Results for instances from collection
`Dispersion-QKP with strategy wgeo`

File dispersion-qkp-wgeo_0300_005.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	5.0 %
Edges (m)	2,311

		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	243,827.0	**0.00**	0.89	**0.00**	—	1,280.02	—	**0.00**	**0.00**	**0.00**	0.3	2.9	120.0	1.9	120.0	0.2	4.0
5.0	456,069.3	0.79	1.12	0.35	—	279.70	—	**0.00**	**0.00**	**0.00**	0.4	3.3	120.0	5.6	120.0	0.4	4.0
10.0	871,396.1	0.12	0.79	**0.00**	—	557.82	—	**0.00**	**0.00**	**0.00**	0.6	4.9	120.0	7.2	120.0	0.8	24.0
25.0	1,982,381.4	0.77	0.27	0.04	—	221.95	—	**0.00**	**0.00**	**0.01**	1.0	4.5	120.0	10.2	120.0	1.4	22.0
50.0	3,784,007.6	**0.00**	0.12	**0.00**	—	105.14	—	**0.00**	**0.00**	**0.00**	1.5	3.8	120.0	10.2	120.0	0.7	5.0
75.0	5,342,038.6	0.03	0.07	**0.00**	—	42.71	—	**0.00**	**0.00**	**0.00**	1.8	2.3	120.0	10.8	120.0	0.5	23.0
Avg		0.29	0.54	0.06	—	414.56	—	**0.00**	**0.00**	**0.00**	0.9	3.6	120.0	7.7	120.0	0.7	13.7
Min		**0.00**	0.07	**0.00**	—	42.71	—	**0.00**	**0.00**	**0.00**	0.3	2.3	120.0	1.9	120.0	0.2	4.0
Max		0.79	1.12	0.35	—	1,280.02	—	**0.00**	**0.00**	**0.01**	1.8	4.9	120.0	10.8	120.0	1.4	24.0

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})	0.0045
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0150
Running time in seconds for reading result file (t^{read})	0.0078

File dispersion-qkp-wgeo_0300_010.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	10.0 %
Edges (m)	4,491

		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	458,676.4	**0.00**	**0.00**	**0.00**	—	950.79	—	**0.00**	**0.00**	**0.00**	0.3	2.6	120.0	2.2	120.0	0.2	6.0
5.0	844,525.4	**0.00**	**0.00**	**0.00**	—	4,307.59	—	**0.00**	**0.00**	**0.00**	0.5	3.1	120.0	3.0	120.0	0.8	40.0
10.0	1,556,993.5	0.49	0.44	**0.00**	—	970.38	—	**0.00**	**0.00**	**0.00**	0.7	5.4	120.0	5.5	120.0	3.8	63.0
25.0	3,619,800.7	0.36	0.03	**0.00**	—	256.64	—	**0.00**	**0.00**	**0.00**	1.1	4.5	120.0	9.0	120.0	3.4	109.0
50.0	7,002,766.4	0.18	0.10	**0.00**	—	104.84	—	**0.00**	**0.00**	**0.00**	1.5	3.9	120.0	9.3	120.0	0.8	48.0
75.0	10,160,390.8	0.01	0.01	**0.00**	—	34.89	—	**0.00**	**0.00**	**0.00**	1.8	2.2	120.0	10.5	120.0	0.9	120.0
Avg		0.17	0.10	**0.00**	—	1,104.19	—	**0.00**	**0.00**	**0.00**	1.0	3.6	120.0	6.6	120.0	1.6	64.3
Min		**0.00**	**0.00**	**0.00**	—	34.89	—	**0.00**	**0.00**	**0.00**	0.3	2.2	120.0	2.2	120.0	0.2	6.0
Max		0.49	0.44	**0.00**	—	4,307.59	—	**0.00**	**0.00**	**0.00**	1.8	5.4	120.0	10.5	120.0	3.8	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	25
Running time in seconds for writing input file (t^{write})	0.0139
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0160
Running time in seconds for reading result file (t^{read})	0.0079

File dispersion-qkp-wgeo_0300_025.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	25.0 %
Edges (m)	11,240

		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	931,558.9	0.50	0.08	0.06	—	3,164.45	—	**0.00**	**0.00**	**0.00**	0.3	2.8	120.0	2.3	120.0	9.2	34.0
5.0	1,853,334.4	0.08	**0.00**	**0.00**	—	1,281.29	—	**0.00**	**0.00**	**0.00**	0.5	3.8	120.0	4.2	120.0	9.3	64.0
10.0	3,664,060.9	0.52	0.26	**0.00**	—	538.98	—	**0.00**	**0.00**	**0.00**	0.7	7.7	120.0	6.8	120.0	8.6	60.0
25.0	9,131,039.3	0.17	0.03	**0.00**	—	314.37	—	**0.00**	**0.00**	**0.00**	1.1	7.2	120.0	7.3	120.0	18.3	120.0
50.0	17,810,122.9	0.19	0.05	**0.00**	—	125.46	—	**0.00**	0.03	**0.00**	1.6	3.3	120.0	9.1	120.0	7.2	120.0
75.0	25,817,371.7	0.01	**0.00**	**0.00**	—	43.56	—	**0.00**	0.06	**0.00**	1.9	2.1	120.0	9.9	120.0	2.3	120.0
Avg		0.24	0.07	0.01	—	911.35	—	**0.00**	0.01	**0.00**	1.0	4.5	120.0	6.6	120.0	9.1	86.3
Min		0.01	**0.00**	**0.00**	—	43.56	—	**0.00**	**0.00**	**0.00**	0.3	2.1	120.0	2.3	120.0	2.3	34.0
Max		0.52	0.26	0.06	—	3,164.45	—	**0.00**	0.06	**0.00**	1.9	7.7	120.0	9.9	120.0	18.3	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	15
Running time in seconds for writing input file (t^{write})	0.0185
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0150
Running time in seconds for reading result file (t^{read})	0.0081

