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

File dispersion-qkp-expo_0300_005.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	5.0 %
Edges (m)	2,253

		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	3,599.6	1.70	2.43	0.33	—	16.30	—	**0.00**	**0.00**	**0.00**	0.3	2.6	120.0	4.2	120.0	0.6	6.0
5.0	6,856.3	0.68	1.31	0.18	—	31.95	—	**0.00**	**0.00**	**0.00**	0.4	3.6	120.0	5.7	120.0	1.6	22.0
10.0	13,398.9	1.59	0.68	0.09	—	103.33	—	**0.00**	**0.00**	**0.00**	0.6	3.8	120.0	6.3	120.0	0.8	13.0
25.0	32,503.8	0.67	0.47	**0.00**	—	67.04	—	**0.00**	**0.00**	**0.00**	1.1	4.9	120.0	11.3	120.0	0.8	38.0
50.0	62,143.3	0.14	0.16	**0.00**	—	41.41	—	**0.00**	**0.00**	**0.00**	1.6	3.8	120.0	12.2	120.0	0.4	8.0
75.0	88,655.0	0.04	0.11	**0.00**	—	21.19	—	**0.00**	**0.00**	**0.00**	1.9	2.3	120.0	11.4	120.0	0.3	16.0
Avg		0.80	0.86	0.10	—	46.87	—	**0.00**	**0.00**	**0.00**	1.0	3.5	120.0	8.5	120.0	0.7	17.2
Min		0.04	0.11	**0.00**	—	16.30	—	**0.00**	**0.00**	**0.00**	0.3	2.3	120.0	4.2	120.0	0.3	6.0
Max		1.70	2.43	0.33	—	103.33	—	**0.00**	**0.00**	**0.00**	1.9	4.9	120.0	12.2	120.0	1.6	38.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	19
Running time in seconds for writing input file (t^{write})	0.0042
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-expo_0300_010.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	10.0 %
Edges (m)	4,393

		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	8,208.3	1.31	1.29	**0.00**	—	166.35	29.14	**0.00**	**0.00**	**0.00**	0.3	2.6	120.0	2.9	1.3	0.3	2.0
5.0	15,165.9	0.11	0.08	**0.00**	—	221.23	529.07	**0.00**	**0.00**	**0.00**	0.5	3.2	120.0	3.8	2.2	0.8	54.0
10.0	27,912.6	0.36	0.32	**0.00**	—	236.87	425.02	**0.00**	**0.00**	**0.00**	0.7	5.2	120.0	5.6	2.1	0.6	12.0
25.0	64,157.0	0.22	0.01	**0.00**	—	103.15	—	**0.00**	**0.00**	**0.00**	1.1	7.4	120.0	11.4	120.0	0.7	46.0
50.0	118,937.7	0.21	0.01	**0.00**	—	61.26	—	**0.00**	**0.00**	**0.00**	1.6	3.6	120.0	11.5	120.0	4.8	120.0
75.0	172,726.1	0.09	0.08	**0.00**	—	31.18	—	**0.00**	**0.00**	**0.00**	1.9	1.9	120.0	11.1	120.0	1.7	120.0
Avg		0.38	0.30	**0.00**	—	136.67	—	**0.00**	**0.00**	**0.00**	1.0	4.0	120.0	7.7	60.9	1.5	59.0
Min		0.09	0.01	**0.00**	—	31.18	29.14	**0.00**	**0.00**	**0.00**	0.3	1.9	120.0	2.9	1.3	0.3	2.0
Max		1.31	1.29	**0.00**	—	236.87	—	**0.00**	**0.00**	**0.00**	1.9	7.4	120.0	11.5	120.0	4.8	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	22
Running time in seconds for writing input file (t^{write})	0.0131
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0078

File dispersion-qkp-expo_0300_025.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	25.0 %
Edges (m)	11,217

		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	17,134.5	0.83	0.20	**0.00**	—	251.79	—	**0.00**	**0.00**	**0.00**	0.3	3.0	120.0	2.7	120.0	4.9	41.0
5.0	33,162.7	**0.00**	**0.00**	**0.00**	—	199.17	—	**0.00**	**0.00**	**0.00**	0.5	3.2	120.0	4.9	120.0	2.8	29.0
10.0	62,845.2	0.35	0.09	**0.00**	—	241.20	—	**0.00**	**0.00**	**0.00**	0.7	4.6	120.0	6.7	120.0	16.9	76.0
25.0	152,832.8	0.12	0.05	**0.00**	—	169.99	—	**0.00**	**0.00**	**0.00**	1.1	5.3	120.0	9.8	120.0	5.6	120.0
50.0	296,155.6	**0.00**	**0.00**	**0.00**	—	79.23	—	**0.00**	**0.00**	**0.00**	1.6	3.7	120.0	9.2	120.0	3.7	120.0
75.0	432,718.0	0.14	0.01	**0.00**	—	27.41	—	**0.00**	**0.00**	**0.00**	2.2	2.1	120.0	10.0	120.0	9.4	120.0
Avg		0.24	0.06	**0.00**	—	161.47	—	**0.00**	**0.00**	**0.00**	1.1	3.7	120.0	7.2	120.0	7.2	84.3
Min		**0.00**	**0.00**	**0.00**	—	27.41	—	**0.00**	**0.00**	**0.00**	0.3	2.1	120.0	2.7	120.0	2.8	29.0
Max		0.83	0.20	**0.00**	—	251.79	—	**0.00**	**0.00**	**0.00**	2.2	5.3	120.0	10.0	120.0	16.9	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	14
Running time in seconds for writing input file (t^{write})	0.0175
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-expo_0300_050.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	50.0 %
Edges (m)	22,452

