.00	0.13	0.01	5.2	6.1	120.0	63.6	120.0	22.7	120.0
75.0	472,153.0	0.17	0.08	0.00	—	23.59	—	0.00	0.01	0.01	6.2	3.6	120.0	65.6	120.0	6.3	120.0
Avg		0.26	0.14	0.00	—	102.12	—	0.00	0.03	0.01	3.4	5.1	120.0	50.8	120.0	11.9	109.0
Min		0.00	0.01	0.00	—	23.59	—	0.00	0.00	0.00	1.1	2.0	120.0	23.2	120.0	2.2	54.0
Max		1.09	0.48	0.00	—	167.80	—	0.00	0.13	0.01	6.2	10.0	120.0	74.4	120.0	22.7	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	7
Running time in seconds for writing input file (t^{write})	0.0190
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0088

File dispersion-qkp-ran_0500_025.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	25.0 %
Edges (m)	31,106

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	39,184.0	0.88	0.05	0.00	—	250.80	—	0.00	0.00	0.01	1.1	2.5	120.0	23.3	120.0	61.7	120.0
5.0	78,151.0	0.29	0.14	0.00	—	248.62	—	0.00	0.05	0.00	1.6	2.3	120.0	32.0	120.0	121.7	120.0
10.0	155,502.0	0.64	0.06	0.00	—	248.38	—	0.00	0.13	0.01	2.3	9.9	120.0	48.0	120.0	121.2	120.0
25.0	398,658.0	0.01	0.01	0.00	—	207.07	—	0.16	0.55	0.01	3.7	12.4	120.0	73.7	120.0	121.4	120.0
50.0	793,730.0	0.02	0.00	0.00	—	91.09	—	0.00	1.22	0.01	5.3	8.0	120.0	50.5	120.0	98.6	120.0
75.0	1,186,716.0	0.22	0.17	0.00	—	28.36	—	0.00	1.18	0.01	7.1	4.6	120.0	60.9	120.0	120.7	120.0
Avg		0.34	0.07	0.00	—	179.05	—	0.03	0.52	0.01	3.5	6.6	120.0	48.1	120.0	107.5	120.0
Min		0.01	0.00	0.00	—	28.36	—	0.00	0.00	0.00	1.1	2.3	120.0	23.3	120.0	61.7	120.0
Max		0.88	0.17	0.00	—	250.80	—	0.16	1.22	0.01	7.1	12.4	120.0	73.7	120.0	121.7	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	4
Running time in seconds for writing input file (t^{write})	0.0514
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0088

File dispersion-qkp-ran_0500_050.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	50.0 %
Edges (m)	62,245

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	77,779.0	0.23	0.11	0.00	—	509.74	—	0.00	0.72	0.01	1.2	2.0	120.0	20.2	120.0	120.1	120.0
5.0	156,534.0	0.47	0.21	0.00	—	487.52	—	0.00	1.08	0.00	1.6	3.0	120.0	30.5	120.0	120.1	120.0
10.0	311,998.0	0.55	0.30	0.00	—	385.77	—	0.00	2.07	0.01	2.4	11.4	120.0	48.4	120.0	120.1	120.0
25.0	786,402.0	0.09	0.00	0.00	—	208.25	—	0.06	1.50	0.01	3.8	10.6	120.0	62.2	120.0	120.1	120.0
50.0	1,573,273.0	0.01	0.00	0.00	—	93.46	—	0.42	1.85	0.01	5.3	5.7	120.0	46.3	120.0	120.9	120.0
75.0	2,356,905.0	0.08	0.03	0.00	—	28.67	—	0.00	1.31	0.01	6.4	3.8	120.0	60.8	120.0	120.1	120.0
Avg		0.24	0.11	0.00	—	285.57	—	0.08	1.42	0.01	3.5	6.1	120.0	44.7	120.0	120.2	120.0
Min		0.01	0.00	0.00	—	28.67	—	0.00	0.72	0.00	1.2	2.0	120.0	20.2	120.0	120.1	120.0
Max		0.55	0.30	0.00	—	509.74	—	0.42	2.07	0.01	6.4	11.4	120.0	62.2	120.0	120.9	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	2
Running time in seconds for writing input file (t^{write})	0.0956
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0320
Running time in seconds for reading result file (t^{read})	0.0096

