

Number of clusters

 10^1 10^0

0.0

0.2

0.4

0.6

0.8

1.0

Accuracy

- NO DR - KMEANS
- NO DR - DBSCAN
- NO DR - HDBSCAN
- PCA - KMEANS
- PCA - DBSCAN
- PCA - HDBSCAN
- UMAP - KMEANS
- UMAP - DBSCAN
- UMAP - HDBSCAN

0: NO DR - KMEANS: $n_{clusters} = 5$, $n_{neighbors}^{kNN} = 2$

8: NO DR - KMEANS: $n_{clusters} = 5$, $n_{neighbors}^{kNN} = 1$

9: NO DR - KMEANS: $n_{clusters} = 5$, $n_{neighbors}^{kNN} = 5$

20: NO DR - HDBSCAN: $min_{cluster\ size} = 55$, $min_{samples} = 42$, $\epsilon = 0.57$, $n_{neighbors}^{kNN} = 11$

30: PCA - KMEANS: $n_{comp} = 9$, $n_{clusters} = 5$, $n_{neighbors}^{kNN} = 2$

34: PCA - KMEANS: $n_{comp} = 11$, $n_{clusters} = 5$, $n_{neighbors}^{kNN} = 8$

37: PCA - KMEANS: $n_{comp} = 9$, $n_{clusters} = 5$, $n_{neighbors}^{kNN} = 3$

39: PCA - KMEANS: $n_{comp} = 9$, $n_{clusters} = 5$, $n_{neighbors}^{kNN} = 8$

40: PCA - DBSCAN: $n_{comp} = 3$, $eps = 99.34$, $min_{samples} = 10$, $n_{neighbors}^{kNN} = 14$

50: PCA - HDBSCAN: $n_{comp} = 12$, $min_{cluster\ size} = 55$, $min_{samples} = 42$, $\epsilon = 0.35$, $n_{neighbors}^{kNN} = 11$

56: PCA - HDBSCAN: $n_{comp} = 12$, $min_{cluster\ size} = 55$, $min_{samples} = 41$, $\epsilon = 0.71$, $n_{neighbors}^{kNN} = 11$

60: UMAP - KMEANS: $n_{neighbors}^{UMAP} = 10$, $min_{dist} = 0.45$, $n_{components} = 4$, $n_{clusters} = 12$, $n_{neighbors}^{kNN} = 11$

70: UMAP - DBSCAN: $n_{neighbors}^{UMAP} = 4$, $min_{dist} = 0.93$, $n_{components} = 4$, $eps = 5.00$, $min_{samples} = 3$, $n_{neighbors}^{kNN} = 7$

81: UMAP - HDBSCAN: $n_{neighbors}^{UMAP} = 10$, $min_{dist} = 0.69$, $n_{components} = 4$, $min_{cluster\ size} = 3$, $min_{samples} = 19$, $\epsilon = 0.44$, $n_{neighbors}^{kNN} = 11$

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