

Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>glass-0-1-6-vs-2</i>	0.522 ± 0.062	0.684 ± 0.121	0.674 ± 0.125	0.753 ± 0.092	0.742 ± 0.090	0.728 ± 0.093	0.740 ± 0.094
<i>ecoli-0-3-4-7-vs-5-6</i>	<sup>—</sup> 0.869 ± 0.097	<sup>1</sup> 0.900 ± 0.072	<sup>1</sup> 0.900 ± 0.072	<sup>all</sup> 0.877 ± 0.078	<sup>1,2,3,6,7</sup> 0.877 ± 0.078	<sup>1,2,3</sup> 0.902 ± 0.078	<sup>1,2,3,6</sup> 0.887 ± 0.080
<i>shuttle-c2-vs-c4</i>	0.585 ± 0.177	0.995 ± 0.034	0.995 ± 0.034	0.855 ± 0.218	0.910 ± 0.178	0.860 ± 0.218	0.920 ± 0.176
<i>glass-0-1-4-6-vs-2</i>	<sup>—</sup> 0.518 ± 0.062	<sup>1,4,5,6</sup> 0.712 ± 0.109	<sup>1,4,5,6</sup> 0.701 ± 0.113	<sup>1</sup> 0.746 ± 0.105	<sup>1</sup> 0.744 ± 0.110	<sup>1</sup> 0.719 ± 0.100	<sup>1</sup> 0.737 ± 0.099
<i>yeast-1-2-8-9-vs-7</i>	<sup>—</sup> 0.508 ± 0.024	<sup>1</sup> 0.644 ± 0.091	<sup>1</sup> 0.649 ± 0.088	<sup>1,5,6,7</sup> 0.647 ± 0.084	<sup>1,6,7</sup> 0.645 ± 0.087	<sup>1</sup> 0.689 ± 0.089	<sup>1,6</sup> 0.683 ± 0.085
<i>ecoli-0-1-4-6-vs-5</i>	<sup>—</sup> 0.886 ± 0.091	<sup>1</sup> 0.920 ± 0.075	<sup>1,2</sup> 0.917 ± 0.075	<sup>1</sup> 0.906 ± 0.078	<sup>1</sup> 0.903 ± 0.077	<sup>1,2,3,4,5</sup> 0.906 ± 0.079	<sup>1,2,3,4,5</sup> 0.905 ± 0.078
<i>glass-0-1-6-vs-5</i>	<sup>—</sup> 0.668 ± 0.151	<sup>3,5,7</sup> 0.883 ± 0.148	<sup>—</sup> 0.873 ± 0.150	<sup>—</sup> 0.854 ± 0.152	<sup>—</sup> 0.847 ± 0.153	<sup>—</sup> 0.860 ± 0.153	<sup>—</sup> 0.847 ± 0.154
<i>yeast-2-vs-4</i>	<sup>—</sup> 0.820 ± 0.066	<sup>1,4,5,7</sup> 0.875 ± 0.063	<sup>1,5,7</sup> 0.877 ± 0.063	<sup>1</sup> 0.840 ± 0.066	<sup>1</sup> 0.843 ± 0.067	<sup>1,5,7</sup> 0.851 ± 0.069	<sup>1</sup> 0.855 ± 0.065
<i>glass-0-6-vs-5</i>	<sup>—</sup> 0.714 ± 0.194	<sup>1,4,5,6,7</sup> 0.920 ± 0.139	<sup>1,4,5,6,7</sup> 0.920 ± 0.139	<sup>—</sup> 0.809 ± 0.182	<sup>1</sup> 0.796 ± 0.186	<sup>1</sup> 0.838 ± 0.156	<sup>1</sup> 0.816 ± 0.170
<i>ecoli-0-3-4-6-vs-5</i>	<sup>—</sup> 0.895 ± 0.094	<sup>1,4,5,6,7</sup> 0.917 ± 0.086	<sup>1,4,5,6,7</sup> 0.914 ± 0.086	<sup>1</sup> 0.899 ± 0.089	<sup>1</sup> 0.898 ± 0.090	<sup>1,5</sup> 0.894 ± 0.092	<sup>1</sup> 0.890 ± 0.091
<i>yeast-0-3-5-9-vs-7-8</i>	<sup>6,7</sup> 0.641 ± 0.058	<sup>3,4,5,6,7</sup> 0.711 ± 0.056	<sup>4,5,6,7</sup> 0.708 ± 0.053	<sup>1</sup> 0.652 ± 0.065	<sup>1</sup> 0.651 ± 0.062	<sup>—</sup> 0.659 ± 0.063	<sup>—</sup> 0.657 ± 0.059
<i>glass-0-1-5-vs-2</i>	<sup>—</sup> 0.533 ± 0.066	<sup>all</sup> 0.697 ± 0.142	<sup>1,4,5,6,7</sup> 0.682 ± 0.133	<sup>—</sup> 0.724 ± 0.124	<sup>—</sup> 0.723 ± 0.108	<sup>1</sup> 0.687 ± 0.115	<sup>—</sup> 0.715 ± 0.106
<i>ecoli-0-6-7-vs-5</i>	<sup>—</sup> 0.840 ± 0.108	<sup>1</sup> 0.871 ± 0.097	<sup>1</sup> 0.873 ± 0.100	<sup>1,3,5,6,7</sup> 0.871 ± 0.103	<sup>1,3,6,7</sup> 0.865 ± 0.100	<sup>1</sup> 0.869 ± 0.101	<sup>1,6</sup> 0.867 ± 0.106
<i>ecoli-0-2-3-4-vs-5</i>	<sup>—</sup> 0.890 ± 0.083	<sup>—</sup> 0.913 ± 0.079	<sup>4</sup> 0.910 ± 0.079	<sup>—</sup> 0.904 ± 0.079	<sup>—</sup> 0.908 ± 0.080	<sup>—</sup> 0.908 ± 0.080	<sup>—</sup> 0.908 ± 0.080
<i>ecoli4</i>	<sup>—</sup> 0.894 ± 0.100	<sup>—</sup> 0.916 ± 0.097	<sup>—</sup> 0.915 ± 0.096	<sup>—</sup> 0.931 ± 0.084	<sup>—</sup> 0.937 ± 0.081	<sup>—</sup> 0.931 ± 0.084	<sup>—</sup> 0.929 ± 0.086
<i>yeast5</i>	<sup>—</sup> 0.821 ± 0.064	<sup>—</sup> 0.937 ± 0.052	<sup>—</sup> 0.940 ± 0.046	<sup>2,3,6,7</sup> 0.933 ± 0.060	<sup>1,2,3,6,7</sup> 0.942 ± 0.051	<sup>2,3,7</sup> 0.943 ± 0.053	<sup>3</sup> 0.938 ± 0.046
<i>ecoli-0-4-6-vs-5</i>	<sup>—</sup> 0.901 ± 0.084	<sup>1</sup> 0.917 ± 0.082	<sup>1</sup> 0.915 ± 0.082	<sup>1</sup> 0.899 ± 0.081	<sup>1</sup> 0.904 ± 0.083	<sup>1,4</sup> 0.900 ± 0.085	<sup>1</sup> 0.903 ± 0.084
<i>led7digit-0-2-4-5-6-7-8-9-vs-1</i>	<sup>4,6</sup> 0.635 ± 0.077	<sup>4,5,6,7</sup> 0.901 ± 0.059	<sup>4,5,6,7</sup> 0.872 ± 0.087	<sup>—</sup> 0.617 ± 0.085	<sup>1</sup> 0.644 ± 0.087	<sup>—</sup> 0.883 ± 0.071	<sup>1</sup> 0.873 ± 0.101
<i>ecoli-0-1-vs-5</i>	<sup>4</sup> 0.891 ± 0.089	<sup>1,4,5</sup> 0.920 ± 0.074	<sup>1,4,5</sup> 0.918 ± 0.074	<sup>—</sup> 0.898 ± 0.082	<sup>—</sup> 0.900 ± 0.080	<sup>1,4,5</sup> 0.910 ± 0.075	<sup>1,4,5</sup> 0.912 ± 0.072
<i>ecoli-0-2-6-7-vs-3-5</i>	<sup>—</sup> 0.797 ± 0.125	<sup>—</sup> 0.859 ± 0.082	<sup>7</sup> 0.875 ± 0.077	<sup>—</sup> 0.830 ± 0.109	<sup>—</sup> 0.836 ± 0.107	<sup>—</sup> 0.840 ± 0.101	<sup>—</sup> 0.836 ± 0.102
<i>ecoli-0-1-4-7-vs-2-3-5-6</i>	<sup>—</sup> 0.833 ± 0.100	<sup>1,7</sup> 0.854 ± 0.080	<sup>1,4,5,6,7</sup> 0.857 ± 0.082	<sup>—</sup> 0.861 ± 0.081	<sup>—</sup> 0.858 ± 0.081	<sup>1</sup> 0.857 ± 0.080	<sup>—</sup> 0.858 ± 0.081
<i>shuttle-c0-vs-c4</i>	<sup>—</sup> 0.996 ± 0.008	<sup>—</sup> 0.996 ± 0.008	<sup>1</sup> 0.996 ± 0.008	<sup>2,3,6,7</sup> 0.995 ± 0.008	<sup>2,3,6,7</sup> 0.995 ± 0.008	<sup>—</sup> 0.995 ± 0.008	<sup>2</sup> 0.995 ± 0.008
<i>ecoli-0-6-7-vs-3-5</i>	<sup>—</sup> 0.792 ± 0.119	<sup>—</sup> 0.849 ± 0.095	<sup>—</sup> 0.864 ± 0.094	<sup>—</sup> 0.829 ± 0.107	<sup>—</sup> 0.831 ± 0.106	<sup>—</sup> 0.830 ± 0.105	<sup>—</sup> 0.833 ± 0.100
<i>vowel0</i>	<sup>—</sup> 0.970 ± 0.038	<sup>1</sup> 0.999 ± 0.002	<sup>1</sup> 0.999 ± 0.001	<sup>—</sup> 0.807 ± 0.066	<sup>1,6</sup> 0.867 ± 0.061	<sup>4</sup> 0.928 ± 0.053	<sup>1</sup> 0.884 ± 0.052
<i>glass4</i>	<sup>4,5,6,7</sup> 0.750 ± 0.158	<sup>1,4,5,6,7</sup> 0.909 ± 0.143	<sup>1,4,5,6,7</sup> 0.909 ± 0.143	<sup>—</sup> 0.796 ± 0.145	<sup>4</sup> 0.794 ± 0.149	<sup>4,5,7</sup> 0.799 ± 0.153	<sup>4,5</sup> 0.808 ± 0.147
<i>yeast-0-5-6-7-9-vs-4</i>	<sup>—</sup> 0.649 ± 0.074	<sup>1,4,5,6,7</sup> 0.805 ± 0.058	<sup>1,4,5,6,7</sup> 0.807 ± 0.059	<sup>—</sup> 0.791 ± 0.053	<sup>—</sup> 0.787 ± 0.051	<sup>—</sup> 0.803 ± 0.049	<sup>—</sup> 0.800 ± 0.059
<i>yeast-0-2-5-6-vs-3-7-8-9</i>	<sup>—</sup> 0.756 ± 0.042	<sup>1,4,5</sup> 0.797 ± 0.045	<sup>1,4,5</sup> 0.793 ± 0.045	<sup>1</sup> 0.767 ± 0.051	<sup>1</sup> 0.773 ± 0.056	<sup>1,4,5</sup> 0.767 ± 0.051	<sup>1</sup> 0.754 ± 0.053
<i>ecoli-0-1-vs-2-3-5</i>	<sup>—</sup> 0.833 ± 0.093	<sup>all</sup> 0.881 ± 0.093	<sup>1,4,5,6,7</sup> 0.880 ± 0.091	<sup>1,7</sup> 0.857 ± 0.090	<sup>1,7</sup> 0.861 ± 0.089	<sup>1,7</sup> 0.857 ± 0.094	<sup>—</sup> 0.856 ± 0.089
<i>ecoli-0-3-4-vs-5</i>	<sup>—</sup> 0.903 ± 0.105	<sup>1</sup> 0.916 ± 0.099	<sup>1</sup> 0.913 ± 0.098	<sup>1</sup> 0.911 ± 0.104	<sup>1,7</sup> 0.911 ± 0.104	<sup>—</sup> 0.908 ± 0.105	<sup>—</sup> 0.905 ± 0.110
<i>glass5</i>	<sup>—</sup> 0.648 ± 0.165	<sup>3</sup> 0.819 ± 0.198	<sup>—</sup> 0.824 ± 0.198	<sup>—</sup> 0.839 ± 0.180	<sup>—</sup> 0.847 ± 0.174	<sup>1</sup> 0.852 ± 0.167	<sup>1</sup> 0.842 ± 0.175
<i>yeast4</i>	<sup>—</sup> 0.555 ± 0.043	<sup>1</sup> 0.726 ± 0.075	<sup>1</sup> 0.727 ± 0.072	<sup>1</sup> 0.755 ± 0.068	<sup>1</sup> 0.753 ± 0.070	<sup>1</sup> 0.794 ± 0.075	<sup>1</sup> 0.791 ± 0.068
<i>glass-0-4-vs-5</i>	<sup>—</sup> 0.744 ± 0.204	<sup>1</sup> 0.971 ± 0.064	<sup>1,2</sup> 0.982 ± 0.045	<sup>1,2,3</sup> 0.827 ± 0.161	<sup>1,3</sup> 0.856 ± 0.159	<sup>1,2,3,4,5</sup> 0.854 ± 0.152	<sup>1,2,3,4,5</sup> 0.830 ± 0.159
<i>yeast6</i>	<sup>—</sup> 0.757 ± 0.091	<sup>1,4,5,6,7</sup> 0.821 ± 0.092	<sup>1,4,5,6,7</sup> 0.818 ± 0.097	<sup>—</sup> 0.844 ± 0.082	<sup>1</sup> 0.847 ± 0.081	<sup>1</sup> 0.860 ± 0.079	<sup>—</sup> 0.863 ± 0.074
<i>page-blocks-1-3-vs-4</i>	<sup>—</sup> 0.818 ± 0.106	<sup>1,3</sup> 0.931 ± 0.067	<sup>1</sup> 0.932 ± 0.068	<sup>1,2,3</sup> 0.749 ± 0.100	<sup>1,2,3,4</sup> 0.786 ± 0.111	<sup>1,2,3</sup> 0.820 ± 0.110	<sup>1,2,3</sup> 0.800 ± 0.109
<i>yeast-1-vs-7</i>	<sup>4</sup> 0.529 ± 0.043	<sup>1,4,5,6,7</sup> 0.665 ± 0.102	<sup>1,4,5,6,7</sup> 0.674 ± 0.097	<sup>—</sup> 0.642 ± 0.100	<sup>4</sup> 0.622 ± 0.100	<sup>4,5</sup> 0.674 ± 0.110	<sup>4,5</sup> 0.652 ± 0.102
<i>ecoli-0-1-3-7-vs-2-6</i>	<sup>—</sup> 0.850 ± 0.200	<sup>1,4,5</sup> 0.842 ± 0.198	<sup>1,4,5,7</sup> 0.844 ± 0.199	<sup>1</sup> 0.837 ± 0.206	<sup>1</sup> 0.837 ± 0.207	<sup>1,4,5</sup> 0.826 ± 0.200	<sup>1,5</sup> 0.835 ± 0.202
<i>yeast-1-4-5-8-vs-7</i>	<sup>all</sup> 0.501 ± 0.010	<sup>6,7</sup> 0.567 ± 0.075	<sup>2,4,5,6,7</sup> 0.585 ± 0.090	<sup>6</sup> 0.609 ± 0.093	<sup>6</sup> 0.602 ± 0.098	<sup>—</sup> 0.637 ± 0.102	<sup>6</sup> 0.622 ± 0.099
<i>ecoli-0-1-4-7-vs-5-6</i>	<sup>—</sup> 0.865 ± 0.098	<sup>1</sup> 0.907 ± 0.072	<sup>1</sup> 0.908 ± 0.070	<sup>1,2,5</sup> 0.897 ± 0.076	<sup>1,2</sup> 0.889 ± 0.083	<sup>1,2,3,5</sup> 0.903 ± 0.075	<sup>1,2,3</sup> 0.898 ± 0.076
<i>yeast-2-vs-8</i>	<sup>—</sup> 0.774 ± 0.114	<sup>—</sup> 0.785 ± 0.115	<sup>—</sup> 0.784 ± 0.109	<sup>—</sup> 0.773 ± 0.116	<sup>—</sup> 0.776 ± 0.111	<sup>—</sup> 0.772 ± 0.115	<sup>4</sup> 0.778 ± 0.112
<i>yeast-0-2-5-7-9-vs-3-6-8</i>	<sup>—</sup> 0.892 ± 0.042	<sup>1,3,5,7</sup> 0.900 ± 0.040	<sup>7</sup> 0.897 ± 0.039	<sup>—</sup> 0.898 ± 0.038	<sup>—</sup> 0.901 ± 0.037	<sup>—</sup> 0.895 ± 0.041	<sup>—</sup> 0.898 ± 0.038
<i>glass2</i>	<sup>—</sup> 0.547 ± 0.083	<sup>3</sup> 0.723 ± 0.136	<sup>—</sup> 0.711 ± 0.132	<sup>—</sup> 0.759 ± 0.107	<sup>—</sup> 0.755 ± 0.103	<sup>—</sup> 0.736 ± 0.092	<sup>—</sup> 0.748 ± 0.102
	<sup>—</sup>	<sup>1</sup>	<sup>1</sup>	<sup>all</sup>	<sup>1,3,6,7</sup>	<sup>1</sup>	<sup>1,3,6</sup>