File dispersion-qkp-wgeo_0300_050.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	50.0 %
Edges (m)	22,294

		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	1,785,890.6	0.30	0.11	**0.00**	—	2,094.36	—	**0.00**	**0.00**	**0.00**	0.3	2.8	120.0	2.5	120.0	52.7	120.0
5.0	3,600,198.8	0.70	**0.00**	**0.00**	—	1,058.67	—	**0.00**	**0.00**	**0.00**	0.5	3.0	120.0	4.7	120.0	31.8	120.0
10.0	6,955,208.0	1.06	**0.00**	**0.00**	—	457.34	—	**0.00**	0.07	**0.00**	0.7	8.8	120.0	7.0	120.0	106.6	120.0
25.0	17,494,277.6	0.11	0.04	**0.00**	—	307.49	—	**0.00**	**0.00**	**0.01**	1.1	5.0	120.0	7.0	120.0	64.9	120.0
50.0	35,223,495.4	0.45	0.03	**0.00**	—	124.65	—	**0.00**	0.03	**0.00**	1.5	3.7	120.0	8.1	120.0	17.3	120.0
75.0	51,060,804.8	0.01	0.01	**0.00**	—	36.13	—	**0.00**	**0.00**	**0.00**	1.8	2.0	120.0	9.8	120.0	14.8	120.0
Avg		0.44	0.03	**0.00**	—	679.77	—	**0.00**	0.02	**0.00**	1.0	4.2	120.0	6.5	120.0	48.0	120.0
Min		0.01	**0.00**	**0.00**	—	36.13	—	**0.00**	**0.00**	**0.00**	0.3	2.0	120.0	2.5	120.0	14.8	120.0
Max		1.06	0.11	**0.00**	—	2,094.36	—	**0.00**	0.07	**0.01**	1.8	8.8	120.0	9.8	120.0	106.6	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})	0.0340
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0160
Running time in seconds for reading result file (t^{read})	0.0083

File dispersion-qkp-wgeo_0300_075.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	75.0 %
Edges (m)	33,661

		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	2,999,792.3	0.36	**0.00**	**0.00**	—	932.40	—	**0.00**	**0.00**	**0.00**	0.4	2.9	120.0	3.4	120.0	21.3	120.0
5.0	5,522,693.0	0.72	0.36	**0.00**	—	793.97	—	**0.00**	**0.00**	**0.00**	0.5	3.4	120.0	4.6	120.0	35.9	120.0
10.0	10,622,771.9	0.05	0.04	**0.00**	—	415.50	—	**0.00**	0.02	**0.00**	0.7	3.8	120.0	7.1	120.0	103.5	120.0
25.0	26,124,846.2	0.14	**0.00**	**0.00**	—	296.61	—	**0.00**	0.02	**0.01**	1.1	8.2	120.0	7.0	120.0	114.4	120.0
50.0	52,283,443.2	0.22	0.02	**0.00**	—	107.68	—	**0.00**	**0.00**	**0.00**	1.6	3.5	120.0	7.9	120.0	105.3	120.0
75.0	75,852,661.7	0.44	0.22	**0.00**	—	42.40	—	**0.00**	**0.00**	**0.00**	1.9	2.2	120.0	9.7	120.0	27.0	120.0
Avg		0.32	0.11	**0.00**	—	431.43	—	**0.00**	0.01	**0.00**	1.0	4.0	120.0	6.6	120.0	67.9	120.0
Min		0.05	**0.00**	**0.00**	—	42.40	—	**0.00**	**0.00**	**0.00**	0.4	2.2	120.0	3.4	120.0	21.3	120.0
Max		0.72	0.36	**0.00**	—	932.40	—	**0.00**	0.02	**0.01**	1.9	8.2	120.0	9.7	120.0	114.4	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})	0.0537
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-wgeo_0300_100.txt

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

		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	3,954,022.0	0.19	**0.00**	**0.00**	—	1,177.91	—	**0.00**	**0.00**	**0.00**	0.4	3.1	120.0	3.1	120.0	11.6	120.0
5.0	7,543,680.9	1.16	0.46	**0.00**	—	1,020.28	—	**0.00**	**0.00**	**0.00**	0.5	3.2	120.0	3.8	120.0	33.8	120.0
10.0	14,538,477.6	0.83	0.02	**0.00**	—	593.49	—	**0.00**	**0.00**	**0.00**	0.7	7.7	120.0	5.6	120.0	43.5	120.0
25.0	35,493,957.2	**0.00**	**0.00**	**0.00**	—	265.48	—	**0.00**	0.03	**0.01**	1.1	6.7	120.0	6.4	120.0	42.1	120.0
50.0	68,925,411.6	0.28	0.01	**0.00**	—	97.33	—	**0.00**	0.04	**0.01**	1.5	3.8	120.0	8.0	120.0	89.2	120.0
75.0	102,263,704.4	0.29	0.06	**0.00**	—	38.87	—	**0.00**	**0.00**	**0.00**	1.9	2.2	120.0	9.5	120.0	40.5	120.0
Avg		0.46	0.09	**0.00**	—	532.23	—	**0.00**	0.01	**0.00**	1.0	4.4	120.0	6.1	120.0	43.5	120.0
Min		**0.00**	**0.00**	**0.00**	—	38.87	—	**0.00**	**0.00**	**0.00**	0.4	2.2	120.0	3.1	120.0	11.6	120.0
Max		1.16	0.46	**0.00**	—	1,177.91	—	**0.00**	0.04	**0.01**	1.9	7.7	120.0	9.5	120.0	89.2	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})	0.0670
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0084