		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	32,710.3	0.71	0.53	**0.00**	—	300.52	—	**0.00**	0.06	**0.00**	0.3	2.8	120.0	3.4	120.0	12.8	120.0
5.0	63,512.7	0.89	0.36	**0.00**	—	426.93	—	**0.00**	0.09	**0.00**	0.5	5.0	120.0	3.9	120.0	26.4	120.0
10.0	123,545.8	0.47	**0.00**	**0.00**	—	329.90	—	**0.00**	**0.00**	**0.00**	0.7	6.4	120.0	6.5	120.0	25.4	120.0
25.0	303,435.0	0.59	0.14	**0.00**	—	202.52	—	**0.00**	0.96	**0.00**	1.1	4.5	120.0	9.1	120.0	13.0	120.0
50.0	582,308.5	0.52	0.01	0.01	—	86.79	—	**0.00**	0.63	**0.01**	1.5	3.6	120.0	9.1	120.0	120.8	120.0
75.0	861,851.1	0.14	0.11	**0.00**	—	33.48	—	**0.00**	0.81	**0.00**	1.9	2.0	120.0	9.9	120.0	85.9	120.0
Avg		0.55	0.19	0.00	—	230.02	—	**0.00**	0.42	**0.00**	1.0	4.1	120.0	7.0	120.0	47.4	120.0
Min		0.14	**0.00**	**0.00**	—	33.48	—	**0.00**	**0.00**	**0.00**	0.3	2.0	120.0	3.4	120.0	12.8	120.0
Max		0.89	0.53	0.01	—	426.93	—	**0.00**	0.96	**0.01**	1.9	6.4	120.0	9.9	120.0	120.8	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})	0.0332
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0078

File dispersion-qkp-expo_0300_075.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	75.0 %
Edges (m)	33,699

		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	48,498.2	1.68	0.44	**0.00**	—	304.66	—	**0.00**	**0.00**	**0.00**	0.4	3.0	120.0	4.1	120.0	12.8	120.0
5.0	93,699.7	1.02	0.22	**0.00**	—	439.91	—	**0.00**	**0.00**	**0.00**	0.5	4.0	120.0	4.6	120.0	38.4	120.0
10.0	180,778.4	1.08	0.57	**0.00**	—	392.29	—	**0.00**	**0.00**	**0.00**	0.7	6.7	120.0	6.7	120.0	120.2	120.0
25.0	444,553.4	0.95	0.81	**0.00**	—	234.38	—	**0.00**	1.06	**0.00**	1.2	9.1	120.0	8.7	120.0	109.8	120.0
50.0	862,831.5	0.36	0.19	**0.00**	—	85.49	—	0.01	1.58	**0.01**	1.6	3.4	120.0	8.7	120.0	120.6	120.0
75.0	1,272,782.8	0.28	0.16	**0.00**	—	34.04	—	**0.00**	1.34	**0.00**	1.9	2.2	120.0	9.6	120.0	120.8	120.0
Avg		0.90	0.40	**0.00**	—	248.46	—	0.00	0.66	**0.00**	1.0	4.7	120.0	7.1	120.0	87.1	120.0
Min		0.28	0.16	**0.00**	—	34.04	—	**0.00**	**0.00**	**0.00**	0.4	2.2	120.0	4.1	120.0	12.8	120.0
Max		1.68	0.81	**0.00**	—	439.91	—	0.01	1.58	**0.01**	1.9	9.1	120.0	9.6	120.0	120.8	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})	0.0494
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0150
Running time in seconds for reading result file (t^{read})	0.0080

File dispersion-qkp-expo_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	64,826.2	0.02	**0.00**	**0.00**	—	322.08	—	**0.00**	1.41	**0.00**	0.4	2.8	120.0	3.6	120.0	18.3	120.0
5.0	126,524.0	0.90	0.62	**0.00**	—	520.50	—	**0.00**	**0.00**	**0.00**	0.5	3.1	120.0	4.4	120.0	120.6	120.0
10.0	242,237.3	1.11	0.85	**0.00**	—	422.50	—	0.12	1.36	**0.00**	0.7	5.4	120.0	6.4	120.0	120.4	120.0
25.0	594,796.2	0.81	0.56	**0.00**	—	243.04	—	**0.00**	0.99	**0.01**	1.1	9.8	120.0	8.6	120.0	120.2	120.0
50.0	1,158,456.9	0.42	0.32	**0.00**	—	83.62	—	0.13	1.34	**0.00**	1.6	3.0	120.0	8.9	120.0	120.1	120.0
75.0	1,708,410.9	0.62	0.54	**0.00**	—	31.53	—	**0.00**	1.43	**0.01**	1.9	2.2	120.0	9.7	120.0	120.1	120.0
Avg		0.65	0.48	**0.00**	—	270.54	—	0.04	1.09	**0.00**	1.0	4.4	120.0	6.9	120.0	103.3	120.0
Min		0.02	**0.00**	**0.00**	—	31.53	—	**0.00**	**0.00**	**0.00**	0.4	2.2	120.0	3.6	120.0	18.3	120.0
Max		1.11	0.85	**0.00**	—	520.50	—	0.13	1.43	**0.01**	1.9	9.8	120.0	9.7	120.0	120.6	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})	0.0670
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-expo_0500_005.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	5.0 %
Edges (m)	6,170