Table 1: Results for BAC metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>Mean rank</i>	1.634	5.329	5.207	3.524	3.890	4.354	4.061
	—	1,4,5,6,7	1,4,5,7	1	1	1	1

Table 2: Results for mean ranks according to BAC metric

Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>glass-0-1-6-vs-2</i>	0.088 ± 0.169	0.347 ± 0.159	0.329 ± 0.157	0.333 ± 0.084	0.312 ± 0.074	0.294 ± 0.072	0.307 ± 0.079
<i>ecoli-0-3-4-7-vs-5-6</i>	<sup>1,6,7</sup> 0.813 ± 0.131	<sup>1,6,7</sup> 0.771 ± 0.105	<sup>1,6</sup> 0.762 ± 0.108	<sup>1,5,6,7</sup> 0.792 ± 0.119	<sup>1,6</sup> 0.784 ± 0.121	<sup>1</sup> 0.784 ± 0.124	<sup>1,6</sup> 0.786 ± 0.127
<i>shuttle-c2-vs-c4</i>	<sup>2,3</sup> 0.180 ± 0.366	<sup>1,4,5,6</sup> 0.993 ± 0.046	<sup>1,4,5,6</sup> 0.993 ± 0.046	<sup>3</sup> 0.720 ± 0.433	<sup>1</sup> 0.833 ± 0.348	<sup>1</sup> 0.727 ± 0.435	<sup>1</sup> 0.847 ± 0.347
<i>glass-0-1-4-6-vs-2</i>	<sup>1,4,5,6</sup> 0.074 ± 0.165	<sup>1,4,5,6,7</sup> 0.366 ± 0.141	<sup>1,4,5,6</sup> 0.355 ± 0.146	<sup>1</sup> 0.324 ± 0.093	<sup>1</sup> 0.313 ± 0.098	<sup>1</sup> 0.280 ± 0.080	<sup>1</sup> 0.302 ± 0.083
<i>yeast-1-2-8-9-vs-7</i>	<sup>1,4,5,6,7</sup> 0.026 ± 0.079	<sup>1,4,5,6,7</sup> 0.248 ± 0.134	<sup>1,5,6,7</sup> 0.246 ± 0.123	<sup>1,5,6,7</sup> 0.159 ± 0.063	<sup>1,6,7</sup> 0.162 ± 0.077	<sup>1</sup> 0.167 ± 0.056	<sup>1,6</sup> 0.173 ± 0.057
<i>ecoli-0-1-4-6-vs-5</i>	<sup>all</sup> 0.845 ± 0.127	<sup>all</sup> 0.853 ± 0.114	<sup>1,4,5,6,7</sup> 0.830 ± 0.113	<sup>1</sup> 0.825 ± 0.107	<sup>1</sup> 0.814 ± 0.108	<sup>1</sup> 0.827 ± 0.113	<sup>1,6</sup> 0.818 ± 0.109
<i>glass-0-1-6-vs-5</i>	<sup>5</sup> 0.332 ± 0.282	<sup>3,5,7</sup> 0.608 ± 0.253	<sup>1</sup> 0.596 ± 0.256	<sup>1</sup> 0.559 ± 0.241	<sup>1</sup> 0.541 ± 0.237	<sup>1</sup> 0.575 ± 0.244	<sup>1</sup> 0.540 ± 0.241
<i>yeast-2-vs-4</i>	<sup>1,5,7</sup> 0.752 ± 0.104	<sup>1,5,7</sup> 0.752 ± 0.091	<sup>1,7</sup> 0.749 ± 0.096	<sup>1</sup> 0.759 ± 0.097	<sup>1</sup> 0.760 ± 0.099	<sup>1,5,7</sup> 0.749 ± 0.098	<sup>1</sup> 0.755 ± 0.098
<i>glass-0-6-vs-5</i>	<sup>1,4,5,6,7</sup> 0.490 ± 0.393	<sup>1,4,5,6,7</sup> 0.785 ± 0.266	<sup>1,4,5,6,7</sup> 0.781 ± 0.264	<sup>1</sup> 0.649 ± 0.329	<sup>1</sup> 0.607 ± 0.341	<sup>1,5</sup> 0.693 ± 0.269	<sup>1</sup> 0.646 ± 0.302
<i>ecoli-0-3-4-6-vs-5</i>	<sup>1,4,5,6,7</sup> 0.853 ± 0.140	<sup>1,4,5,6,7</sup> 0.851 ± 0.127	<sup>1,4,5,6,7</sup> 0.828 ± 0.128	<sup>1</sup> 0.781 ± 0.148	<sup>1</sup> 0.776 ± 0.152	<sup>1,5</sup> 0.775 ± 0.154	<sup>1</sup> 0.765 ± 0.154
<i>yeast-0-3-5-9-vs-7-8</i>	<sup>4,5,6,7</sup> 0.397 ± 0.126	<sup>3,4,5,6,7</sup> 0.409 ± 0.076	<sup>4,5,6,7</sup> 0.394 ± 0.067	<sup>1</sup> 0.395 ± 0.121	<sup>1</sup> 0.402 ± 0.129	<sup>1</sup> 0.388 ± 0.110	<sup>1</sup> 0.406 ± 0.119
<i>glass-0-1-5-vs-2</i>	<sup>3</sup> 0.113 ± 0.179	<sup>3</sup> 0.364 ± 0.168	<sup>1,6</sup> 0.343 ± 0.156	<sup>1</sup> 0.324 ± 0.105	<sup>1</sup> 0.316 ± 0.094	<sup>1</sup> 0.279 ± 0.080	<sup>1</sup> 0.305 ± 0.088
<i>ecoli-0-6-7-vs-5</i>	<sup>1,4,5,6,7</sup> 0.774 ± 0.170	<sup>1,4,5,6,7</sup> 0.728 ± 0.156	<sup>1,6</sup> 0.714 ± 0.157	<sup>1,5,6,7</sup> 0.781 ± 0.172	<sup>1,6,7</sup> 0.770 ± 0.167	<sup>1</sup> 0.756 ± 0.168	<sup>1,6</sup> 0.744 ± 0.179
<i>ecoli-0-2-3-4-vs-5</i>	<sup>2,3,7</sup> 0.852 ± 0.121	<sup>1</sup> 0.824 ± 0.123	<sup>1</sup> 0.809 ± 0.127	<sup>2,3,6,7</sup> 0.823 ± 0.132	<sup>2,3</sup> 0.817 ± 0.134	<sup>3</sup> 0.822 ± 0.138	<sup>1</sup> 0.820 ± 0.133
<i>ecoli4</i>	<sup>3,4,5,6,7</sup> 0.853 ± 0.143	<sup>1</sup> 0.799 ± 0.143	<sup>1</sup> 0.789 ± 0.139	<sup>1</sup> 0.867 ± 0.129	<sup>1</sup> 0.867 ± 0.136	<sup>1</sup> 0.843 ± 0.137	<sup>1</sup> 0.822 ± 0.135
<i>yeast5</i>	<sup>2,3</sup> 0.706 ± 0.114	<sup>1</sup> 0.706 ± 0.084	<sup>1</sup> 0.701 ± 0.075	<sup>2,3,6,7</sup> 0.706 ± 0.097	<sup>2,3,6,7</sup> 0.697 ± 0.079	<sup>2,3,7</sup> 0.670 ± 0.080	<sup>3</sup> 0.683 ± 0.083
<i>ecoli-0-4-6-vs-5</i>	<sup>6</sup> 0.860 ± 0.134	<sup>6,7</sup> 0.856 ± 0.141	<sup>6,7</sup> 0.839 ± 0.141	<sup>6,7</sup> 0.790 ± 0.138	<sup>6</sup> 0.790 ± 0.144	<sup>1</sup> 0.792 ± 0.144	<sup>1</sup> 0.790 ± 0.147
<i>led7digit-0-2-4-5-6-7-8-9-vs-1</i>	<sup>4,5,6,7</sup> 0.388 ± 0.185	<sup>4,5,6,7</sup> 0.671 ± 0.083	<sup>4,5,6,7</sup> 0.650 ± 0.114	<sup>1</sup> 0.326 ± 0.192	<sup>1</sup> 0.373 ± 0.179	<sup>1</sup> 0.721 ± 0.093	<sup>1</sup> 0.673 ± 0.133
<i>ecoli-0-1-vs-5</i>	<sup>4</sup> 0.855 ± 0.117	<sup>1,4,5</sup> 0.864 ± 0.100	<sup>1,4,5</sup> 0.850 ± 0.104	<sup>1</sup> 0.862 ± 0.110	<sup>1</sup> 0.864 ± 0.111	<sup>all</sup> 0.873 ± 0.103	<sup>1,4,5</sup> 0.875 ± 0.102
<i>ecoli-0-2-6-7-vs-3-5</i>	<sup>1</sup> 0.699 ± 0.217	<sup>1</sup> 0.723 ± 0.126	<sup>1</sup> 0.730 ± 0.117	<sup>1</sup> 0.721 ± 0.188	<sup>1</sup> 0.722 ± 0.187	<sup>3</sup> 0.697 ± 0.179	<sup>3</sup> 0.694 ± 0.195