File dispersion-qkp-ran_0500_075.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	75.0 %
Edges (m)	93,766

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	116,130.0	0.63	0.27	0.00	—	891.29	—	1,696.29	1.61	0.01	1.2	2.3	120.0	18.4	120.0	120.1	120.0
5.0	230,759.0	0.81	0.46	0.00	—	698.28	—	941.90	2.54	0.00	1.7	2.6	120.0	26.5	120.0	120.1	120.0
10.0	463,541.0	0.00	0.00	0.00	—	503.80	—	595.38	3.19	0.01	2.4	11.5	120.0	43.9	120.0	120.1	120.0
25.0	1,176,546.0	0.28	0.16	0.00	—	236.56	—	297.49	2.22	0.01	3.9	9.9	120.0	57.8	120.0	120.1	120.0
50.0	2,362,127.0	0.07	0.03	0.00	—	92.14	—	96.56	1.86	0.01	5.3	6.0	120.0	47.5	120.0	120.0	120.0
75.0	3,550,258.0	0.18	0.16	0.00	—	28.19	—	32.09	2.02	0.01	6.7	3.9	120.0	61.3	120.0	120.1	120.0
Avg		0.33	0.18	0.00	—	408.38	—	609.95	2.24	0.01	3.5	6.0	120.0	42.6	120.0	120.1	120.0
Min		0.00	0.00	0.00	—	28.19	—	32.09	1.61	0.00	1.2	2.3	120.0	18.4	120.0	120.0	120.0
Max		0.81	0.46	0.00	—	891.29	—	1,696.29	3.19	0.01	6.7	11.5	120.0	61.3	120.0	120.1	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	2
Running time in seconds for writing input file (t^{write})	0.1517
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0092

File dispersion-qkp-ran_0500_100.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	100.0 %
Edges (m)	124,750

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	150,817.0	0.78	0.39	0.00	—	855.69	—	2,721.65	2.07	0.01	1.2	2.3	120.0	18.5	120.0	120.1	120.0
5.0	300,321.0	0.41	0.31	0.00	—	703.32	—	1,282.25	3.03	0.00	1.6	2.8	120.0	29.1	120.0	120.1	120.0
10.0	610,941.0	0.10	0.02	0.00	—	508.53	—	619.77	4.14	0.01	2.4	11.8	120.0	42.6	120.0	120.1	120.0
25.0	1,554,549.0	0.24	0.17	0.00	—	238.09	—	264.18	4.08	0.01	3.8	9.5	120.0	65.0	120.0	120.1	120.0
50.0	3,126,790.0	0.14	0.09	0.00	—	91.11	—	98.41	3.35	0.01	5.4	6.1	120.0	48.0	120.0	120.1	120.0
75.0	4,711,040.0	0.12	0.10	0.00	—	27.74	—	27.96	2.87	0.01	7.2	4.0	120.0	60.3	120.0	120.1	120.0
Avg		0.30	0.18	0.00	—	404.08	—	835.70	3.26	0.01	3.6	6.1	120.0	43.9	120.0	120.1	120.0
Min		0.10	0.02	0.00	—	27.74	—	27.96	2.07	0.00	1.2	2.3	120.0	18.5	120.0	120.1	120.0
Max		0.78	0.39	0.00	—	855.69	—	2,721.65	4.14	0.01	7.2	11.8	120.0	65.0	120.0	120.1	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	1
Running time in seconds for writing input file (t^{write})	0.1955
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0470
Running time in seconds for reading result file (t^{read})	0.0091

File dispersion-qkp-ran_1000_005.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	5.0 %
Edges (m)	25,021