		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	10,159.9	0.63	1.39	0.10	—	120.59	—	**0.00**	**0.00**	**0.00**	0.9	5.2	120.0	18.3	120.0	0.7	29.0
5.0	18,914.5	0.40	0.82	**0.00**	—	82.11	—	**0.00**	**0.00**	**0.00**	1.4	4.4	120.0	34.1	120.0	1.2	65.0
10.0	35,470.9	0.48	0.25	0.02	—	58.77	—	**0.00**	**0.00**	**0.01**	2.2	7.0	120.0	51.9	120.0	1.2	103.0
25.0	84,045.8	0.31	0.33	**0.00**	—	64.05	—	**0.00**	**0.00**	**0.01**	3.6	8.2	120.0	85.0	120.0	5.9	120.0
50.0	164,879.9	0.06	0.02	**0.00**	—	46.15	—	**0.00**	**0.00**	**0.01**	5.1	6.9	120.0	77.5	120.0	2.1	120.0
75.0	243,136.9	0.02	0.04	**0.00**	—	24.19	—	**0.00**	**0.00**	**0.01**	6.2	3.5	120.0	68.7	120.0	0.8	13.0
Avg		0.32	0.48	0.02	—	65.98	—	**0.00**	**0.00**	**0.01**	3.2	5.8	120.0	55.9	120.0	2.0	75.0
Min		0.02	0.02	**0.00**	—	24.19	—	**0.00**	**0.00**	**0.00**	0.9	3.5	120.0	18.3	120.0	0.7	13.0
Max		0.63	1.39	0.10	—	120.59	—	**0.00**	**0.00**	**0.01**	6.2	8.2	120.0	85.0	120.0	5.9	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	16
Running time in seconds for writing input file (t^{write})	0.0104
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0087

File dispersion-qkp-expo_0500_010.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	10.0 %
Edges (m)	12,674

		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	18,278.8	0.30	**0.00**	**0.00**	—	127.20	—	**0.00**	**0.00**	**0.00**	1.1	5.3	120.0	21.6	120.0	1.8	53.0
5.0	34,763.8	0.34	0.13	**0.00**	—	211.72	—	**0.00**	**0.00**	**0.00**	1.5	2.7	120.0	28.5	120.0	3.1	76.0
10.0	67,528.0	0.71	0.15	**0.00**	—	248.64	—	**0.00**	0.02	**0.01**	2.2	8.6	120.0	39.3	120.0	5.8	120.0
25.0	163,212.9	0.10	0.08	0.01	—	151.23	—	**0.00**	0.04	**0.01**	3.6	10.0	120.0	75.5	120.0	37.4	120.0
50.0	322,049.6	0.15	0.10	**0.00**	—	73.65	—	**0.00**	0.12	**0.01**	5.2	6.1	120.0	54.3	120.0	115.1	120.0
75.0	484,446.9	0.06	0.01	**0.00**	—	25.03	—	**0.00**	**0.00**	**0.01**	6.2	3.9	120.0	62.5	120.0	14.3	120.0
Avg		0.28	0.08	0.00	—	139.58	—	**0.00**	0.03	**0.01**	3.3	6.1	120.0	46.9	120.0	29.6	101.5
Min		0.06	**0.00**	**0.00**	—	25.03	—	**0.00**	**0.00**	**0.00**	1.1	2.7	120.0	21.6	120.0	1.8	53.0
Max		0.71	0.15	0.01	—	248.64	—	**0.00**	0.12	**0.01**	6.2	10.0	120.0	75.5	120.0	115.1	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})	0.0195
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0094

File dispersion-qkp-expo_0500_025.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	25.0 %
Edges (m)	31,231

		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	38,857.9	**0.00**	**0.00**	**0.00**	—	375.18	—	**0.00**	**0.00**	**0.01**	1.1	2.4	120.0	15.8	120.0	69.6	120.0
5.0	77,845.3	0.05	0.05	**0.00**	—	349.92	—	**0.00**	0.06	**0.00**	1.6	2.8	120.0	28.0	120.0	120.1	120.0
10.0	157,256.5	0.20	**0.00**	**0.00**	—	375.04	—	0.01	0.47	**0.01**	2.4	10.4	120.0	43.6	120.0	120.1	120.0
25.0	397,599.5	0.03	0.03	**0.00**	—	247.60	—	**0.00**	0.54	**0.01**	3.8	10.6	120.0	61.4	120.0	120.8	120.0
50.0	802,554.6	0.20	0.06	**0.00**	—	96.67	—	0.07	0.45	**0.01**	5.3	6.1	120.0	46.9	120.0	120.6	120.0
75.0	1,200,332.5	0.26	0.18	**0.00**	—	29.00	—	0.01	0.70	**0.01**	6.3	5.3	120.0	60.8	120.0	121.0	120.0
Avg		0.12	0.05	**0.00**	—	245.57	—	0.01	0.37	**0.01**	3.4	6.3	120.0	42.8	120.0	112.0	120.0
Min		**0.00**	**0.00**	**0.00**	—	29.00	—	**0.00**	**0.00**	**0.00**	1.1	2.4	120.0	15.8	120.0	69.6	120.0
Max		0.26	0.18	**0.00**	—	375.18	—	0.07	0.70	**0.01**	6.3	10.6	120.0	61.4	120.0	121.0	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})	0.0515
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0090