<i>ecoli-0-1-4-7-vs-2-3-5-6</i>	<sup>1</sup> 0.773 ± 0.159	<sup>1</sup> 0.693 ± 0.116	<sup>1</sup> 0.692 ± 0.119	<sup>1</sup> 0.798 ± 0.119	<sup>6</sup> 0.788 ± 0.123	<sup>1</sup> 0.753 ± 0.128	<sup>1</sup> 0.759 ± 0.136
<i>shuttle-c0-vs-c4</i>	<sup>2,3</sup> 0.996 ± 0.008	<sup>1</sup> 0.996 ± 0.008	<sup>1</sup> 0.996 ± 0.008	<sup>2,3,6,7</sup> 0.995 ± 0.008	<sup>2,3,6,7</sup> 0.995 ± 0.008	<sup>2,3</sup> 0.995 ± 0.008	<sup>2,3</sup> 0.995 ± 0.008
<i>ecoli-0-6-7-vs-3-5</i>	<sup>1</sup> 0.689 ± 0.199	<sup>1</sup> 0.706 ± 0.154	<sup>1</sup> 0.714 ± 0.148	<sup>1</sup> 0.725 ± 0.182	<sup>1</sup> 0.728 ± 0.181	<sup>1</sup> 0.699 ± 0.179	<sup>1</sup> 0.708 ± 0.174
<i>vowel0</i>	<sup>1</sup> 0.963 ± 0.046	<sup>1</sup> 0.990 ± 0.021	<sup>1</sup> 0.992 ± 0.015	<sup>6</sup> 0.708 ± 0.107	<sup>6,7</sup> 0.790 ± 0.089	<sup>1</sup> 0.873 ± 0.074	<sup>1</sup> 0.838 ± 0.073
<i>glass4</i>	<sup>4,5,6,7</sup> 0.572 ± 0.309	<sup>1,4,5,6,7</sup> 0.708 ± 0.250	<sup>1,4,5,6,7</sup> 0.705 ± 0.243	<sup>1</sup> 0.544 ± 0.240	<sup>4</sup> 0.536 ± 0.241	<sup>4,5,7</sup> 0.533 ± 0.244	<sup>4,5</sup> 0.560 ± 0.235
<i>yeast-0-5-6-7-9-vs-4</i>	<sup>1,4,5,6,7</sup> 0.405 ± 0.157	<sup>1,4,5,6,7</sup> 0.561 ± 0.078	<sup>1,4,5,6,7</sup> 0.555 ± 0.081	<sup>1</sup> 0.560 ± 0.088	<sup>1</sup> 0.547 ± 0.091	<sup>1</sup> 0.481 ± 0.060	<sup>1</sup> 0.512 ± 0.093
<i>yeast-0-2-5-6-vs-3-7-8-9</i>	<sup>1,6,7</sup> 0.626 ± 0.075	<sup>1,6,7</sup> 0.558 ± 0.062	<sup>1,6,7</sup> 0.539 ± 0.062	<sup>1,6,7</sup> 0.624 ± 0.084	<sup>1,6,7</sup> 0.622 ± 0.090	<sup>1</sup> 0.600 ± 0.087	<sup>1,6</sup> 0.606 ± 0.086
<i>ecoli-0-1-vs-2-3-5</i>	<sup>2,3,6,7</sup> 0.773 ± 0.150	<sup>3</sup> 0.764 ± 0.139	<sup>1</sup> 0.755 ± 0.135	<sup>2,3,6,7</sup> 0.805 ± 0.137	<sup>2,3</sup> 0.811 ± 0.133	<sup>2,3</sup> 0.793 ± 0.150	<sup>2,3</sup> 0.779 ± 0.143
<i>ecoli-0-3-4-vs-5</i>	<sup>1</sup> 0.861 ± 0.162	<sup>1</sup> 0.840 ± 0.154	<sup>1</sup> 0.820 ± 0.152	<sup>1,2,3,7</sup> 0.820 ± 0.162	<sup>1,2,3,7</sup> 0.815 ± 0.164	<sup>2,3</sup> 0.812 ± 0.166	<sup>1</sup> 0.804 ± 0.175
<i>glass5</i>	<sup>3,4,5,6,7</sup> 0.325 ± 0.332	<sup>3,7</sup> 0.534 ± 0.318	<sup>1</sup> 0.536 ± 0.314	<sup>1</sup> 0.462 ± 0.233	<sup>1</sup> 0.463 ± 0.226	<sup>1</sup> 0.468 ± 0.208	<sup>1</sup> 0.463 ± 0.233
<i>yeast4</i>	<sup>1,4,5,6,7</sup> 0.170 ± 0.122	<sup>1,4,5,6,7</sup> 0.385 ± 0.105	<sup>1,4,5,6,7</sup> 0.375 ± 0.096	<sup>1</sup> 0.379 ± 0.092	<sup>1</sup> 0.385 ± 0.091	<sup>1</sup> 0.346 ± 0.070	<sup>1</sup> 0.350 ± 0.069
<i>glass-0-4-vs-5</i>	<sup>1,3,6,7</sup> 0.547 ± 0.415	<sup>1,3,6,7</sup> 0.891 ± 0.147	<sup>1,6,7</sup> 0.907 ± 0.138	<sup>1,6,7</sup> 0.622 ± 0.278	<sup>1,6,7</sup> 0.669 ± 0.276	<sup>1</sup> 0.650 ± 0.261	<sup>1</sup> 0.632 ± 0.270
<i>yeast6</i>	<sup>1,4,5,6,7</sup> 0.553 ± 0.158	<sup>1,4,5,6,7</sup> 0.483 ± 0.123	<sup>1,4,5,6,7</sup> 0.473 ± 0.133	<sup>1</sup> 0.529 ± 0.116	<sup>1</sup> 0.503 ± 0.108	<sup>1</sup> 0.437 ± 0.090	<sup>1</sup> 0.448 ± 0.098
<i>page-blocks-1-3-vs-4</i>	<sup>2,3,5,6,7</sup> 0.648 ± 0.152	<sup>3,6,7</sup> 0.703 ± 0.107	<sup>6</sup> 0.711 ± 0.106	<sup>2,3,5,6,7</sup> 0.511 ± 0.177	<sup>3,6,7</sup> 0.601 ± 0.180	<sup>1</sup> 0.624 ± 0.182	<sup>1</sup> 0.657 ± 0.176
<i>yeast-1-vs-7</i>	<sup>4</sup> 0.101 ± 0.143	<sup>1,4,5,6</sup> 0.318 ± 0.144	<sup>1,4,5,6</sup> 0.319 ± 0.123	<sup>1</sup> 0.223 ± 0.084	<sup>4</sup> 0.221 ± 0.102	<sup>4</sup> 0.233 ± 0.086	<sup>4,5</sup> 0.225 ± 0.086
<i>ecoli-0-1-3-7-vs-2-6</i>	<sup>1,4,5,6,7</sup> 0.727 ± 0.386	<sup>1,4,5,6,7</sup> 0.568 ± 0.343	<sup>1,4,5,6,7</sup> 0.611 ± 0.357	<sup>1</sup> 0.592 ± 0.361	<sup>1</sup> 0.596 ± 0.358	<sup>1</sup> 0.429 ± 0.277	<sup>1</sup> 0.532 ± 0.325
<i>yeast-1-4-5-8-vs-7</i>	<sup>all</sup> 0.004 ± 0.031	<sup>6</sup> 0.148 ± 0.107	<sup>2,6,7</sup> 0.168 ± 0.125	<sup>6</sup> 0.143 ± 0.063	<sup>6</sup> 0.134 ± 0.061	<sup>1</sup> 0.150 ± 0.059	<sup>6</sup> 0.143 ± 0.056
<i>ecoli-0-1-4-7-vs-5-6</i>	<sup>1</sup> 0.812 ± 0.160	<sup>1</sup> 0.799 ± 0.115	<sup>1</sup> 0.789 ± 0.110	<sup>1,5</sup> 0.834 ± 0.107	<sup>1</sup> 0.820 ± 0.118	<sup>1,5</sup> 0.804 ± 0.123	<sup>1</sup> 0.808 ± 0.121
<i>yeast-2-vs-8</i>	<sup>3</sup> 0.661 ± 0.209	<sup>1</sup> 0.548 ± 0.185	<sup>1</sup> 0.519 ± 0.166	<sup>3,6,7</sup> 0.661 ± 0.209	<sup>1</sup> 0.665 ± 0.200	<sup>1</sup> 0.645 ± 0.204	<sup>1</sup> 0.662 ± 0.206
<i>yeast-0-2-5-7-9-vs-3-6-8</i>	<sup>2,3</sup> 0.829 ± 0.059	<sup>3</sup> 0.752 ± 0.052	<sup>1</sup> 0.742 ± 0.052	<sup>2,3</sup> 0.823 ± 0.053	<sup>2,3</sup> 0.823 ± 0.053	<sup>2,3</sup> 0.817 ± 0.058	<sup>2,3</sup> 0.821 ± 0.055
<i>glass2</i>	<sup>2,3,6</sup> 0.152 ± 0.209	<sup>3</sup> 0.384 ± 0.182	<sup>1</sup> 0.365 ± 0.166	<sup>2,3</sup> 0.338 ± 0.104	<sup>2,3</sup> 0.325 ± 0.096	<sup>2,3</sup> 0.285 ± 0.067	<sup>2,3</sup> 0.311 ± 0.086
	<sup>1,4,5,6,7</sup>	<sup>1,4,5,6,7</sup>	<sup>1,5,6,7</sup>	<sup>1,5,6,7</sup>	<sup>1,6,7</sup>	<sup>1</sup>	<sup>1,6</sup>