File dispersion-qkp-wgeo_0500_005.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	5.0 %
Edges (m)	6,367

		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	558,061.0	1.76	1.48	0.18	—	562.77	—	**0.00**	**0.00**	**0.01**	0.9	5.2	120.0	24.6	120.0	3.6	32.0
5.0	1,128,973.8	0.35	0.08	**0.00**	—	446.02	—	**0.00**	0.08	**0.00**	1.5	3.6	120.0	34.7	120.0	2.2	120.0
10.0	2,230,939.1	0.39	0.22	0.02	—	352.33	—	**0.00**	**0.00**	**0.01**	2.1	6.3	120.0	53.7	120.0	4.1	120.0
25.0	5,452,739.2	0.15	0.12	**0.00**	—	273.07	—	**0.00**	**0.00**	**0.01**	3.5	7.5	120.0	63.4	120.0	1.6	36.0
50.0	10,669,402.8	0.06	0.03	**0.00**	—	106.92	—	**0.00**	**0.00**	**0.01**	5.1	6.4	120.0	52.7	120.0	1.1	52.0
75.0	15,422,748.8	0.03	0.03	**0.00**	—	37.35	—	**0.00**	**0.00**	**0.01**	6.2	3.6	120.0	65.2	120.0	1.2	34.0
Avg		0.46	0.33	0.03	—	296.41	—	**0.00**	0.01	**0.01**	3.2	5.4	120.0	49.0	120.0	2.3	65.7
Min		0.03	0.03	**0.00**	—	37.35	—	**0.00**	**0.00**	**0.00**	0.9	3.6	120.0	24.6	120.0	1.1	32.0
Max		1.76	1.48	0.18	—	562.77	—	**0.00**	0.08	**0.01**	6.2	7.5	120.0	65.2	120.0	4.1	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})	0.0117
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-wgeo_0500_010.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	10.0 %
Edges (m)	12,399

		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	1,084,012.7	0.23	0.38	**0.00**	—	1,266.45	—	**0.00**	**0.00**	**0.00**	1.0	5.5	120.0	12.4	120.0	14.4	69.0
5.0	2,087,950.0	**0.00**	0.09	**0.00**	—	2,615.23	—	**0.00**	**0.00**	**0.00**	1.5	2.6	120.0	18.3	120.0	17.9	83.0
10.0	4,020,257.3	0.39	0.22	**0.00**	—	1,245.56	—	**0.00**	0.14	**0.01**	2.2	6.7	120.0	36.2	120.0	36.9	120.0
25.0	10,123,775.8	**0.00**	0.12	**0.00**	—	395.58	—	**0.00**	**0.00**	**0.01**	3.5	7.5	120.0	47.5	120.0	29.2	120.0
50.0	20,091,488.2	0.04	0.04	**0.00**	—	114.36	—	**0.00**	0.04	**0.01**	5.1	5.2	120.0	46.6	120.0	6.1	120.0
75.0	29,194,379.6	0.13	0.04	**0.00**	—	37.60	—	**0.00**	0.01	**0.00**	6.2	3.4	120.0	62.1	120.0	5.9	120.0
Avg		0.13	0.15	**0.00**	—	945.80	—	**0.00**	0.03	**0.01**	3.2	5.2	120.0	37.2	120.0	18.4	105.3
Min		**0.00**	0.04	**0.00**	—	37.60	—	**0.00**	**0.00**	**0.00**	1.0	2.6	120.0	12.4	120.0	5.9	69.0
Max		0.39	0.38	**0.00**	—	2,615.23	—	**0.00**	0.14	**0.01**	6.2	7.5	120.0	62.1	120.0	36.9	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	20
Running time in seconds for writing input file (t^{write})	0.0196
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-wgeo_0500_025.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	25.0 %
Edges (m)	31,118

		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	2,581,885.1	0.30	0.24	**0.00**	—	1,132.07	—	**0.00**	0.50	**0.01**	1.1	8.8	120.0	17.5	120.0	17.4	120.0
5.0	5,160,148.6	0.41	0.28	**0.00**	—	1,465.44	—	**0.00**	0.10	**0.00**	1.6	4.5	120.0	24.9	120.0	18.8	120.0
10.0	10,016,504.2	0.58	0.12	**0.00**	—	541.69	—	**0.00**	0.06	**0.01**	2.3	9.7	120.0	38.3	120.0	82.6	120.0
25.0	24,853,019.8	0.08	0.03	0.01	—	304.35	—	**0.00**	0.01	**0.01**	3.6	9.1	120.0	43.1	120.0	36.4	120.0
50.0	48,993,908.6	0.14	**0.00**	**0.00**	—	114.88	—	**0.00**	**0.00**	**0.01**	5.2	7.0	120.0	44.2	120.0	44.0	120.0
75.0	72,048,838.2	0.24	**0.00**	**0.00**	—	35.80	—	**0.00**	0.09	**0.01**	6.2	4.2	120.0	60.9	120.0	19.6	120.0
Avg		0.29	0.11	0.00	—	599.04	—	**0.00**	0.13	**0.01**	3.3	7.2	120.0	38.1	120.0	36.4	120.0
Min		0.08	**0.00**	**0.00**	—	35.80	—	**0.00**	**0.00**	**0.00**	1.1	4.2	120.0	17.5	120.0	17.4	120.0
Max		0.58	0.28	0.01	—	1,465.44	—	**0.00**	0.50	**0.01**	6.2	9.7	120.0	60.9	120.0	82.6	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})	0.0542
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-wgeo_0500_050.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	50.0 %
Edges (m)	62,463