File dispersion-qkp-expo_0500_050.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	50.0 %
Edges (m)	62,315

		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	75,360.7	0.01	0.01	**0.00**	—	456.14	—	1.65	**0.00**	**0.01**	1.1	2.3	120.0	22.4	120.0	120.2	120.0
5.0	152,149.2	1.06	0.33	**0.00**	—	460.52	—	3.74	0.84	**0.00**	1.6	2.9	120.0	32.0	120.0	120.1	120.0
10.0	306,189.6	0.52	0.19	**0.00**	—	397.81	—	1.05	0.77	**0.01**	2.5	9.0	120.0	46.2	120.0	120.1	120.0
25.0	779,904.6	**0.00**	**0.00**	**0.00**	—	243.35	—	0.24	1.63	**0.01**	3.8	12.9	120.0	49.9	120.0	120.1	120.0
50.0	1,556,736.3	0.28	0.11	**0.00**	—	96.59	—	0.79	1.46	**0.01**	5.3	6.2	120.0	42.3	120.0	120.1	120.0
75.0	2,347,418.7	0.18	0.12	**0.00**	—	27.76	—	0.43	1.13	**0.01**	6.9	4.0	120.0	59.9	120.0	120.1	120.0
Avg		0.34	0.13	**0.00**	—	280.36	—	1.32	0.97	**0.01**	3.5	6.2	120.0	42.1	120.0	120.1	120.0
Min		**0.00**	**0.00**	**0.00**	—	27.76	—	0.24	**0.00**	**0.00**	1.1	2.3	120.0	22.4	120.0	120.1	120.0
Max		1.06	0.33	**0.00**	—	460.52	—	3.74	1.63	**0.01**	6.9	12.9	120.0	59.9	120.0	120.2	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})	0.0916
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0320
Running time in seconds for reading result file (t^{read})	0.0088

File dispersion-qkp-expo_0500_075.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	75.0 %
Edges (m)	93,522

		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	113,413.7	**0.00**	**0.00**	**0.00**	—	515.18	—	1,566.87	0.99	**0.01**	1.1	2.4	120.0	20.9	120.0	120.1	120.0
5.0	227,644.1	0.66	0.18	**0.00**	—	634.04	—	1,125.70	1.05	**0.00**	1.7	2.9	120.0	30.3	120.0	120.1	120.0
10.0	457,397.7	0.52	0.36	**0.00**	—	471.94	—	625.92	1.38	**0.01**	2.4	11.3	120.0	44.2	120.0	120.1	120.0
25.0	1,171,239.3	0.13	0.01	**0.00**	—	237.22	—	0.73	1.62	**0.01**	3.8	11.0	120.0	48.1	120.0	120.1	120.0
50.0	2,341,380.7	0.39	**0.00**	**0.00**	—	94.76	—	13.74	1.70	**0.01**	5.5	8.9	120.0	41.2	120.0	120.1	120.0
75.0	3,524,526.5	0.09	0.02	**0.00**	—	29.20	—	8.33	1.35	**0.01**	6.6	4.1	120.0	59.4	120.0	120.1	120.0
Avg		0.30	0.10	**0.00**	—	330.39	—	556.88	1.35	**0.01**	3.5	6.8	120.0	40.7	120.0	120.1	120.0
Min		**0.00**	**0.00**	**0.00**	—	29.20	—	0.73	0.99	**0.00**	1.1	2.4	120.0	20.9	120.0	120.1	120.0
Max		0.66	0.36	**0.00**	—	634.04	—	1,566.87	1.70	**0.01**	6.6	11.3	120.0	59.4	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})	0.1479
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0093

File dispersion-qkp-expo_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	148,569.4	0.96	0.63	**0.00**	—	675.52	—	2,577.40	1.28	**0.01**	1.2	2.8	120.0	18.9	120.0	120.1	120.0
5.0	301,221.4	0.51	0.09	**0.00**	—	602.57	—	1,321.50	2.19	**0.00**	1.7	3.0	120.0	29.2	120.0	120.1	120.0
10.0	608,696.6	0.93	0.02	**0.00**	—	468.11	—	609.91	1.99	**0.01**	2.4	12.2	120.0	45.6	120.0	120.1	120.0
25.0	1,548,169.7	0.25	0.13	**0.00**	—	239.89	—	264.01	3.27	**0.01**	3.9	9.9	120.0	50.4	120.0	120.1	120.0
50.0	3,118,818.2	0.10	0.01	**0.00**	—	93.62	—	99.80	1.52	**0.01**	5.4	5.7	120.0	44.2	120.0	120.1	120.0
75.0	4,694,054.4	0.13	0.08	**0.00**	—	28.24	—	28.65	1.65	**0.01**	6.4	3.7	120.0	59.4	120.0	120.1	120.0
Avg		0.48	0.16	**0.00**	—	351.32	—	816.88	1.98	**0.01**	3.5	6.2	120.0	41.3	120.0	120.1	120.0
Min		0.10	0.01	**0.00**	—	28.24	—	28.65	1.28	**0.00**	1.2	2.8	120.0	18.9	120.0	120.1	120.0
Max		0.96	0.63	**0.00**	—	675.52	—	2,577.40	3.27	**0.01**	6.4	12.2	120.0	59.4	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})	0.2030
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0310
Running time in seconds for reading result file (t^{read})	0.0089

