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

File dispersion-qkp-geo_0100_005.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	5.0 %
Edges (m)	268

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	726.7	3.15	17.83	4.85	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.0	**0.0**
5.0	1,204.0	0.48	10.55	0.48	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.2	0.1	1.0
10.0	2,151.5	2.71	5.72	1.57	0.02	**0.00**	**0.00**	**0.00**	0.1	0.2	0.3	0.3	1.0
25.0	4,935.1	0.80	2.10	0.48	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.4	0.3	0.5	2.0
50.0	9,420.0	**0.00**	0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.3	0.0	**0.0**
75.0	13,091.5	0.24	0.16	0.25	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.0	**0.0**
90.0	14,681.0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.1	**0.0**
95.0	15,072.2	0.02	0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.4	0.6	0.1	0.0	1.0
Avg		0.92	4.55	0.95	0.00	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	0.1	0.6
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.0	**0.0**
Max		3.15	17.83	4.85	0.02	**0.00**	**0.00**	**0.00**	0.4	0.6	0.3	0.5	2.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	25
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0100_010.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	10.0 %
Edges (m)	500

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	991.6	**0.00**	**0.00**	1.08	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.1	1.0
5.0	1,752.6	0.45	0.31	3.74	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.3	1.0
10.0	3,262.1	2.63	0.28	1.18	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.7	0.8	2.0
25.0	8,176.4	0.21	0.21	0.51	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.3	0.2	2.0
50.0	15,319.4	**0.00**	**0.00**	0.47	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.5	0.1	1.0
75.0	21,865.8	0.04	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.1	1.0
90.0	24,611.9	0.07	0.07	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.1	2.0
95.0	25,440.3	0.54	0.54	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.1	0.1	**0.0**
Avg		0.49	0.18	0.87	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.3	0.2	1.3
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.1	**0.0**
Max		2.63	0.54	3.74	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.7	0.8	2.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	22
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0100_025.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	25.0 %
Edges (m)	1,258

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	2,751.2	**0.00**	**0.00**	5.59	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.2	1.0
5.0	4,973.8	1.12	0.51	0.65	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.7	1.0
10.0	9,447.0	3.02	0.97	1.10	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.2	2.0
25.0	20,903.8	0.09	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.3	0.2	0.4	3.0
50.0	38,347.6	1.10	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.3	0.2	1.0
75.0	55,561.1	0.20	0.20	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.5	0.2	0.4	2.0
90.0	64,506.6	0.12	0.12	0.05	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	2.4	14.0
95.0	67,498.8	0.30	0.29	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.1	1.0
Avg		0.74	0.26	0.92	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	0.6	3.1
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.1	1.0
Max		3.02	0.97	5.59	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.3	2.4	14.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	18
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0100_050.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	50.0 %
Edges (m)	2,533

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	4,394.1	3.67	0.53	0.33	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.2	0.7	3.0
5.0	8,235.2	1.92	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.9	4.0
10.0	16,060.5	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.3	3.0
25.0	38,792.0	0.05	**0.00**	0.05	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.3	0.2	0.9	11.0
50.0	71,544.1	0.04	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.6	0.8	4.0
75.0	104,945.1	0.49	**0.00**	0.12	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.3	2.1	6.0
90.0	124,597.9	0.59	0.43	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.4	0.6	0.2	7.0	21.0
95.0	131,028.1	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.4	0.6	0.2	0.4	4.0
Avg		0.84	0.12	0.06	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	1.6	7.0
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.2	0.3	3.0
Max		3.67	0.53	0.33	**0.00**	**0.00**	**0.00**	**0.00**	0.4	0.6	0.6	7.0	21.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	17
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0100_075.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	75.0 %
Edges (m)	3,739

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	6,271.2	0.55	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.8	3.0
5.0	12,232.5	1.95	1.57	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	1.1	9.0
10.0	23,008.0	1.84	0.33	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.3	0.2	2.2	27.0
25.0	54,684.6	0.55	0.40	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	2.2	14.0
50.0	100,495.1	1.95	0.41	0.18	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.5	0.2	5.1	32.0
75.0	145,700.8	0.92	0.06	0.05	**0.00**	**0.00**	**0.00**	**0.00**	0.4	0.6	0.2	3.8	67.0
90.0	169,987.9	0.58	0.56	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.7	0.2	28.4	120.0
95.0	178,436.8	0.13	0.08	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	4.3	16.0
Avg		1.06	0.43	0.03	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	6.0	36.0
Min		0.13	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.8	3.0
Max		1.95	1.57	0.18	**0.00**	**0.00**	**0.00**	**0.00**	0.4	0.7	0.2	28.4	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	15
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0100_100.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	100.0 %
Edges (m)	4,950

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	9,133.4	0.72	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.2	1.2	7.0
5.0	16,107.5	1.58	0.81	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.1	3.7	49.0
10.0	29,976.4	0.33	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.3	0.2	1.4	14.0
25.0	73,100.3	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	0.7	13.0
50.0	138,473.7	0.69	0.30	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.2	8.9	88.0
75.0	204,405.3	1.19	0.82	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	7.2	37.0
90.0	240,460.1	0.25	0.09	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	60.6	120.0
95.0	252,685.3	0.15	0.15	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.7	0.2	6.1	27.0
Avg		0.61	0.27	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	11.2	44.4
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.7	7.0
Max		1.58	0.82	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.7	0.2	60.6	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0200_005.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	5.0 %
Edges (m)	1,029

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	2,082.2	0.12	**0.00**	6.31	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.2	0.7	0.3	2.0
5.0	3,796.5	0.61	0.26	4.00	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.5	1.1	0.2	2.0
10.0	7,007.1	2.94	0.35	3.22	**0.00**	**0.00**	**0.00**	**0.00**	0.4	2.2	34.6	0.2	4.0
25.0	16,842.2	**0.00**	0.93	0.32	**0.00**	**0.00**	**0.00**	**0.00**	0.7	3.2	5.7	0.4	5.0
50.0	32,209.6	0.01	0.09	0.04	**0.00**	**0.00**	**0.00**	**0.00**	1.1	4.1	5.1	0.2	9.0
75.0	46,087.0	0.06	0.06	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.3	4.7	1.6	0.2	10.0
90.0	53,001.5	0.23	0.16	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.5	4.4	0.7	0.3	10.0
95.0	54,942.0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.5	5.5	0.5	0.0	1.0
Avg		0.50	0.23	1.74	**0.00**	**0.00**	**0.00**	**0.00**	0.9	3.4	6.2	0.2	5.4
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.2	0.5	0.0	1.0
Max		2.94	0.93	6.31	**0.00**	**0.00**	**0.00**	**0.00**	1.5	5.5	34.6	0.4	10.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	23
Running time in seconds for writing input file (t^{write})	0.6
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0200_010.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	10.0 %
Edges (m)	2,008

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	3,986.3	1.31	1.08	1.08	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.5	0.2	1.0
5.0	7,634.2	0.51	0.17	0.35	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.7	0.6	0.2	3.0
10.0	14,125.3	0.52	**0.00**	0.49	**0.00**	**0.00**	**0.00**	**0.00**	0.5	2.4	1.1	0.3	2.0
25.0	31,729.8	0.40	0.34	0.16	**0.00**	**0.00**	**0.00**	**0.00**	0.8	3.2	2.5	1.0	9.0
50.0	58,996.3	0.08	0.05	0.05	**0.00**	0.01	**0.00**	**0.00**	1.1	4.2	1.4	0.6	8.0
75.0	83,317.8	0.16	0.20	0.01	**0.00**	**0.00**	**0.00**	**0.00**	1.3	4.3	2.1	0.6	12.0
90.0	97,029.4	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.5	5.0	0.7	0.3	8.0
95.0	100,692.7	0.21	0.16	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.5	4.5	0.5	0.3	5.0
Avg		0.40	0.25	0.27	**0.00**	0.00	**0.00**	**0.00**	0.9	3.3	1.2	0.4	6.0
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.5	0.2	1.0
Max		1.31	1.08	1.08	**0.00**	0.01	**0.00**	**0.00**	1.5	5.0	2.5	1.0	12.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	25
Running time in seconds for writing input file (t^{write})	0.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0200_025.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	25.0 %
Edges (m)	4,983

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	8,478.6	1.15	0.27	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.4	0.6	1.2	8.0
5.0	16,093.4	0.79	**0.00**	0.03	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.7	0.7	0.9	15.0
10.0	30,173.6	0.34	0.08	0.19	**0.00**	**0.00**	**0.00**	**0.00**	0.5	2.5	1.2	2.5	21.0
25.0	71,916.0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.8	3.2	2.2	0.9	10.0
50.0	137,772.4	0.11	0.05	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.1	4.2	2.6	6.4	59.0
75.0	201,548.7	0.11	**0.00**	0.05	**0.00**	**0.00**	**0.00**	**0.00**	1.3	4.3	1.3	0.9	11.0
90.0	237,390.2	0.03	0.03	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	5.0	0.7	0.9	15.0
95.0	247,059.5	0.14	0.13	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.5	4.5	0.6	19.3	120.0
Avg		0.33	0.07	0.03	**0.00**	**0.00**	**0.00**	**0.00**	0.9	3.3	1.2	4.1	32.4
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.4	0.6	0.9	8.0
Max		1.15	0.27	0.19	**0.00**	**0.00**	**0.00**	**0.00**	1.5	5.0	2.6	19.3	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	15
Running time in seconds for writing input file (t^{write})	0.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0200_050.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	50.0 %
Edges (m)	9,983

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	14,831.6	1.45	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.7	4.9	38.0
5.0	29,563.4	0.83	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.8	1.0	6.4	28.0
10.0	59,097.1	0.30	0.13	0.05	**0.00**	**0.00**	**0.00**	**0.00**	0.5	2.3	0.8	6.7	73.0
25.0	142,035.3	1.05	0.21	0.01	**0.00**	**0.00**	**0.00**	**0.00**	0.7	3.2	2.6	32.7	120.0
50.0	278,928.4	0.72	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.0	3.9	1.0	16.9	120.0
75.0	409,407.0	0.62	0.13	**0.00**	**0.00**	**0.00**	0.06	**0.00**	1.3	4.6	1.0	26.9	120.0
90.0	484,250.3	0.58	0.47	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.4	0.7	50.3	120.0
95.0	505,920.0	0.32	0.32	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.7	5.5	0.6	120.5	120.0
Avg		0.73	0.16	0.01	**0.00**	**0.00**	0.01	**0.00**	0.9	3.4	1.1	33.2	92.4
Min		0.30	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	4.9	28.0
Max		1.45	0.47	0.05	**0.00**	**0.00**	0.06	**0.00**	1.7	5.5	2.6	120.5	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	17
Running time in seconds for writing input file (t^{write})	0.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0200_075.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	75.0 %
Edges (m)	14,888

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	20,531.5	1.42	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	9.2	37.0
5.0	41,584.5	1.98	0.39	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.7	0.6	18.7	120.0
10.0	82,148.9	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.5	2.3	0.7	11.5	77.0
25.0	206,025.8	1.20	0.75	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.8	3.2	2.2	20.4	120.0
50.0	408,854.9	0.29	0.18	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.1	3.9	0.9	47.1	120.0
75.0	602,384.4	0.03	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.3	4.3	0.8	34.2	110.0
90.0	707,475.9	0.29	0.29	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.3	0.7	120.1	120.0
95.0	737,401.5	0.14	0.14	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	5.7	0.7	120.1	120.0
Avg		0.67	0.22	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.9	3.4	0.9	47.7	103.0
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	9.2	37.0
Max		1.98	0.75	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	5.7	2.2	120.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	0.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0200_100.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	100.0 %
Edges (m)	19,900

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	27,139.3	1.63	1.34	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	0.2	1.3	0.6	7.3	91.0
5.0	52,913.8	0.03	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.9	0.6	19.9	120.0
10.0	106,663.0	2.33	0.65	**0.00**	**0.00**	**0.00**	0.47	**0.00**	0.5	2.3	0.6	36.7	120.0
25.0	268,035.6	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	0.8	3.4	0.7	35.1	120.0
50.0	541,679.7	0.21	0.09	**0.00**	**0.00**	**0.00**	0.11	**0.00**	1.1	3.9	0.7	39.3	120.0
75.0	800,376.6	0.42	0.35	**0.00**	**0.00**	**0.00**	0.38	**0.00**	1.3	4.9	0.7	120.4	120.0
90.0	947,386.9	0.20	0.11	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.4	0.7	120.2	120.0
95.0	988,179.2	0.08	0.08	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.5	5.7	0.7	120.1	120.0
Avg		0.61	0.33	**0.00**	**0.00**	**0.00**	0.12	**0.00**	0.9	3.5	0.7	62.4	116.4
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	7.3	91.0
Max		2.33	1.34	**0.00**	**0.00**	**0.00**	0.47	**0.01**	1.5	5.7	0.7	120.4	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	11
Running time in seconds for writing input file (t^{write})	0.8
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0300_005.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	5.0 %
Edges (m)	2,351

