	5% CS						
Dataset	PCCC	PCCC-R	COPKM	CSC	DILS	LCC	KMEANS
Appendicitis	0.2	0.5	**0.0**	3.0	569.5	6.6	0.2
Breast Cancer	**0.4**	1.0	–	9.4	1,825.1	122.5	0.2
Bupa	**0.4**	1.1	–	9.3	1,810.0	21.9	0.1
Circles	**0.4**	0.6	–	4.4	1,433.5	8.4	0.1
Ecoli	2.4	4.2	**0.7**	4.9	1,547.2	47.5	0.2
Glass	1.2	2.2	**0.3**	4.9	1,035.8	33.9	0.1
Haberman	**0.4**	1.0	–	5.2	1,516.3	8.9	0.1
Hayesroth	0.4	1.4	**0.0**	2.5	788.5	7.0	0.1
Heart	**0.5**	1.1	–	5.9	1,557.0	29.3	0.1
Ionosphere	**0.3**	1.1	–	6.5	1,806.0	83.3	0.2
Iris	0.3	1.3	**0.1**	2.9	717.9	6.7	0.1
Led7Digit	1.9	4.9	**0.9**	10.1	1,812.5	–	0.1
Monk2	**0.8**	1.8	–	11.5	1,807.7	27.9	0.1
Moons	0.2	0.8	**0.1**	7.2	1,411.5	6.3	0.1
Movement Libras	**3.2**	6.8	4.7	4.6	1,811.4	910.4	0.3
Newthyroid	0.8	2.3	**0.1**	5.9	1,072.9	12.3	0.1
Saheart	**0.6**	1.3	–	10.2	1,805.9	45.5	0.1
Sonar	**0.4**	0.9	–	3.5	1,596.3	84.7	0.1
Soybean	0.2	0.6	**0.1**	1.5	234.3	20.8	0.1
Spectfheart	**0.3**	1.3	–	4.3	1,812.9	78.8	0.2
Spiral	**0.3**	1.2	–	5.8	1,467.1	7.2	0.2
Tae	0.5	1.6	**0.1**	4.1	717.9	11.7	0.1
Vehicle	**2.8**	8.0	–	15.5	1,818.8	313.9	0.1
Wine	0.5	1.2	**0.2**	2.4	963.2	22.3	0.1
Zoo	0.4	1.4	**0.2**	2.8	520.4	26.8	0.1
Sum	**19.9**	49.8	21,607.6*	148.3	33,459.6	3,744.7*	3.4

*Nan values (–) are replaced with 1,800 before computing the sum.

Table W21: Average running times (in seconds) of the PCCC and the PCCC-R algorithms and the four state-of-the-art algorithms (COPKM, CSC, DILS, LCC) for the constraint sets of size 5% 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 1,800 seconds.