Table 1: Mean and median runtimes (in s), mean and median number of branch-and-bound nodes as well as the number of solved instances (out of 512 considered instances) for the variants with lifted cuts and/or dominance inequalities.

	runtimes		node count		
	mean	median	mean	median	solved
Ext	281.98	64.58	304896.14	57297.00	268
Ext-D	334.09	33.55	70609.92	7800.00	473
Ext-L	317.27	59.50	220813.80	29427.00	353
Ext-LD	247.09	21.62	44905.43	5521.50	510
MF	374.26	131.95	46495.89	12934.00	265
MF-D	373.83	41.33	13443.37	1145.50	410
MF-L	444.80	157.93	37590.74	13136.50	344
MF-LD	343.75	49.45	11760.97	1412.00	476

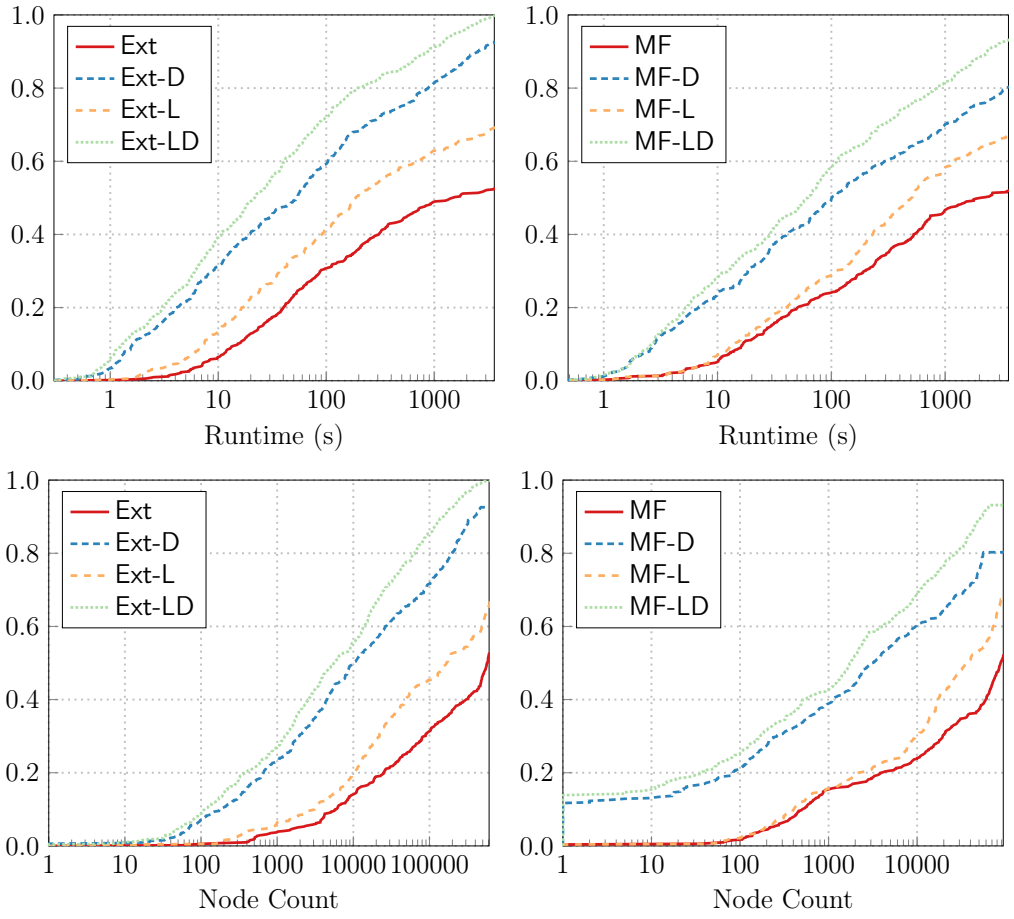

Figure 1: Log-scaled ECDF plots of the runtimes (in s) (top) and the number of branch-and-bound nodes (bottom) for Ext (left) and MF (right) using lifted cuts and/or dominance inequalities.