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	4,382.6	1.57	1.13	3.21	**0.00**	**0.00**	**0.00**	**0.00**	0.5	5.9	3.0	1.1	10.0
5.0	8,160.5	0.58	0.32	1.96	**0.00**	**0.00**	**0.00**	**0.00**	0.7	7.8	4.0	0.4	5.0
10.0	15,421.0	0.82	0.60	0.52	**0.00**	**0.00**	**0.00**	**0.00**	1.2	11.0	6.2	0.5	14.0
25.0	35,680.6	0.41	0.46	0.35	**0.00**	**0.00**	**0.00**	**0.01**	1.8	14.0	18.1	0.7	10.0
50.0	67,858.7	0.32	0.17	0.20	inf	**0.00**	**0.00**	**0.01**	2.6	19.1	120.0	2.3	38.0
75.0	99,014.8	0.09	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.2	16.4	14.1	0.2	6.0
90.0	115,356.1	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.5	18.9	2.5	0.2	7.0
95.0	119,938.5	0.01	0.01	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.6	15.5	1.4	0.2	21.0
Avg		0.47	0.34	0.78	inf	**0.00**	**0.00**	**0.00**	2.2	13.6	21.2	0.7	13.9
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.5	5.9	1.4	0.2	5.0
Max		1.57	1.13	3.21	inf	**0.00**	**0.00**	**0.01**	3.6	19.1	120.0	2.3	38.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	31
Running time in seconds for writing input file (t^{write})	1.0
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0300_010.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	10.0 %
Edges (m)	4,388

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	8,829.2	0.31	0.31	0.09	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.0	1.2	0.4	9.0
5.0	15,161.4	0.87	0.66	0.30	**0.00**	**0.00**	**0.00**	**0.00**	0.8	8.1	14.4	1.9	30.0
10.0	27,152.5	0.11	0.11	0.46	inf	**0.00**	**0.00**	**0.00**	1.1	10.5	120.0	4.1	54.0
25.0	65,001.9	**0.00**	**0.00**	0.24	inf	**0.00**	**0.00**	**0.01**	1.8	14.0	120.0	1.7	25.0
50.0	126,886.4	0.19	0.02	0.03	**0.00**	**0.00**	**0.00**	**0.00**	2.5	18.0	19.2	2.3	62.0
75.0	184,706.0	0.13	0.12	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.0	15.9	2.3	0.9	25.0
90.0	214,263.5	0.11	0.10	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.2	17.8	2.0	1.6	120.0
95.0	222,899.5	0.26	0.25	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	15.3	1.4	0.5	53.0
Avg		0.25	0.20	0.14	inf	**0.00**	**0.00**	**0.00**	2.0	13.2	35.1	1.7	47.2
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.0	1.2	0.4	9.0
Max		0.87	0.66	0.46	inf	**0.00**	**0.00**	**0.01**	3.4	18.0	120.0	4.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	22
Running time in seconds for writing input file (t^{write})	0.9
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0300_025.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	25.0 %
Edges (m)	11,110

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	18,008.6	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.2	1.7	0.8	7.0
5.0	33,657.9	**0.00**	0.14	0.53	**0.00**	**0.00**	**0.00**	**0.00**	0.9	8.6	3.8	12.9	60.0
10.0	66,196.1	0.38	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.2	10.5	4.5	18.1	120.0
25.0	160,146.9	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	2.0	15.0	6.9	10.6	120.0
50.0	311,752.1	0.10	0.09	**0.00**	**0.00**	**0.00**	0.04	**0.00**	2.8	15.9	3.4	14.2	120.0
75.0	457,767.4	0.24	0.08	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.3	18.2	3.1	3.6	120.0
90.0	537,090.0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.6	16.0	1.9	1.1	8.0
95.0	560,685.1	0.11	0.11	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.7	17.5	1.5	3.6	120.0
Avg		0.10	0.05	0.07	**0.00**	**0.00**	0.01	**0.00**	2.2	13.5	3.4	8.1	84.4
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.2	1.5	0.8	7.0
Max		0.38	0.14	0.53	**0.00**	**0.00**	0.04	**0.01**	3.7	18.2	6.9	18.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	22
Running time in seconds for writing input file (t^{write})	1.1
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0300_050.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	50.0 %
Edges (m)	22,346

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	35,472.5	0.27	0.07	0.15	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.7	1.7	8.8	60.0
5.0	67,862.5	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.9	8.3	1.5	17.5	120.0
10.0	129,880.8	1.05	**0.00**	0.01	**0.00**	**0.00**	0.21	**0.00**	1.3	11.2	9.6	99.4	120.0
25.0	323,564.4	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.13	**0.00**	2.0	14.0	2.4	15.2	120.0
50.0	626,497.3	0.43	0.05	0.01	0.01	**0.00**	0.28	**0.01**	2.8	18.6	5.1	72.1	120.0
75.0	923,919.0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.16	**0.00**	3.4	15.9	2.4	95.9	120.0
90.0	1,089,340.3	0.09	0.07	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.6	18.5	1.9	8.7	120.0
95.0	1,140,262.5	0.10	0.07	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	4.2	15.3	1.6	15.9	120.0
Avg		0.24	0.03	0.02	0.00	**0.00**	0.10	**0.00**	2.4	13.6	3.3	41.7	112.5
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.7	1.5	8.7	60.0
Max		1.05	0.07	0.15	0.01	**0.00**	0.28	**0.01**	4.2	18.6	9.6	99.4	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	14
Running time in seconds for writing input file (t^{write})	1.2
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0300_075.txt

Property of graph	Value
Nodes (n)	300
Density (Δ)	75.0 %
Edges (m)	33,590

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	54,838.8	0.93	0.18	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	0.6	6.3	1.5	13.0	81.0
5.0	105,730.5	0.64	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.8	8.3	1.4	42.2	120.0
10.0	199,845.1	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.56	**0.01**	1.2	10.7	1.7	40.4	120.0
25.0	480,039.5	0.16	0.04	**0.00**	**0.00**	0.01	0.23	**0.01**	1.9	14.0	4.6	120.6	120.0
50.0	951,522.6	0.41	**0.00**	0.01	**0.00**	**0.00**	0.26	**0.00**	2.6	17.6	2.7	120.9	120.0
75.0	1,401,988.9	0.13	0.06	**0.00**	**0.00**	**0.00**	0.21	**0.00**	3.1	15.9	2.2	37.0	120.0
90.0	1,652,923.5	0.14	0.08	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	17.6	1.9	24.7	120.0
95.0	1,731,654.8	0.04	0.04	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	16.6	1.7	38.4	120.0
Avg		0.31	0.05	0.00	**0.00**	0.00	0.28	**0.00**	2.1	13.4	2.2	54.6	115.1
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.3	1.4	13.0	81.0
Max		0.93	0.18	0.01	**0.00**	0.01	1.56	**0.01**	3.4	17.6	4.6	120.9	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	13
Running time in seconds for writing input file (t^{write})	1.2
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	72,119.8	2.98	**0.00**	**0.00**	**0.00**	**0.00**	0.83	**0.01**	0.6	6.4	1.4	17.2	120.0
5.0	140,460.0	0.11	0.06	**0.00**	**0.00**	**0.00**	1.04	**0.00**	0.9	8.8	1.4	32.2	120.0
10.0	269,956.6	0.10	0.04	**0.00**	**0.00**	**0.00**	1.27	**0.00**	1.2	10.6	1.7	45.1	120.0
25.0	667,497.5	0.37	0.04	**0.00**	**0.00**	0.03	0.46	**0.00**	2.0	15.0	1.7	120.3	120.0
50.0	1,256,002.6	0.28	**0.00**	**0.00**	**0.00**	**0.00**	0.27	**0.00**	2.7	15.9	1.9	120.4	120.0
75.0	1,822,703.3	0.02	**0.00**	**0.00**	**0.00**	**0.00**	0.59	**0.00**	3.2	17.8	1.8	120.4	120.0
90.0	2,149,725.8	0.12	0.02	**0.00**	**0.00**	**0.00**	0.34	**0.00**	3.5	15.8	1.7	37.3	120.0
95.0	2,248,957.1	0.11	0.09	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.6	15.3	1.5	38.2	120.0
Avg		0.51	0.03	**0.00**	**0.00**	0.00	0.60	**0.00**	2.2	13.2	1.7	66.4	120.0
Min		0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.4	1.4	17.2	120.0
Max		2.98	0.09	**0.00**	**0.00**	0.03	1.27	**0.01**	3.6	17.8	1.9	120.4	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	14
Running time in seconds for writing input file (t^{write})	1.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0500_005.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	5.0 %
Edges (m)	6,287

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	10,279.5	0.01	0.96	1.47	inf	**0.00**	**0.00**	**0.01**	1.6	42.3	120.0	0.8	26.0
5.0	19,006.0	0.80	0.91	0.91	inf	**0.00**	**0.00**	**0.01**	2.4	55.2	120.0	2.1	65.0
10.0	36,218.0	0.38	0.06	0.59	inf	**0.00**	**0.00**	**0.01**	3.4	73.1	120.0	7.2	120.0
25.0	88,661.2	0.18	0.04	0.43	inf	**0.00**	**0.00**	**0.01**	5.6	103.3	120.0	5.8	94.0
50.0	175,132.8	0.07	0.05	0.05	inf	**0.00**	0.02	**0.01**	8.1	106.5	120.0	2.1	120.0
75.0	255,337.1	0.02	0.01	0.03	inf	**0.00**	**0.00**	**0.00**	9.8	111.1	120.0	0.8	54.0
90.0	297,237.9	**0.00**	**0.00**	**0.00**	inf	**0.00**	0.01	**0.00**	10.6	99.0	120.0	0.8	82.0
95.0	309,846.2	0.07	0.04	**0.00**	inf	0.01	**0.00**	**0.00**	10.9	89.1	120.0	1.5	120.0
Avg		0.19	0.26	0.43	inf	**0.00**	0.00	**0.01**	6.5	85.0	120.0	2.6	85.1
Min		**0.00**	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.6	42.3	120.0	0.8	26.0
Max		0.80	0.96	1.47	inf	**0.01**	0.02	**0.01**	10.9	111.1	120.0	7.2	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	28
Running time in seconds for writing input file (t^{write})	1.5
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0500_010.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	10.0 %
Edges (m)	12,436

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	16,851.5	0.13	0.14	0.49	inf	**0.00**	**0.00**	**0.01**	1.6	40.5	120.0	28.3	104.0
5.0	33,465.0	0.13	0.02	0.34	inf	**0.00**	0.10	**0.01**	2.4	56.0	120.0	24.2	120.0
10.0	66,376.0	0.35	0.39	0.53	inf	**0.00**	0.23	**0.01**	3.5	73.7	120.0	30.8	120.0
25.0	168,126.2	0.25	0.07	0.08	inf	**0.00**	0.08	**0.01**	5.8	103.3	120.0	23.3	120.0
50.0	338,629.6	0.03	0.03	0.04	inf	**0.00**	0.10	**0.01**	8.2	109.7	120.0	26.9	120.0
75.0	506,632.2	0.04	0.01	0.01	inf	**0.00**	**0.00**	**0.01**	9.8	107.1	120.0	4.5	120.0
90.0	599,934.3	0.05	0.05	**0.00**	inf	**0.00**	0.03	**0.00**	10.8	96.9	120.0	2.7	120.0
95.0	627,844.9	0.02	0.02	**0.00**	inf	**0.00**	**0.00**	**0.00**	10.9	91.1	120.0	3.1	120.0
Avg		0.12	0.09	0.19	inf	**0.00**	0.07	**0.01**	6.6	84.8	120.0	17.9	118.0
Min		0.02	0.01	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.6	40.5	120.0	2.7	104.0
Max		0.35	0.39	0.53	inf	**0.00**	0.23	**0.01**	10.9	109.7	120.0	30.8	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	1.6
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0500_025.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	25.0 %
Edges (m)	30,983

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	39,971.0	**0.00**	0.20	0.20	inf	**0.00**	**0.00**	**0.01**	1.8	45.1	120.0	59.5	120.0
5.0	81,928.3	0.18	**0.00**	0.04	inf	**0.00**	**0.00**	**0.01**	2.6	57.4	120.0	125.6	120.0
10.0	162,304.2	0.14	0.06	**0.00**	inf	4.48	0.23	**0.01**	3.8	78.5	120.0	121.0	120.0
25.0	417,083.5	0.11	**0.00**	**0.00**	inf	3.63	0.12	**0.01**	6.1	106.0	120.0	120.5	120.0
50.0	845,997.6	0.21	0.03	**0.00**	inf	0.66	0.10	**0.01**	8.6	105.4	120.0	120.1	120.0
75.0	1,266,974.9	**0.00**	0.01	0.01	inf	**0.00**	0.41	**0.01**	10.4	105.1	120.0	10.9	120.0
90.0	1,504,077.4	0.12	0.09	**0.00**	inf	0.02	0.18	**0.00**	11.3	97.7	120.0	120.1	120.0
95.0	1,575,775.3	**0.00**	**0.00**	**0.00**	inf	**0.00**	0.17	**0.00**	11.5	87.7	120.0	4.0	120.0
Avg		0.10	0.05	**0.03**	inf	1.10	0.15	**0.01**	7.0	85.4	120.0	85.2	120.0
Min		**0.00**	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.8	45.1	120.0	4.0	120.0
Max		0.21	**0.20**	**0.20**	inf	4.48	0.41	**0.01**	11.5	106.0	120.0	125.6	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	10
Running time in seconds for writing input file (t^{write})	1.9
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0500_050.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	50.0 %
Edges (m)	62,868