Table 3: Results for F1 metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>Mean rank</i>	3.768	5.085	4.207	4.244	4.061	3.183	3.451
	–	1,3,6,7	6	6,7	6	–	–

Table 4: Results for mean ranks according to F1 metric

Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>glass-0-1-6-vs-2</i>	0.161 ± 0.334	0.280 ± 0.152	0.270 ± 0.170	0.213 ± 0.061	0.195 ± 0.051	0.181 ± 0.050	0.191 ± 0.055
<i>ecoli-0-3-4-7-vs-5-6</i>	<sup>1,4,5,6,7</sup> 0.944 ± 0.091	<sup>1,4,5,6,7</sup> 0.739 ± 0.141	<sup>1,4,5,6,7</sup> 0.726 ± 0.157	<sup>1,5,6,7</sup> 0.835 ± 0.144	<sup>1,6,7</sup> 0.810 ± 0.142	<sup>1</sup> 0.755 ± 0.142	<sup>1,6</sup> 0.791 ± 0.150
<i>shuttle-c2-vs-c4</i>	<sup>all</sup> 0.200 ± 0.400	<sup>1,4,6</sup> 1.000 ± 0.000	<sup>1,4,6</sup> 1.000 ± 0.000	<sup>2,3,6</sup> 0.740 ± 0.438	<sup>2,3,6</sup> 0.860 ± 0.346	<sup>2,3,6</sup> 0.740 ± 0.438	<sup>2,3</sup> 0.860 ± 0.346
<i>glass-0-1-4-6-vs-2</i>	<sup>1,4,6</sup> 0.133 ± 0.310	<sup>1,4,6</sup> 0.288 ± 0.129	<sup>1,4,6</sup> 0.278 ± 0.132	<sup>1</sup> 0.207 ± 0.064	<sup>1</sup> 0.198 ± 0.066	<sup>1</sup> 0.171 ± 0.053	<sup>1</sup> 0.188 ± 0.056
<i>yeast-1-2-8-9-vs-7</i>	<sup>1,4,5,6,7</sup> 0.070 ± 0.223	<sup>1,4,5,6,7</sup> 0.201 ± 0.113	<sup>1,4,5,6,7</sup> 0.194 ± 0.100	<sup>1,5,6,7</sup> 0.099 ± 0.040	<sup>1,6,7</sup> 0.106 ± 0.072	<sup>1</sup> 0.099 ± 0.034	<sup>1,6</sup> 0.105 ± 0.035
<i>ecoli-0-1-4-6-vs-5</i>	<sup>all</sup> 0.960 ± 0.100	<sup>all</sup> 0.880 ± 0.139	<sup>1,4,5,6,7</sup> 0.835 ± 0.150	<sup>1</sup> 0.859 ± 0.143	<sup>1</sup> 0.837 ± 0.141	<sup>1</sup> 0.859 ± 0.143	<sup>1,6</sup> 0.841 ± 0.139
<i>glass-0-1-6-vs-5</i>	<sup>all</sup> 0.373 ± 0.371	<sup>3</sup> 0.519 ± 0.258	<sup>1</sup> 0.511 ± 0.261	<sup>1</sup> 0.481 ± 0.248	<sup>1</sup> 0.459 ± 0.245	<sup>1</sup> 0.494 ± 0.247	<sup>1</sup> 0.458 ± 0.248
<i>yeast-2-vs-4</i>	<sup>1,5,7</sup> 0.922 ± 0.095	<sup>1,5,7</sup> 0.739 ± 0.114	<sup>5,7</sup> 0.729 ± 0.123	<sup>1</sup> 0.860 ± 0.101	<sup>1</sup> 0.851 ± 0.106	<sup>5,7</sup> 0.804 ± 0.129	<sup>1</sup> 0.809 ± 0.143
<i>glass-0-6-vs-5</i>	<sup>all</sup> 0.600 ± 0.469	<sup>1,5</sup> 0.768 ± 0.304	<sup>1</sup> 0.762 ± 0.302	<sup>2,3,6,7</sup> 0.742 ± 0.380	<sup>2,3,6,7</sup> 0.668 ± 0.395	<sup>2,3</sup> 0.782 ± 0.324	<sup>2,3</sup> 0.715 ± 0.359
<i>ecoli-0-3-4-6-vs-5</i>	<sup>all</sup> 0.946 ± 0.119	<sup>1,5</sup> 0.880 ± 0.141	<sup>1</sup> 0.834 ± 0.153	<sup>1</sup> 0.753 ± 0.167	<sup>1</sup> 0.745 ± 0.174	<sup>1,5</sup> 0.750 ± 0.171	<sup>1</sup> 0.737 ± 0.173
<i>yeast-0-3-5-9-vs-7-8</i>	<sup>all</sup> 0.605 ± 0.176	<sup>3,4,5,6,7</sup> 0.332 ± 0.077	<sup>4,5,6,7</sup> 0.311 ± 0.061	<sup>1</sup> 0.535 ± 0.183	<sup>1</sup> 0.537 ± 0.186	<sup>1</sup> 0.442 ± 0.157	<sup>1</sup> 0.532 ± 0.215
<i>glass-0-1-5-vs-2</i>	<sup>all</sup> 0.186 ± 0.333	<sup>3</sup> 0.293 ± 0.163	<sup>1</sup> 0.268 ± 0.122	<sup>2,3,6</sup> 0.209 ± 0.072	<sup>2,3,6</sup> 0.200 ± 0.065	<sup>2,3</sup> 0.171 ± 0.052	<sup>2,3,6</sup> 0.191 ± 0.062
<i>ecoli-0-6-7-vs-5</i>	<sup>1,4,5,6,7</sup> 0.953 ± 0.114	<sup>1,4,5,6,7</sup> 0.724 ± 0.199	<sup>1,4,5,6,7</sup> 0.687 ± 0.197	<sup>1,5,6,7</sup> 0.830 ± 0.193	<sup>1,6,7</sup> 0.817 ± 0.186	<sup>1</sup> 0.777 ± 0.197	<sup>6</sup> 0.756 ± 0.204
<i>ecoli-0-2-3-4-vs-5</i>	<sup>all</sup> 0.960 ± 0.092	<sup>3</sup> 0.833 ± 0.170	<sup>1</sup> 0.805 ± 0.179	<sup>2,3,6,7</sup> 0.846 ± 0.177	<sup>2,3,7</sup> 0.822 ± 0.176	<sup>3</sup> 0.835 ± 0.184	<sup>3</sup> 0.831 ± 0.180
<i>ecoli4</i>	<sup>all</sup> 0.973 ± 0.073	<sup>1</sup> 0.804 ± 0.177	<sup>1</sup> 0.788 ± 0.179	<sup>1</sup> 0.889 ± 0.138	<sup>1</sup> 0.872 ± 0.158	<sup>1</sup> 0.844 ± 0.169	<sup>1</sup> 0.816 ± 0.179
<i>yeast5</i>	<sup>all</sup> 0.794 ± 0.140	<sup>1</sup> 0.589 ± 0.091	<sup>1</sup> 0.580 ± 0.086	<sup>2,3,6,7</sup> 0.593 ± 0.101	<sup>2,3,7</sup> 0.571 ± 0.084	<sup>3,7</sup> 0.535 ± 0.082	<sup>1</sup> 0.558 ± 0.096
<i>ecoli-0-4-6-vs-5</i>	<sup>all</sup> 0.935 ± 0.135	<sup>3,5,6,7</sup> 0.882 ± 0.170	<sup>6,7</sup> 0.849 ± 0.173	<sup>5,6,7</sup> 0.775 ± 0.182	<sup>6</sup> 0.764 ± 0.181	<sup>1</sup> 0.779 ± 0.185	<sup>6</sup> 0.764 ± 0.188
<i>led7digit-0-2-4-5-6-7-8-9-vs-1</i>	<sup>all</sup> 0.782 ± 0.304	<sup>4,5,6,7</sup> 0.557 ± 0.098	<sup>4,5,6,7</sup> 0.563 ± 0.117	<sup>1</sup> 0.535 ± 0.306	<sup>1</sup> 0.498 ± 0.262	<sup>1</sup> 0.676 ± 0.108	<sup>1</sup> 0.627 ± 0.151
<i>ecoli-0-1-vs-5</i>	<sup>all</sup> 0.972 ± 0.076	<sup>1</sup> 0.902 ± 0.119	<sup>1</sup> 0.872 ± 0.125	<sup>1</sup> 0.965 ± 0.090	<sup>1</sup> 0.958 ± 0.099	<sup>2,3,4,5,7</sup> 0.951 ± 0.101	<sup>2,3,5</sup> 0.948 ± 0.109
<i>ecoli-0-2-6-7-vs-3-5</i>	<sup>2,3</sup> 0.933 ± 0.175	<sup>1</sup> 0.734 ± 0.185	<sup>1</sup> 0.718 ± 0.188	<sup>2,3</sup> 0.795 ± 0.204	<sup>2,3</sup> 0.779 ± 0.209	<sup>2,3</sup> 0.702 ± 0.210	<sup>2,3</sup> 0.706 ± 0.238
<i>ecoli-0-1-4-7-vs-2-3-5-6</i>	<sup>all</sup> 0.979 ± 0.065	<sup>1</sup> 0.678 ± 0.155	<sup>1</sup> 0.672 ± 0.160	<sup>3,6,7</sup> 0.914 ± 0.116	<sup>6,7</sup> 0.900 ± 0.139	<sup>1</sup> 0.802 ± 0.149	<sup>1</sup> 0.818 ± 0.177
<i>shuttle-c0-vs-c4</i>	<sup>all</sup> 1.000 ± 0.000	<sup>1</sup> 1.000 ± 0.000	<sup>1</sup> 1.000 ± 0.000	<sup>2,3,6,7</sup> 1.000 ± 0.000	<sup>2,3,6,7</sup> 1.000 ± 0.000	<sup>2,3</sup> 1.000 ± 0.000	<sup>2,3</sup> 1.000 ± 0.000
<i>ecoli-0-6-7-vs-3-5</i>	<sup>1</sup> 0.907 ± 0.169	<sup>1</sup> 0.711 ± 0.191	<sup>1</sup> 0.693 ± 0.178	<sup>1</sup> 0.819 ± 0.201	<sup>1</sup> 0.816 ± 0.199	<sup>1</sup> 0.745 ± 0.205	<sup>1</sup> 0.750 ± 0.200
<i>vowel0</i>	<sup>all</sup> 0.989 ± 0.027	<sup>1</sup> 0.981 ± 0.039	<sup>1</sup> 0.985 ± 0.028	<sup>2,3,6,7</sup> 0.838 ± 0.103	<sup>2,3,6,7</sup> 0.855 ± 0.092	<sup>1</sup> 0.887 ± 0.080	<sup>1</sup> 0.927 ± 0.077
<i>glass4</i>	<sup>4,5,6,7</sup> 0.728 ± 0.384	<sup>4,5,6,7</sup> 0.639 ± 0.273	<sup>4,5,6,7</sup> 0.630 ± 0.261	<sup>1</sup> 0.513 ± 0.278	<sup>4</sup> 0.506 ± 0.275	<sup>4,5</sup> 0.493 ± 0.271	<sup>4,5,6</sup> 0.526 ± 0.262
<i>yeast-0-5-6-7-9-vs-4</i>	<sup>all</sup> 0.647 ± 0.237	<sup>4,5,6,7</sup> 0.481 ± 0.087	<sup>4,5,6,7</sup> 0.468 ± 0.084	<sup>1</sup> 0.503 ± 0.115	<sup>1</sup> 0.484 ± 0.124	<sup>1</sup> 0.360 ± 0.070	<sup>1</sup> 0.411 ± 0.105
<i>yeast-0-2-5-6-vs-3-7-8-9</i>	<sup>all</sup> 0.779 ± 0.092	<sup>3,6,7</sup> 0.479 ± 0.060	<sup>6,7</sup> 0.452 ± 0.058	<sup>6,7</sup> 0.722 ± 0.089	<sup>6,7</sup> 0.692 ± 0.103	<sup>1</sup> 0.661 ± 0.136	<sup>6</sup> 0.727 ± 0.110
<i>ecoli-0-1-vs-2-3-5</i>	<sup>all</sup> 0.968 ± 0.081	<sup>3</sup> 0.775 ± 0.168	<sup>1</sup> 0.754 ± 0.159	<sup>2,3,5,6</sup> 0.947 ± 0.114	<sup>2,3</sup> 0.947 ± 0.113	<sup>2,3</sup> 0.910 ± 0.157	<sup>2,3,5,6</sup> 0.879 ± 0.170
<i>ecoli-0-3-4-vs-5</i>	<sup>2,3,7</sup> 0.958 ± 0.111	<sup>1</sup> 0.874 ± 0.157	<sup>1</sup> 0.835 ± 0.160	<sup>2,3,7</sup> 0.827 ± 0.166	<sup>2,3,7</sup> 0.816 ± 0.170	<sup>2,3</sup> 0.813 ± 0.170	<sup>2,3</sup> 0.804 ± 0.180
<i>glass5</i>	<sup>all</sup> 0.377 ± 0.406	<sup>3,7</sup> 0.471 ± 0.307	<sup>1</sup> 0.469 ± 0.298	<sup>1</sup> 0.359 ± 0.217	<sup>1</sup> 0.357 ± 0.208	<sup>1</sup> 0.351 ± 0.178	<sup>1</sup> 0.361 ± 0.221
<i>yeast4</i>	<sup>1</sup> 0.358 ± 0.276	<sup>4,5,6,7</sup> 0.328 ± 0.109	<sup>4,5,6,7</sup> 0.309 ± 0.082	<sup>1</sup> 0.292 ± 0.080	<sup>1</sup> 0.305 ± 0.088	<sup>1</sup> 0.236 ± 0.050	<sup>1</sup> 0.242 ± 0.054
<i>glass-0-4-vs-5</i>	<sup>6,7</sup> 0.660 ± 0.473	<sup>3,4,6,7</sup> 0.853 ± 0.204	<sup>6,7</sup> 0.857 ± 0.200	<sup>6,7</sup> 0.619 ± 0.324	<sup>6,7</sup> 0.668 ± 0.331	<sup>1</sup> 0.631 ± 0.312	<sup>1</sup> 0.642 ± 0.331
<i>yeast6</i>	<sup>1,4,5,6,7</sup> 0.626 ± 0.178	<sup>1,4,5,6,7</sup> 0.388 ± 0.108	<sup>1,4,5,6,7</sup> 0.378 ± 0.121	<sup>1</sup> 0.431 ± 0.117	<sup>1</sup> 0.394 ± 0.101	<sup>1</sup> 0.315 ± 0.084	<sup>1</sup> 0.325 ± 0.090
<i>page-blocks-1-3-vs-4</i>	<sup>all</sup> 0.686 ± 0.174	<sup>3,6,7</sup> 0.584 ± 0.115	<sup>6,7</sup> 0.595 ± 0.110	<sup>2,3,5,6,7</sup> 0.527 ± 0.207	<sup>6,7</sup> 0.669 ± 0.219	<sup>1</sup> 0.624 ± 0.201	<sup>1</sup> 0.768 ± 0.210
<i>yeast-1-vs-7</i>	<sup>2,3,4</sup> 0.330 ± 0.464	<sup>4</sup> 0.278 ± 0.136	<sup>4</sup> 0.264 ± 0.110	<sup>1</sup> 0.148 ± 0.055	<sup>2,3,4</sup> 0.162 ± 0.085	<sup>4</sup> 0.147 ± 0.056	<sup>all</sup> 0.145 ± 0.059
<i>ecoli-0-1-3-7-vs-2-6</i>	<sup>1</sup> 0.790 ± 0.401	<sup>3,4,5,6,7</sup> 0.556 ± 0.385	<sup>4,5,6,7</sup> 0.610 ± 0.393	<sup>1</sup> 0.568 ± 0.393	<sup>1</sup> 0.583 ± 0.394	<sup>1</sup> 0.372 ± 0.319	<sup>1</sup> 0.506 ± 0.375
<i>yeast-1-4-5-8-vs-7</i>	<sup>all</sup> 0.007 ± 0.046	<sup>6</sup> 0.126 ± 0.103	<sup>2,6,7</sup> 0.133 ± 0.112	<sup>6</sup> 0.086 ± 0.039	<sup>6</sup> 0.081 ± 0.037	<sup>1</sup> 0.088 ± 0.035	<sup>6</sup> 0.084 ± 0.033
<i>ecoli-0-1-4-7-vs-5-6</i>	<sup>1,4,5,6,7</sup> 0.967 ± 0.091	<sup>1,4,5,6,7</sup> 0.795 ± 0.165	<sup>1,4,5,6,7</sup> 0.774 ± 0.163	<sup>1</sup> 0.889 ± 0.122	<sup>1</sup> 0.886 ± 0.136	<sup>1</sup> 0.806 ± 0.158	<sup>1</sup> 0.827 ± 0.148
<i>yeast-2-vs-8</i>	<sup>all</sup> 0.908 ± 0.200	<sup>1</sup> 0.563 ± 0.230	<sup>1</sup> 0.497 ± 0.191	<sup>2,3,6,7</sup> 0.908 ± 0.200	<sup>2,3,6,7</sup> 0.911 ± 0.190	<sup>1</sup> 0.871 ± 0.225	<sup>1</sup> 0.884 ± 0.208
<i>yeast-0-2-5-7-9-vs-3-6-8</i>	<sup>2,3</sup> 0.871 ± 0.068	<sup>3</sup> 0.684 ± 0.062	<sup>1</sup> 0.669 ± 0.066	<sup>2,3</sup> 0.839 ± 0.062	<sup>2,3</sup> 0.831 ± 0.066	<sup>2,3</sup> 0.832 ± 0.071	<sup>2,3</sup> 0.835 ± 0.072
<i>glass2</i>	<sup>all</sup> 0.260 ± 0.387	<sup>3</sup> 0.307 ± 0.166	<sup>1</sup> 0.286 ± 0.141	<sup>2,3</sup> 0.221 ± 0.081	<sup>2,3</sup> 0.209 ± 0.074	<sup>2,3</sup> 0.175 ± 0.048	<sup>2,3</sup> 0.197 ± 0.067
	<sup>1</sup> —	<sup>4,5,6,7</sup> —	<sup>4,5,6,7</sup> —	<sup>5,6,7</sup> —	<sup>6,7</sup> —	<sup>1</sup> —	<sup>6</sup> —

