

Dataset	Objects	Features	Clusters	5% CS							KMEANS	GT
				PCCC-N2-S	PCCC-N5-S	PCCC-N2-S-RD	COPKM	LCC	CSC	DILS		
Banana	5,300	2	2	0.032	0.032	0.032	–	–	0.033	0.004	0.389	0.032
Letter	20,000	16	26	-0.058	-0.037	-0.011	–	–	–	-0.017	0.145	0.010
Shuttle	57,999	9	7	0.321	0.309	0.318	–	–	–	–	0.463	0.300
CIFAR 10	60,000	3,072	10	-0.220	-0.148	-0.053	–	–	–	–	0.051	-0.053
CIFAR 100	60,000	3,072	100	-0.130	-0.133	-0.125	–	–	–	–	0.015	-0.114
MNIST	70,000	784	10	-0.117	-0.118	-0.043	–	–	–	–	0.007	-0.043
Mean				-0.028	-0.016	0.020	-1.000*	-1.000*	-0.828*	-0.669*	0.178	0.022

*Nan values (–) are replaced with -1 before computing the mean.

Table W111: Average Silhouette coefficients of the versions of the PCCC algorithm and the four state-of-the-art algorithms (COPKM, CSC, DILS, LCC) obtained with constraint sets of size 5% CS. Higher values indicate better separated clusters. The highest values are stated in bold. The column KMEANS reports the average Silhouette coefficients that were obtained with the unconstrained k-means algorithm. The column GT reports the Silhouette coefficients of the ground truth assignment. The hyphen indicates that the respective algorithm returned no solution within the time limit of 3.600 seconds.