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	80,394.6	0.09	0.09	**0.00**	inf	5.57	0.20	**0.01**	1.7	43.2	120.0	120.1	120.0
5.0	164,824.7	0.23	0.12	**0.00**	inf	4.66	0.42	**0.01**	2.4	61.3	120.0	120.2	120.0
10.0	330,688.7	0.03	**0.00**	**0.00**	inf	3.00	0.32	**0.01**	3.5	75.2	120.0	120.1	120.0
25.0	825,678.4	0.16	**0.00**	0.01	inf	3.73	0.26	**0.01**	5.6	103.9	120.0	120.1	120.0
50.0	1,674,269.7	0.38	**0.00**	**0.00**	inf	2.47	0.27	**0.01**	8.1	114.0	120.0	120.1	120.0
75.0	2,517,928.6	0.21	**0.00**	**0.00**	inf	**0.00**	0.43	**0.01**	10.1	114.2	120.0	101.2	120.0
90.0	3,002,648.0	0.01	**0.00**	**0.00**	inf	**0.00**	0.28	**0.00**	10.7	102.0	120.0	27.8	120.0
95.0	3,147,311.4	0.18	0.18	**0.00**	inf	**0.00**	0.04	**0.00**	11.0	93.3	120.0	120.1	120.0
Avg		0.16	0.05	**0.00**	inf	2.43	0.28	**0.01**	6.6	88.4	120.0	106.2	120.0
Min		0.01	**0.00**	**0.00**	inf	**0.00**	0.04	**0.00**	1.7	43.2	120.0	27.8	120.0
Max		0.38	0.18	**0.01**	inf	5.57	0.43	**0.01**	11.0	114.2	120.0	120.2	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	7
Running time in seconds for writing input file (t^{write})	2.0
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_0500_075.txt

Property of graph	Value
Nodes (n)	500
Density (Δ)	75.0 %
Edges (m)	93,584

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	125,730.7	0.12	0.12	**0.00**	inf	1,154.23	0.20	**0.01**	1.9	46.1	120.0	120.1	120.0
5.0	252,651.6	1.33	0.53	**0.00**	inf	1,072.69	0.58	**0.01**	2.7	57.7	120.0	120.1	120.0
10.0	491,984.0	0.49	0.10	**0.00**	inf	633.08	1.53	**0.01**	3.9	79.6	120.0	120.2	120.0
25.0	1,249,318.7	0.01	**0.00**	**0.00**	inf	1.83	0.97	**0.01**	6.3	104.5	120.0	120.1	120.0
50.0	2,508,630.9	0.09	0.01	**0.00**	inf	17.17	0.62	**0.01**	8.9	105.1	120.0	120.0	120.0
75.0	3,735,354.4	0.11	**0.00**	**0.00**	inf	11.52	0.78	**0.01**	10.8	108.5	120.0	120.1	120.0
90.0	4,437,010.7	0.01	0.01	**0.00**	inf	**0.00**	0.48	**0.00**	11.7	98.0	120.0	32.1	120.0
95.0	4,656,801.2	0.13	0.09	**0.00**	inf	0.07	**0.00**	**0.00**	12.0	88.2	120.0	120.1	120.0
Avg		0.29	0.11	**0.00**	inf	361.32	0.65	**0.01**	7.3	86.0	120.0	109.1	120.0
Min		0.01	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.9	46.1	120.0	32.1	120.0
Max		1.33	0.53	**0.00**	inf	1,154.23	1.53	**0.01**	12.0	108.5	120.0	120.2	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	7
Running time in seconds for writing input file (t^{write})	2.4
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	148,301.2	0.36	0.20	**0.00**	inf	2,784.87	0.63	**0.01**	1.8	43.1	120.0	120.1	120.0
5.0	301,338.9	0.35	0.07	**0.00**	inf	1,333.34	0.35	**0.01**	2.6	61.1	120.0	120.1	120.0
10.0	609,934.3	0.47	0.10	**0.00**	inf	631.34	0.25	**0.01**	4.2	79.5	120.0	120.1	120.0
25.0	1,604,214.3	0.60	**0.00**	**0.00**	inf	266.56	0.36	**0.01**	6.6	104.5	120.0	120.1	120.0
50.0	3,300,381.5	0.31	0.02	**0.00**	inf	101.92	0.55	**0.01**	9.1	105.6	120.0	120.1	120.0
75.0	4,964,219.9	0.09	0.02	**0.00**	inf	29.14	0.43	**0.00**	10.7	105.7	120.0	120.1	120.0
90.0	5,900,911.9	0.12	0.12	**0.00**	inf	0.09	0.21	**0.00**	11.8	102.1	120.0	120.1	120.0
95.0	6,180,619.2	0.01	0.01	**0.00**	inf	0.01	0.18	**0.00**	11.8	94.1	120.0	85.3	120.0
Avg		0.29	0.07	**0.00**	inf	643.41	0.37	**0.01**	7.3	87.0	120.0	115.7	120.0
Min		0.01	**0.00**	**0.00**	inf	0.01	0.18	**0.00**	1.8	43.1	120.0	85.3	120.0
Max		0.60	0.20	**0.00**	inf	2,784.87	0.63	**0.01**	11.8	105.7	120.0	120.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	8
Running time in seconds for writing input file (t^{write})	2.6
Running time in seconds for executing parametric cut procedure (t^{cut})	0.4
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_1000_005.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	5.0 %
Edges (m)	25,194

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	34,115.6	0.22	0.52	inf	inf	**0.00**	**0.00**	**0.02**	9.8	120.0	120.0	59.6	120.0
5.0	67,342.3	0.33	0.26	inf	inf	**0.00**	0.15	**0.01**	14.5	120.0	120.0	120.8	120.0
10.0	136,118.6	0.10	0.07	inf	inf	**0.00**	0.07	**0.02**	22.0	120.0	120.0	122.6	120.0
25.0	345,626.7	0.04	0.04	inf	inf	**0.00**	0.10	**0.03**	36.2	120.0	120.0	48.9	120.0
50.0	688,278.2	0.03	0.02	inf	inf	**0.00**	0.13	**0.02**	50.6	120.0	120.0	19.4	120.0
75.0	1,017,018.2	**0.00**	**0.00**	inf	inf	**0.00**	0.24	**0.01**	58.9	120.0	120.0	5.2	120.0
90.0	1,197,808.3	0.01	**0.00**	inf	inf	**0.00**	0.16	**0.01**	63.3	120.0	120.0	5.3	120.0
95.0	1,251,125.7	0.02	**0.00**	inf	inf	**0.00**	**0.00**	**0.01**	65.2	120.0	120.0	3.7	88.0
Avg		0.09	0.11	inf	inf	**0.00**	0.11	**0.02**	40.1	120.0	120.0	48.2	116.0
Min		**0.00**	**0.00**	inf	inf	**0.00**	**0.00**	**0.01**	9.8	120.0	120.0	3.7	88.0
Max		0.33	0.52	inf	inf	**0.00**	0.24	**0.03**	65.2	120.0	120.0	122.6	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	16
Running time in seconds for writing input file (t^{write})	3.2
Running time in seconds for executing parametric cut procedure (t^{cut})	0.4
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_1000_010.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	10.0 %
Edges (m)	50,127

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	67,443.8	**0.00**	**0.00**	inf	inf	**0.00**	0.55	**0.03**	10.0	120.0	120.0	120.1	120.0
5.0	137,244.2	**0.00**	0.06	inf	inf	**0.00**	0.06	**0.01**	14.9	120.0	120.0	82.1	120.0
10.0	273,351.6	0.09	**0.00**	inf	inf	0.01	0.25	**0.02**	21.7	120.0	120.0	120.8	120.0
25.0	688,048.8	0.04	**0.00**	inf	inf	**0.00**	0.17	**0.02**	35.5	120.0	120.0	120.2	120.0
50.0	1,363,588.6	0.01	**0.00**	inf	inf	**0.00**	0.13	**0.03**	50.1	120.0	120.0	120.9	120.0
75.0	2,032,806.1	0.06	0.02	inf	inf	**0.00**	0.32	**0.02**	59.4	120.0	120.0	13.6	120.0
90.0	2,411,527.8	0.07	0.07	inf	inf	**0.00**	0.19	**0.01**	62.7	120.0	120.0	34.8	120.0
95.0	2,529,974.3	0.02	0.01	inf	inf	**0.00**	0.05	**0.01**	64.4	120.0	120.0	11.5	120.0
Avg		0.04	0.02	inf	inf	**0.00**	0.22	**0.02**	39.8	120.0	120.0	78.0	120.0
Min		**0.00**	**0.00**	inf	inf	**0.00**	0.05	**0.01**	10.0	120.0	120.0	11.5	120.0
Max		0.09	0.07	inf	inf	**0.01**	0.55	**0.03**	64.4	120.0	120.0	120.9	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	9
Running time in seconds for writing input file (t^{write})	3.4
Running time in seconds for executing parametric cut procedure (t^{cut})	0.5
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_1000_025.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	25.0 %
Edges (m)	124,947

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	157,343.2	0.16	**0.00**	inf	inf	2,176.80	0.49	**0.03**	10.8	120.0	120.0	120.3	120.0
5.0	327,489.1	0.17	**0.00**	inf	inf	1,478.36	0.30	**0.01**	16.1	120.0	120.0	120.3	120.0
10.0	665,399.5	0.13	**0.00**	inf	inf	3.33	0.21	**0.02**	23.8	120.0	120.0	120.2	120.0
25.0	1,680,443.2	0.01	**0.00**	inf	inf	36.72	0.19	**0.03**	38.5	120.0	120.0	120.2	120.0
50.0	3,360,809.1	0.02	**0.00**	inf	inf	31.22	0.30	**0.03**	52.4	120.0	120.0	120.3	120.0
75.0	5,041,732.8	0.02	**0.00**	inf	inf	**0.00**	0.34	**0.02**	63.4	120.0	120.0	22.0	120.0
90.0	5,994,850.1	**0.00**	**0.00**	inf	inf	**0.00**	0.29	**0.01**	68.6	120.0	120.0	41.7	120.0
95.0	6,285,518.1	0.08	0.07	inf	inf	**0.00**	0.17	**0.01**	69.5	120.0	120.0	97.7	120.0
Avg		0.07	**0.01**	inf	inf	465.80	0.29	**0.02**	42.9	120.0	120.0	95.3	120.0
Min		**0.00**	**0.00**	inf	inf	**0.00**	0.17	**0.01**	10.8	120.0	120.0	22.0	120.0
Max		0.17	**0.07**	inf	inf	2,176.80	0.49	**0.03**	69.5	120.0	120.0	120.3	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	8
Running time in seconds for writing input file (t^{write})	4.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.6
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_1000_050.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	50.0 %
Edges (m)	249,988

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	314,939.5	0.66	**0.00**	inf	inf	2,223.13	0.37	**0.03**	10.8	120.0	120.0	120.4	120.0
5.0	647,545.7	0.11	**0.00**	inf	inf	1,586.98	1.05	**0.01**	15.5	120.0	120.0	120.4	120.0
10.0	1,300,651.4	0.02	**0.00**	inf	inf	784.02	0.86	**0.02**	23.2	120.0	120.0	120.5	120.0
25.0	3,272,599.4	0.03	**0.00**	inf	inf	292.42	0.72	**0.03**	37.7	120.0	120.0	120.3	120.0
50.0	6,623,406.3	0.01	**0.00**	inf	inf	105.90	0.69	**0.03**	52.0	120.0	120.0	120.4	120.0
75.0	9,992,797.1	**0.00**	**0.00**	inf	inf	37.83	0.63	**0.02**	62.7	120.0	120.0	120.4	120.0
90.0	11,873,410.7	0.04	**0.00**	inf	inf	10.04	0.19	**0.01**	68.4	120.0	120.0	120.3	120.0
95.0	12,447,967.5	0.02	**0.00**	inf	inf	4.71	0.04	**0.01**	73.0	120.0	120.0	120.5	120.0
Avg		0.11	**0.00**	inf	inf	630.63	0.57	**0.02**	42.9	120.0	120.0	120.4	120.0
Min		**0.00**	**0.00**	inf	inf	4.71	0.04	**0.01**	10.8	120.0	120.0	120.3	120.0
Max		0.66	**0.00**	inf	inf	2,223.13	1.05	**0.03**	73.0	120.0	120.0	120.5	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	8
Running time in seconds for writing input file (t^{write})	5.2
Running time in seconds for executing parametric cut procedure (t^{cut})	0.7
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_1000_075.txt