		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	4,702,038.2	0.52	0.40	**0.00**	—	771.85	—	**0.00**	**0.00**	**0.01**	1.1	2.4	120.0	21.7	120.0	120.3	120.0
5.0	9,564,042.5	0.58	0.07	**0.00**	—	854.58	—	**0.00**	0.21	**0.00**	1.7	5.5	120.0	30.6	120.0	103.2	120.0
10.0	18,747,885.1	**0.00**	**0.00**	**0.00**	—	691.66	—	1.98	0.08	**0.01**	2.3	10.3	120.0	34.6	120.0	121.6	120.0
25.0	47,909,716.0	0.11	0.04	**0.00**	—	270.36	—	5.93	**0.00**	**0.01**	3.7	8.0	120.0	36.7	120.0	120.1	120.0
50.0	96,893,829.3	0.06	**0.00**	**0.00**	—	96.98	—	0.09	0.03	**0.01**	5.3	7.0	120.0	40.0	120.0	120.3	120.0
75.0	143,539,160.9	0.17	0.02	**0.00**	—	33.41	—	**0.00**	0.11	**0.00**	6.3	3.1	120.0	59.9	120.0	69.9	120.0
Avg		0.24	0.09	**0.00**	—	453.14	—	1.33	0.07	**0.01**	3.4	6.0	120.0	37.2	120.0	109.2	120.0
Min		**0.00**	**0.00**	**0.00**	—	33.41	—	**0.00**	**0.00**	**0.00**	1.1	2.4	120.0	21.7	120.0	69.9	120.0
Max		0.58	0.40	**0.00**	—	854.58	—	5.93	0.21	**0.01**	6.3	10.3	120.0	59.9	120.0	121.6	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	8
Running time in seconds for writing input file (t^{write})	0.0978
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0320
Running time in seconds for reading result file (t^{read})	0.0092

File dispersion-qkp-wgeo_0500_075.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	75.0 %
Edges (m)	93,428

		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	7,076,592.5	0.58	0.04	**0.00**	—	1,271.20	—	2,418.75	0.04	**0.01**	1.1	2.3	120.0	22.0	120.0	120.1	120.0
5.0	14,164,835.9	0.15	0.10	**0.00**	—	832.00	—	1,613.52	0.05	**0.00**	1.7	3.3	120.0	30.2	120.0	120.1	120.0
10.0	28,229,742.7	0.11	**0.00**	**0.00**	—	689.86	—	7.32	0.17	**0.01**	2.4	7.7	120.0	36.2	120.0	120.1	120.0
25.0	71,497,396.7	**0.00**	**0.00**	**0.00**	—	307.80	—	5.39	0.10	**0.01**	3.8	8.8	120.0	39.2	120.0	120.1	120.0
50.0	145,346,118.0	0.32	**0.00**	**0.00**	—	113.11	—	23.63	0.02	**0.01**	5.4	6.9	120.0	41.6	120.0	120.1	120.0
75.0	215,222,498.9	0.17	**0.00**	**0.00**	—	33.63	—	0.23	0.15	**0.01**	6.5	3.6	120.0	60.0	120.0	120.1	120.0
Avg		0.22	0.02	**0.00**	—	541.27	—	678.14	0.09	**0.01**	3.5	5.5	120.0	38.2	120.0	120.1	120.0
Min		**0.00**	**0.00**	**0.00**	—	33.63	—	0.23	0.02	**0.00**	1.1	2.3	120.0	22.0	120.0	120.1	120.0
Max		0.58	0.10	**0.00**	—	1,271.20	—	2,418.75	0.17	**0.01**	6.5	8.8	120.0	60.0	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})	0.1621
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-wgeo_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	9,398,593.9	**0.00**	**0.00**	**0.00**	—	1,755.88	—	3,166.00	**0.00**	**0.01**	1.1	4.2	120.0	17.8	120.0	120.1	120.0
5.0	18,962,077.3	0.08	**0.00**	**0.00**	—	1,281.51	—	1,280.97	0.18	**0.00**	1.5	4.6	120.0	26.9	120.0	120.1	120.0
10.0	38,362,114.8	0.30	0.07	**0.00**	—	654.83	—	4.85	0.04	**0.01**	2.2	10.9	120.0	35.2	120.0	120.1	120.0
25.0	96,012,175.0	0.01	**0.00**	**0.00**	—	290.82	—	44.42	0.02	**0.01**	3.6	10.2	120.0	36.3	120.0	120.1	120.0
50.0	190,520,840.2	0.25	0.02	**0.00**	—	117.96	—	38.14	0.14	**0.01**	5.1	6.3	120.0	44.0	120.0	120.1	120.0
75.0	281,686,636.9	0.16	0.01	**0.00**	—	34.52	—	18.25	0.06	**0.00**	6.1	4.2	120.0	59.7	120.0	120.1	120.0
Avg		0.13	0.02	**0.00**	—	689.25	—	758.77	0.07	**0.01**	3.3	6.7	120.0	36.6	120.0	120.1	120.0
Min		**0.00**	**0.00**	**0.00**	—	34.52	—	4.85	**0.00**	**0.00**	1.1	4.2	120.0	17.8	120.0	120.1	120.0
Max		0.30	0.07	**0.00**	—	1,755.88	—	3,166.00	0.18	**0.01**	6.1	10.9	120.0	59.7	120.0	120.1	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})	0.2003
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0320
Running time in seconds for reading result file (t^{read})	0.0091