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	33,256.0	0.01	0.01	0.00	—	—	—	0.00	0.10	0.01	7.5	9.6	120.0	120.0	120.0	38.9	120.0
5.0	65,442.0	0.27	0.18	0.03	—	—	—	0.00	0.08	0.01	11.0	7.7	120.0	120.0	120.0	43.0	120.0
10.0	129,928.0	0.10	0.11	0.00	—	—	—	0.00	0.05	0.01	15.6	12.6	120.0	120.0	120.0	67.5	120.0
25.0	325,211.0	0.07	0.02	0.00	—	—	—	0.00	0.12	0.02	25.0	22.4	120.0	120.0	120.0	52.4	120.0
50.0	649,525.0	0.06	0.03	0.00	—	—	—	0.00	0.28	0.02	34.6	10.1	120.0	120.0	120.0	14.1	120.0
75.0	965,530.0	0.10	0.01	0.00	—	—	—	0.00	0.25	0.02	41.0	9.1	120.0	120.0	120.0	8.4	120.0
Avg		0.10	0.06	0.01	—	—	—	0.00	0.15	0.02	22.4	11.9	120.0	120.0	120.0	37.4	120.0
Min		0.01	0.01	0.00	—	—	—	0.00	0.05	0.01	7.5	7.7	120.0	120.0	120.0	8.4	120.0
Max		0.27	0.18	0.03	—	—	—	0.00	0.28	0.02	41.0	22.4	120.0	120.0	120.0	67.5	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	10
Running time in seconds for writing input file (t^{write})	0.0420
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0790
Running time in seconds for reading result file (t^{read})	0.0107

File dispersion-qkp-ran_1000_010.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	10.0 %
Edges (m)	50,076

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	63,961.0	0.10	0.03	0.03	—	—	—	0.00	0.07	0.02	7.8	6.4	120.0	120.0	120.0	120.5	120.0
5.0	129,640.0	0.15	0.05	0.00	—	—	—	0.00	0.17	0.01	11.4	10.8	120.0	120.0	120.0	75.9	120.0
10.0	260,427.0	0.05	0.10	0.00	—	—	—	0.00	0.35	0.01	16.4	18.0	120.0	120.0	120.0	63.1	120.0
25.0	646,371.0	0.04	0.01	0.00	—	—	—	0.00	0.52	0.02	26.4	21.0	120.0	120.0	120.0	97.6	120.0
50.0	1,283,391.0	0.02	0.00	0.00	—	—	—	0.00	1.03	0.02	37.5	10.8	120.0	120.0	120.0	66.6	120.0
75.0	1,916,564.0	0.07	0.03	0.00	—	—	—	0.00	0.78	0.02	40.7	9.4	120.0	120.0	120.0	83.6	120.0
Avg		0.07	0.04	0.01	—	—	—	0.00	0.49	0.02	23.4	12.7	120.0	120.0	120.0	84.5	120.0
Min		0.02	0.00	0.00	—	—	—	0.00	0.07	0.01	7.8	6.4	120.0	120.0	120.0	63.1	120.0
Max		0.15	0.10	0.03	—	—	—	0.00	1.03	0.02	40.7	21.0	120.0	120.0	120.0	120.5	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	5
Running time in seconds for writing input file (t^{write})	0.0821
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0780
Running time in seconds for reading result file (t^{read})	0.0106

File dispersion-qkp-ran_1000_025.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	25.0 %
Edges (m)	124,511

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	150,301.0	0.18	0.17	0.00	—	—	—	3,028.66	0.45	0.02	7.9	10.9	120.0	120.0	120.0	120.1	120.0
5.0	306,205.0	0.00	0.02	0.00	—	—	—	1,708.55	0.88	0.01	11.6	8.8	120.0	120.0	120.0	120.1	120.0
10.0	620,198.0	0.18	0.02	0.00	—	—	—	867.20	1.23	0.01	16.2	24.5	120.0	120.0	120.0	120.1	120.0
25.0	1,563,255.0	0.10	0.00	0.00	—	—	—	282.97	1.45	0.02	25.2	23.2	120.0	120.0	120.0	120.1	120.0
50.0	3,125,929.0	0.01	0.01	0.00	—	—	—	99.86	1.74	0.02	34.5	10.2	120.0	120.0	120.0	120.1	120.0
75.0	4,720,097.0	0.14	0.00	0.00	—	—	—	31.59	1.46	0.02	40.9	9.1	120.0	120.0	120.0	120.1	120.0
Avg		0.10	0.04	0.00	—	—	—	1,003.14	1.20	0.02	22.7	14.5	120.0	120.0	120.0	120.1	120.0
Min		0.00	0.00	0.00	—	—	—	31.59	0.45	0.01	7.9	8.8	120.0	120.0	120.0	120.1	120.0
Max		0.18	0.17	0.00	—	—	—	3,028.66	1.74	0.02	40.9	24.5	120.0	120.0	120.0	120.1	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	3
Running time in seconds for writing input file (t^{write})	0.2049
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0780
Running time in seconds for reading result file (t^{read})	0.0106