Property of graph	Value
Nodes (n)	1,000
Density (Δ)	75.0 %
Edges (m)	374,545

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	460,812.3	0.08	**0.00**	inf	inf	3,372.15	1.16	**0.03**	11.5	120.0	120.0	120.5	120.0
5.0	940,602.0	0.22	**0.00**	inf	inf	1,756.63	0.75	**0.01**	17.0	120.0	120.0	120.5	120.0
10.0	1,912,031.0	0.05	**0.00**	inf	inf	821.15	0.61	**0.02**	27.1	120.0	120.0	120.4	120.0
25.0	4,927,131.5	0.25	**0.00**	inf	inf	287.81	1.06	**0.03**	43.1	120.0	120.0	120.4	120.0
50.0	9,930,130.4	0.17	**0.00**	inf	inf	104.72	1.06	**0.03**	57.5	120.0	120.0	120.5	120.0
75.0	14,868,341.5	**0.00**	**0.00**	inf	inf	33.90	0.85	**0.01**	71.0	120.0	120.0	120.4	120.0
90.0	17,641,539.2	0.03	**0.00**	inf	inf	12.70	0.33	**0.01**	76.7	120.0	120.0	120.3	120.0
95.0	18,503,122.9	0.01	**0.00**	inf	inf	6.19	0.16	**0.01**	78.7	120.0	120.0	120.4	120.0
Avg		0.10	**0.00**	inf	inf	799.41	0.75	**0.02**	47.8	120.0	120.0	120.4	120.0
Min		**0.00**	**0.00**	inf	inf	6.19	0.16	**0.01**	11.5	120.0	120.0	120.3	120.0
Max		0.25	**0.00**	inf	inf	3,372.15	1.16	**0.03**	78.7	120.0	120.0	120.5	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	10
Running time in seconds for writing input file (t^{write})	7.4
Running time in seconds for executing parametric cut procedure (t^{cut})	0.8
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	626,009.1	0.32	**0.00**	inf	inf	1,889.30	1.56	**0.03**	11.4	120.0	120.0	120.4	121.0
5.0	1,288,133.1	0.32	**0.00**	inf	inf	1,314.91	1.07	**0.01**	16.5	120.0	120.0	120.6	121.0
10.0	2,617,034.9	0.12	**0.00**	inf	inf	817.94	1.70	**0.02**	24.5	120.0	120.0	120.6	121.0
25.0	6,573,200.3	0.30	**0.00**	inf	inf	302.93	2.38	**0.03**	39.1	120.0	120.0	120.4	121.0
50.0	13,180,965.3	0.02	**0.00**	inf	inf	104.08	1.86	**0.03**	53.9	120.0	120.0	120.5	121.0
75.0	19,855,996.0	0.06	**0.00**	inf	inf	39.31	0.87	**0.01**	63.2	120.0	120.0	120.5	120.0
90.0	23,618,998.4	0.01	**0.00**	inf	inf	14.84	0.44	**0.01**	68.2	120.0	120.0	120.6	121.0
95.0	24,783,815.3	0.02	**0.00**	inf	inf	7.06	0.13	**0.01**	70.6	120.0	120.0	120.5	121.0
Avg		0.15	**0.00**	inf	inf	561.30	1.25	**0.02**	43.4	120.0	120.0	120.5	120.9
Min		0.01	**0.00**	inf	inf	7.06	0.13	**0.01**	11.4	120.0	120.0	120.4	120.0
Max		0.32	**0.00**	inf	inf	1,889.30	2.38	**0.03**	70.6	120.0	120.0	120.6	121.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	8
Running time in seconds for writing input file (t^{write})	7.4
Running time in seconds for executing parametric cut procedure (t^{cut})	0.9
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_2000_005.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	5.0 %
Edges (m)	100,341

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	136,660.3	0.13	**0.00**	inf	inf	1,694.33	0.12	**0.13**	69.6	120.0	120.0	120.1	120.0
5.0	276,555.0	0.06	**0.00**	inf	inf	0.08	0.17	**0.03**	106.3	120.0	120.0	120.4	120.0
10.0	549,513.7	0.02	**0.00**	inf	inf	42.29	0.21	**0.07**	120.0	120.0	120.0	120.0	120.0
25.0	1,352,294.5	0.03	**0.00**	inf	inf	66.72	0.20	**0.11**	120.1	120.0	120.0	120.2	120.0
50.0	2,711,346.8	0.02	**0.00**	inf	inf	2.05	0.31	**0.12**	120.0	120.0	120.0	121.7	120.0
75.0	4,059,730.8	**0.00**	**0.00**	inf	inf	**0.00**	0.37	**0.09**	120.0	120.0	120.0	52.3	120.0
90.0	4,831,701.6	0.03	0.02	inf	inf	**0.00**	0.23	**0.07**	120.0	120.0	120.0	45.1	120.0
95.0	5,066,863.6	**0.00**	**0.00**	inf	inf	**0.00**	0.07	**0.07**	120.1	120.0	120.0	21.9	120.0
Avg		0.04	**0.00**	inf	inf	225.68	0.21	**0.09**	112.0	120.0	120.0	90.2	120.0
Min		**0.00**	**0.00**	inf	inf	**0.00**	0.07	**0.03**	69.6	120.0	120.0	21.9	120.0
Max		0.13	**0.02**	inf	inf	1,694.33	0.37	**0.13**	120.1	120.0	120.0	121.7	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	7.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.9
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_2000_010.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	10.0 %
Edges (m)	200,031

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	267,431.9	**0.00**	**0.00**	inf	inf	2,422.60	0.34	**0.13**	70.9	120.0	120.0	121.0	120.0
5.0	541,331.9	0.12	**0.00**	inf	inf	1,539.85	0.51	**0.03**	101.9	120.0	120.0	120.7	120.0
10.0	1,095,925.4	0.03	**0.00**	inf	inf	853.00	0.38	**0.06**	120.1	120.0	120.0	120.8	120.0
25.0	2,712,968.6	**0.00**	**0.00**	inf	inf	301.76	0.62	**0.10**	120.1	120.0	120.0	120.7	120.0
50.0	5,406,517.5	**0.00**	**0.00**	inf	inf	96.53	0.67	**0.09**	120.1	120.0	120.0	120.9	120.0
75.0	8,047,887.6	**0.00**	**0.00**	inf	inf	34.44	0.44	**0.09**	120.1	120.0	120.0	120.6	120.0
90.0	9,557,256.5	0.02	**0.00**	inf	inf	11.04	0.24	**0.08**	120.1	120.0	120.0	120.6	120.0
95.0	10,027,586.5	0.01	**0.00**	inf	inf	4.96	0.11	**0.07**	120.0	120.0	120.0	120.7	120.0
Avg		0.02	**0.00**	inf	inf	658.02	0.41	**0.08**	111.7	120.0	120.0	120.7	120.0
Min		**0.00**	**0.00**	inf	inf	4.96	0.11	**0.03**	70.9	120.0	120.0	120.6	120.0
Max		0.12	**0.00**	inf	inf	2,422.60	0.67	**0.13**	120.1	120.0	120.0	121.0	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	9
Running time in seconds for writing input file (t^{write})	8.0
Running time in seconds for executing parametric cut procedure (t^{cut})	1.0
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_2000_025.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	25.0 %
Edges (m)	500,156

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	632,319.1	**0.00**	**0.00**	inf	inf	3,408.45	1.13	**0.13**	71.5	120.0	120.0	120.8	121.0
5.0	1,291,370.9	0.10	**0.00**	inf	inf	1,993.28	1.40	**0.03**	104.0	120.0	120.0	120.8	120.0
10.0	2,609,725.4	0.04	**0.00**	inf	inf	905.08	1.70	**0.06**	120.1	120.0	120.0	123.4	121.0
25.0	6,576,563.4	**0.00**	**0.00**	inf	inf	312.79	1.54	**0.10**	120.0	120.0	120.0	125.0	121.0
50.0	13,266,581.8	0.07	**0.00**	inf	inf	100.88	1.70	**0.12**	120.1	120.0	120.0	120.6	121.0
75.0	19,925,356.7	0.02	**0.00**	inf	inf	32.77	0.77	**0.09**	120.2	120.0	120.0	120.4	121.0
90.0	23,697,405.0	0.01	**0.00**	inf	inf	13.00	0.26	**0.07**	120.2	120.0	120.0	120.4	121.0
95.0	24,844,743.8	**0.00**	**0.00**	inf	inf	6.64	0.09	**0.07**	120.0	120.0	120.0	120.5	120.0
Avg		0.03	**0.00**	inf	inf	846.61	1.07	**0.08**	112.0	120.0	120.0	121.5	120.8
Min		**0.00**	**0.00**	inf	inf	6.64	0.09	**0.03**	71.5	120.0	120.0	120.4	120.0
Max		0.10	**0.00**	inf	inf	3,408.45	1.70	**0.13**	120.2	120.0	120.0	125.0	121.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	9
Running time in seconds for writing input file (t^{write})	10.3
Running time in seconds for executing parametric cut procedure (t^{cut})	1.3
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_2000_050.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	50.0 %
Edges (m)	1,000,241

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	1,277,868.8	0.19	**0.00**	inf	inf	4,177.33	2.93	**0.14**	75.7	120.0	120.0	120.7	122.0
5.0	2,599,290.7	**0.00**	**0.00**	inf	inf	1,889.56	3.43	**0.03**	112.0	120.0	120.0	120.6	122.0
10.0	5,292,988.5	0.14	**0.00**	inf	inf	860.41	3.22	**0.06**	120.0	120.0	120.0	121.8	122.0
25.0	13,331,731.0	0.01	**0.00**	inf	inf	290.98	3.30	**0.10**	120.0	120.0	120.0	120.6	122.0
50.0	26,731,177.1	0.06	**0.00**	inf	inf	99.04	3.19	**0.10**	120.1	120.0	120.0	120.8	122.0
75.0	39,883,405.7	**0.00**	**0.00**	inf	inf	30.89	1.31	**0.10**	120.2	120.0	120.0	120.6	122.0
90.0	47,559,360.5	**0.00**	**0.00**	inf	inf	10.96	0.47	**0.08**	120.2	120.0	120.0	121.3	122.0
95.0	49,920,793.9	**0.00**	**0.00**	inf	inf	5.53	0.16	**0.08**	120.0	120.0	120.0	120.6	122.0
Avg		0.05	**0.00**	inf	inf	920.59	2.25	**0.08**	113.5	120.0	120.0	120.9	122.0
Min		**0.00**	**0.00**	inf	inf	5.53	0.16	**0.03**	75.7	120.0	120.0	120.6	122.0
Max		0.19	**0.00**	inf	inf	4,177.33	3.43	**0.14**	120.2	120.0	120.0	121.8	122.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	8
Running time in seconds for writing input file (t^{write})	15.3
Running time in seconds for executing parametric cut procedure (t^{cut})	2.0
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_2000_075.txt

Property of graph	Value
Nodes (n)	2,000
Density (Δ)	75.0 %
Edges (m)	1,500,364

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	1,906,596.5	0.20	**0.00**	inf	inf	2,981.14	3.71	**0.13**	73.6	120.0	120.0	121.2	120.0
5.0	3,891,354.5	0.04	**0.00**	inf	inf	1,493.71	5.37	**0.03**	107.5	120.0	120.0	120.8	120.0
10.0	7,880,918.6	**0.00**	**0.00**	inf	inf	809.50	4.68	**0.06**	120.0	120.0	120.0	121.8	120.0
25.0	19,785,366.9	0.04	**0.00**	inf	inf	284.39	4.64	**0.10**	120.1	120.0	120.0	120.9	120.0
50.0	40,022,117.0	0.03	**0.00**	inf	inf	103.18	3.67	**0.12**	120.2	120.0	120.0	122.0	120.0
75.0	60,033,170.7	**0.00**	**0.00**	inf	inf	36.13	1.74	**0.09**	120.2	120.0	120.0	121.8	120.0
90.0	71,642,587.6	0.01	**0.00**	inf	inf	12.87	0.51	**0.07**	120.1	120.0	120.0	121.0	120.0
95.0	75,214,166.8	**0.00**	**0.00**	inf	inf	7.01	0.31	**0.07**	120.2	120.0	120.0	121.9	120.0
Avg		0.04	**0.00**	inf	inf	715.99	3.08	**0.08**	112.7	120.0	120.0	121.4	120.0
Min		**0.00**	**0.00**	inf	inf	7.01	0.31	**0.03**	73.6	120.0	120.0	120.8	120.0
Max		0.20	**0.00**	inf	inf	2,981.14	5.37	**0.13**	120.2	120.0	120.0	122.0	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	7
Running time in seconds for writing input file (t^{write})	18.6
Running time in seconds for executing parametric cut procedure (t^{cut})	2.5
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-geo_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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	2,580,579.7	0.43	**0.00**	inf	inf	3,073.28	6.59	**0.14**	77.0	120.0	120.0	122.1	120.0
5.0	5,201,991.9	0.19	**0.00**	inf	inf	1,957.72	6.78	**0.03**	111.8	120.0	120.0	121.5	120.0
10.0	10,471,412.4	0.04	**0.00**	inf	inf	919.85	5.54	**0.06**	120.0	120.0	120.0	121.7	120.0
25.0	26,453,990.6	0.13	**0.00**	inf	inf	313.89	5.58	**0.11**	120.1	120.0	120.0	121.2	120.0
50.0	53,197,682.5	0.02	**0.00**	inf	inf	102.96	4.73	**0.12**	120.0	120.0	120.0	121.8	120.0
75.0	79,943,158.1	**0.00**	**0.00**	inf	inf	34.88	2.15	**0.07**	120.1	120.0	120.0	121.9	120.0
90.0	95,323,342.7	0.02	**0.00**	inf	inf	11.60	0.67	**0.07**	120.2	120.0	120.0	122.9	120.0
95.0	100,105,415.9	0.08	**0.00**	inf	inf	5.64	0.38	**0.07**	120.0	120.0	120.0	121.5	120.0
Avg		0.11	**0.00**	inf	inf	802.48	4.05	**0.08**	113.6	120.0	120.0	121.8	120.0
Min		**0.00**	**0.00**	inf	inf	5.64	0.38	**0.03**	77.0	120.0	120.0	121.2	120.0
Max		0.43	**0.00**	inf	inf	3,073.28	6.78	**0.14**	120.2	120.0	120.0	122.9	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	8
Running time in seconds for writing input file (t^{write})	23.5
Running time in seconds for executing parametric cut procedure (t^{cut})	3.5
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0100_005.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	5.0 %
Edges (m)	251