File dispersion-qkp-wgeo_1000_005.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	5.0 %
Edges (m)	24,926

		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	2,097,668.7	0.27	0.19	**0.00**	—	—	—	**0.00**	0.63	**0.01**	7.3	10.4	120.0	120.0	120.0	58.6	120.0
5.0	4,133,456.0	0.20	0.05	**0.00**	—	—	—	**0.00**	0.12	**0.01**	10.5	9.6	120.0	120.0	120.0	43.2	120.0
10.0	8,257,446.2	0.15	0.06	0.04	—	—	—	**0.00**	0.11	**0.01**	15.5	12.3	120.0	120.0	120.0	26.8	120.0
25.0	20,680,812.1	0.07	0.01	**0.00**	—	—	—	**0.00**	0.03	**0.02**	24.5	17.7	120.0	120.0	120.0	44.8	120.0
50.0	40,901,461.2	0.05	0.01	**0.00**	—	—	—	**0.00**	0.08	**0.02**	33.9	10.4	120.0	120.0	120.0	8.9	120.0
75.0	59,591,361.6	0.02	0.01	**0.00**	—	—	—	0.01	0.06	**0.01**	40.5	9.1	120.0	120.0	120.0	4.5	120.0
Avg		0.13	0.06	0.01	—	—	—	**0.00**	0.17	**0.01**	22.0	11.6	120.0	120.0	120.0	31.1	120.0
Min		0.02	0.01	**0.00**	—	—	—	**0.00**	0.03	**0.01**	7.3	9.1	120.0	120.0	120.0	4.5	120.0
Max		0.27	0.19	0.04	—	—	—	**0.01**	0.63	**0.02**	40.5	17.7	120.0	120.0	120.0	58.6	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	0.0446
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0940
Running time in seconds for reading result file (t^{read})	0.0105

File dispersion-qkp-wgeo_1000_010.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	10.0 %
Edges (m)	49,500

		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	4,094,690.2	0.17	0.15	**0.00**	—	—	—	**0.00**	0.28	**0.02**	7.5	9.3	120.0	120.0	120.0	69.3	120.0
5.0	8,106,253.8	0.08	0.02	**0.00**	—	—	—	**0.00**	0.10	**0.01**	11.0	10.3	120.0	120.0	120.0	70.7	120.0
10.0	16,208,280.2	**0.00**	0.03	**0.00**	—	—	—	**0.00**	0.03	**0.01**	16.7	11.4	120.0	120.0	120.0	59.8	120.0
25.0	39,835,229.4	0.02	0.01	**0.00**	—	—	—	0.01	0.13	**0.02**	26.0	16.7	120.0	120.0	120.0	32.1	120.0
50.0	77,901,185.6	0.02	0.01	**0.00**	—	—	—	**0.00**	0.02	**0.02**	33.5	12.2	120.0	120.0	120.0	119.8	120.0
75.0	114,537,403.9	0.01	**0.00**	**0.00**	—	—	—	**0.00**	0.07	**0.01**	40.7	8.9	120.0	120.0	120.0	17.0	120.0
Avg		0.05	0.04	**0.00**	—	—	—	0.00	0.11	**0.02**	22.6	11.5	120.0	120.0	120.0	61.5	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	**0.00**	0.02	**0.01**	7.5	8.9	120.0	120.0	120.0	17.0	120.0
Max		0.17	0.15	**0.00**	—	—	—	0.01	0.28	**0.02**	40.7	16.7	120.0	120.0	120.0	119.8	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	11
Running time in seconds for writing input file (t^{write})	0.0899
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1090
Running time in seconds for reading result file (t^{read})	0.0068

File dispersion-qkp-wgeo_1000_025.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	25.0 %
Edges (m)	124,346

		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	9,993,687.5	0.01	0.01	**0.00**	—	—	—	2,785.20	**0.00**	**0.02**	7.6	6.6	120.0	120.0	120.0	120.1	120.0
5.0	19,788,228.4	**0.00**	**0.00**	**0.00**	—	—	—	1,650.03	0.33	**0.01**	10.8	7.2	120.0	120.0	120.0	120.1	120.0
10.0	39,510,732.5	0.30	0.02	**0.00**	—	—	—	6.82	0.07	**0.01**	15.4	9.7	120.0	120.0	120.0	120.1	120.0
25.0	98,588,970.4	0.09	**0.00**	**0.00**	—	—	—	43.92	0.16	**0.02**	24.3	15.1	120.0	120.0	120.0	120.1	120.0
50.0	198,616,197.0	0.03	**0.00**	**0.00**	—	—	—	42.87	0.09	**0.02**	33.5	10.6	120.0	120.0	120.0	120.1	120.0
75.0	292,888,882.6	0.03	0.01	**0.00**	—	—	—	0.01	0.15	**0.01**	40.4	9.2	120.0	120.0	120.0	36.3	120.0
Avg		0.08	0.01	**0.00**	—	—	—	754.81	0.13	**0.02**	22.0	9.7	120.0	120.0	120.0	106.1	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	0.01	**0.00**	**0.01**	7.6	6.6	120.0	120.0	120.0	36.3	120.0
Max		0.30	0.02	**0.00**	—	—	—	2,785.20	0.33	**0.02**	40.4	15.1	120.0	120.0	120.0	120.1	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})	0.2122
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0940
Running time in seconds for reading result file (t^{read})	0.0118