File dispersion-qkp-ran_1000_050.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	50.0 %
Edges (m)	249,725

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	297,648.0	0.20	0.05	0.00	—	—	—	1,625.60	2.64	0.03	8.1	11.7	120.0	120.0	120.0	120.3	120.0
5.0	604,276.0	0.50	0.37	0.00	—	—	—	1,061.78	2.14	0.01	11.8	12.1	120.0	120.0	120.0	120.5	120.0
10.0	1,226,691.0	0.21	0.11	0.00	—	—	—	630.36	2.83	0.01	16.8	23.1	120.0	120.0	120.0	120.3	120.0
25.0	3,124,211.0	0.36	0.00	0.00	—	—	—	256.24	2.73	0.02	26.4	27.9	120.0	120.0	120.0	120.3	120.0
50.0	6,260,333.0	0.03	0.00	0.00	—	—	—	84.98	2.87	0.02	36.2	10.6	120.0	120.0	120.0	120.3	120.0
75.0	9,404,648.0	0.00	0.00	0.00	—	—	—	29.26	2.20	0.02	42.9	9.4	120.0	120.0	120.0	120.3	120.0
Avg		0.22	0.09	0.00	—	—	—	614.70	2.57	0.02	23.7	15.8	120.0	120.0	120.0	120.3	120.0
Min		0.00	0.00	0.00	—	—	—	29.26	2.14	0.01	8.1	9.4	120.0	120.0	120.0	120.3	120.0
Max		0.50	0.37	0.00	—	—	—	1,625.60	2.87	0.03	42.9	27.9	120.0	120.0	120.0	120.5	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	2
Running time in seconds for writing input file (t^{write})	0.4041
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1100
Running time in seconds for reading result file (t^{read})	0.0110

File dispersion-qkp-ran_1000_075.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	75.0 %
Edges (m)	374,743

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	441,500.0	0.87	0.57	0.00	—	—	—	2,350.46	3.76	0.02	8.1	7.8	120.0	120.0	120.0	120.4	120.0
5.0	902,627.0	0.63	0.04	0.00	—	—	—	1,420.55	2.17	0.01	11.6	7.7	120.0	120.0	120.0	120.4	120.0
10.0	1,848,201.0	0.55	0.00	0.00	—	—	—	726.49	4.16	0.01	16.4	33.4	120.0	120.0	120.0	120.5	120.0
25.0	4,709,920.0	0.04	0.02	0.00	—	—	—	288.73	3.72	0.02	26.0	24.3	120.0	120.0	120.0	120.4	120.0
50.0	9,403,076.0	0.09	0.07	0.00	—	—	—	113.98	3.44	0.02	35.5	11.4	120.0	120.0	120.0	120.4	120.0
75.0	14,141,901.0	0.02	0.00	0.00	—	—	—	40.58	3.07	0.02	42.2	9.4	120.0	120.0	120.0	120.4	120.0
Avg		0.37	0.12	0.00	—	—	—	823.46	3.39	0.02	23.3	15.7	120.0	120.0	120.0	120.4	120.0
Min		0.02	0.00	0.00	—	—	—	40.58	2.17	0.01	8.1	7.7	120.0	120.0	120.0	120.4	120.0
Max		0.87	0.57	0.00	—	—	—	2,350.46	4.16	0.02	42.2	33.4	120.0	120.0	120.0	120.5	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	2
Running time in seconds for writing input file (t^{write})	0.6039
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1400
Running time in seconds for reading result file (t^{read})	0.0107

File dispersion-qkp-ran_1000_100.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	100.0 %
Edges (m)	499,500