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	38,140.3	**0.00**	5.03	10.27	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.0	**0.0**
5.0	67,460.6	2.02	3.08	2.02	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.1	0.1	1.0
10.0	119,872.3	5.02	2.50	0.86	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.2	**0.0**
25.0	264,565.2	0.10	0.12	1.40	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.4	0.2	0.1	2.0
50.0	471,375.7	0.47	0.47	0.35	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.2	0.0	**0.0**
75.0	621,400.2	**0.00**	0.41	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.0	1.0
90.0	687,642.2	0.08	0.08	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.0	**0.0**
95.0	701,748.5	0.32	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.1	0.0	**0.0**
Avg		1.00	1.46	1.86	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	0.1	0.5
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.0	**0.0**
Max		5.02	5.03	10.27	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.2	2.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	35
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0100_010.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	10.0 %
Edges (m)	471

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	57,117.0	1.35	**0.00**	6.30	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.1	1.0
5.0	106,422.9	**0.00**	1.53	2.00	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.2	**0.0**
10.0	205,559.9	0.59	0.11	0.11	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.1	1.0
25.0	470,964.6	**0.00**	0.37	0.58	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.3	0.4	0.1	1.0
50.0	906,817.7	0.37	**0.00**	0.19	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.3	0.4	2.0
75.0	1,290,738.3	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.1	1.0
90.0	1,477,953.3	0.50	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.1	1.0
95.0	1,526,199.7	0.26	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.0	**0.0**
Avg		0.38	0.25	1.15	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	0.1	0.9
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.0	**0.0**
Max		1.35	1.53	6.30	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.4	0.4	2.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	26
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0100_025.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	25.0 %
Edges (m)	1,226

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	123,713.2	0.89	0.89	0.89	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.2	0.2	1.0
5.0	245,784.7	1.02	0.76	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.4	2.0
10.0	477,217.8	**0.00**	**0.00**	0.32	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.7	1.0
25.0	1,146,784.5	0.97	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	0.9	9.0
50.0	2,164,788.7	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	0.1	1.0
75.0	3,051,221.7	0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.1	1.0
90.0	3,520,123.3	0.23	0.35	0.01	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.4	4.0
95.0	3,662,096.9	**0.00**	**0.00**	0.04	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.7	0.1	0.1	**0.0**
Avg		0.39	0.25	0.16	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	0.4	2.4
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.1	**0.0**
Max		1.02	0.89	0.89	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.7	0.2	0.9	9.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	17
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0100_050.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	50.0 %
Edges (m)	2,492

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	255,249.4	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.2	0.5	1.0
5.0	448,743.8	4.28	0.39	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.6	4.0
10.0	810,400.3	1.20	0.17	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	5.1	12.0
25.0	1,980,919.5	0.46	0.10	0.10	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.5	3.6	15.0
50.0	3,949,444.1	1.01	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.2	1.2	6.0
75.0	5,810,921.5	1.16	0.25	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.5	0.2	0.7	5.0
90.0	6,802,356.0	0.75	0.56	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.9	13.0
95.0	7,105,637.9	0.01	0.01	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.1	0.6	3.0
Avg		1.11	0.18	0.01	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	1.6	7.4
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.0	0.2	0.1	0.5	1.0
Max		4.28	0.56	0.10	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.5	5.1	15.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	14
Running time in seconds for writing input file (t^{write})	0.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0100_075.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	75.0 %
Edges (m)	3,684

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	352,111.5	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.7	2.0
5.0	673,237.6	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.4	3.0
10.0	1,278,185.2	1.93	0.70	0.01	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	1.9	19.0
25.0	3,092,915.6	0.12	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	1.1	8.0
50.0	6,073,147.4	0.72	0.23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	1.4	4.0
75.0	8,589,661.3	0.44	0.13	0.01	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.5	0.2	3.3	27.0
90.0	9,990,593.6	0.17	0.17	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	2.0	7.0
95.0	10,451,536.1	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	0.4	3.0
Avg		0.42	0.15	0.00	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	1.4	9.1
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	0.4	2.0
Max		1.93	0.70	0.01	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	3.3	27.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	17
Running time in seconds for writing input file (t^{write})	0.4
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0100_100.txt

Property of graph	Value
Nodes (n)	100
Density (Δ)	100.0 %
Edges (m)	4,950

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	529,986.9	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	1.3	3.0
5.0	1,040,809.6	2.79	2.66	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	1.5	8.0
10.0	1,891,834.7	0.45	0.14	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	4.3	88.0
25.0	4,289,387.5	0.98	0.59	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	10.2	48.0
50.0	8,218,566.5	0.15	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.5	0.2	4.6	18.0
75.0	12,029,434.1	0.48	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.5	0.2	1.6	11.0
90.0	14,039,399.1	0.73	0.73	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	4.5	35.0
95.0	14,651,459.4	0.08	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	1.4	12.0
Avg		0.71	0.52	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	0.4	0.2	3.7	27.9
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.1	0.2	0.2	1.3	3.0
Max		2.79	2.66	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	0.6	0.2	10.2	88.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	15
Running time in seconds for writing input file (t^{write})	0.4
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0200_005.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	5.0 %
Edges (m)	995

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	146,162.4	0.99	0.12	5.21	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.2	0.5	0.2	5.0
5.0	266,776.3	0.59	0.59	2.31	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.7	0.6	0.2	2.0
10.0	481,767.3	**0.00**	0.80	1.17	**0.00**	**0.00**	**0.00**	**0.00**	0.4	2.2	0.7	0.1	**0.0**
25.0	1,032,383.2	0.31	0.17	0.40	**0.00**	**0.00**	**0.00**	**0.00**	0.7	3.2	2.2	0.4	13.0
50.0	1,890,439.1	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.9	4.1	1.2	0.2	8.0
75.0	2,561,740.8	0.11	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.2	4.5	1.1	0.1	4.0
90.0	2,884,872.8	0.09	0.11	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.3	4.5	0.7	0.2	19.0
95.0	2,982,533.4	0.10	0.06	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.7	0.5	0.2	4.0
Avg		0.27	0.23	1.14	**0.00**	**0.00**	**0.00**	**0.00**	0.8	3.3	1.0	0.2	6.9
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.2	0.5	0.1	**0.0**
Max		0.99	0.80	5.21	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.7	2.2	0.4	19.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	35
Running time in seconds for writing input file (t^{write})	0.6
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0200_010.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	10.0 %
Edges (m)	2,014

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	205,919.5	0.57	2.17	1.82	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.7	0.6	5.0
5.0	387,143.6	0.59	0.17	0.49	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.6	1.3	1.8	11.0
10.0	756,587.5	1.11	0.04	0.60	**0.00**	**0.00**	**0.00**	**0.00**	0.4	2.2	2.1	1.2	9.0
25.0	1,819,489.9	0.63	0.68	0.41	**0.00**	**0.00**	**0.00**	**0.00**	0.7	3.3	1.4	0.2	3.0
50.0	3,395,526.8	0.25	0.04	0.01	**0.00**	**0.00**	**0.00**	**0.00**	1.0	4.0	1.3	0.8	17.0
75.0	4,751,300.8	0.19	0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.2	4.4	1.1	0.5	9.0
90.0	5,448,694.2	0.04	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.4	0.7	0.5	21.0
95.0	5,645,401.4	0.02	0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.7	0.5	0.4	9.0
Avg		0.43	0.39	0.42	**0.00**	**0.00**	**0.00**	**0.00**	0.8	3.2	1.1	0.7	10.5
Min		0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.5	0.2	3.0
Max		1.11	2.17	1.82	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.7	2.1	1.8	21.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	33
Running time in seconds for writing input file (t^{write})	0.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0200_025.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	25.0 %
Edges (m)	4,912

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	423,393.2	0.62	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.5	2.3	10.0
5.0	816,435.9	0.56	0.60	0.39	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.7	1.1	1.4	19.0
10.0	1,585,981.8	0.73	0.31	0.22	**0.00**	**0.00**	**0.00**	**0.00**	0.4	2.3	3.7	8.5	40.0
25.0	3,971,396.9	0.22	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.7	3.2	1.8	2.6	22.0
50.0	7,732,914.9	0.11	0.11	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.0	3.9	1.7	1.8	9.0
75.0	11,273,958.2	0.24	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.2	4.4	1.1	1.2	13.0
90.0	13,196,202.6	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.3	4.4	0.6	0.5	7.0
95.0	13,741,499.1	0.35	0.25	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.5	0.6	1.0	32.0
Avg		0.35	0.16	0.08	**0.00**	**0.00**	**0.00**	**0.00**	0.8	3.2	1.4	2.4	19.0
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.5	0.5	7.0
Max		0.73	0.60	0.39	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.5	3.7	8.5	40.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	17
Running time in seconds for writing input file (t^{write})	0.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0200_050.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	50.0 %
Edges (m)	9,910

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	776,259.1	3.25	**0.00**	0.40	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	5.2	22.0
5.0	1,542,504.5	1.09	0.32	0.07	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.7	0.6	6.1	55.0
10.0	3,021,738.5	0.06	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.5	2.3	1.1	10.4	98.0
25.0	7,397,481.2	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.7	3.2	1.7	8.9	60.0
50.0	14,569,299.9	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.09	**0.00**	1.0	4.0	7.5	19.8	120.0
75.0	21,775,525.8	0.14	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.2	4.3	0.9	9.7	120.0
90.0	25,605,308.3	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.3	4.4	0.7	2.7	39.0
95.0	26,758,444.1	0.28	0.28	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.5	0.6	2.1	24.0
Avg		0.60	0.08	0.06	**0.00**	**0.00**	0.01	**0.00**	0.8	3.2	1.7	8.1	67.2
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	2.1	22.0
Max		3.25	0.32	0.40	**0.00**	**0.00**	0.09	**0.00**	1.4	4.5	7.5	19.8	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	16
Running time in seconds for writing input file (t^{write})	0.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.1
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0200_075.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	75.0 %
Edges (m)	14,844

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	1,295,780.2	0.48	0.48	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	5.4	29.0
5.0	2,435,088.9	0.84	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.7	0.6	17.6	75.0
10.0	4,676,319.6	0.19	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.5	2.3	0.8	15.4	103.0
25.0	11,535,176.1	0.19	0.02	0.02	**0.00**	**0.00**	**0.00**	**0.00**	0.7	3.2	0.8	22.3	120.0
50.0	22,470,347.1	0.53	0.11	**0.00**	**0.00**	**0.00**	0.04	**0.00**	1.0	3.9	1.1	21.3	120.0
75.0	32,810,498.6	0.32	0.25	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.2	4.4	0.8	14.3	120.0
90.0	38,301,995.6	0.49	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.3	0.7	15.3	120.0
95.0	39,956,717.1	0.28	0.28	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.7	0.6	7.9	120.0
Avg		0.41	0.14	0.00	**0.00**	**0.00**	0.01	**0.00**	0.8	3.2	0.7	14.9	100.9
Min		0.19	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	5.4	29.0
Max		0.84	0.48	0.02	**0.00**	**0.00**	0.04	**0.00**	1.4	4.7	1.1	22.3	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	14
Running time in seconds for writing input file (t^{write})	0.8
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

