	10% CS						
Dataset	PCCC	PCCC-R	COPKM	CSC	DILS	LCC	KMEANS
Appendicitis	**0.1**	0.2	–	3.2	581.1	10.2	0.1
Breast Cancer	**0.1**	**0.1**	–	10.2	1,826.4	538.9	0.1
Bupa	**0.1**	0.2	–	4.3	1,811.9	247.9	0.2
Circles	**0.2**	0.6	–	6.0	1,494.9	280.8	0.1
Ecoli	2.0	4.1	**0.7**	7.7	1,686.1	40.8	0.1
Glass	**1.2**	3.0	4.5	6.1	1,002.4	46.9	0.1
Haberman	**0.1**	0.2	0.4	4.0	1,622.8	204.1	0.1
Hayesroth	**0.8**	1.9	–	4.2	811.3	11.0	0.1
Heart	**0.2**	0.5	–	4.9	1,617.0	133.4	0.1
Ionosphere	**0.2**	0.4	–	6.4	1,813.9	1,811.2	0.1
Iris	0.8	1.5	**0.1**	3.2	742.3	7.1	0.1
Led7Digit	4.9	12.4	**1.4**	8.5	1,807.3	130.8	0.1
Monk2	**0.1**	0.4	15.3	3.5	1,808.7	728.6	0.1
Moons	**0.1**	0.4	–	6.4	1,483.0	49.6	0.1
Movement Libras	4.7	11.4	8.1	**4.6**	1,812.8	1,193.5	0.2
Newthyroid	0.4	1.3	**0.1**	5.4	1,078.3	23.5	0.1
Saheart	**0.1**	0.4	12.2	8.4	1,816.9	990.6	0.1
Sonar	**0.2**	0.7	–	3.8	1,629.7	311.5	0.2
Soybean	0.2	0.6	**0.1**	1.1	256.5	16.5	0.1
Spectfheart	**0.1**	0.3	–	7.5	1,803.9	309.2	0.2
Spiral	**0.1**	0.4	–	4.5	1,622.2	203.3	0.1
Tae	**0.5**	1.4	–	5.6	712.7	14.6	0.1
Vehicle	**0.7**	1.7	–	13.5	1,816.0	–	0.2
Wine	0.7	1.3	**0.3**	6.1	968.6	20.6	0.2
Zoo	0.3	1.0	**0.2**	3.2	494.4	30.0	0.1
Sum	**18.8**	46.2	23,443.5*	142.5	34,121.2	9,154.8*	3.0

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

Table W18: 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 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 1,800 seconds.