Table 5: Results for Precision metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>Mean rank</i>	5.549	4.378	3.622	4.402	3.915	2.927	3.207
	<sup>3,4,5,6,7</sup>	<sup>3,6,7</sup>	—	<sup>5,6,7</sup>	<sup>6,7</sup>	—	—

Table 6: Results for mean ranks according to Precision metric

Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>glass-0-1-6-vs-2</i>	0.065 ± 0.123	0.510 ± 0.233	0.493 ± 0.251	0.802 ± 0.191	0.815 ± 0.193	0.827 ± 0.194	0.827 ± 0.194
<i>ecoli-0-3-4-7-vs-5-6</i>	<sup>1</sup> 0.744 ± 0.196	<sup>1</sup> 0.836 ± 0.148	<sup>1</sup> 0.840 ± 0.149	<sup>1,2,3</sup> 0.772 ± 0.154	<sup>1,2,3</sup> 0.776 ± 0.153	<sup>1,2,3</sup> 0.836 ± 0.153	<sup>1,2,3</sup> 0.800 ± 0.154
<i>shuttle-c2-vs-c4</i>	<sup>1,4,5,7</sup> 0.170 ± 0.355	<sup>1,4,5,7</sup> 0.990 ± 0.069	<sup>1,4,5,7</sup> 0.990 ± 0.069	<sup>1</sup> 0.710 ± 0.436	<sup>1</sup> 0.820 ± 0.357	<sup>1,4,5,7</sup> 0.720 ± 0.437	<sup>1</sup> 0.840 ± 0.352
<i>glass-0-1-4-6-vs-2</i>	<sup>1,4,5,6</sup> 0.055 ± 0.122	<sup>1,4,5,6</sup> 0.552 ± 0.230	<sup>1,4,5,6</sup> 0.533 ± 0.230	<sup>1</sup> 0.767 ± 0.207	<sup>1</sup> 0.785 ± 0.213	<sup>1</sup> 0.802 ± 0.190	<sup>1</sup> 0.797 ± 0.188
<i>yeast-1-2-8-9-vs-7</i>	<sup>1</sup> 0.017 ± 0.049	<sup>1</sup> 0.333 ± 0.179	<sup>1</sup> 0.347 ± 0.175	<sup>1,2,3</sup> 0.420 ± 0.173	<sup>1,2,3</sup> 0.413 ± 0.186	<sup>1,2,3</sup> 0.543 ± 0.178	<sup>1,2,3</sup> 0.513 ± 0.166
<i>ecoli-0-1-4-6-vs-5</i>	<sup>1</sup> 0.775 ± 0.182	<sup>1</sup> 0.850 ± 0.150	<sup>1</sup> 0.850 ± 0.150	<sup>1,2,3</sup> 0.825 ± 0.160	<sup>1,2,3</sup> 0.820 ± 0.158	<sup>1,2,3,4,5</sup> 0.825 ± 0.160	<sup>1,2,3,4,5</sup> 0.825 ± 0.160
<i>glass-0-1-6-vs-5</i>	<sup>1</sup> 0.360 ± 0.316	<sup>1</sup> 0.810 ± 0.298	<sup>1</sup> 0.790 ± 0.301	<sup>1</sup> 0.760 ± 0.303	<sup>1</sup> 0.750 ± 0.304	<sup>1</sup> 0.770 ± 0.303	<sup>1</sup> 0.750 ± 0.304
<i>yeast-2-vs-4</i>	<sup>1</sup> 0.647 ± 0.132	<sup>1</sup> 0.784 ± 0.129	<sup>1</sup> 0.789 ± 0.127	<sup>1</sup> 0.693 ± 0.132	<sup>1</sup> 0.701 ± 0.135	<sup>1</sup> 0.724 ± 0.142	<sup>1</sup> 0.732 ± 0.135
<i>glass-0-6-vs-5</i>	<sup>1,4,5,6,7</sup> 0.440 ± 0.382	<sup>1,4,5,6,7</sup> 0.870 ± 0.279	<sup>1,4,5,6,7</sup> 0.870 ± 0.279	<sup>1</sup> 0.640 ± 0.361	<sup>1</sup> 0.620 ± 0.368	<sup>1,4,5</sup> 0.700 ± 0.316	<sup>1,4,5</sup> 0.660 ± 0.338
<i>ecoli-0-3-4-6-vs-5</i>	<sup>1,4,5,6,7</sup> 0.795 ± 0.185	<sup>1,4,5,6,7</sup> 0.850 ± 0.173	<sup>1,4,5,6,7</sup> 0.850 ± 0.173	<sup>1</sup> 0.830 ± 0.169	<sup>1</sup> 0.830 ± 0.169	<sup>1</sup> 0.820 ± 0.173	<sup>1</sup> 0.815 ± 0.171
<i>yeast-0-3-5-9-vs-7-8</i>	<sup>1</sup> 0.306 ± 0.115	<sup>1</sup> 0.548 ± 0.111	<sup>1</sup> 0.554 ± 0.111	<sup>1</sup> 0.342 ± 0.140	<sup>1</sup> 0.338 ± 0.124	<sup>1</sup> 0.378 ± 0.136	<sup>1</sup> 0.358 ± 0.126
<i>glass-0-1-5-vs-2</i>	<sup>1,4,5,6,7</sup> 0.090 ± 0.139	<sup>1,4,5,6,7</sup> 0.542 ± 0.278	<sup>1,4,5,6,7</sup> 0.517 ± 0.266	<sup>1</sup> 0.762 ± 0.254	<sup>1</sup> 0.798 ± 0.221	<sup>1,4,5</sup> 0.795 ± 0.235	<sup>1</sup> 0.805 ± 0.222
<i>ecoli-0-6-7-vs-5</i>	<sup>1,2,3</sup> 0.685 ± 0.216	<sup>1</sup> 0.780 ± 0.197	<sup>1</sup> 0.790 ± 0.202	<sup>1,2,3</sup> 0.760 ± 0.199	<sup>1,2,3</sup> 0.750 ± 0.193	<sup>1,2,3</sup> 0.765 ± 0.196	<sup>1,2,3</sup> 0.765 ± 0.202
<i>ecoli-0-2-3-4-vs-5</i>	<sup>1</sup> 0.785 ± 0.165	<sup>1</sup> 0.850 ± 0.158	<sup>1</sup> 0.850 ± 0.158	<sup>1</sup> 0.830 ± 0.153	<sup>1</sup> 0.840 ± 0.156	<sup>1</sup> 0.840 ± 0.156	<sup>1</sup> 0.840 ± 0.156
<i>ecoli4</i>	<sup>1</sup> 0.790 ± 0.202	<sup>1</sup> 0.850 ± 0.200	<sup>1</sup> 0.850 ± 0.200	<sup>1</sup> 0.870 ± 0.167	<sup>1</sup> 0.885 ± 0.159	<sup>1</sup> 0.875 ± 0.167	<sup>1</sup> 0.875 ± 0.175
<i>yeast5</i>	<sup>1</sup> 0.647 ± 0.127	<sup>1</sup> 0.894 ± 0.103	<sup>1</sup> 0.901 ± 0.093	<sup>1</sup> 0.884 ± 0.118	<sup>1</sup> 0.906 ± 0.101	<sup>1</sup> 0.911 ± 0.106	<sup>1</sup> 0.899 ± 0.092
<i>ecoli-0-4-6-vs-5</i>	<sup>1</sup> 0.810 ± 0.162	<sup>1</sup> 0.850 ± 0.158	<sup>1</sup> 0.850 ± 0.158	<sup>1</sup> 0.830 ± 0.153	<sup>1</sup> 0.840 ± 0.156	<sup>1</sup> 0.830 ± 0.161	<sup>1</sup> 0.840 ± 0.156
<i>led7digit-0-2-4-5-6-7-8-9-vs-1</i>	<sup>1</sup> 0.279 ± 0.155	<sup>1</sup> 0.869 ± 0.124	<sup>1</sup> 0.805 ± 0.181	<sup>1</sup> 0.255 ± 0.169	<sup>1</sup> 0.321 ± 0.172	<sup>1</sup> 0.805 ± 0.151	<sup>1</sup> 0.796 ± 0.213
<i>ecoli-0-1-vs-5</i>	<sup>1,3,4,5,6</sup> 0.785 ± 0.180	<sup>1,3,4,5,6</sup> 0.850 ± 0.150	<sup>1,4,5</sup> 0.850 ± 0.150	<sup>1</sup> 0.800 ± 0.165	<sup>1,4</sup> 0.805 ± 0.160	<sup>1,4,5</sup> 0.825 ± 0.152	<sup>1,4,5</sup> 0.830 ± 0.145
<i>ecoli-0-2-6-7-vs-3-5</i>	<sup>1,4</sup> 0.597 ± 0.251	<sup>1,4</sup> 0.756 ± 0.173	<sup>1,4</sup> 0.793 ± 0.163	<sup>1</sup> 0.680 ± 0.210	<sup>1</sup> 0.695 ± 0.205	<sup>1</sup> 0.718 ± 0.191	<sup>1</sup> 0.713 ± 0.187
