

Dataset	Objects	Features	Clusters	1% CS					DILS
				PCCC-N2-S	PCCC-N2-S-RD	COPKM	LCC	CSC	
Banana	5,300	2	2	6.4	22.9	–	114.5	3,774.8	3,629.6
Letter	20,000	16	26	77.5	261.4	841.7	3,785.3	–	4,568.9
Shuttle	57,999	9	7	13.1	36.4	–	–	–	–
CIFAR10	60,000	3,072	10	921.0	1,800.7	–	–	–	–
CIFAR100	60,000	3,072	100	3,631.6	3,609.6	–	–	–	–
MNIST	70,000	784	10	959.3	2,916.8	–	–	–	–
Sum				5,608.9	8,647.7	18,841.7*	18,299.8*	21,774.8*	22,598.5*

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

Table W110: 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 1% CS. Higher values indicate better separated clusters. 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.