File dispersion-qkp-wgeo_0200_100.txt

Property of graph	Value
Nodes (n)	200
Density (Δ)	100.0 %
Edges (m)	19,900

		Deviation from best OFV (%)						Running time (s)					
γ	Best OFV	QKBP*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	1,503,340.4	3.20	0.14	0.08	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	25.6	120.0
5.0	3,161,207.9	1.68	0.23	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.3	1.7	0.6	30.6	120.0
10.0	6,389,157.8	0.23	0.07	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.5	2.3	0.7	37.6	120.0
25.0	16,254,572.2	0.29	0.05	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.7	3.2	0.7	63.5	120.0
50.0	31,852,586.8	0.09	0.09	**0.00**	**0.00**	**0.00**	0.03	**0.00**	1.0	3.9	0.7	30.2	120.0
75.0	46,718,823.1	0.39	**0.00**	**0.00**	**0.00**	**0.00**	0.01	**0.00**	1.2	4.4	0.7	30.5	120.0
90.0	54,656,763.5	0.36	0.33	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.3	0.6	40.7	120.0
95.0	57,126,753.6	0.18	0.18	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.4	4.5	0.6	18.2	120.0
Avg		0.80	0.14	0.01	**0.00**	**0.00**	0.01	**0.00**	0.9	3.2	0.6	34.6	120.0
Min		0.09	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.2	1.3	0.6	18.2	120.0
Max		3.20	0.33	0.08	**0.00**	**0.00**	0.03	**0.00**	1.4	4.5	0.7	63.5	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	10
Running time in seconds for writing input file (t^{write})	0.8
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	243,827.0	**0.00**	0.89	3.22	**0.00**	**0.00**	**0.00**	**0.00**	0.5	5.8	1.8	0.2	4.0
5.0	456,069.3	0.79	1.12	1.92	**0.00**	**0.00**	**0.00**	**0.00**	0.7	7.6	2.4	0.3	4.0
10.0	871,396.1	0.34	0.79	1.66	**0.00**	**0.00**	**0.00**	**0.00**	1.1	9.9	3.3	0.7	22.0
25.0	1,982,381.4	0.45	0.27	0.32	inf	**0.00**	**0.00**	**0.01**	1.7	14.1	120.0	1.3	21.0
50.0	3,784,007.6	**0.00**	0.12	0.17	inf	**0.00**	**0.00**	**0.01**	2.5	16.5	120.0	0.6	5.0
75.0	5,342,038.6	0.03	0.07	0.02	**0.00**	**0.00**	**0.00**	**0.00**	3.1	16.8	6.2	0.4	21.0
90.0	6,136,494.3	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	15.7	1.6	0.2	5.0
95.0	6,334,829.4	0.20	0.16	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	16.0	1.3	0.4	55.0
Avg		0.23	0.43	0.91	inf	**0.00**	**0.00**	**0.00**	2.0	12.8	32.1	0.5	17.1
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.5	5.8	1.3	0.2	4.0
Max		0.79	1.12	3.22	inf	**0.00**	**0.00**	**0.01**	3.4	16.8	120.0	1.3	55.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	24
Running time in seconds for writing input file (t^{write})	1.0
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	458,676.4	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.5	6.0	1.5	0.3	4.0
5.0	844,525.4	**0.00**	**0.00**	0.05	**0.00**	**0.00**	**0.00**	**0.00**	0.8	7.9	2.2	0.9	36.0
10.0	1,556,993.5	0.49	0.44	0.23	**0.00**	**0.00**	**0.00**	**0.00**	1.1	10.3	12.9	4.6	59.0
25.0	3,619,800.7	0.36	0.03	0.05	inf	**0.00**	**0.00**	**0.01**	1.7	14.0	120.0	4.1	117.0
50.0	7,002,766.4	0.18	0.10	0.07	**0.00**	**0.00**	**0.00**	**0.00**	2.5	16.4	32.5	2.0	48.0
75.0	10,160,390.8	0.01	0.01	0.01	**0.00**	**0.00**	**0.00**	**0.00**	3.0	16.1	5.8	1.1	115.0
90.0	11,857,368.3	0.26	0.26	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.3	16.2	2.5	1.4	120.0
95.0	12,374,781.3	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	15.5	1.4	0.2	1.0
Avg		0.16	0.10	0.05	inf	**0.00**	**0.00**	**0.00**	2.0	12.8	22.4	1.8	62.5
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.5	6.0	1.4	0.2	1.0
Max		0.49	0.44	0.23	inf	**0.00**	**0.00**	**0.01**	3.4	16.4	120.0	4.6	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	35
Running time in seconds for writing input file (t^{write})	1.0
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	931,558.9	0.50	0.08	0.11	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.3	3.0	7.6	35.0
5.0	1,853,334.4	0.08	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.8	8.1	4.1	7.8	66.0
10.0	3,664,060.9	0.52	0.26	0.05	**0.00**	**0.00**	**0.00**	**0.01**	1.1	10.4	16.7	14.0	59.0
25.0	9,131,039.3	0.17	0.03	0.03	**0.00**	**0.00**	**0.00**	**0.01**	1.8	14.2	17.4	16.6	120.0
50.0	17,810,122.9	0.19	0.05	0.01	**0.00**	**0.00**	0.03	**0.00**	2.5	16.0	6.7	11.0	120.0
75.0	25,817,371.7	0.01	**0.00**	**0.00**	**0.00**	**0.00**	0.06	**0.00**	3.1	16.4	2.8	4.2	120.0
90.0	30,166,923.7	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.3	15.5	1.8	3.1	109.0
95.0	31,466,609.4	0.02	0.01	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	15.8	1.4	5.8	97.0
Avg		0.19	0.05	0.03	**0.00**	**0.00**	0.01	**0.00**	2.1	12.8	6.7	8.8	90.8
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.3	1.4	3.1	35.0
Max		0.52	0.26	0.11	**0.00**	**0.00**	0.06	**0.01**	3.4	16.4	17.4	16.6	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	21
Running time in seconds for writing input file (t^{write})	1.0
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	1,785,890.6	0.30	0.11	0.01	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.2	2.5	73.6	120.0
5.0	3,600,198.8	0.70	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.8	8.2	1.5	38.7	120.0
10.0	6,955,208.0	1.06	**0.00**	**0.00**	**0.00**	**0.00**	0.07	**0.00**	1.2	10.6	6.6	120.7	120.0
25.0	17,494,277.6	0.11	0.04	0.03	**0.00**	**0.00**	**0.00**	**0.01**	1.8	14.0	15.4	76.8	120.0
50.0	35,223,495.4	0.45	0.03	**0.00**	**0.00**	**0.00**	0.03	**0.00**	2.6	16.4	3.2	44.3	120.0
75.0	51,060,804.8	0.01	0.01	0.01	**0.00**	**0.00**	**0.00**	**0.00**	3.1	16.0	2.2	24.3	120.0
90.0	59,418,082.5	0.31	0.22	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	15.7	1.7	24.5	120.0
95.0	61,900,195.6	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	15.8	1.4	7.8	120.0
Avg		0.37	0.05	0.01	**0.00**	**0.00**	0.01	**0.00**	2.1	12.8	4.3	51.3	120.0
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.2	1.4	7.8	120.0
Max		1.06	0.22	0.03	**0.00**	**0.00**	0.07	**0.01**	3.4	16.4	15.4	120.7	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	17
Running time in seconds for writing input file (t^{write})	1.1
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	2,999,792.3	0.36	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.3	1.4	25.6	120.0
5.0	5,522,693.0	0.72	0.36	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.8	8.2	1.6	44.2	120.0
10.0	10,622,771.9	0.05	0.04	**0.00**	**0.00**	**0.00**	0.02	**0.01**	1.1	10.5	2.5	113.7	120.0
25.0	26,124,846.2	0.14	**0.00**	**0.00**	**0.00**	**0.00**	0.02	**0.01**	1.8	14.0	3.0	120.7	120.0
50.0	52,283,443.2	0.22	0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	2.5	16.2	2.5	120.3	120.0
75.0	75,852,661.7	0.44	0.22	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.0	15.9	1.9	120.3	120.0
90.0	88,637,353.5	0.15	0.05	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.3	16.1	1.8	41.5	120.0
95.0	92,604,309.4	0.07	0.07	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.3	15.4	1.5	90.2	120.0
Avg		0.27	0.10	**0.00**	**0.00**	**0.00**	0.01	**0.00**	2.1	12.8	2.0	84.6	120.0
Min		0.05	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.3	1.4	25.6	120.0
Max		0.72	0.36	**0.00**	**0.00**	**0.00**	0.02	**0.01**	3.3	16.2	3.0	120.7	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	19
Running time in seconds for writing input file (t^{write})	1.2
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	3,954,022.0	0.19	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.5	1.4	14.2	120.0
5.0	7,543,680.9	1.16	0.46	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.8	8.7	1.4	48.9	120.0
10.0	14,538,477.6	0.83	0.02	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.1	10.6	1.6	86.3	120.0
25.0	35,493,957.2	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.03	**0.01**	1.8	14.2	1.7	54.5	120.0
50.0	68,925,411.6	0.28	0.01	**0.00**	**0.00**	**0.00**	0.04	**0.01**	2.4	16.1	2.0	120.3	120.0
75.0	102,263,704.4	0.29	0.06	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.0	16.1	1.8	62.1	120.0
90.0	120,661,324.4	0.15	**0.00**	**0.00**	**0.00**	**0.00**	0.01	**0.00**	3.2	15.6	1.5	44.2	120.0
95.0	125,950,486.8	0.03	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3.4	15.7	1.4	13.2	120.0
Avg		0.37	0.07	**0.00**	**0.00**	**0.00**	0.01	**0.00**	2.0	12.9	1.6	55.5	120.0
Min		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.6	6.5	1.4	13.2	120.0
Max		1.16	0.46	**0.00**	**0.00**	**0.00**	0.04	**0.01**	3.4	16.1	2.0	120.3	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	18
Running time in seconds for writing input file (t^{write})	1.3
Running time in seconds for executing parametric cut procedure (t^{cut})	0.2
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	558,061.0	1.76	1.48	3.88	inf	**0.00**	**0.00**	**0.01**	1.5	40.5	120.0	3.6	35.0
5.0	1,128,973.8	0.35	0.08	0.79	inf	**0.00**	0.08	**0.00**	2.4	54.2	120.0	2.3	120.0
10.0	2,230,939.1	0.39	0.22	0.42	inf	**0.00**	**0.00**	**0.01**	3.4	76.1	120.0	3.8	120.0
25.0	5,452,739.2	0.15	0.12	0.36	inf	**0.00**	**0.00**	**0.01**	5.7	110.4	120.0	2.2	40.0
50.0	10,669,402.8	0.06	0.03	0.06	inf	**0.00**	**0.00**	**0.01**	8.3	109.3	120.0	1.1	58.0
75.0	15,422,748.8	0.03	0.03	0.03	inf	**0.00**	**0.00**	**0.00**	10.3	109.5	120.0	1.9	42.0
90.0	17,896,753.9	0.04	**0.00**	**0.00**	inf	**0.00**	0.02	**0.00**	11.2	103.1	120.0	1.0	120.0
95.0	18,573,898.0	**0.00**	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	11.8	94.5	120.0	0.5	1.0
Avg		0.35	0.24	0.69	inf	**0.00**	0.01	**0.01**	6.8	87.2	120.0	2.1	67.0
Min		**0.00**	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.5	40.5	120.0	0.5	1.0
Max		1.76	1.48	3.88	inf	**0.00**	0.08	**0.01**	11.8	110.4	120.0	3.8	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	29
Running time in seconds for writing input file (t^{write})	1.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	1,084,012.7	0.23	0.38	0.57	inf	**0.00**	**0.00**	**0.01**	1.5	39.2	120.0	17.0	68.0
5.0	2,087,950.0	**0.00**	0.09	0.45	inf	**0.00**	**0.00**	**0.01**	2.3	55.6	120.0	19.2	83.0
10.0	4,020,257.3	0.39	0.22	0.12	inf	**0.00**	0.14	**0.01**	3.4	72.8	120.0	32.1	120.0
25.0	10,123,775.8	**0.00**	0.12	0.07	inf	**0.00**	**0.00**	**0.01**	5.5	103.8	120.0	26.3	120.0
50.0	20,091,488.2	0.04	0.04	0.02	inf	**0.00**	0.04	**0.01**	7.9	108.9	120.0	12.1	120.0
75.0	29,194,379.6	0.13	0.04	**0.00**	inf	**0.00**	0.01	**0.00**	9.5	110.7	120.0	5.8	120.0
90.0	34,046,724.2	0.04	0.01	**0.00**	inf	**0.00**	**0.00**	**0.00**	10.4	98.4	120.0	5.1	120.0
95.0	35,437,662.4	0.02	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	10.6	88.9	120.0	1.5	9.0
Avg		0.11	0.11	0.15	inf	**0.00**	0.02	**0.01**	6.4	84.8	120.0	14.9	95.0
Min		**0.00**	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.5	39.2	120.0	1.5	9.0
Max		0.39	0.38	0.57	inf	**0.00**	0.14	**0.01**	10.6	110.7	120.0	32.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	26
Running time in seconds for writing input file (t^{write})	1.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	2,581,885.1	0.30	0.24	**0.00**	inf	**0.00**	0.50	**0.01**	1.7	42.5	120.0	22.3	120.0
5.0	5,160,148.6	0.41	0.28	**0.00**	inf	**0.00**	0.10	**0.00**	2.5	56.6	120.0	19.9	120.0
10.0	10,016,504.2	0.58	0.12	**0.00**	inf	**0.00**	0.06	**0.01**	3.5	73.7	120.0	91.7	120.0
25.0	24,853,019.8	0.08	0.03	0.03	inf	**0.00**	0.01	**0.01**	5.7	103.2	120.0	43.4	120.0
50.0	48,993,908.6	0.14	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.01**	7.9	108.0	120.0	67.4	120.0
75.0	72,048,838.2	0.24	**0.00**	**0.00**	inf	**0.00**	0.09	**0.00**	9.5	108.5	120.0	59.2	120.0
90.0	84,301,112.3	0.07	0.05	**0.00**	inf	**0.00**	0.02	**0.00**	10.2	97.8	120.0	9.7	120.0
95.0	87,707,536.1	0.02	0.02	**0.00**	inf	**0.00**	**0.00**	**0.00**	10.5	89.6	120.0	17.9	120.0
Avg		0.23	0.09	0.00	inf	**0.00**	0.10	**0.01**	6.4	85.0	120.0	41.4	120.0
Min		0.02	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.7	42.5	120.0	9.7	120.0
Max		0.58	0.28	0.03	inf	**0.00**	0.50	**0.01**	10.5	108.5	120.0	91.7	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	16
Running time in seconds for writing input file (t^{write})	1.9
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	4,702,038.2	0.52	0.40	**0.00**	inf	0.12	**0.00**	**0.01**	1.7	45.4	120.0	120.1	120.0
5.0	9,564,042.5	0.58	0.07	**0.00**	inf	6.43	0.21	**0.01**	2.6	57.1	120.0	120.1	120.0
10.0	18,747,885.1	**0.00**	**0.00**	**0.00**	inf	1.18	0.08	**0.01**	3.6	78.5	120.0	120.1	120.0
25.0	47,909,716.0	0.11	0.04	**0.00**	inf	6.50	**0.00**	**0.01**	5.7	103.4	120.0	120.1	120.0
50.0	96,893,829.3	0.06	**0.00**	**0.00**	inf	0.42	0.03	**0.01**	8.2	106.5	120.0	120.1	120.0
75.0	143,539,160.9	0.17	0.02	**0.00**	inf	**0.00**	0.11	**0.00**	9.9	106.3	120.0	57.7	120.0
90.0	168,210,283.3	0.06	0.06	**0.00**	inf	**0.00**	0.07	**0.00**	10.8	103.6	120.0	56.4	120.0
95.0	175,198,752.3	0.10	0.09	**0.00**	inf	**0.00**	**0.00**	**0.00**	11.0	91.4	120.0	64.7	120.0
Avg		0.20	0.08	**0.00**	inf	1.83	0.06	**0.01**	6.7	86.5	120.0	97.4	120.0
Min		**0.00**	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.7	45.4	120.0	56.4	120.0
Max		0.58	0.40	**0.00**	inf	6.50	0.21	**0.01**	11.0	106.5	120.0	120.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	14
Running time in seconds for writing input file (t^{write})	2.2
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	7,076,592.5	0.58	0.04	**0.00**	inf	2,418.75	0.04	**0.01**	1.7	42.5	120.0	120.1	120.0
5.0	14,158,194.6	0.10	0.06	**0.00**	inf	1,612.72	**0.00**	**0.01**	2.4	56.8	120.0	120.1	120.0
10.0	28,229,742.7	0.11	**0.00**	**0.00**	inf	7.32	0.17	**0.01**	3.5	73.8	120.0	120.1	120.0
25.0	71,497,396.7	**0.00**	**0.00**	**0.00**	inf	5.39	0.10	**0.01**	5.6	103.0	120.0	120.1	120.0
50.0	145,346,118.0	0.32	**0.00**	**0.00**	inf	23.63	0.02	**0.01**	7.9	106.3	120.0	120.1	120.0
75.0	215,222,498.9	0.17	**0.00**	**0.00**	inf	0.07	0.16	**0.01**	9.4	108.7	120.0	120.1	120.0
90.0	252,337,180.7	0.18	0.10	**0.00**	inf	**0.00**	**0.00**	**0.00**	10.2	97.2	120.0	90.5	120.0
95.0	262,959,622.5	0.13	0.13	**0.00**	inf	**0.00**	**0.00**	**0.00**	10.4	89.3	120.0	95.5	120.0
Avg		0.20	0.04	**0.00**	inf	508.49	0.06	**0.01**	6.4	84.7	120.0	113.3	120.0
Min		**0.00**	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.7	42.5	120.0	90.5	120.0
Max		0.58	0.13	**0.00**	inf	2,418.75	0.17	**0.01**	10.4	108.7	120.0	120.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	2.4
Running time in seconds for executing parametric cut procedure (t^{cut})	0.3
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	9,398,593.9	**0.00**	**0.00**	**0.00**	inf	3,166.00	**0.00**	**0.01**	1.7	43.2	120.0	120.1	120.0
5.0	18,962,077.3	0.08	**0.00**	**0.00**	inf	1,280.97	0.18	**0.01**	2.5	56.4	120.0	120.1	120.0