Table 2: Mean and median runtimes (in s), mean and median number of branch-and-bound nodes as well as the number of solved instances (out of 449 considered instances) for the variants with and without maximal packings of the follower.

	runtimes		node count		
	mean	median	mean	median	solved
Ext-LD	286.78	33.89	52088.66	11411.00	439
Ext-LD-Max	237.72	15.26	39456.38	5231.00	447
MF-LD	403.59	74.24	13819.50	2197.00	405
MF-LD-Max	299.08	28.88	10417.46	789.00	406

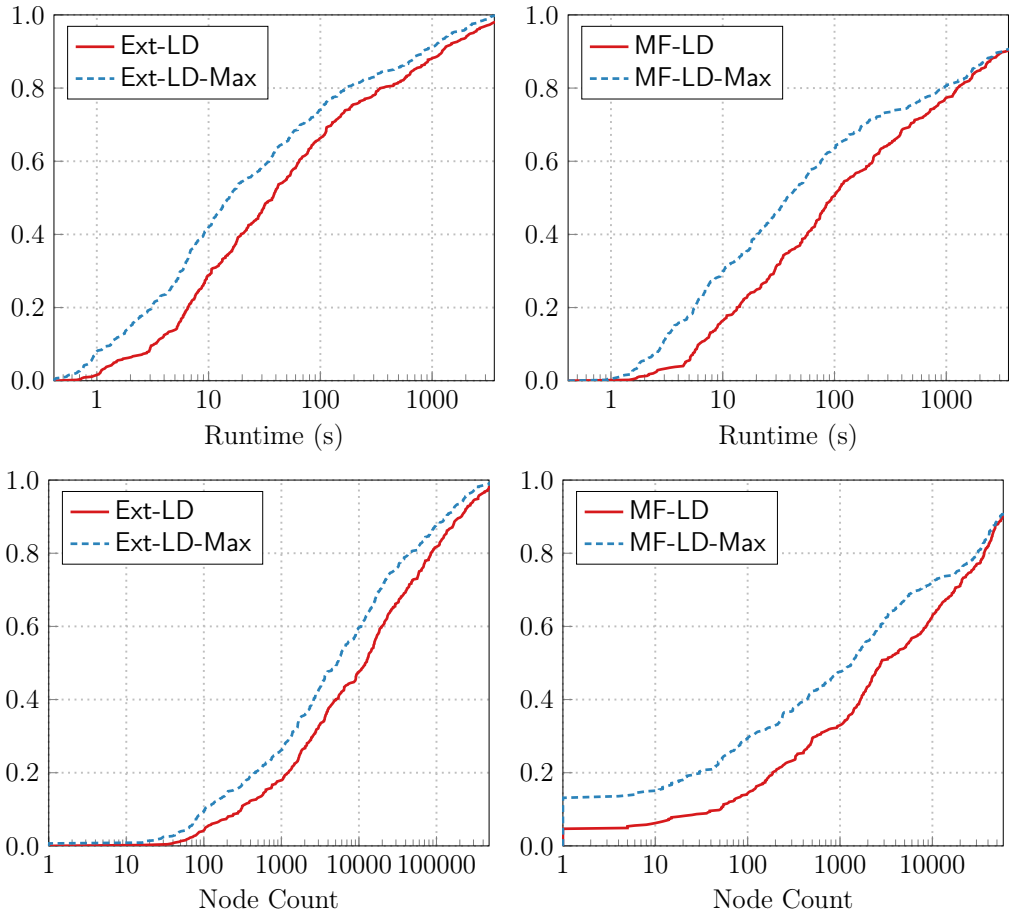

Figure 2: Log-scaled ECDF plots of the runtimes (in s) (top) and the number of branch-and-bound nodes (bottom) for Ext (left) and MF (right) considering maximal packings of the follower.