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	594,758.0	0.00	0.00	0.00	—	—	—	1,997.47	4.25	0.02	8.0	12.5	120.0	120.0	120.0	120.5	120.0
5.0	1,202,265.0	0.16	0.08	0.00	—	—	—	1,339.87	4.64	0.01	11.7	10.5	120.0	120.0	120.0	120.9	121.0
10.0	2,448,419.0	0.06	0.04	0.00	—	—	—	843.59	4.34	0.01	16.5	24.3	120.0	120.0	120.0	120.9	120.0
25.0	6,267,974.0	0.08	0.05	0.00	—	—	—	297.49	4.76	0.02	26.1	24.7	120.0	120.0	120.0	122.7	120.0
50.0	12,513,115.0	0.10	0.09	0.00	—	—	—	99.38	4.77	0.02	36.0	14.3	120.0	120.0	120.0	123.0	120.0
75.0	18,829,315.0	0.05	0.04	0.00	—	—	—	35.93	3.20	0.02	42.2	10.3	120.0	120.0	120.0	124.0	121.0
Avg		0.07	0.05	0.00	—	—	—	768.96	4.33	0.02	23.4	16.1	120.0	120.0	120.0	122.0	120.3
Min		0.00	0.00	0.00	—	—	—	35.93	3.20	0.01	8.0	10.3	120.0	120.0	120.0	120.5	120.0
Max		0.16	0.09	0.00	—	—	—	1,997.47	4.77	0.02	42.2	24.7	120.0	120.0	120.0	124.0	121.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	2
Running time in seconds for writing input file (t^{write})	0.8067
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1410
Running time in seconds for reading result file (t^{read})	0.0109

File dispersion-qkp-ran_2000_005.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	5.0 %
Edges (m)	99,945

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	128,068.0	0.15	0.15	0.00	—	—	—	2,258.09	0.63	0.05	53.2	34.9	120.0	120.0	120.0	120.1	120.0
5.0	256,310.0	0.09	0.03	0.00	—	—	—	0.04	0.35	0.03	76.9	36.8	120.0	120.0	120.0	120.1	120.0
10.0	514,479.0	0.03	0.01	0.00	—	—	—	45.26	0.42	0.05	113.4	33.9	120.0	120.0	120.0	120.1	120.0
25.0	1,271,703.0	0.04	0.01	0.00	—	—	—	1.91	0.32	0.09	120.0	66.0	120.0	120.0	120.0	120.1	120.0
50.0	2,542,191.0	0.00	0.01	0.00	—	—	—	14.59	0.67	0.10	120.0	37.2	120.0	120.0	120.0	120.1	120.0
75.0	3,799,896.0	0.00	0.00	0.00	—	—	—	0.71	0.81	0.09	120.1	35.4	120.0	120.0	120.0	120.1	120.0
Avg		0.05	0.04	0.00	—	—	—	386.77	0.53	0.07	100.6	40.7	120.0	120.0	120.0	120.1	120.0
Min		0.00	0.00	0.00	—	—	—	0.04	0.32	0.03	53.2	33.9	120.0	120.0	120.0	120.1	120.0
Max		0.15	0.15	0.00	—	—	—	2,258.09	0.81	0.10	120.1	66.0	120.0	120.0	120.0	120.1	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	7
Running time in seconds for writing input file (t^{write})	0.1679
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1870
Running time in seconds for reading result file (t^{read})	0.0133

File dispersion-qkp-ran_2000_010.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	10.0 %
Edges (m)	199,950

