

Dataset	10% CS					
	PCCC	PCCC-N2-S-RD	COPKM	CSC	DILS	LCC
n1000-k10	14.6	<b>3.0</b>	–	27.6	3,629.8	299.7
n1000-k100	313.8	<b>5.1</b>	39.0	31.4	3,628.5	708.9
n1000-k2	<b>0.1</b>	0.3	201.5	24.6	3,649.8	2,158.6
n1000-k20	115.3	<b>9.1</b>	–	27.6	3,638.4	270.8
n1000-k5	<b>1.0</b>	1.4	28.9	25.8	3,623.0	1,160.5
n1000-k50	281.7	8.2	<b>7.7</b>	27.5	3,645.3	381.8
n2000-k10	14.4	<b>4.3</b>	–	218.2	3,656.9	3,792.7
n2000-k100	333.2	<b>17.9</b>	157.9	219.8	3,651.1	1,916.3
n2000-k2	<b>0.3</b>	0.4	3,742.6	238.8	3,701.4	35.8
n2000-k20	208.7	<b>25.1</b>	–	218.8	3,639.1	3,547.9
n2000-k5	<b>0.8</b>	1.4	870.3	232.5	3,755.0	3,434.3
n2000-k50	747.1	<b>24.1</b>	35.2	222.8	3,661.9	1,238.0
n5000-k10	4.7	<b>3.3</b>	–	2,682.4	3,888.9	–
n5000-k100	2,050.3	<b>49.2</b>	417.0	2,598.4	3,995.0	3,705.7
n5000-k2	<b>1.0</b>	1.2	–	2,832.7	3,763.4	–
n5000-k20	73.1	<b>49.3</b>	–	2,619.7	3,886.3	–
n5000-k5	<b>1.0</b>	<b>1.0</b>	–	2,854.0	3,877.6	–
n5000-k50	813.4	<b>67.0</b>	–	2,663.6	4,056.7	4,121.8
n500-k10	5.0	<b>1.6</b>	4.3	4.4	2,884.1	45.9
n500-k100	70.6	<b>1.8</b>	19.6	3.6	2,892.1	306.4
n500-k2	<b>0.1</b>	0.3	7.8	4.2	3,370.1	197.6
n500-k20	21.0	4.8	<b>3.0</b>	6.3	3,003.3	79.4
n500-k5	<b>2.0</b>	3.1	–	6.0	3,088.7	40.0
n500-k50	52.9	<b>2.8</b>	2.9	4.6	2,765.2	157.5
Sum	5,126.4	<b>285.5</b>	41,537.8*	17,795.1	85,351.6	41,999.4*

\*Nan values (–) are replaced with 3,600 before computing the sum.

Table W87: Average running times (in seconds) of the PCCC and the PCCC-N2-S algorithms for the constraint sets of size 10% CS. The lowest values are stated in bold. The column KMEANS reports the average running time of the unconstrained k-means algorithm. The hyphen indicates that the respective algorithm returned no solution within the time limit of 3,600 seconds.