<i>ecoli-0-1-4-7-vs-2-3-5-6</i>	<sup>1,4,5,7</sup> 0.668 ± 0.202	<sup>1,4,5,7</sup> 0.747 ± 0.165	<sup>1,4,5,6,7</sup> 0.754 ± 0.168	<sup>1</sup> 0.730 ± 0.164	<sup>1</sup> 0.727 ± 0.163	<sup>1</sup> 0.733 ± 0.160	<sup>1</sup> 0.734 ± 0.159
<i>shuttle-c0-vs-c4</i>	<sup>1</sup> 0.992 ± 0.016	<sup>1</sup> 0.992 ± 0.016	<sup>1</sup> 0.992 ± 0.016	<sup>1</sup> 0.990 ± 0.017	<sup>1</sup> 0.990 ± 0.017	<sup>1</sup> 0.990 ± 0.017	<sup>1</sup> 0.990 ± 0.017
<i>ecoli-0-6-7-vs-3-5</i>	<sup>1</sup> 0.593 ± 0.237	<sup>1</sup> 0.738 ± 0.189	<sup>1</sup> 0.770 ± 0.187	<sup>1</sup> 0.677 ± 0.206	<sup>1</sup> 0.682 ± 0.204	<sup>1</sup> 0.690 ± 0.203	<sup>1</sup> 0.695 ± 0.193
<i>vowel0</i>	<sup>1,4,5,6</sup> 0.941 ± 0.077	<sup>1,4,5,6</sup> 1.000 ± 0.000	<sup>1,4,5,6,7</sup> 1.000 ± 0.000	<sup>1</sup> 0.627 ± 0.134	<sup>1</sup> 0.747 ± 0.124	<sup>1</sup> 0.868 ± 0.105	<sup>1</sup> 0.774 ± 0.105
<i>glass4</i>	<sup>4,5,6,7</sup> 0.513 ± 0.310	<sup>1,4,5,6,7</sup> 0.857 ± 0.278	<sup>1,4,5,6,7</sup> 0.857 ± 0.278	<sup>1</sup> 0.640 ± 0.279	<sup>4</sup> 0.637 ± 0.290	<sup>4,5,7</sup> 0.650 ± 0.298	<sup>4,5</sup> 0.663 ± 0.289
<i>yeast-0-5-6-7-9-vs-4</i>	<sup>1,4,5,6,7</sup> 0.317 ± 0.153	<sup>1,4,5,6,7</sup> 0.693 ± 0.123	<sup>1,4,5,6,7</sup> 0.702 ± 0.127	<sup>1</sup> 0.660 ± 0.114	<sup>1</sup> 0.660 ± 0.107	<sup>1</sup> 0.761 ± 0.119	<sup>1</sup> 0.724 ± 0.126
<i>yeast-0-2-5-6-vs-3-7-8-9</i>	<sup>1,4,5</sup> 0.529 ± 0.083	<sup>1,4,5</sup> 0.675 ± 0.092	<sup>1,4,5</sup> 0.676 ± 0.090	<sup>1</sup> 0.559 ± 0.104	<sup>1</sup> 0.576 ± 0.113	<sup>all</sup> 0.572 ± 0.109	<sup>1,4,5</sup> 0.532 ± 0.111
<i>ecoli-0-1-vs-2-3-5</i>	<sup>1,4,5,6,7</sup> 0.670 ± 0.187	<sup>1,4,5,6,7</sup> 0.791 ± 0.188	<sup>1,4,5,6,7</sup> 0.791 ± 0.184	<sup>1,7</sup> 0.719 ± 0.178	<sup>1,4,7</sup> 0.727 ± 0.177	<sup>1,7</sup> 0.723 ± 0.182	<sup>1</sup> 0.727 ± 0.177
<i>ecoli-0-3-4-vs-5</i>	<sup>1,4,5,6,7</sup> 0.810 ± 0.209	<sup>1,4,5,6,7</sup> 0.850 ± 0.200	<sup>1,4,5,6,7</sup> 0.850 ± 0.200	<sup>1</sup> 0.845 ± 0.205	<sup>1</sup> 0.845 ± 0.205	<sup>1</sup> 0.840 ± 0.204	<sup>1</sup> 0.835 ± 0.215
<i>glass5</i>	<sup>1</sup> 0.310 ± 0.330	<sup>1</sup> 0.670 ± 0.395	<sup>1</sup> 0.680 ± 0.396	<sup>1</sup> 0.740 ± 0.363	<sup>1</sup> 0.760 ± 0.349	<sup>1</sup> 0.770 ± 0.334	<sup>1</sup> 0.750 ± 0.350
<i>yeast4</i>	<sup>1</sup> 0.117 ± 0.088	<sup>1</sup> 0.489 ± 0.153	<sup>1</sup> 0.494 ± 0.148	<sup>1</sup> 0.560 ± 0.138	<sup>1</sup> 0.555 ± 0.146	<sup>1</sup> 0.665 ± 0.157	<sup>1</sup> 0.658 ± 0.143
<i>glass-0-4-vs-5</i>	<sup>1</sup> 0.490 ± 0.406	<sup>1</sup> 0.970 ± 0.118	<sup>1</sup> 0.990 ± 0.069	<sup>1,2,3</sup> 0.710 ± 0.333	<sup>1,2,3</sup> 0.770 ± 0.319	<sup>1,2,3,4,5</sup> 0.770 ± 0.319	<sup>1,2,3,4,5</sup> 0.720 ± 0.318
<i>yeast6</i>	<sup>1,4,5,6,7</sup> 0.523 ± 0.184	<sup>1,4,5,6,7</sup> 0.669 ± 0.186	<sup>1,4,5,6,7</sup> 0.663 ± 0.195	<sup>1</sup> 0.711 ± 0.165	<sup>1</sup> 0.723 ± 0.162	<sup>1</sup> 0.763 ± 0.165	<sup>1</sup> 0.769 ± 0.153
<i>page-blocks-1-3-vs-4</i>	<sup>1</sup> 0.657 ± 0.217	<sup>1</sup> 0.905 ± 0.132	<sup>1</sup> 0.905 ± 0.136	<sup>1</sup> 0.529 ± 0.202	<sup>1,2,3</sup> 0.593 ± 0.225	<sup>1,2,3,4,5</sup> 0.667 ± 0.224	<sup>1,2,3,4,5</sup> 0.615 ± 0.220
<i>yeast-1-vs-7</i>	<sup>4</sup> 0.060 ± 0.086	<sup>1,4,5,6,7</sup> 0.410 ± 0.206	<sup>1,4,5,6,7</sup> 0.440 ± 0.196	<sup>1</sup> 0.480 ± 0.209	<sup>1</sup> 0.410 ± 0.211	<sup>4,5,7</sup> 0.590 ± 0.231	<sup>4</sup> 0.523 ± 0.213
<i>ecoli-0-1-3-7-vs-2-6</i>	<sup>1</sup> 0.700 ± 0.400	<sup>1</sup> 0.700 ± 0.400	<sup>1,2</sup> 0.700 ± 0.400	<sup>1,2,5</sup> 0.700 ± 0.400	<sup>1</sup> 0.700 ± 0.400	<sup>all</sup> 0.700 ± 0.400	<sup>1,2,3,4,5</sup> 0.700 ± 0.400
<i>yeast-1-4-5-8-vs-7</i>	<sup>1</sup> 0.003 ± 0.023	<sup>1</sup> 0.200 ± 0.152	<sup>1</sup> 0.247 ± 0.180	<sup>1</sup> 0.427 ± 0.183	<sup>1</sup> 0.423 ± 0.206	<sup>1</sup> 0.517 ± 0.206	<sup>1</sup> 0.487 ± 0.199
<i>ecoli-0-1-4-7-vs-5-6</i>	<sup>1</sup> 0.732 ± 0.198	<sup>1</sup> 0.836 ± 0.148	<sup>1,2</sup> 0.840 ± 0.144	<sup>1,2,3</sup> 0.804 ± 0.152	<sup>1,2,3</sup> 0.788 ± 0.166	<sup>1,2,3,4,5</sup> 0.824 ± 0.147	<sup>1,2,3,4,5</sup> 0.812 ± 0.151
<i>yeast-2-vs-8</i>	<sup>1,5</sup> 0.550 ± 0.229	<sup>1,5</sup> 0.595 ± 0.233	<sup>1,5</sup> 0.600 ± 0.223	<sup>1</sup> 0.550 ± 0.229	<sup>1</sup> 0.555 ± 0.219	<sup>1</sup> 0.550 ± 0.229	<sup>1</sup> 0.560 ± 0.221
<i>yeast-0-2-5-7-9-vs-3-6-8</i>	<sup>1,4,6</sup> 0.797 ± 0.084	<sup>1,4,6</sup> 0.843 ± 0.084	<sup>1,4,5,6</sup> 0.841 ± 0.081	<sup>1</sup> 0.813 ± 0.078	<sup>1</sup> 0.821 ± 0.075	<sup>1</sup> 0.809 ± 0.084	<sup>1</sup> 0.814 ± 0.076
<i>glass2</i>	<sup>1,4,5,6,7</sup> 0.117 ± 0.164	<sup>1,4,5,6,7</sup> 0.562 ± 0.271	<sup>1,4,5,6,7</sup> 0.542 ± 0.262	<sup>1</sup> 0.768 ± 0.192	<sup>1,6</sup> 0.778 ± 0.191	<sup>1</sup> 0.808 ± 0.174	<sup>1</sup> 0.785 ± 0.192
	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1,2,3</sup>	<sup>1,2,3</sup>	<sup>1,2,3</sup>	<sup>1,2,3</sup>

