

Dataset	Objects	Features	Clusters	5% CS							
				PCCC-N2-S	PCCC-N5-S	PCCC-N2-S-RD	COPKM	LCC	CSC	DILS	KMEANS
Banana	5,300	2	2	0.3	<b>0.2</b>	0.3	—	—	4,386.9	4,283.3	0.1
Letter	20,000	16	26	<b>127.5</b>	345.1	640.3	—	—	—	4,109.1	0.5
Shuttle	57,999	9	7	<b>24.2</b>	24.8	25.9	—	—	—	—	0.4
CIFAR 10	60,000	3,072	10	<b>22.1</b>	71.2	22.3	—	—	—	—	16.8
CIFAR 100	60,000	3,072	100	715.6	<b>664.9</b>	2,893.6	—	—	—	—	84.5
MNIST	70,000	784	10	28.0	36.5	<b>27.4</b>	—	—	—	—	4.3
Sum				<b>917.6</b>	1,142.8	3,609.8	21,600.0*	21,600.0*	22,386.9*	22,792.4*	106.6

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

Table W119: Average running times (in seconds) of the versions of the PCCC algorithm and the four state-of-the-art algorithms (COPKM, CSC, DILS, LCC) for the constraint sets of size 5% 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 3.600 seconds.