10.0	38,360,551.2	0.30	0.07	**0.00**	inf	644.98	0.04	**0.01**	3.6	73.9	120.0	120.1	120.0
25.0	96,012,175.0	0.01	**0.00**	**0.00**	inf	287.33	0.02	**0.01**	5.8	106.0	120.0	120.1	120.0
50.0	190,519,222.4	0.25	0.02	**0.00**	inf	106.70	0.13	**0.01**	8.3	109.6	120.0	120.1	120.0
75.0	281,686,636.9	0.16	0.01	**0.00**	inf	32.76	0.06	**0.00**	9.9	110.6	120.0	120.1	120.0
90.0	330,405,009.5	**0.00**	**0.00**	**0.00**	inf	**0.00**	0.19	**0.00**	11.2	98.7	120.0	86.0	120.0
95.0	344,823,907.4	0.06	0.04	**0.00**	inf	**0.00**	0.11	**0.00**	11.1	90.0	120.0	94.9	120.0
Avg		0.11	0.02	**0.00**	inf	689.84	0.09	**0.01**	6.8	86.0	120.0	112.7	120.0
Min		**0.00**	**0.00**	**0.00**	inf	**0.00**	**0.00**	**0.00**	1.7	43.2	120.0	86.0	120.0
Max		0.30	0.07	**0.00**	inf	3,166.00	0.19	**0.01**	11.2	110.6	120.0	120.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	15
Running time in seconds for writing input file (t^{write})	2.6
Running time in seconds for executing parametric cut procedure (t^{cut})	0.4
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	2,097,668.7	0.27	0.19	inf	inf	**0.00**	0.66	**0.02**	10.2	120.0	120.0	54.7	120.0
5.0	4,133,456.0	0.20	0.05	inf	inf	**0.00**	0.12	**0.01**	15.4	120.0	120.0	63.0	120.0
10.0	8,257,446.2	0.15	0.06	inf	inf	**0.00**	0.11	**0.02**	23.0	120.0	120.0	58.7	120.0
25.0	20,679,798.2	0.07	**0.00**	inf	inf	**0.00**	0.03	**0.03**	37.4	120.0	120.0	120.3	120.0
50.0	40,900,913.2	0.05	0.01	inf	inf	**0.00**	0.08	**0.01**	51.9	120.0	120.0	13.6	120.0
75.0	59,586,465.8	0.01	**0.00**	inf	inf	**0.00**	0.05	**0.01**	63.5	120.0	120.0	13.6	120.0
90.0	69,335,143.9	0.01	**0.00**	inf	inf	**0.00**	**0.00**	**0.01**	67.6	120.0	120.0	3.6	94.0
95.0	72,114,236.0	0.01	**0.00**	inf	inf	**0.00**	**0.00**	**0.01**	69.8	120.0	120.0	4.2	88.0
Avg		0.10	0.04	inf	inf	**0.00**	0.13	**0.02**	42.4	120.0	120.0	41.5	112.8
Min		0.01	**0.00**	inf	inf	**0.00**	**0.00**	**0.01**	10.2	120.0	120.0	3.6	88.0
Max		0.27	0.19	inf	inf	**0.00**	0.66	**0.03**	69.8	120.0	120.0	120.3	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	20
Running time in seconds for writing input file (t^{write})	3.6
Running time in seconds for executing parametric cut procedure (t^{cut})	0.5
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	4,094,690.2	0.17	0.15	inf	inf	**0.00**	0.28	**0.01**	9.8	120.0	120.0	85.2	120.0
5.0	8,106,253.8	0.08	0.02	inf	inf	**0.00**	0.10	**0.01**	14.9	120.0	120.0	69.9	120.0
10.0	16,208,280.2	**0.00**	0.03	inf	inf	**0.00**	0.03	**0.02**	22.5	120.0	120.0	80.0	120.0
25.0	39,835,229.4	0.02	0.01	inf	inf	**0.00**	0.13	**0.02**	35.7	120.0	120.0	30.3	120.0
50.0	77,902,137.5	0.02	0.01	inf	inf	**0.00**	0.02	**0.03**	51.1	120.0	120.0	121.1	120.0
75.0	114,534,934.7	0.01	**0.00**	inf	inf	**0.00**	0.06	**0.01**	61.7	120.0	120.0	13.1	120.0
90.0	134,305,637.5	0.03	**0.00**	inf	inf	**0.00**	0.09	**0.01**	65.6	120.0	120.0	13.3	120.0
95.0	140,105,204.9	0.09	0.01	inf	inf	**0.00**	0.04	**0.01**	66.9	120.0	120.0	11.0	120.0
Avg		0.05	0.03	inf	inf	**0.00**	0.09	**0.01**	41.0	120.0	120.0	53.0	120.0
Min		**0.00**	**0.00**	inf	inf	**0.00**	0.02	**0.01**	9.8	120.0	120.0	11.0	120.0
Max		0.17	0.15	inf	inf	**0.00**	0.28	**0.03**	66.9	120.0	120.0	121.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	20
Running time in seconds for writing input file (t^{write})	3.7
Running time in seconds for executing parametric cut procedure (t^{cut})	0.5
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	9,993,687.5	0.01	0.01	inf	inf	2,785.20	**0.00**	**0.03**	10.7	120.0	120.0	120.1	120.0
5.0	19,788,228.4	**0.00**	**0.00**	inf	inf	1,650.03	0.33	**0.01**	16.0	120.0	120.0	120.1	120.0
10.0	39,504,344.0	0.28	**0.00**	inf	inf	803.85	0.05	**0.02**	23.3	120.0	120.0	120.1	120.0
25.0	98,585,900.1	0.09	**0.00**	inf	inf	311.23	0.15	**0.03**	37.5	120.0	120.0	120.1	120.0
50.0	198,616,197.0	0.03	**0.00**	inf	inf	121.30	0.09	**0.02**	52.5	120.0	120.0	120.1	120.0
75.0	292,869,748.1	0.02	**0.00**	inf	inf	**0.00**	0.14	**0.01**	63.4	120.0	120.0	36.4	120.0
90.0	343,021,553.1	0.02	**0.00**	inf	inf	**0.00**	0.06	**0.01**	69.2	120.0	120.0	32.6	120.0
95.0	357,709,491.6	0.03	**0.00**	inf	inf	**0.00**	0.09	**0.01**	69.8	120.0	120.0	29.7	120.0
Avg		0.06	**0.00**	inf	inf	708.95	0.11	**0.02**	42.8	120.0	120.0	87.4	120.0
Min		**0.00**	**0.00**	inf	inf	**0.00**	**0.00**	**0.01**	10.7	120.0	120.0	29.7	120.0
Max		0.28	**0.01**	inf	inf	2,785.20	0.33	**0.03**	69.8	120.0	120.0	120.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	11
Running time in seconds for writing input file (t^{write})	4.5
Running time in seconds for executing parametric cut procedure (t^{cut})	0.6
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	17,884,079.9	**0.00**	**0.00**	inf	inf	2,932.39	0.35	**0.03**	10.4	120.0	120.0	120.4	120.0
5.0	37,062,363.1	0.47	**0.00**	inf	inf	1,945.77	0.26	**0.01**	15.7	120.0	120.0	120.3	120.0
10.0	74,779,460.4	0.02	**0.00**	inf	inf	856.41	0.31	**0.02**	22.1	120.0	120.0	120.4	120.0
25.0	192,960,369.6	0.13	**0.00**	inf	inf	311.42	0.37	**0.03**	36.2	120.0	120.0	120.3	120.0
50.0	387,058,835.1	0.11	**0.00**	inf	inf	**0.00**	0.37	**0.02**	50.2	120.0	120.0	120.3	120.0
75.0	574,164,632.3	0.05	**0.00**	inf	inf	5.02	0.11	**0.01**	60.6	120.0	120.0	120.6	120.0
90.0	675,290,477.1	0.05	**0.00**	inf	inf	3.52	0.15	**0.01**	64.9	120.0	120.0	120.3	120.0
95.0	704,722,770.8	0.06	**0.00**	inf	inf	1.84	0.03	**0.01**	65.6	120.0	120.0	120.3	120.0
Avg		0.11	**0.00**	inf	inf	757.05	0.24	**0.02**	40.7	120.0	120.0	120.4	120.0
Min		**0.00**	**0.00**	inf	inf	**0.00**	0.03	**0.01**	10.4	120.0	120.0	120.3	120.0
Max		0.47	**0.00**	inf	inf	2,932.39	0.37	**0.03**	65.6	120.0	120.0	120.6	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	14
Running time in seconds for writing input file (t^{write})	5.5
Running time in seconds for executing parametric cut procedure (t^{cut})	0.7
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	27,658,495.8	**0.00**	**0.00**	inf	inf	2,472.82	0.84	**0.03**	11.0	120.0	120.0	120.4	120.0
5.0	56,356,737.3	**0.00**	**0.00**	inf	inf	1,443.26	0.46	**0.01**	15.8	120.0	120.0	120.4	120.0
10.0	113,215,508.7	0.18	**0.00**	inf	inf	810.69	0.60	**0.02**	23.4	120.0	120.0	120.4	120.0
25.0	288,913,846.2	0.19	**0.00**	inf	inf	296.34	0.54	**0.03**	38.2	120.0	120.0	120.4	120.0
50.0	590,302,430.7	**0.00**	**0.00**	inf	inf	113.75	0.53	**0.03**	52.5	120.0	120.0	120.3	120.0
75.0	880,675,581.5	0.01	**0.00**	inf	inf	40.47	0.20	**0.01**	63.3	120.0	120.0	120.5	120.0
90.0	1,033,406,951.1	0.10	**0.00**	inf	inf	12.10	0.17	**0.01**	67.6	120.0	120.0	120.4	120.0
95.0	1,077,214,007.8	0.04	0.04	inf	inf	6.10	**0.00**	**0.01**	69.3	120.0	120.0	120.4	120.0
Avg		0.07	**0.01**	inf	inf	649.44	0.42	**0.02**	42.6	120.0	120.0	120.4	120.0
Min		**0.00**	**0.00**	inf	inf	6.10	**0.00**	**0.01**	11.0	120.0	120.0	120.3	120.0
Max		0.19	**0.04**	inf	inf	2,472.82	0.84	**0.03**	69.3	120.0	120.0	120.5	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	15
Running time in seconds for writing input file (t^{write})	6.6
Running time in seconds for executing parametric cut procedure (t^{cut})	0.9
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	36,867,381.1	0.24	**0.00**	inf	inf	2,668.33	0.90	**0.03**	10.5	120.0	120.0	120.4	121.0
5.0	75,092,164.0	0.31	**0.00**	inf	inf	1,702.11	0.94	**0.01**	15.4	120.0	120.0	120.5	121.0
10.0	152,189,862.7	0.20	**0.00**	inf	inf	1,065.76	0.49	**0.02**	24.2	120.0	120.0	120.4	121.0
25.0	393,457,775.1	**0.00**	**0.00**	inf	inf	345.20	1.00	**0.03**	39.5	120.0	120.0	120.4	121.0
50.0	786,395,235.4	0.02	**0.00**	inf	inf	116.19	0.59	**0.02**	56.8	120.0	120.0	120.6	121.0
75.0	1,160,864,584.9	0.13	**0.00**	inf	inf	43.84	0.33	**0.01**	66.7	120.0	120.0	120.5	121.0
90.0	1,360,479,209.5	0.11	**0.00**	inf	inf	17.26	0.23	**0.01**	70.9	120.0	120.0	120.5	121.0
95.0	1,419,830,579.9	0.09	**0.00**	inf	inf	8.20	0.02	**0.01**	72.0	120.0	120.0	120.5	120.0
Avg		0.14	**0.00**	inf	inf	745.86	0.56	**0.02**	44.5	120.0	120.0	120.5	120.9
Min		**0.00**	**0.00**	inf	inf	8.20	0.02	**0.01**	10.5	120.0	120.0	120.4	120.0
Max		0.31	**0.00**	inf	inf	2,668.33	1.00	**0.03**	72.0	120.0	120.0	120.6	121.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	16
Running time in seconds for writing input file (t^{write})	7.8
Running time in seconds for executing parametric cut procedure (t^{cut})	1.0
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	8,162,301.0	**0.00**	**0.00**	inf	inf	3,386.64	0.16	**0.06**	63.8	120.0	120.0	120.1	120.0
5.0	16,061,052.8	**0.00**	0.04	inf	inf	10.19	0.18	**0.04**	99.1	120.0	120.0	120.1	120.0
10.0	31,862,810.5	0.03	**0.00**	inf	inf	4.44	0.25	**0.06**	120.0	120.0	120.0	120.1	120.0
25.0	79,902,717.2	0.01	**0.00**	inf	inf	1.95	0.15	**0.10**	120.0	120.0	120.0	120.1	120.0
50.0	159,101,626.8	0.02	**0.00**	inf	inf	**0.00**	0.12	**0.07**	120.1	120.0	120.0	26.7	120.0
75.0	233,228,426.7	**0.00**	**0.00**	inf	inf	**0.00**	0.11	**0.07**	120.1	120.0	120.0	18.7	120.0
90.0	272,100,482.5	0.01	**0.00**	inf	inf	**0.00**	0.09	**0.08**	120.1	120.0	120.0	18.9	120.0
95.0	283,623,035.8	**0.00**	**0.00**	inf	inf	**0.00**	0.05	**0.08**	120.1	120.0	120.0	22.1	120.0
Avg		0.01	**0.01**	inf	inf	425.40	0.14	**0.07**	110.4	120.0	120.0	70.8	120.0
Min		**0.00**	**0.00**	inf	inf	**0.00**	0.05	**0.04**	63.8	120.0	120.0	18.7	120.0
Max		**0.03**	0.04	inf	inf	3,386.64	0.25	**0.10**	120.1	120.0	120.0	120.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	20
Running time in seconds for writing input file (t^{write})	7.5
Running time in seconds for executing parametric cut procedure (t^{cut})	0.9
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	15,158,237.1	0.09	**0.00**	inf	inf	1,997.86	0.36	**0.13**	69.6	120.0	120.0	120.4	120.0
5.0	30,820,187.5	0.01	**0.00**	inf	inf	1,580.84	0.47	**0.03**	102.8	120.0	120.0	120.4	120.0
10.0	62,924,872.2	0.01	**0.00**	inf	inf	836.44	0.28	**0.06**	120.0	120.0	120.0	120.4	120.0
25.0	158,171,275.1	**0.00**	**0.00**	inf	inf	283.48	0.25	**0.06**	120.0	120.0	120.0	120.3	120.0
50.0	314,268,401.3	0.02	**0.00**	inf	inf	0.01	0.24	**0.10**	120.2	120.0	120.0	114.6	120.0
75.0	462,872,938.6	0.02	**0.00**	inf	inf	5.72	0.18	**0.07**	120.0	120.0	120.0	120.6	120.0
90.0	542,046,348.4	0.01	**0.00**	inf	inf	3.22	0.10	**0.08**	120.1	120.0	120.0	120.7	120.0
95.0	565,582,538.7	0.04	**0.00**	inf	inf	1.85	0.08	**0.07**	120.2	120.0	120.0	120.7	120.0
Avg		0.02	**0.00**	inf	inf	588.68	0.24	**0.08**	111.6	120.0	120.0	119.8	120.0
Min		**0.00**	**0.00**	inf	inf	0.01	0.08	**0.03**	69.6	120.0	120.0	114.6	120.0
Max		0.09	**0.00**	inf	inf	1,997.86	0.47	**0.13**	120.2	120.0	120.0	120.7	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	8.2
Running time in seconds for executing parametric cut procedure (t^{cut})	1.0
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	37,986,132.3	0.06	**0.00**	inf	inf	2,327.06	1.54	**0.13**	65.3	120.0	120.0	121.0	121.0
5.0	76,528,469.4	0.23	**0.00**	inf	inf	0.27	0.66	**0.03**	97.4	120.0	120.0	120.3	121.0
10.0	152,682,680.5	0.01	**0.00**	inf	inf	44.82	0.74	**0.05**	120.0	120.0	120.0	121.1	121.0
25.0	379,984,618.9	0.01	**0.00**	inf	inf	72.94	0.98	**0.10**	120.0	120.0	120.0	120.4	121.0
50.0	760,656,415.4	0.01	**0.00**	inf	inf	0.11	0.82	**0.08**	120.0	120.0	120.0	120.6	120.0
75.0	1,127,172,236.1	**0.00**	**0.00**	inf	inf	5.22	0.29	**0.07**	120.0	120.0	120.0	120.4	120.0
90.0	1,325,660,720.7	**0.00**	**0.00**	inf	inf	3.72	0.22	**0.07**	120.1	120.0	120.0	120.5	121.0
95.0	1,383,523,525.9	**0.00**	**0.00**	inf	inf	2.18	0.08	**0.07**	120.1	120.0	120.0	120.5	120.0
Avg		0.04	**0.00**	inf	inf	307.04	0.67	**0.07**	110.4	120.0	120.0	120.6	120.6
Min		**0.00**	**0.00**	inf	inf	0.11	0.08	**0.03**	65.3	120.0	120.0	120.3	120.0
Max		0.23	**0.00**	inf	inf	2,327.06	1.54	**0.13**	120.1	120.0	120.0	121.1	121.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	11
Running time in seconds for writing input file (t^{write})	11.0
Running time in seconds for executing parametric cut procedure (t^{cut})	1.3
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	74,893,413.0	**0.00**	**0.00**	inf	inf	3,291.19	2.03	**0.14**	66.9	120.0	120.0	122.0	122.0
5.0	152,454,540.0	0.07	**0.00**	inf	inf	1,590.20	2.15	**0.03**	99.3	120.0	120.0	123.7	122.0
10.0	308,930,505.6	0.03	**0.00**	inf	inf	850.73	1.83	**0.06**	120.0	120.0	120.0	124.1	122.0
25.0	767,501,379.1	0.07	**0.00**	inf	inf	327.32	2.14	**0.10**	120.0	120.0	120.0	120.8	122.0
50.0	1,556,100,760.9	0.02	**0.00**	inf	inf	112.36	1.22	**0.10**	120.1	120.0	120.0	120.6	122.0
75.0	2,317,855,526.8	**0.00**	**0.00**	inf	inf	37.77	0.75	**0.07**	120.0	120.0	120.0	120.9	122.0
90.0	2,729,925,869.9	**0.00**	**0.00**	inf	inf	13.87	0.17	**0.07**	120.1	120.0	120.0	120.7	122.0
95.0	2,852,413,656.9	0.05	**0.00**	inf	inf	7.50	0.10	**0.07**	120.1	120.0	120.0	120.8	122.0
Avg		0.03	**0.00**	inf	inf	778.87	1.30	**0.08**	110.8	120.0	120.0	121.7	122.0
Min		**0.00**	**0.00**	inf	inf	7.50	0.10	**0.03**	66.9	120.0	120.0	120.6	122.0
Max		0.07	**0.00**	inf	inf	3,291.19	2.15	**0.14**	120.1	120.0	120.0	124.1	122.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	15.0
Running time in seconds for executing parametric cut procedure (t^{cut})	2.0
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	111,777,087.1	0.26	**0.00**	inf	inf	3,161.04	3.29	**0.13**	65.4	120.0	120.0	123.0	120.0
5.0	227,586,687.5	**0.00**	**0.00**	inf	inf	1,674.65	3.22	**0.03**	96.7	120.0	120.0	120.9	120.0
10.0	463,811,780.0	0.04	**0.00**	inf	inf	913.33	2.68	**0.05**	120.0	120.0	120.0	121.8	120.0
25.0	1,151,478,894.8	0.03	**0.00**	inf	inf	309.16	2.91	**0.10**	120.1	120.0	120.0	121.0	120.0
50.0	2,308,727,831.2	**0.00**	**0.00**	inf	inf	111.00	2.46	**0.09**	120.1	120.0	120.0	122.8	120.0
75.0	3,422,995,480.4	0.05	**0.00**	inf	inf	38.39	0.99	**0.07**	120.1	120.0	120.0	121.2	120.0
90.0	4,024,243,092.5	0.02	**0.00**	inf	inf	13.78	0.29	**0.07**	120.1	120.0	120.0	121.2	120.0
95.0	4,198,910,746.6	**0.00**	**0.00**	inf	inf	5.71	0.08	**0.07**	120.2	120.0	120.0	122.0	120.0
Avg		0.05	**0.00**	inf	inf	778.38	1.99	**0.08**	110.3	120.0	120.0	121.7	120.0
Min		**0.00**	**0.00**	inf	inf	5.71	0.08	**0.03**	65.4	120.0	120.0	120.9	120.0
Max		0.26	**0.00**	inf	inf	3,161.04	3.29	**0.13**	120.2	120.0	120.0	123.0	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	11
Running time in seconds for writing input file (t^{write})	18.8
Running time in seconds for executing parametric cut procedure (t^{cut})	2.6
Running time in seconds for reading result file (t^{read})	0.0