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	252,271.0	0.08	0.00	0.00	—	—	—	2.27	0.46	0.12	52.6	35.1	120.0	120.0	120.0	120.2	120.0
5.0	505,979.0	0.17	0.01	0.00	—	—	—	1.96	0.97	0.03	77.6	31.9	120.0	120.0	120.0	120.3	120.0
10.0	1,013,767.0	0.04	0.00	0.00	—	—	—	44.86	0.95	0.05	114.2	63.6	120.0	120.0	120.0	120.4	120.0
25.0	2,525,326.0	0.05	0.01	0.00	—	—	—	69.24	1.23	0.09	120.1	59.7	120.0	120.0	120.0	120.5	120.0
50.0	5,054,155.0	0.09	0.00	0.00	—	—	—	43.14	1.70	0.10	120.0	40.1	120.0	120.0	120.0	120.5	120.0
75.0	7,584,175.0	0.06	0.00	0.00	—	—	—	0.01	1.20	0.10	120.1	35.9	120.0	120.0	120.0	107.8	120.0
Avg		0.08	0.00	0.00	—	—	—	26.91	1.08	0.08	100.8	44.4	120.0	120.0	120.0	118.3	120.0
Min		0.04	0.00	0.00	—	—	—	0.01	0.46	0.03	52.6	31.9	120.0	120.0	120.0	107.8	120.0
Max		0.17	0.01	0.00	—	—	—	69.24	1.70	0.12	120.1	63.6	120.0	120.0	120.0	120.5	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	3
Running time in seconds for writing input file (t^{write})	0.3258
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2030
Running time in seconds for reading result file (t^{read})	0.0128

File dispersion-qkp-ran_2000_025.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	25.0 %
Edges (m)	499,746

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	614,086.0	0.33	0.05	0.00	—	—	—	3,418.11	2.48	0.12	54.5	35.9	120.0	120.0	120.0	125.3	120.0
5.0	1,230,942.0	0.23	0.11	0.00	—	—	—	1,754.44	2.74	0.03	79.4	30.4	120.0	120.0	120.0	121.1	121.0
10.0	2,489,364.0	0.00	0.00	0.00	—	—	—	920.82	2.98	0.05	116.6	72.7	120.0	120.0	120.0	120.4	121.0
25.0	6,242,222.0	0.01	0.00	0.00	—	—	—	296.34	3.90	0.09	120.1	75.6	120.0	120.0	120.0	120.5	120.0
50.0	12,531,065.0	0.12	0.00	0.00	—	—	—	95.74	3.52	0.10	120.0	42.0	120.0	120.0	120.0	121.3	120.0
75.0	18,862,349.0	0.02	0.01	0.00	—	—	—	36.14	2.26	0.11	120.1	38.1	120.0	120.0	120.0	120.5	121.0
Avg		0.12	0.03	0.00	—	—	—	1,086.93	2.98	0.08	101.8	49.1	120.0	120.0	120.0	121.5	120.5
Min		0.00	0.00	0.00	—	—	—	36.14	2.26	0.03	54.5	30.4	120.0	120.0	120.0	120.4	120.0
Max		0.33	0.11	0.00	—	—	—	3,418.11	3.90	0.12	120.1	75.6	120.0	120.0	120.0	125.3	121.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	3
Running time in seconds for writing input file (t^{write})	0.8244
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2650
Running time in seconds for reading result file (t^{read})	0.0122

File dispersion-qkp-ran_2000_050.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	50.0 %
Edges (m)	999,153

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	1,209,791.0	0.30	0.12	0.00	—	—	—	3,464.92	4.20	0.12	55.6	35.9	120.0	120.0	120.0	120.6	122.0
5.0	2,453,162.0	0.00	0.00	0.01	—	—	—	1,734.03	4.21	0.03	80.2	32.1	120.0	120.0	120.0	121.5	122.0
10.0	4,968,199.0	0.07	0.03	0.00	—	—	—	808.27	5.14	0.05	115.8	65.9	120.0	120.0	120.0	120.7	122.0
25.0	12,457,575.0	0.07	0.05	0.00	—	—	—	288.37	6.37	0.09	120.1	76.0	120.0	120.0	120.0	121.7	122.0
50.0	25,021,352.0	0.00	0.00	0.00	—	—	—	98.72	6.21	0.10	120.1	49.8	120.0	120.0	120.0	121.0	122.0
75.0	37,655,302.0	0.04	0.03	0.00	—	—	—	33.40	2.98	0.11	120.0	35.5	120.0	120.0	120.0	121.1	122.0
Avg		0.08	0.04	0.00	—	—	—	1,071.28	4.85	0.08	102.0	49.2	120.0	120.0	120.0	121.1	122.0
Min		0.00	0.00	0.00	—	—	—	33.40	2.98	0.03	55.6	32.1	120.0	120.0	120.0	120.6	122.0
Max		0.30	0.12	0.01	—	—	—	3,464.92	6.37	0.12	120.1	76.0	120.0	120.0	120.0	121.7	122.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	2
Running time in seconds for writing input file (t^{write})	1.6280
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3590
Running time in seconds for reading result file (t^{read})	0.0130

