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

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