File dispersion-qkp-expo_1000_005.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	5.0 %
Edges (m)	24,843

		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	34,451.6	0.32	0.17	**0.00**	—	—	—	**0.00**	0.19	**0.01**	7.2	9.6	120.0	120.0	120.0	12.1	120.0
5.0	67,534.9	0.13	0.13	0.04	—	—	—	**0.00**	0.07	**0.01**	10.6	9.5	120.0	120.0	120.0	47.0	120.0
10.0	134,033.9	0.37	0.18	**0.00**	—	—	—	**0.00**	0.25	**0.01**	15.3	12.2	120.0	120.0	120.0	9.2	120.0
25.0	328,743.7	0.04	0.10	**0.00**	—	—	—	**0.00**	0.10	**0.02**	24.7	13.8	120.0	120.0	120.0	8.1	120.0
50.0	648,160.5	0.04	0.05	**0.00**	—	—	—	0.01	0.19	**0.02**	34.5	10.0	120.0	120.0	120.0	15.1	120.0
75.0	963,603.7	0.03	0.01	**0.00**	—	—	—	**0.00**	0.17	**0.01**	40.3	9.2	120.0	120.0	120.0	5.6	120.0
Avg		0.16	0.11	0.01	—	—	—	**0.00**	0.16	**0.01**	22.1	10.7	120.0	120.0	120.0	16.2	120.0
Min		0.03	0.01	**0.00**	—	—	—	**0.00**	0.07	**0.01**	7.2	9.2	120.0	120.0	120.0	5.6	120.0
Max		0.37	0.18	0.04	—	—	—	**0.01**	0.25	**0.02**	40.3	13.8	120.0	120.0	120.0	47.0	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})	0.0563
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0940
Running time in seconds for reading result file (t^{read})	0.0110

File dispersion-qkp-expo_1000_010.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	10.0 %
Edges (m)	49,946

		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	62,045.7	0.31	0.20	**0.00**	—	—	—	**0.00**	0.14	**0.01**	7.8	6.4	120.0	120.0	120.0	120.1	120.0
5.0	126,277.1	0.22	0.20	**0.00**	—	—	—	**0.00**	0.18	**0.01**	11.3	9.4	120.0	120.0	120.0	120.9	120.0
10.0	251,084.4	0.09	**0.00**	**0.00**	—	—	—	0.19	0.29	**0.01**	15.7	12.8	120.0	120.0	120.0	120.6	120.0
25.0	636,814.2	0.05	0.01	**0.00**	—	—	—	**0.00**	0.38	**0.02**	24.9	12.3	120.0	120.0	120.0	120.1	120.0
50.0	1,268,041.5	0.20	0.01	**0.00**	—	—	—	2.25	0.47	**0.02**	34.1	11.6	120.0	120.0	120.0	120.1	120.0
75.0	1,901,852.1	0.06	0.01	**0.00**	—	—	—	0.04	0.53	**0.02**	40.5	8.9	120.0	120.0	120.0	120.1	120.0
Avg		0.16	0.07	**0.00**	—	—	—	0.41	0.33	**0.02**	22.4	10.2	120.0	120.0	120.0	120.3	120.0
Min		0.05	**0.00**	**0.00**	—	—	—	**0.00**	0.14	**0.01**	7.8	6.4	120.0	120.0	120.0	120.1	120.0
Max		0.31	0.20	**0.00**	—	—	—	2.25	0.53	**0.02**	40.5	12.8	120.0	120.0	120.0	120.9	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})	0.0995
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0780
Running time in seconds for reading result file (t^{read})	0.0108

File dispersion-qkp-expo_1000_025.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	25.0 %
Edges (m)	124,788

		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	155,325.8	0.02	0.02	**0.00**	—	—	—	0.02	0.14	**0.01**	7.9	6.9	120.0	120.0	120.0	120.2	120.0
5.0	312,962.9	0.42	0.05	**0.00**	—	—	—	0.80	0.45	**0.01**	11.4	8.6	120.0	120.0	120.0	120.5	120.0
10.0	630,716.3	0.24	0.01	**0.00**	—	—	—	1.89	0.59	**0.01**	16.0	16.7	120.0	120.0	120.0	120.3	120.0
25.0	1,581,746.6	**0.00**	0.01	**0.00**	—	—	—	**0.00**	0.83	**0.02**	25.6	24.3	120.0	120.0	120.0	63.7	120.0
50.0	3,133,922.7	0.23	0.01	**0.00**	—	—	—	0.88	1.61	**0.02**	34.8	11.9	120.0	120.0	120.0	120.3	120.0
75.0	4,706,290.3	**0.00**	**0.00**	**0.00**	—	—	—	**0.00**	1.17	**0.02**	41.3	8.6	120.0	120.0	120.0	102.0	120.0
Avg		0.15	0.02	**0.00**	—	—	—	0.60	0.80	**0.02**	22.8	12.8	120.0	120.0	120.0	107.8	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	**0.00**	0.14	**0.01**	7.9	6.9	120.0	120.0	120.0	63.7	120.0
Max		0.42	0.05	**0.00**	—	—	—	1.89	1.61	**0.02**	41.3	24.3	120.0	120.0	120.0	120.5	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})	0.2247
Running time in seconds for executing parametric cut procedure (t^{cut})	0.0780
Running time in seconds for reading result file (t^{read})	0.0108