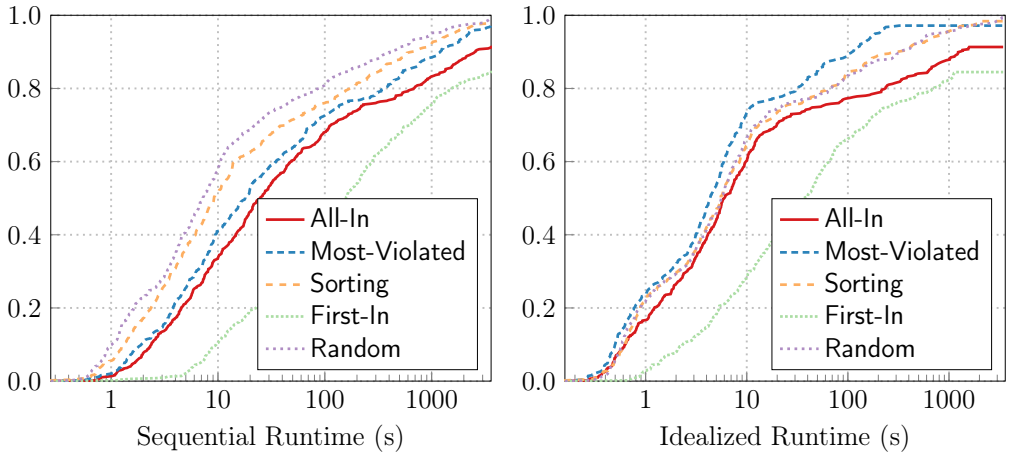

Figure 3: Log-scaled ECDF plots of the sequential runtimes (left) and the idealized runtimes (right) (in s) for different cut separation strategies.

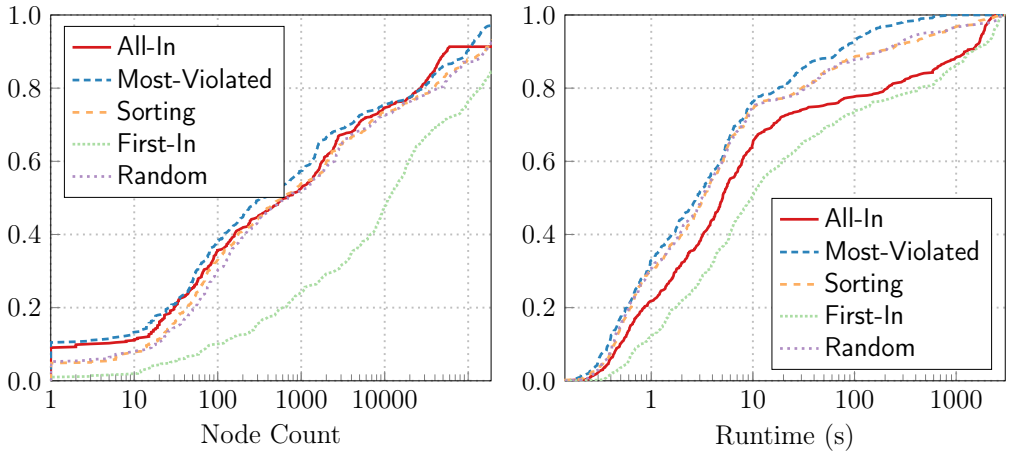

Figure 4: Log-scaled ECDF plots of the number of branch-and-bound nodes (left) and the runtimes (in s) excluding the times spent for the cut generation (right) for different cut separation strategies.

Table 3: Sequential and idealized mean and median runtimes (in s) as well as the number of solved instances (out of 496 considered instances) for the variants with different cut separation strategies.

	sequential runtimes		idealized runtimes		
	mean	median	mean	median	solved
All-In	244.53	19.38	105.35	5.21	452
Most-Violated	245.02	16.12	27.10	4.17	481
Sorting	183.09	9.10	97.09	5.47	487
First-In	340.37	94.62	144.79	25.44	418
Random	155.73	7.16	131.80	5.57	492

Table 4: Mean and median runtimes (in s) excluding the times spent for the cut generation, mean and median number of branch-and-bound nodes as well as the number of solved instances (out of 496 considered instances) for the variants with different cut separation strategies.

	runtimes		node count		
	mean	median	mean	median	solved
All-In	99.82	4.27	9163.14	340.50	452
Most-Violated	19.44	2.61	19472.32	287.00	481
Sorting	70.47	3.17	32436.59	518.00	487
First-In	89.78	6.36	35183.88	7926.50	418
Random	92.94	3.10	40882.46	661.00	492

Table 5: Mean and median runtimes (in s), mean and median number of branch-and-bound nodes as well as the number of solved instances (out of 407 considered instances) for the "winner settings" of Ext and MF.

	runtimes		node count		
	mean	median	mean	median	solved
Ext	267.04	23.31	43785.68	7122.00	400
MF-seq	192.18	10.32	50528.00	2122.00	398
MF-ideal	33.47	5.62	24197.09	1084.00	387