File dispersion-qkp-wgeo_1000_050.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	50.0 %
Edges (m)	250,545

		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	17,884,079.9	**0.00**	**0.00**	**0.00**	—	—	—	2,932.39	0.35	**0.02**	8.2	11.5	120.0	120.0	120.0	120.3	120.0
5.0	37,062,363.1	0.47	**0.00**	**0.00**	—	—	—	1,945.77	0.26	**0.01**	12.1	7.5	120.0	120.0	120.0	120.3	120.0
10.0	74,779,460.4	0.02	**0.00**	0.02	—	—	—	856.41	0.31	**0.01**	16.9	14.1	120.0	120.0	120.0	120.4	120.0
25.0	192,960,369.6	0.13	**0.00**	**0.00**	—	—	—	311.42	0.37	**0.02**	26.8	19.4	120.0	120.0	120.0	120.3	120.0
50.0	387,068,176.0	0.11	**0.00**	**0.00**	—	—	—	**0.00**	0.37	**0.02**	35.5	12.3	120.0	120.0	120.0	64.2	120.0
75.0	574,270,255.2	0.07	0.02	**0.00**	—	—	—	0.03	0.13	**0.01**	42.2	9.2	120.0	120.0	120.0	120.3	120.0
Avg		0.13	**0.00**	**0.00**	—	—	—	1,007.67	0.30	**0.02**	23.6	12.3	120.0	120.0	120.0	111.0	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	**0.00**	0.13	**0.01**	8.2	7.5	120.0	120.0	120.0	64.2	120.0
Max		0.47	**0.02**	**0.02**	—	—	—	2,932.39	0.37	**0.02**	42.2	19.4	120.0	120.0	120.0	120.4	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	11
Running time in seconds for writing input file (t^{write})	0.4223
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1090
Running time in seconds for reading result file (t^{read})	0.0104

File dispersion-qkp-wgeo_1000_075.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	75.0 %
Edges (m)	374,402

		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	27,696,300.9	0.14	0.14	**0.00**	—	—	—	2,476.34	0.98	**0.02**	7.9	11.5	120.0	120.0	120.0	120.4	120.0
5.0	56,356,737.3	**0.00**	**0.00**	**0.00**	—	—	—	1,443.26	0.46	**0.01**	11.2	13.6	120.0	120.0	120.0	120.5	120.0
10.0	113,225,968.9	0.19	0.01	**0.00**	—	—	—	810.77	0.60	**0.01**	15.8	19.8	120.0	120.0	120.0	120.4	120.0
25.0	288,933,766.1	0.20	0.01	**0.00**	—	—	—	296.37	0.54	**0.02**	25.1	20.0	120.0	120.0	120.0	120.4	120.0
50.0	590,302,430.7	**0.00**	**0.00**	**0.00**	—	—	—	113.75	0.53	**0.02**	33.9	12.9	120.0	120.0	120.0	120.4	120.0
75.0	880,675,581.5	0.01	**0.00**	**0.00**	—	—	—	40.47	0.20	**0.01**	40.8	10.0	120.0	120.0	120.0	120.3	120.0
Avg		0.09	0.03	**0.00**	—	—	—	863.49	0.55	**0.02**	22.5	14.7	120.0	120.0	120.0	120.4	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	40.47	0.20	**0.01**	7.9	10.0	120.0	120.0	120.0	120.3	120.0
Max		0.20	0.14	**0.00**	—	—	—	2,476.34	0.98	**0.02**	40.8	20.0	120.0	120.0	120.0	120.5	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	11
Running time in seconds for writing input file (t^{write})	0.6941
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1400
Running time in seconds for reading result file (t^{read})	0.0104

File dispersion-qkp-wgeo_1000_100.txt

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

		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	36,867,381.1	0.24	**0.00**	**0.00**	—	—	—	2,668.33	0.90	**0.02**	7.7	10.6	120.0	120.0	120.0	120.4	121.0
5.0	75,099,219.7	0.32	0.01	**0.00**	—	—	—	1,702.28	0.95	**0.01**	10.8	13.2	120.0	120.0	120.0	120.5	120.0
10.0	152,189,862.7	0.20	**0.00**	**0.00**	—	—	—	1,065.76	0.49	**0.01**	15.4	24.7	120.0	120.0	120.0	120.5	120.0
25.0	393,478,875.7	0.01	0.01	**0.00**	—	—	—	345.23	0.97	**0.02**	24.6	13.0	120.0	120.0	120.0	120.5	120.0
50.0	786,404,410.9	0.02	**0.00**	**0.00**	—	—	—	116.19	0.59	**0.02**	33.7	11.1	120.0	120.0	120.0	120.5	121.0
75.0	1,160,864,584.9	0.13	**0.00**	**0.00**	—	—	—	43.84	0.33	**0.01**	40.8	11.7	120.0	120.0	120.0	120.5	121.0
Avg		0.15	0.00	**0.00**	—	—	—	990.27	0.70	**0.02**	22.2	14.0	120.0	120.0	120.0	120.5	120.5
Min		0.01	**0.00**	**0.00**	—	—	—	43.84	0.33	**0.01**	7.7	10.6	120.0	120.0	120.0	120.4	120.0
Max		0.32	0.01	**0.00**	—	—	—	2,668.33	0.97	**0.02**	40.8	24.7	120.0	120.0	120.0	120.5	121.0