File dispersion-qkp-expo_1000_050.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	50.0 %
Edges (m)	249,853

		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	297,261.1	0.19	**0.00**	**0.00**	—	—	—	1,540.46	2.04	**0.02**	7.9	7.2	120.0	120.0	120.0	120.4	120.0
5.0	602,038.7	0.12	0.03	**0.00**	—	—	—	1,092.44	1.95	**0.01**	11.4	7.2	120.0	120.0	120.0	120.3	120.0
10.0	1,224,737.5	0.04	**0.00**	**0.00**	—	—	—	714.56	2.40	**0.01**	16.2	25.5	120.0	120.0	120.0	120.3	120.0
25.0	3,118,223.5	0.22	0.08	**0.00**	—	—	—	276.40	2.56	**0.02**	24.9	29.6	120.0	120.0	120.0	120.4	120.0
50.0	6,256,888.0	**0.00**	**0.00**	**0.00**	—	—	—	98.96	2.25	**0.02**	35.2	10.7	120.0	120.0	120.0	120.4	120.0
75.0	9,404,334.0	0.10	0.06	**0.00**	—	—	—	31.44	1.87	**0.02**	41.7	9.5	120.0	120.0	120.0	120.3	120.0
Avg		0.11	0.03	**0.00**	—	—	—	625.71	2.18	**0.02**	22.9	15.0	120.0	120.0	120.0	120.4	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	31.44	1.87	**0.01**	7.9	7.2	120.0	120.0	120.0	120.3	120.0
Max		0.22	0.08	**0.00**	—	—	—	1,540.46	2.56	**0.02**	41.7	29.6	120.0	120.0	120.0	120.4	120.0

QKBP is the contribution in this paper

QKBP-specific information	Value
Number of breakpoints	2
Running time in seconds for writing input file (t^{write})	0.4081
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1250
Running time in seconds for reading result file (t^{read})	0.0102

File dispersion-qkp-expo_1000_075.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	75.0 %
Edges (m)	374,291

		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	440,613.8	0.11	**0.00**	**0.00**	—	—	—	2,167.41	2.85	**0.02**	7.9	12.7	120.0	120.0	120.0	120.3	120.0
5.0	903,642.5	**0.00**	**0.00**	**0.00**	—	—	—	1,390.41	2.70	**0.01**	11.6	8.6	120.0	120.0	120.0	120.5	120.0
10.0	1,840,915.9	0.17	0.12	**0.00**	—	—	—	748.69	3.99	**0.01**	16.4	25.9	120.0	120.0	120.0	120.4	120.0
25.0	4,696,045.2	**0.00**	**0.00**	**0.00**	—	—	—	267.89	3.76	**0.02**	25.9	23.4	120.0	120.0	120.0	120.4	120.0
50.0	9,349,898.3	0.03	0.02	**0.00**	—	—	—	93.73	3.61	**0.02**	34.6	11.2	120.0	120.0	120.0	120.3	120.0
75.0	14,068,984.9	**0.00**	**0.00**	**0.00**	—	—	—	29.58	2.01	**0.02**	41.0	9.5	120.0	120.0	120.0	120.4	120.0
Avg		0.05	0.02	**0.00**	—	—	—	782.95	3.15	**0.02**	22.9	15.2	120.0	120.0	120.0	120.4	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	29.58	2.01	**0.01**	7.9	8.6	120.0	120.0	120.0	120.3	120.0
Max		0.17	0.12	**0.00**	—	—	—	2,167.41	3.99	**0.02**	41.0	25.9	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})	0.5985
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1250
Running time in seconds for reading result file (t^{read})	0.0119

File dispersion-qkp-expo_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	592,191.9	**0.00**	**0.00**	**0.00**	—	—	—	2,148.68	3.22	**0.02**	7.9	11.4	120.0	120.0	120.0	120.8	121.0
5.0	1,204,218.9	**0.00**	**0.00**	**0.00**	—	—	—	1,371.08	3.74	**0.01**	11.5	8.7	120.0	120.0	120.0	120.5	120.0
10.0	2,453,846.7	0.53	**0.00**	**0.00**	—	—	—	841.60	4.21	**0.01**	16.2	29.1	120.0	120.0	120.0	120.6	121.0
25.0	6,263,052.2	0.08	0.03	**0.00**	—	—	—	295.94	3.85	**0.02**	25.8	24.9	120.0	120.0	120.0	120.5	120.0
50.0	12,487,488.8	0.07	0.05	**0.00**	—	—	—	100.07	4.29	**0.02**	35.1	12.8	120.0	120.0	120.0	125.4	121.0
75.0	18,780,964.4	0.04	0.03	**0.00**	—	—	—	36.25	3.14	**0.02**	41.2	10.2	120.0	120.0	120.0	121.2	120.0
Avg		0.12	0.02	**0.00**	—	—	—	798.94	3.74	**0.02**	22.9	16.2	120.0	120.0	120.0	121.5	120.5
Min		**0.00**	**0.00**	**0.00**	—	—	—	36.25	3.14	**0.01**	7.9	8.7	120.0	120.0	120.0	120.5	120.0
Max		0.53	0.05	**0.00**	—	—	—	2,148.68	4.29	**0.02**	41.2	29.1	120.0	120.0	120.0	125.4	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})	0.8081
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1570
Running time in seconds for reading result file (t^{read})	0.0107

File dispersion-qkp-expo_2000_005.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	5.0 %
Edges (m)	99,532