File dispersion-qkp-ran_2000_075.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	75.0 %
Edges (m)	1,498,911

		Deviation from best OFV (%)								Running time (s)							
γ	Best OFV	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	1,803,144.0	0.03	0.00	0.00	—	—	—	2,996.11	7.52	0.12	54.4	40.9	120.0	120.0	120.0	121.4	120.0
5.0	3,668,519.0	0.21	0.14	0.00	—	—	—	1,562.15	5.42	0.03	79.1	42.0	120.0	120.0	120.0	121.5	120.0
10.0	7,440,967.0	0.12	0.10	0.00	—	—	—	859.15	6.87	0.05	117.8	71.1	120.0	120.0	120.0	122.2	120.0
25.0	18,680,254.0	0.17	0.16	0.00	—	—	—	290.36	7.78	0.09	120.1	53.3	120.0	120.0	120.0	121.2	120.0
50.0	37,536,130.0	0.04	0.03	0.00	—	—	—	97.04	7.36	0.10	120.1	45.5	120.0	120.0	120.0	121.5	120.0
75.0	56,431,631.0	0.00	0.00	0.00	—	—	—	32.49	3.73	0.11	120.0	40.7	120.0	120.0	120.0	121.2	120.0
Avg		0.10	0.07	0.00	—	—	—	972.88	6.45	0.08	101.9	48.9	120.0	120.0	120.0	121.5	120.0
Min		0.00	0.00	0.00	—	—	—	32.49	3.73	0.03	54.4	40.7	120.0	120.0	120.0	121.2	120.0
Max		0.21	0.16	0.00	—	—	—	2,996.11	7.78	0.12	120.1	71.1	120.0	120.0	120.0	122.2	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	2
Running time in seconds for writing input file (t^{write})	2.4491
Running time in seconds for executing parametric cut procedure (t^{cut})	0.4680
Running time in seconds for reading result file (t^{read})	0.0129

File dispersion-qkp-ran_2000_100.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	100.0 %
Edges (m)	1,999,000

γ	Best OFV	Deviation from best OFV (%)								Running time (s)							
		QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly	QKBP	RG	IHEA	LDP	DP	QK	Gurobi	Hexaly
2.5	2,408,954.0	0.15	0.10	0.00	—	—	—	2,903.46	8.58	0.12	56.0	38.7	120.0	120.0	120.0	121.6	120.0
5.0	4,877,288.0	0.16	0.13	0.00	—	—	—	1,850.02	11.21	0.03	81.6	68.0	120.0	120.0	120.0	122.3	120.0
10.0	9,893,808.0	0.12	0.11	0.00	—	—	—	860.83	9.06	0.05	118.0	63.9	120.0	120.0	120.0	122.3	120.0
25.0	24,896,630.0	0.02	0.01	0.00	—	—	—	295.91	9.65	0.09	120.0	70.4	120.0	120.0	120.0	121.0	120.0
50.0	50,005,296.0	0.05	0.04	0.00	—	—	—	95.75	7.94	0.10	120.0	52.8	120.0	120.0	120.0	121.6	120.0
75.0	75,261,939.0	0.01	0.00	0.00	—	—	—	31.63	4.32	0.11	120.1	38.6	120.0	120.0	120.0	121.8	120.0
Avg		0.09	0.07	0.00	—	—	—	1,006.27	8.46	0.08	102.6	55.4	120.0	120.0	120.0	121.8	120.0
Min		0.01	0.00	0.00	—	—	—	31.63	4.32	0.03	56.0	38.6	120.0	120.0	120.0	121.0	120.0
Max		0.16	0.13	0.00	—	—	—	2,903.46	11.21	0.12	120.1	70.4	120.0	120.0	120.0	122.3	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	1
Running time in seconds for writing input file (t^{write})	3.3078
Running time in seconds for executing parametric cut procedure (t^{cut})	0.5470
Running time in seconds for reading result file (t^{read})	0.0121