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})	0.8241
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1250
Running time in seconds for reading result file (t^{read})	0.0107

File dispersion-qkp-wgeo_2000_005.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	5.0 %
Edges (m)	99,390

		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	8,166,972.4	0.06	0.06	**0.00**	—	—	—	3,388.63	0.22	**0.03**	48.6	35.2	120.0	120.0	120.0	120.1	120.0
5.0	16,066,635.9	0.03	0.07	**0.00**	—	—	—	1.77	0.21	**0.03**	73.6	40.5	120.0	120.0	120.0	120.1	120.0
10.0	31,868,693.4	0.05	0.02	**0.00**	—	—	—	4.92	0.26	**0.05**	109.3	42.7	120.0	120.0	120.0	120.1	120.0
25.0	79,912,108.6	0.02	0.01	**0.00**	—	—	—	2.02	0.15	**0.09**	120.1	58.9	120.0	120.0	120.0	120.1	120.0
50.0	159,102,178.5	0.02	**0.00**	**0.00**	—	—	—	**0.00**	0.11	**0.08**	120.0	37.9	120.0	120.0	120.0	26.9	120.0
75.0	233,228,426.7	**0.00**	**0.00**	**0.00**	—	—	—	**0.00**	0.11	**0.07**	120.1	34.3	120.0	120.0	120.0	21.1	120.0
Avg		0.03	0.03	**0.00**	—	—	—	566.22	0.18	**0.06**	98.6	41.6	120.0	120.0	120.0	88.1	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	**0.00**	0.11	**0.03**	48.6	34.3	120.0	120.0	120.0	21.1	120.0
Max		0.06	0.07	**0.00**	—	—	—	3,388.63	0.26	**0.09**	120.1	58.9	120.0	120.0	120.0	120.1	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	0.1732
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1720
Running time in seconds for reading result file (t^{read})	0.0132

File dispersion-qkp-wgeo_2000_010.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	10.0 %
Edges (m)	199,944

		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	15,159,468.7	0.09	0.01	**0.00**	—	—	—	1,998.03	0.36	**0.12**	50.9	32.6	120.0	120.0	120.0	120.3	120.0
5.0	30,823,013.0	0.01	0.01	**0.00**	—	—	—	1,580.99	0.47	**0.03**	76.0	42.9	120.0	120.0	120.0	120.4	120.0
10.0	62,929,039.7	0.01	0.01	**0.00**	—	—	—	836.51	0.28	**0.05**	112.4	38.7	120.0	120.0	120.0	120.3	120.0
25.0	158,179,189.4	0.01	**0.00**	**0.00**	—	—	—	283.50	0.25	**0.09**	120.0	78.6	120.0	120.0	120.0	120.3	120.0
50.0	314,269,864.5	0.01	**0.00**	**0.00**	—	—	—	0.01	0.22	**0.07**	120.1	39.3	120.0	120.0	120.0	110.4	120.0
75.0	462,879,913.4	0.02	**0.00**	**0.00**	—	—	—	**0.00**	0.18	**0.07**	120.0	35.9	120.0	120.0	120.0	114.8	120.0
Avg		0.02	0.01	**0.00**	—	—	—	783.17	0.29	**0.07**	99.9	44.7	120.0	120.0	120.0	117.7	120.0
Min		0.01	**0.00**	**0.00**	—	—	—	**0.00**	0.18	**0.03**	50.9	32.6	120.0	120.0	120.0	110.4	120.0
Max		0.09	0.01	**0.00**	—	—	—	1,998.03	0.47	**0.12**	120.1	78.6	120.0	120.0	120.0	120.4	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})	0.3379
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2030
Running time in seconds for reading result file (t^{read})	0.0130

File dispersion-qkp-wgeo_2000_025.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	25.0 %
Edges (m)	500,305

		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	37,992,367.6	0.08	0.02	**0.00**	—	—	—	1.65	1.56	**0.12**	52.3	34.4	120.0	120.0	120.0	120.5	121.0
5.0	76,534,328.7	0.23	0.01	**0.00**	—	—	—	**0.00**	0.65	**0.03**	77.6	30.2	120.0	120.0	120.0	120.3	120.0
10.0	152,694,614.0	0.02	0.01	**0.00**	—	—	—	2.29	0.73	**0.04**	113.0	38.9	120.0	120.0	120.0	120.3	120.0
25.0	380,011,550.0	0.02	**0.00**	**0.00**	—	—	—	41.64	1.00	**0.09**	120.0	39.1	120.0	120.0	120.0	120.5	121.0
50.0	760,657,384.2	0.01	**0.00**	**0.00**	—	—	—	0.11	0.82	**0.08**	120.0	38.7	120.0	120.0	120.0	120.3	121.0
75.0	1,127,226,022.4	**0.00**	**0.00**	**0.00**	—	—	—	5.23	0.29	**0.07**	120.1	35.9	120.0	120.0	120.0	120.4	120.0
Avg		0.06	0.01	**0.00**	—	—	—	8.49	0.84	**0.07**	100.5	36.2	120.0	120.0	120.0	120.4	120.5
Min		**0.00**	**0.00**	**0.00**	—	—	—	**0.00**	0.29	**0.03**	52.3	30.2	120.0	120.0	120.0	120.3	120.0
Max		0.23	0.02	**0.00**	—	—	—	41.64	1.56	**0.12**	120.1	39.1	120.0	120.0	120.0	120.5	121.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	8
Running time in seconds for writing input file (t^{write})	0.8476
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2500
Running time in seconds for reading result file (t^{read})	0.0128