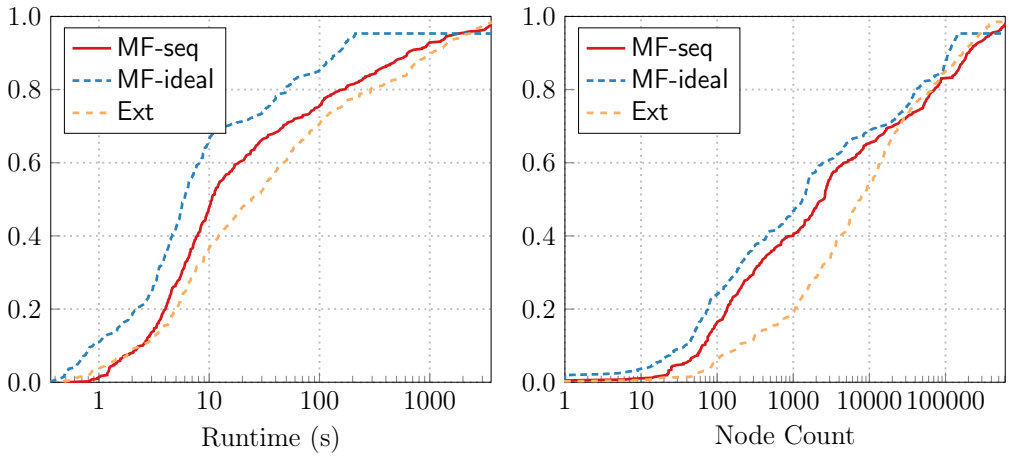

Figure 5: Log-scaled ECDF plots of the runtimes (in s) (left) and the number of branch-and-bound nodes (right) for the "winner settings" of Ext and MF.

Table 6.1: Mean and median runtimes (in s) as well as the number of solved instances (out of 103 considered instances) for the "winner" settings of Ext and MF for the uncertainty parameterization $(\Delta, \Gamma) = (10, 10)$.

	runtimes		
	mean	median	solved
Ext	201.93	6.34	103
MF-seq	202.37	10.29	100
MF-ideal	24.85	6.50	93

Table 6.2: Mean and median runtimes (in s) as well as the number of solved instances (out of 96 considered instances) for the "winner" settings of Ext and MF for the uncertainty parameterization $(\Delta, \Gamma) = (10, 50)$.

	runtimes		
	mean	median	solved
Ext	331.11	41.50	96
MF-seq	199.12	10.47	95
MF-ideal	45.55	5.40	95

Table 6.3: Mean and median runtimes (in s) as well as the number of solved instances (out of 108 considered instances) for the "winner" settings of Ext and MF for the uncertainty parameterization $(\Delta, \Gamma) = (25, 10)$.

	runtimes		
	mean	median	solved
Ext	171.23	10.38	106
MF-seq	176.07	9.99	103
MF-ideal	28.49	6.24	99

Table 6.4: Mean and median runtimes (in s) as well as the number of solved instances (out of 100 considered instances) for the "winner" settings of Ext and MF for the uncertainty parameterization $(\Delta, \Gamma) = (25, 50)$.

	runtimes		
	mean	median	solved
Ext	379.80	79.56	95
MF-seq	192.01	11.06	100
MF-ideal	34.94	4.86	100

Table 7: Minimum, mean, median, and maximum values of the coefficients of runtimes as well as the number of solved instances (out of 407 considered instances) for the "winner" settings of Ext and MF.

	coefficient of runtimes				
	min	mean	median	max	solved
Ext	0.79	106.14	18.94	3186.77	400
MF-seq	0.76	8.53	5.36	74.66	398
MF-ideal	0.48	5.30	1.69	65.37	387

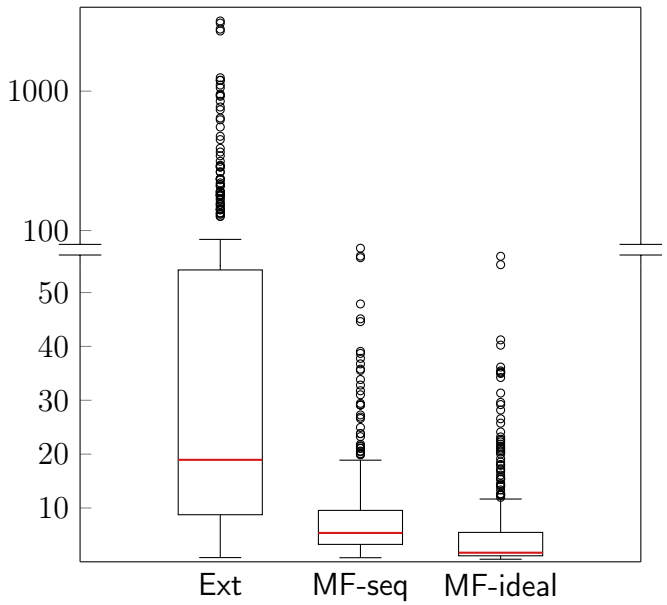

Figure 6: Box-plots of the coefficients of runtimes $q_i = t_{i,\mathrm{rob}}/t_{i,\mathrm{nom}}$ for the "winner" settings of Ext and MF.

