

Dataset	20% CS						KMEANS	GT
	PCCC	PCCC-R	COPKM	CSC	DILS	LCC		
Appendicitis	612.9	612.9	–	612.9	612.9	670.9	451.8	612.9
Breast Cancer	12,214.6	12,214.6	12,214.6	16,270.2	12,214.6	–	11,595.7	12,214.6
Bupa	2,047.3	2,047.3	2,047.3	1,844.4	2,047.3	2,047.3	1,496.1	2,047.3
Circles	600.0	600.0	600.0	600.0	600.0	–	410.4	600.0
Ecoli	1,116.3	1,116.3	–	1,594.0	1,846.0	1,181.5	703.6	1,335.3
Glass	1,410.6	1,410.6	–	1,402.1	1,563.9	1,391.5	811.2	1,429.3
Haberman	891.4	891.4	891.4	870.2	891.4	891.4	701.4	891.4
Hayesroth	551.1	551.1	–	567.8	556.0	550.9	425.9	553.5
Heart	3,120.5	3,120.5	3,120.5	3,080.0	3,120.5	3,120.5	2,941.9	3,120.5
Ionosphere	10,971.5	10,971.5	10,971.5	11,388.9	10,971.5	–	9,086.0	10,971.5
Iris	145.0	145.0	152.7	216.5	220.4	145.2	141.2	167.9
Led7Digit	1,511.0	1,511.0	–	3,164.3	2,921.6	2,020.8	1,103.6	1,511.4
Monk2	2,384.3	2,384.3	2,384.3	2,346.5	2,384.3	–	2,306.5	2,384.3
Moons	322.9	322.9	322.9	314.5	322.9	322.9	249.7	322.9
Movement Libras	18,304.7	18,036.8	–	29,863.8	26,488.2	18,665.1	10,433.8	19,779.5
Newthyroid	550.4	550.4	550.4	900.5	550.9	558.0	462.3	550.9
Saheart	3,927.7	3,927.7	3,927.7	4,083.2	3,927.7	–	3,235.8	3,927.7
Sonar	11,962.9	11,962.9	11,962.9	12,166.3	11,962.9	11,962.9	10,649.6	11,962.9
Soybean	367.1	367.1	367.1	829.6	506.6	367.1	367.1	367.1
Spectfheart	11,268.3	11,268.3	11,268.3	11,359.6	11,268.3	11,268.3	8,983.9	11,268.3
Spiral	564.5	564.5	–	564.5	564.5	564.5	379.7	564.5
Tae	711.8	711.8	–	701.7	714.0	710.4	480.1	713.8
Vehicle	13,334.2	13,334.2	13,334.2	12,899.9	13,471.6	–	5,980.7	13,334.2
Wine	1,290.7	1,290.7	1,290.7	1,413.1	1,664.2	1,299.9	1,279.7	1,300.0
Zoo	553.5	553.5	624.2	1,199.0	763.5	580.5	527.2	579.6
Mean	4,029.4	4,018.7	–	4,810.2	4,486.2	–	3,008.2	4,100.5

Table W16: Minimum Inertia values 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 20% CS. Lower values indicate more coherent clusters. The lowest values are stated in bold. The column KMEANS reports the minimum inertia value obtained with the k-means algorithm. The hyphen indicates that the respective algorithm returned no solution within the time limit of 1,800 seconds.