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*	GR	DP	QK	Gurobi	Hexaly	QKBP*	GR	DP	QK	Gurobi	Hexaly
2.5	146,032,229.0	0.25	**0.00**	inf	inf	2,910.50	3.90	**0.14**	73.5	120.0	120.0	121.3	120.0
5.0	298,463,595.0	**0.00**	**0.00**	inf	inf	1,848.74	3.28	**0.03**	109.3	120.0	120.0	122.7	120.0
10.0	610,589,901.0	0.04	**0.00**	inf	inf	927.61	3.64	**0.06**	120.1	120.0	120.0	124.1	120.0
25.0	1,552,122,124.4	0.03	**0.00**	inf	inf	316.28	3.18	**0.11**	120.0	120.0	120.0	122.5	120.0
50.0	3,108,906,506.1	**0.00**	**0.00**	inf	inf	107.83	2.21	**0.08**	120.0	120.0	120.0	122.7	120.0
75.0	4,618,504,994.4	**0.00**	**0.00**	inf	inf	38.83	1.00	**0.07**	120.1	120.0	120.0	123.4	120.0
90.0	5,435,578,205.5	0.02	**0.00**	inf	inf	13.26	0.42	**0.07**	120.0	120.0	120.0	121.3	120.0
95.0	5,676,339,787.3	0.01	**0.00**	inf	inf	6.57	0.12	**0.07**	120.0	120.0	120.0	123.0	120.0
Avg		0.04	**0.00**	inf	inf	771.20	2.22	**0.08**	112.9	120.0	120.0	122.6	120.0
Min		**0.00**	**0.00**	inf	inf	6.57	0.12	**0.03**	73.5	120.0	120.0	121.3	120.0
Max		0.25	**0.00**	inf	inf	2,910.50	3.90	**0.14**	120.1	120.0	120.0	124.1	120.0

*The contribution in this paper

QKBP-specific information	Value
Number of breakpoints	12
Running time in seconds for writing input file (t^{write})	24.3
Running time in seconds for executing parametric cut procedure (t^{cut})	3.4
Running time in seconds for reading result file (t^{read})	0.0