		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	132,337.5	0.06	0.06	**0.00**	—	—	—	**0.00**	0.24	**0.03**	51.7	32.9	120.0	120.0	120.0	47.1	120.0
5.0	263,286.6	0.09	0.04	**0.00**	—	—	—	**0.00**	0.31	**0.03**	76.2	36.8	120.0	120.0	120.0	120.2	120.0
10.0	524,457.5	0.02	0.02	**0.00**	—	—	—	0.02	0.15	**0.05**	112.2	34.8	120.0	120.0	120.0	121.1	120.0
25.0	1,278,262.8	0.03	0.01	**0.00**	—	—	—	2.76	0.43	**0.09**	120.0	72.6	120.0	120.0	120.0	120.1	120.0
50.0	2,529,003.1	0.02	0.01	**0.00**	—	—	—	13.61	0.73	**0.10**	120.1	39.2	120.0	120.0	120.0	120.1	120.0
75.0	3,785,386.0	0.04	0.01	**0.00**	—	—	—	0.53	0.56	**0.08**	120.1	34.4	120.0	120.0	120.0	120.5	120.0
Avg		0.04	0.03	**0.00**	—	—	—	2.82	0.40	**0.06**	100.1	41.8	120.0	120.0	120.0	108.2	120.0
Min		0.02	0.01	**0.00**	—	—	—	**0.00**	0.15	**0.03**	51.7	32.9	120.0	120.0	120.0	47.1	120.0
Max		0.09	0.06	**0.00**	—	—	—	13.61	0.73	**0.10**	120.1	72.6	120.0	120.0	120.0	121.1	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})	0.1688
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1720
Running time in seconds for reading result file (t^{read})	0.0129

File dispersion-qkp-expo_2000_010.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	10.0 %
Edges (m)	200,204

		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	248,175.8	0.13	**0.00**	**0.00**	—	—	—	2,765.71	0.61	**0.05**	52.7	35.7	120.0	120.0	120.0	120.8	120.0
5.0	500,228.0	0.11	0.03	**0.00**	—	—	—	1,501.73	0.53	**0.03**	77.8	30.5	120.0	120.0	120.0	120.7	120.0
10.0	1,002,928.4	0.02	0.01	**0.00**	—	—	—	725.93	0.70	**0.05**	114.6	64.2	120.0	120.0	120.0	120.8	120.0
25.0	2,509,122.3	0.03	0.01	**0.00**	—	—	—	269.54	1.41	**0.09**	120.0	40.8	120.0	120.0	120.0	120.8	120.0
50.0	5,038,941.5	0.03	0.01	**0.00**	—	—	—	99.77	1.18	**0.10**	120.1	40.1	120.0	120.0	120.0	121.0	120.0
75.0	7,555,851.2	0.01	**0.00**	**0.00**	—	—	—	32.61	0.98	**0.10**	120.1	35.4	120.0	120.0	120.0	120.6	120.0
Avg		0.06	0.01	**0.00**	—	—	—	899.22	0.90	**0.07**	100.9	41.1	120.0	120.0	120.0	120.8	120.0
Min		0.01	**0.00**	**0.00**	—	—	—	32.61	0.53	**0.03**	52.7	30.5	120.0	120.0	120.0	120.6	120.0
Max		0.13	0.03	**0.00**	—	—	—	2,765.71	1.41	**0.10**	120.1	64.2	120.0	120.0	120.0	121.0	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})	0.3335
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2190
Running time in seconds for reading result file (t^{read})	0.0129

File dispersion-qkp-expo_2000_025.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	25.0 %
Edges (m)	500,018

		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	612,496.3	0.10	0.04	**0.00**	—	—	—	2,475.72	3.01	**0.12**	54.7	35.5	120.0	120.0	120.0	125.2	120.0
5.0	1,234,555.2	0.14	0.02	**0.00**	—	—	—	1,561.61	2.39	**0.03**	80.4	48.4	120.0	120.0	120.0	124.3	120.0
10.0	2,492,667.8	0.02	**0.00**	**0.00**	—	—	—	873.39	2.66	**0.05**	116.1	63.7	120.0	120.0	120.0	121.9	120.0
25.0	6,244,576.6	0.14	0.08	**0.00**	—	—	—	294.34	3.54	**0.09**	120.0	72.7	120.0	120.0	120.0	124.1	121.0
50.0	12,475,610.8	0.02	**0.00**	**0.00**	—	—	—	95.32	3.96	**0.10**	120.0	42.9	120.0	120.0	120.0	124.7	120.0
75.0	18,779,502.7	0.02	**0.00**	**0.00**	—	—	—	34.79	2.10	**0.10**	120.1	38.1	120.0	120.0	120.0	120.7	120.0
Avg		0.07	0.02	**0.00**	—	—	—	889.20	2.94	**0.08**	101.9	50.2	120.0	120.0	120.0	123.5	120.2
Min		0.02	**0.00**	**0.00**	—	—	—	34.79	2.10	**0.03**	54.7	35.5	120.0	120.0	120.0	120.7	120.0
Max		0.14	0.08	**0.00**	—	—	—	2,475.72	3.96	**0.12**	120.1	72.7	120.0	120.0	120.0	125.2	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})	0.8304
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2500
Running time in seconds for reading result file (t^{read})	0.0124

File dispersion-qkp-expo_2000_050.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	50.0 %
Edges (m)	999,583