Table 7: Results for Recall metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>Mean rank</i>	1.415	5.134	5.366	3.061	3.695	4.805	4.524
	—	1,4,5	1,4,5	1	1,4	1,4,5	1,4,5

Table 8: Results for mean ranks according to Recall metric

Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>glass-0-1-6-vs-2</i>	0.522 ± 0.062	0.684 ± 0.121	0.674 ± 0.125	0.753 ± 0.092	0.742 ± 0.090	0.728 ± 0.093	0.740 ± 0.094
<i>ecoli-0-3-4-7-vs-5-6</i>	<sup>−</sup> 0.869 ± 0.097	<sup>1</sup> 0.900 ± 0.072	<sup>1</sup> 0.900 ± 0.072	<sup>all</sup> 0.877 ± 0.078	<sup>1,2,3,6,7</sup> 0.877 ± 0.078	<sup>1,2,3</sup> 0.902 ± 0.078	<sup>1,2,3,6</sup> 0.887 ± 0.080
<i>shuttle-c2-vs-c4</i>	<sup>−</sup> 0.585 ± 0.177	<sup>−</sup> 0.995 ± 0.034	<sup>−</sup> 0.995 ± 0.034	<sup>−</sup> 0.855 ± 0.218	<sup>−</sup> 0.910 ± 0.178	<sup>−</sup> 0.860 ± 0.218	<sup>−</sup> 0.920 ± 0.176
<i>glass-0-1-4-6-vs-2</i>	<sup>−</sup> 0.518 ± 0.062	<sup>1,4,5,6</sup> 0.712 ± 0.109	<sup>1,4,5,6</sup> 0.701 ± 0.113	<sup>1</sup> 0.746 ± 0.105	<sup>1</sup> 0.744 ± 0.110	<sup>1</sup> 0.719 ± 0.100	<sup>1</sup> 0.737 ± 0.099
<i>yeast-1-2-8-9-vs-7</i>	<sup>−</sup> 0.508 ± 0.024	<sup>1</sup> 0.644 ± 0.091	<sup>1</sup> 0.649 ± 0.088	<sup>1,5,6,7</sup> 0.647 ± 0.084	<sup>1,6,7</sup> 0.645 ± 0.087	<sup>1</sup> 0.689 ± 0.089	<sup>1,6</sup> 0.683 ± 0.085
<i>ecoli-0-1-4-6-vs-5</i>	<sup>−</sup> 0.886 ± 0.091	<sup>1</sup> 0.920 ± 0.075	<sup>1,2</sup> 0.917 ± 0.075	<sup>1</sup> 0.906 ± 0.078	<sup>1</sup> 0.903 ± 0.077	<sup>1,2,3,4,5</sup> 0.906 ± 0.079	<sup>1,2,3,4,5</sup> 0.905 ± 0.078
<i>glass-0-1-6-vs-5</i>	<sup>−</sup> 0.668 ± 0.151	<sup>3,5,7</sup> 0.883 ± 0.148	<sup>−</sup> 0.873 ± 0.150	<sup>−</sup> 0.854 ± 0.152	<sup>−</sup> 0.847 ± 0.153	<sup>−</sup> 0.860 ± 0.153	<sup>−</sup> 0.847 ± 0.154
<i>yeast-2-vs-4</i>	<sup>−</sup> 0.820 ± 0.066	<sup>1,4,5,7</sup> 0.875 ± 0.063	<sup>1,5,7</sup> 0.877 ± 0.063	<sup>1</sup> 0.840 ± 0.066	<sup>1</sup> 0.843 ± 0.067	<sup>1,5,7</sup> 0.851 ± 0.069	<sup>1</sup> 0.855 ± 0.065
<i>glass-0-6-vs-5</i>	<sup>−</sup> 0.714 ± 0.194	<sup>1,4,5,6,7</sup> 0.920 ± 0.139	<sup>1,4,5,6,7</sup> 0.920 ± 0.139	<sup>−</sup> 0.809 ± 0.182	<sup>1</sup> 0.796 ± 0.186	<sup>1</sup> 0.838 ± 0.156	<sup>1</sup> 0.816 ± 0.170
<i>ecoli-0-3-4-6-vs-5</i>	<sup>−</sup> 0.895 ± 0.094	<sup>1,4,5,6,7</sup> 0.917 ± 0.086	<sup>1,4,5,6,7</sup> 0.914 ± 0.086	<sup>1</sup> 0.899 ± 0.089	<sup>1</sup> 0.898 ± 0.090	<sup>1,5</sup> 0.894 ± 0.092	<sup>1</sup> 0.890 ± 0.091
<i>yeast-0-3-5-9-vs-7-8</i>	<sup>6,7</sup> 0.641 ± 0.058	<sup>3,4,5,6,7</sup> 0.711 ± 0.056	<sup>4,5,6,7</sup> 0.708 ± 0.053	<sup>1</sup> 0.652 ± 0.065	<sup>1</sup> 0.651 ± 0.062	<sup>−</sup> 0.659 ± 0.063	<sup>−</sup> 0.657 ± 0.059
<i>glass-0-1-5-vs-2</i>	<sup>−</sup> 0.533 ± 0.066	<sup>all</sup> 0.697 ± 0.142	<sup>1,4,5,6,7</sup> 0.682 ± 0.133	<sup>−</sup> 0.724 ± 0.124	<sup>−</sup> 0.723 ± 0.108	<sup>1</sup> 0.687 ± 0.115	<sup>−</sup> 0.715 ± 0.106
<i>ecoli-0-6-7-vs-5</i>	<sup>−</sup> 0.840 ± 0.108	<sup>1</sup> 0.871 ± 0.097	<sup>1</sup> 0.873 ± 0.100	<sup>1,3,5,6,7</sup> 0.871 ± 0.103	<sup>1,3,6,7</sup> 0.865 ± 0.100	<sup>1</sup> 0.869 ± 0.101	<sup>1,6</sup> 0.867 ± 0.106
<i>ecoli-0-2-3-4-vs-5</i>	<sup>−</sup> 0.890 ± 0.083	<sup>−</sup> 0.913 ± 0.079	<sup>4</sup> 0.910 ± 0.079	<sup>−</sup> 0.904 ± 0.079	<sup>−</sup> 0.908 ± 0.080	<sup>−</sup> 0.908 ± 0.080	<sup>−</sup> 0.908 ± 0.080
<i>ecoli4</i>	<sup>−</sup> 0.894 ± 0.100	<sup>−</sup> 0.916 ± 0.097	<sup>−</sup> 0.915 ± 0.096	<sup>−</sup> 0.931 ± 0.084	<sup>−</sup> 0.937 ± 0.081	<sup>−</sup> 0.931 ± 0.084	<sup>−</sup> 0.929 ± 0.086
<i>yeast5</i>	<sup>−</sup> 0.821 ± 0.064	<sup>−</sup> 0.937 ± 0.052	<sup>−</sup> 0.940 ± 0.046	<sup>2,3,6,7</sup> 0.933 ± 0.060	<sup>1,2,3,6,7</sup> 0.942 ± 0.051	<sup>2,3,7</sup> 0.943 ± 0.053	<sup>3</sup> 0.938 ± 0.046
<i>ecoli-0-4-6-vs-5</i>	<sup>−</sup> 0.901 ± 0.084	<sup>1</sup> 0.917 ± 0.082	<sup>1</sup> 0.915 ± 0.082	<sup>1</sup> 0.899 ± 0.081	<sup>1,7</sup> 0.904 ± 0.083	<sup>1,4</sup> 0.900 ± 0.085	<sup>1</sup> 0.903 ± 0.084
<i>led7digit-0-2-4-5-6-7-8-9-vs-1</i>	<sup>4,6</sup> 0.635 ± 0.077	<sup>4,5,6,7</sup> 0.901 ± 0.059	<sup>4,5,6,7</sup> 0.872 ± 0.087	<sup>−</sup> 0.617 ± 0.085	<sup>1</sup> 0.644 ± 0.087	<sup>−</sup> 0.883 ± 0.071	<sup>1</sup> 0.873 ± 0.101
<i>ecoli-0-1-vs-5</i>	<sup>4</sup> 0.891 ± 0.089	<sup>1,4,5</sup> 0.920 ± 0.074	<sup>1,4,5</sup> 0.918 ± 0.074	<sup>−</sup> 0.898 ± 0.082	<sup>−</sup> 0.900 ± 0.080	<sup>1,4,5</sup> 0.910 ± 0.075	<sup>1,4,5</sup> 0.912 ± 0.072
<i>ecoli-0-2-6-7-vs-3-5</i>	<sup>−</sup> 0.797 ± 0.125	<sup>−</sup> 0.859 ± 0.082	<sup>7</sup> 0.875 ± 0.077	<sup>−</sup> 0.830 ± 0.109	<sup>−</sup> 0.836 ± 0.107	<sup>1</sup> 0.840 ± 0.101	<sup>−</sup> 0.836 ± 0.102
<i>ecoli-0-1-4-7-vs-2-3-5-6</i>	<sup>−</sup> 0.833 ± 0.100	<sup>1,7</sup> 0.854 ± 0.080	<sup>1,4,5,6,7</sup> 0.857 ± 0.082	<sup>−</sup> 0.861 ± 0.081	<sup>−</sup> 0.858 ± 0.081	<sup>1</sup> 0.857 ± 0.080	<sup>−</sup> 0.858 ± 0.081
<i>shuttle-c0-vs-c4</i>	<sup>−</sup> 0.996 ± 0.008	<sup>−</sup> 0.996 ± 0.008	<sup>1</sup> 0.996 ± 0.008	<sup>2,3,6,7</sup> 0.995 ± 0.008	<sup>2,3,6,7</sup> 0.995 ± 0.008	<sup>−</sup> 0.995 ± 0.008	<sup>2</sup> 0.995 ± 0.008
<i>ecoli-0-6-7-vs-3-5</i>	<sup>−</sup> 0.792 ± 0.119	<sup>−</sup> 0.849 ± 0.095	<sup>−</sup> 0.864 ± 0.094	<sup>−</sup> 0.829 ± 0.107	<sup>−</sup> 0.831 ± 0.106	<sup>−</sup> 0.830 ± 0.105	<sup>−</sup> 0.833 ± 0.100
<i>vowel0</i>	<sup>−</sup> 0.970 ± 0.038	<sup>1</sup> 0.999 ± 0.002	<sup>1</sup> 0.999 ± 0.001	<sup>−</sup> 0.807 ± 0.066	<sup>1,6</sup> 0.867 ± 0.061	<sup>4</sup> 0.928 ± 0.053	<sup>1</sup> 0.884 ± 0.052
<i>glass4</i>	<sup>4,5,6,7</sup> 0.750 ± 0.158	<sup>1,4,5,6,7</sup> 0.909 ± 0.143	<sup>1,4,5,6,7</sup> 0.909 ± 0.143	<sup>−</sup> 0.796 ± 0.145	<sup>4</sup> 0.794 ± 0.149	<sup>4,5,7</sup> 0.799 ± 0.153	<sup>4,5</sup> 0.808 ± 0.147
<i>yeast-0-5-6-7-9-vs-4</i>	<sup>−</sup> 0.649 ± 0.074	<sup>1,4,5,6,7</sup> 0.805 ± 0.058	<sup>1,4,5,6,7</sup> 0.807 ± 0.059	<sup>−</sup> 0.791 ± 0.053	<sup>−</sup> 0.787 ± 0.051	<sup>−</sup> 0.803 ± 0.049	<sup>−</sup> 0.800 ± 0.059
<i>yeast-0-2-5-6-vs-3-7-8-9</i>	<sup>−</sup> 0.756 ± 0.042	<sup>1,4,5</sup> 0.797 ± 0.045	<sup>1,4,5</sup> 0.793 ± 0.045	<sup>1</sup> 0.767 ± 0.051	<sup>1</sup> 0.773 ± 0.056	<sup>1,4,5</sup> 0.767 ± 0.051	<sup>1</sup> 0.754 ± 0.053
<i>ecoli-0-1-vs-2-3-5</i>	<sup>−</sup> 0.833 ± 0.093	<sup>all</sup> 0.881 ± 0.093	<sup>1,4,5,6,7</sup> 0.880 ± 0.091	<sup>1,7</sup> 0.857 ± 0.090	<sup>1,6,7</sup> 0.861 ± 0.089	<sup>1,7</sup> 0.857 ± 0.094	<sup>−</sup> 0.856 ± 0.089
<i>ecoli-0-3-4-vs-5</i>	<sup>−</sup> 0.903 ± 0.105	<sup>1</sup> 0.916 ± 0.099	<sup>1</sup> 0.913 ± 0.098	<sup>1</sup> 0.911 ± 0.104	<sup>1,7</sup> 0.911 ± 0.104	<sup>−</sup> 0.908 ± 0.105	<sup>−</sup> 0.905 ± 0.110
<i>glass5</i>	<sup>−</sup> 0.648 ± 0.165	<sup>3,7</sup> 0.819 ± 0.198	<sup>−</sup> 0.824 ± 0.198	<sup>−</sup> 0.839 ± 0.180	<sup>−</sup> 0.847 ± 0.174	<sup>1</sup> 0.852 ± 0.167	<sup>1</sup> 0.842 ± 0.175
<i>yeast4</i>	<sup>−</sup> 0.555 ± 0.043	<sup>1</sup> 0.726 ± 0.075	<sup>1</sup> 0.727 ± 0.072	<sup>1</sup> 0.755 ± 0.068	<sup>1</sup> 0.753 ± 0.070	<sup>1</sup> 0.794 ± 0.075	<sup>1</sup> 0.791 ± 0.068
<i>glass-0-4-vs-5</i>	<sup>−</sup> 0.744 ± 0.204	<sup>1</sup> 0.971 ± 0.064	<sup>1,2</sup> 0.982 ± 0.045	<sup>1,2,3</sup> 0.827 ± 0.161	<sup>1,3</sup> 0.856 ± 0.159	<sup>1,2,3,4,5</sup> 0.854 ± 0.152	<sup>1,2,3,4,5</sup> 0.830 ± 0.159
<i>yeast6</i>	<sup>−</sup> 0.757 ± 0.091	<sup>1,4,5,6,7</sup> 0.821 ± 0.092	<sup>1,4,5,6,7</sup> 0.818 ± 0.097	<sup>−</sup> 0.844 ± 0.082	<sup>1</sup> 0.847 ± 0.081	<sup>1</sup> 0.860 ± 0.079	<sup>−</sup> 0.863 ± 0.074
<i>page-blocks-1-3-vs-4</i>	<sup>−</sup> 0.818 ± 0.106	<sup>1,3</sup> 0.931 ± 0.067	<sup>1</sup> 0.932 ± 0.068	<sup>1,2,3</sup> 0.749 ± 0.100	<sup>1,2,3,4</sup> 0.786 ± 0.111	<sup>1,2,3</sup> 0.820 ± 0.110	<sup>1,2,3</sup> 0.800 ± 0.109
<i>yeast-1-vs-7</i>	<sup>4</sup> 0.529 ± 0.043	<sup>1,4,5,6,7</sup> 0.665 ± 0.102	<sup>1,4,5,6,7</sup> 0.674 ± 0.097	<sup>−</sup> 0.642 ± 0.100	<sup>4</sup> 0.622 ± 0.100	<sup>4,5</sup> 0.674 ± 0.110	<sup>4,5</sup> 0.652 ± 0.102
<i>ecoli-0-1-3-7-vs-2-6</i>	<sup>−</sup> 0.850 ± 0.200	<sup>1,4,5</sup> 0.842 ± 0.198	<sup>1,4,5,7</sup> 0.844 ± 0.199	<sup>1</sup> 0.837 ± 0.206	<sup>1</sup> 0.837 ± 0.207	<sup>1,4,5</sup> 0.826 ± 0.200	<sup>1,5</sup> 0.835 ± 0.202
<i>yeast-1-4-5-8-vs-7</i>	<sup>all</sup> 0.501 ± 0.010	<sup>6,7</sup> 0.567 ± 0.075	<sup>2,4,5,6,7</sup> 0.585 ± 0.090	<sup>6</sup> 0.609 ± 0.093	<sup>6</sup> 0.602 ± 0.098	<sup>−</sup> 0.637 ± 0.102	<sup>6</sup> 0.622 ± 0.099
<i>ecoli-0-1-4-7-vs-5-6</i>	<sup>−</sup> 0.865 ± 0.098	<sup>1</sup> 0.907 ± 0.072	<sup>1</sup> 0.908 ± 0.070	<sup>1,2,5</sup> 0.897 ± 0.076	<sup>1,2</sup> 0.889 ± 0.083	<sup>1,2,3,5</sup> 0.903 ± 0.075	<sup>1,2,3</sup> 0.898 ± 0.076
<i>yeast-2-vs-8</i>	<sup>−</sup> 0.774 ± 0.114	<sup>−</sup> 0.785 ± 0.115	<sup>−</sup> 0.784 ± 0.109	<sup>−</sup> 0.773 ± 0.116	<sup>−</sup> 0.776 ± 0.111	<sup>−</sup> 0.772 ± 0.115	<sup>4</sup> 0.778 ± 0.112
<i>yeast-0-2-5-7-9-vs-3-6-8</i>	<sup>−</sup> 0.892 ± 0.042	<sup>1,3,5,7</sup> 0.900 ± 0.040	<sup>7</sup> 0.897 ± 0.039	<sup>−</sup> 0.898 ± 0.038	<sup>−</sup> 0.901 ± 0.037	<sup>−</sup> 0.895 ± 0.041	<sup>−</sup> 0.898 ± 0.038
<i>glass2</i>	<sup>−</sup> 0.547 ± 0.083	<sup>3</sup> 0.723 ± 0.136	<sup>1</sup> 0.711 ± 0.132	<sup>−</sup> 0.759 ± 0.107	<sup>−</sup> 0.755 ± 0.103	<sup>1</sup> 0.736 ± 0.092	<sup>1,3,6</sup> 0.748 ± 0.102