Table 8: Runtime results (in s) for the nominal knapsack instances and mean runtimes for their robust counterparts.

		Ext		MF		
size	instance	nominal	robust	nominal	robust$^{\text{seq}}$	robust$^{\text{ideal}}$
35	1	0.22	1.71	0.37	0.74	0.27
	2	0.49	6.00	0.49	1.13	0.45
	3	0.56	13.70	0.77	4.68	1.92
	4	0.22	1.75	1.34	6.08	3.23
	5	0.28	2.74	2.01	5.80	4.16
	6	0.14	0.71	0.38	0.69	0.49
	7	0.18	1.20	0.37	3.15	2.83
	8	0.16	0.53	0.14	0.39	0.18
	9	0.04	0.65	0.13	0.37	0.28
	10	0.05	0.31	0.04	0.32	0.14
40	1	0.33	2.28	0.36	1.43	0.50
	2	0.44	10.22	0.56	2.44	0.93
	3	1.47	42.99	1.25	11.75	3.41
	4	0.29	2.90	1.18	6.85	2.64
	5	0.20	2.51	2.09	6.11	4.53
	6	0.25	0.94	0.34	0.80	0.70
	7	0.15	1.18	0.35	0.86	0.52
	8	0.18	0.56	0.22	0.57	0.27
	9	0.18	4.85	0.31	3.81	3.45
	10	0.02	0.07	0.02	0.19	0.13
45	1	0.38	4.70	0.38	1.51	0.51
	2	0.38	10.91	0.46	1.61	0.61
	3	0.77	33.53	3.44	14.58	4.25
	4	0.43	34.35	7.34	22.32	6.71
	5	0.35	16.26	4.69	10.93	5.99
	6	0.21	1.39	0.46	3.41	2.98
	7	0.06	1.70	0.38	0.67	0.39
	8	0.13	0.86	0.27	1.02	0.67
	9	0.14	1.08	0.15	0.71	0.47
	10	0.20	1.01	0.22	0.70	0.45

50	1	0.36	5.11	0.40	1.57	0.77
	2	4.70	121.56	7.57	26.17	6.96
	3	5.30	76.00	10.08	19.37	7.45
	4	0.21	13.50	3.93	12.48	2.86
	5	0.42	45.12	13.53	34.86	9.56
	6	0.22	1.29	0.43	0.98	0.58
	7	0.17	2.46	0.40	1.46	0.97
	8	0.05	0.75	0.35	0.67	0.39
	9	0.16	9.69	0.30	4.36	4.08
	10	0.06	0.39	0.06	0.57	0.21
55	1	1.08	14.10	0.79	5.53	1.27
	2	2.55	86.23	4.31	19.58	4.45
	3	299.82	–	261.03	870.73	196.44
	4	30.68	338.33	40.64	192.79	48.64
	5	0.67	38.71	15.82	20.45	12.10
	6	0.44	21.98	0.91	3.65	3.41
	7	0.23	8.73	0.57	4.25	3.59
	8	0.24	32.00	0.44	5.18	4.72
	9	0.14	3.21	0.16	1.18	0.74
	10	0.21	2.47	0.21	2.73	2.53
60	1	0.49	3.73	0.32	1.88	0.44
	2	3.28	58.43	1.49	14.08	3.30
	3	28.27	424.31	22.57	114.68	31.02
	4	32.84	358.24	35.87	182.28	54.59
	5	1.06	25.08	3.70	17.98	10.79
	6	0.66	6.44	0.43	5.37	5.16
	7	0.22	5.77	0.41	1.15	0.56
	8	0.24	4.99	0.44	3.47	2.88
	9	0.23	3.74	0.31	3.84	3.54
	10	0.20	1.53	0.27	0.74	0.46
65	1	0.39	4.97	0.51	1.93	0.45
	2	5.71	99.99	5.05	28.94	6.22
	3	66.36	705.40	61.75	172.25	56.87
	4	119.97	773.86	106.79	548.47	128.77
	5	0.59	78.25	9.81	60.65	28.67
	6	0.34	24.47	0.79	7.99	6.72