File dispersion-qkp-wgeo_2000_050.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	50.0 %
Edges (m)	999,892

		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	74,900,595.1	0.01	0.01	**0.00**	—	—	—	3,291.52	2.09	**0.12**	53.1	36.6	120.0	120.0	120.0	123.7	122.0
5.0	152,462,033.4	0.08	**0.00**	**0.00**	—	—	—	1,590.28	2.17	**0.03**	77.8	33.7	120.0	120.0	120.0	123.4	122.0
10.0	308,956,459.5	0.04	0.01	**0.00**	—	—	—	850.81	1.83	**0.05**	114.6	34.9	120.0	120.0	120.0	121.2	122.0
25.0	767,532,556.3	0.07	**0.00**	**0.00**	—	—	—	327.34	2.21	**0.09**	120.1	70.2	120.0	120.0	120.0	122.8	122.0
50.0	1,556,159,010.6	0.02	**0.00**	**0.00**	—	—	—	112.37	1.22	**0.09**	120.0	41.0	120.0	120.0	120.0	121.0	122.0
75.0	2,317,859,938.6	**0.00**	**0.00**	**0.00**	—	—	—	37.77	0.75	**0.07**	120.0	37.8	120.0	120.0	120.0	121.3	122.0
Avg		0.04	0.00	**0.00**	—	—	—	1,035.02	1.71	**0.07**	100.9	42.4	120.0	120.0	120.0	122.2	122.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	37.77	0.75	**0.03**	53.1	33.7	120.0	120.0	120.0	121.0	122.0
Max		0.08	0.01	**0.00**	—	—	—	3,291.52	2.21	**0.12**	120.1	70.2	120.0	120.0	120.0	123.7	122.0

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})	1.7120
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3280
Running time in seconds for reading result file (t^{read})	0.0131

File dispersion-qkp-wgeo_2000_075.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	75.0 %
Edges (m)	1,499,336

		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	111,792,185.1	0.28	0.01	**0.00**	—	—	—	3,161.48	3.30	**0.12**	53.9	34.7	120.0	120.0	120.0	122.5	120.0
5.0	227,593,860.1	**0.00**	**0.00**	**0.00**	—	—	—	1,674.71	3.22	**0.03**	77.5	29.4	120.0	120.0	120.0	122.4	120.0
10.0	463,825,644.4	0.05	**0.00**	**0.00**	—	—	—	913.36	2.68	**0.04**	112.9	38.8	120.0	120.0	120.0	121.9	120.0
25.0	1,151,511,145.1	0.03	**0.00**	**0.00**	—	—	—	309.17	2.80	**0.09**	120.0	81.4	120.0	120.0	120.0	121.9	120.0
50.0	2,308,727,831.2	**0.00**	**0.00**	**0.00**	—	—	—	111.00	2.45	**0.08**	120.1	41.5	120.0	120.0	120.0	121.4	120.0
75.0	3,423,035,319.3	0.05	**0.00**	**0.00**	—	—	—	38.39	0.98	**0.07**	120.1	38.7	120.0	120.0	120.0	122.9	120.0
Avg		0.07	0.00	**0.00**	—	—	—	1,034.69	2.57	**0.07**	100.8	44.1	120.0	120.0	120.0	122.2	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	38.39	0.98	**0.03**	53.9	29.4	120.0	120.0	120.0	121.4	120.0
Max		0.28	0.01	**0.00**	—	—	—	3,161.48	3.30	**0.12**	120.1	81.4	120.0	120.0	120.0	122.9	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})	2.5261
Running time in seconds for executing parametric cut procedure (t^{cut})	0.4220
Running time in seconds for reading result file (t^{read})	0.0124

File dispersion-qkp-wgeo_2000_100.txt

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

		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	146,032,229.0	0.25	**0.00**	**0.00**	—	—	—	2,910.50	3.90	**0.12**	52.9	38.4	120.0	120.0	120.0	122.4	120.0
5.0	298,463,595.0	**0.00**	**0.00**	**0.00**	—	—	—	1,848.74	3.28	**0.03**	78.8	44.0	120.0	120.0	120.0	121.4	120.0
10.0	610,606,846.5	0.04	**0.00**	**0.00**	—	—	—	927.63	3.64	**0.04**	113.7	35.9	120.0	120.0	120.0	121.2	120.0
25.0	1,552,149,249.5	0.03	**0.00**	**0.00**	—	—	—	316.29	3.18	**0.09**	120.1	44.9	120.0	120.0	120.0	121.7	120.0
50.0	3,108,906,506.1	**0.00**	**0.00**	**0.00**	—	—	—	107.83	2.21	**0.07**	120.0	43.3	120.0	120.0	120.0	122.8	120.0
75.0	4,618,504,994.4	**0.00**	**0.00**	**0.00**	—	—	—	38.83	1.00	**0.07**	120.0	39.7	120.0	120.0	120.0	121.2	120.0
Avg		0.05	**0.00**	**0.00**	—	—	—	1,024.97	2.87	**0.07**	100.9	41.1	120.0	120.0	120.0	121.8	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	38.83	1.00	**0.03**	52.9	35.9	120.0	120.0	120.0	121.2	120.0
Max		0.25	**0.00**	**0.00**	—	—	—	2,910.50	3.90	**0.12**	120.1	44.9	120.0	120.0	120.0	122.8	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})	3.3966
Running time in seconds for executing parametric cut procedure (t^{cut})	0.5630
Running time in seconds for reading result file (t^{read})	0.0133