		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	1,205,098.7	0.40	0.04	**0.00**	—	—	—	3,409.02	4.97	**0.16**	56.0	49.6	120.0	120.0	120.0	120.7	122.0
5.0	2,453,963.2	0.09	0.05	**0.00**	—	—	—	1,562.87	4.41	**0.03**	80.5	30.6	120.0	120.0	120.0	124.6	122.0
10.0	4,971,506.3	0.07	0.02	**0.00**	—	—	—	835.83	4.40	**0.05**	115.5	70.1	120.0	120.0	120.0	122.1	122.0
25.0	12,450,734.3	0.10	0.06	**0.00**	—	—	—	275.29	6.30	**0.10**	120.1	79.4	120.0	120.0	120.0	121.6	122.0
50.0	24,942,677.7	**0.00**	**0.00**	**0.00**	—	—	—	96.52	6.14	**0.12**	120.0	44.8	120.0	120.0	120.0	121.6	123.0
75.0	37,502,685.2	0.03	0.03	**0.00**	—	—	—	32.60	2.88	**0.11**	120.1	38.5	120.0	120.0	120.0	121.2	122.0
Avg		0.12	0.03	**0.00**	—	—	—	1,035.36	4.85	**0.10**	102.0	52.2	120.0	120.0	120.0	122.0	122.2
Min		**0.00**	**0.00**	**0.00**	—	—	—	32.60	2.88	**0.03**	56.0	30.6	120.0	120.0	120.0	120.7	122.0
Max		0.40	0.06	**0.00**	—	—	—	3,409.02	6.30	**0.16**	120.1	79.4	120.0	120.0	120.0	124.6	123.0

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})	1.6454
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3440
Running time in seconds for reading result file (t^{read})	0.0121

File dispersion-qkp-expo_2000_075.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	75.0 %
Edges (m)	1,499,290

		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	1,808,557.8	0.03	**0.00**	**0.00**	—	—	—	2,758.36	6.27	**0.12**	54.8	42.4	120.0	120.0	120.0	121.8	120.0
5.0	3,655,011.3	0.11	0.02	**0.00**	—	—	—	1,490.99	6.49	**0.03**	80.4	33.0	120.0	120.0	120.0	122.2	120.0
10.0	7,411,092.6	0.11	0.08	**0.00**	—	—	—	818.83	7.43	**0.05**	117.5	65.5	120.0	120.0	120.0	123.0	120.0
25.0	18,590,683.2	0.07	0.05	**0.00**	—	—	—	294.48	8.19	**0.09**	120.1	82.6	120.0	120.0	120.0	122.4	120.0
50.0	37,372,633.9	0.02	0.01	**0.00**	—	—	—	96.23	7.16	**0.10**	120.1	43.4	120.0	120.0	120.0	121.1	120.0
75.0	56,222,964.1	0.07	0.06	**0.00**	—	—	—	30.11	3.56	**0.11**	120.0	38.4	120.0	120.0	120.0	122.3	120.0
Avg		0.07	0.04	**0.00**	—	—	—	914.83	6.52	**0.08**	102.1	50.9	120.0	120.0	120.0	122.1	120.0
Min		0.02	**0.00**	**0.00**	—	—	—	30.11	3.56	**0.03**	54.8	33.0	120.0	120.0	120.0	121.1	120.0
Max		0.11	0.08	**0.00**	—	—	—	2,758.36	8.19	**0.12**	120.1	82.6	120.0	120.0	120.0	123.0	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})	2.4621
Running time in seconds for executing parametric cut procedure (t^{cut})	0.4690
Running time in seconds for reading result file (t^{read})	0.0125

File dispersion-qkp-expo_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	2,399,413.2	0.14	0.07	**0.00**	—	—	—	2,874.12	8.98	**0.12**	55.6	36.0	120.0	120.0	120.0	121.1	120.0
5.0	4,865,115.4	0.21	0.16	**0.00**	—	—	—	1,867.76	5.96	**0.03**	79.7	36.4	120.0	120.0	120.0	121.6	120.0
10.0	9,860,161.9	0.13	0.11	**0.00**	—	—	—	865.53	9.58	**0.05**	118.9	66.7	120.0	120.0	120.0	122.7	120.0
25.0	24,802,222.7	**0.00**	**0.00**	**0.00**	—	—	—	297.74	8.40	**0.09**	120.1	73.4	120.0	120.0	120.0	122.0	120.0
50.0	49,797,819.2	0.04	0.03	**0.00**	—	—	—	95.71	7.88	**0.10**	120.1	47.1	120.0	120.0	120.0	123.3	120.0
75.0	74,874,254.2	0.06	0.06	**0.00**	—	—	—	31.59	4.29	**0.11**	120.1	40.4	120.0	120.0	120.0	122.1	120.0
Avg		0.10	0.07	**0.00**	—	—	—	1,005.41	7.52	**0.08**	102.4	50.0	120.0	120.0	120.0	122.2	120.0
Min		**0.00**	**0.00**	**0.00**	—	—	—	31.59	4.29	**0.03**	55.6	36.0	120.0	120.0	120.0	121.1	120.0
Max		0.21	0.16	**0.00**	—	—	—	2,874.12	9.58	**0.12**	120.1	73.4	120.0	120.0	120.0	123.3	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})	3.3255
Running time in seconds for executing parametric cut procedure (t^{cut})	0.5790
Running time in seconds for reading result file (t^{read})	0.0125