	7	0.28	19.71	0.79	5.67	5.27
	8	0.28	13.19	0.27	1.29	0.67
	9	0.28	7.37	0.18	5.67	5.28
	10	0.23	1.32	0.29	0.86	0.47
70	1	0.37	5.77	0.55	3.20	0.79
	2	6.95	173.91	10.91	48.16	10.97
	3	171.28	1477.50	197.35	594.18	166.50
	4	52.55	1168.15	143.76	566.51	160.45
	5	0.82	200.63	35.73	148.16	53.30
	6	0.42	32.51	0.74	6.44	4.02
	7	0.31	32.62	0.70	1.38	0.70
	8	0.18	20.74	0.21	2.16	1.42
	9	0.26	5.06	0.23	4.85	3.92
	10	0.23	2.67	0.15	1.56	1.01
75	1	0.65	10.65	0.76	4.53	0.97
	2	30.46	302.07	32.78	82.94	18.50
	3	185.97	1669.87	148.04	594.80	159.71
	4	2.37	–	282.86	1476.37	–
	5	0.56	165.93	27.51	87.01	34.18
	6	0.40	40.84	1.29	4.12	3.31
	7	0.21	21.62	0.41	1.08	0.91
	8	0.21	15.62	0.30	6.81	6.63
	9	0.24	3.41	0.31	1.43	0.82
	10	0.11	0.91	0.28	0.85	0.48
80	1	0.66	15.50	0.65	9.21	1.94
	2	58.70	584.49	31.46	194.11	41.11
	3	513.98	–	302.54	1554.35	–
	4	0.93	–	496.44	–	–
	5	0.52	187.66	27.88	109.24	38.73
	6	0.30	75.02	1.28	11.47	8.50
	7	0.35	42.64	0.65	7.76	6.42
	8	0.30	16.52	0.31	5.23	4.66
	9	0.10	4.79	0.08	1.85	1.13
	10	0.25	0.90	0.30	1.35	0.58
85	1	1.07	43.68	2.47	26.83	3.19
	2	84.63	875.17	89.83	353.61	73.44

	3	425.13	–	333.26	2305.22	–
	4	0.97	–	635.59	–	–
	5	0.77	218.35	30.64	91.05	34.17
	6	0.36	55.90	1.31	4.23	2.17
	7	0.28	53.94	1.25	8.13	7.25
	8	0.21	22.15	0.24	7.73	6.85
	9	0.17	6.58	0.15	9.70	7.37
	10	0.11	0.71	0.09	1.37	0.52
90	1	2.60	43.73	2.73	19.40	3.87
	2	130.91	1184.05	110.48	506.53	106.59
	3	1324.50	–	1102.64	–	–
	4	1.25	–	1788.24	–	–
	5	0.85	298.27	29.03	74.70	28.46
	6	0.48	90.69	1.22	10.88	6.64
	7	0.29	53.34	0.92	9.32	7.33
	8	0.24	19.87	0.36	8.75	7.54
	9	0.21	7.75	0.21	8.54	6.76
	10	0.18	2.63	0.22	1.82	0.75
95	1	1.54	64.46	2.55	33.70	4.15
	2	140.75	1203.87	101.87	702.22	104.00
	3	1935.09	–	1266.83	–	–
	4	1.87	–	–	–	–
	5	1.87	683.32	54.15	206.94	47.86
	6	0.54	155.16	2.57	12.58	3.53
	7	0.35	143.62	1.08	11.34	8.30
	8	0.31	39.91	0.46	8.81	7.65
	9	0.63	10.83	0.79	4.93	2.32
	10	0.14	1.79	0.14	1.56	0.53
100	1	3.09	69.32	1.61	37.42	3.71
	2	203.20	1597.40	136.96	694.00	175.65
	3	–	–	–	–	–
	4	3.47	–	–	–	–
	5	0.82	–	71.78	391.87	105.00
	6	0.63	491.01	3.35	23.15	10.84
	7	0.45	461.73	1.21	10.86	8.76
	8	0.71	58.45	0.70	2.37	1.62

9	0.13	15.88	0.33	2.92	1.01
10	0.32	3.56	0.33	9.13	8.12