Table 9: Results for AUC metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>Mean rank</i>	1.634	5.329	5.207	3.524	3.890	4.354	4.061
	−	1,4,5,6,7	1,4,5,7	1	1	1	1

Table 10: Results for mean ranks according to AUC metric

Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>glass-0-1-6-vs-2</i>	0.118 ± 0.222	0.634 ± 0.187	0.609 ± 0.221	0.743 ± 0.095	0.730 ± 0.091	0.712 ± 0.091	0.727 ± 0.094
<i>ecoli-0-3-4-7-vs-5-6</i>	<sup>−</sup>	<sup>1,3</sup>	<sup>1</sup>	<sup>all</sup>	<sup>1,2,3,6</sup>	<sup>1,2,3</sup>	<sup>1,2,3,6</sup>
	0.852 ± 0.116	0.894 ± 0.079	0.894 ± 0.079	0.866 ± 0.089	0.867 ± 0.088	0.895 ± 0.086	0.879 ± 0.088
<i>shuttle-c2-vs-c4</i>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.182 ± 0.369	0.994 ± 0.041	0.994 ± 0.041	0.722 ± 0.433	0.837 ± 0.346	0.728 ± 0.435	0.848 ± 0.347
<i>glass-0-1-4-6-vs-2</i>	<sup>−</sup>	<sup>1,4,5,6</sup>	<sup>1,4,5,6</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>
	0.098 ± 0.210	0.666 ± 0.183	0.653 ± 0.184	0.736 ± 0.111	0.727 ± 0.143	0.706 ± 0.099	0.726 ± 0.100
<i>yeast-1-2-8-9-vs-7</i>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1,3,5,6,7</sup>	<sup>1,3,6,7</sup>	<sup>1</sup>	<sup>1,3,6</sup>
	0.041 ± 0.122	0.528 ± 0.199	0.544 ± 0.186	0.587 ± 0.148	0.571 ± 0.183	0.663 ± 0.117	0.652 ± 0.114
<i>ecoli-0-1-4-6-vs-5</i>	<sup>−</sup>	<sup>1</sup>	<sup>1,2</sup>	<sup>1,2</sup>	<sup>1</sup>	<sup>1,2,3,4,5</sup>	<sup>1,2,3,4,5</sup>
	0.873 ± 0.105	0.913 ± 0.083	0.911 ± 0.083	0.898 ± 0.088	0.894 ± 0.088	0.898 ± 0.089	0.897 ± 0.089
<i>glass-0-1-6-vs-5</i>	<sup>−</sup>	<sup>3,5,7</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.459 ± 0.368	0.844 ± 0.247	0.833 ± 0.247	0.812 ± 0.245	0.805 ± 0.244	0.820 ± 0.246	0.805 ± 0.245
<i>yeast-2-vs-4</i>	<sup>−</sup>	<sup>1,5,7</sup>	<sup>1,7</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1,5,7</sup>	<sup>1</sup>
	0.797 ± 0.083	0.867 ± 0.072	0.870 ± 0.071	0.823 ± 0.079	0.827 ± 0.081	0.837 ± 0.082	0.842 ± 0.076
<i>glass-0-6-vs-5</i>	<sup>−</sup>	<sup>1,4,5,6,7</sup>	<sup>1,4,5,6,7</sup>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>
	0.521 ± 0.407	0.885 ± 0.244	0.885 ± 0.244	0.715 ± 0.338	0.693 ± 0.350	0.781 ± 0.267	0.741 ± 0.305
<i>ecoli-0-3-4-6-vs-5</i>	<sup>−</sup>	<sup>1,4,5,6,7</sup>	<sup>1,4,5,6,7</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1,5</sup>	<sup>1</sup>
	0.883 ± 0.108	0.910 ± 0.098	0.907 ± 0.098	0.891 ± 0.099	0.891 ± 0.099	0.886 ± 0.102	0.882 ± 0.101
<i>yeast-0-3-5-9-vs-7-8</i>	<sup>7</sup>	<sup>3,4,5,6,7</sup>	<sup>4,5,6,7</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>−</sup>
	0.533 ± 0.123	0.688 ± 0.071	0.687 ± 0.068	0.556 ± 0.134	0.557 ± 0.126	0.581 ± 0.128	0.571 ± 0.122
<i>glass-0-1-5-vs-2</i>	<sup>−</sup>	<sup>all</sup>	<sup>1,4,5,6,7</sup>	<sup>−</sup>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>
	0.161 ± 0.246	0.643 ± 0.221	0.626 ± 0.213	0.703 ± 0.157	0.703 ± 0.139	0.659 ± 0.140	0.691 ± 0.137
<i>ecoli-0-6-7-vs-5</i>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1,3,5,6,7</sup>	<sup>1,3,6,7</sup>	<sup>1</sup>	<sup>1,3,6</sup>
	0.814 ± 0.139	0.858 ± 0.115	0.861 ± 0.118	0.856 ± 0.122	0.850 ± 0.119	0.856 ± 0.119	0.853 ± 0.124
<i>ecoli-0-2-3-4-vs-5</i>	<sup>−</sup>	<sup>4</sup>	<sup>4</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.878 ± 0.100	0.906 ± 0.088	0.904 ± 0.088	0.897 ± 0.087	0.901 ± 0.089	0.901 ± 0.089	0.901 ± 0.088
<i>ecoli4</i>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.879 ± 0.124	0.906 ± 0.116	0.905 ± 0.116	0.924 ± 0.095	0.932 ± 0.091	0.924 ± 0.095	0.922 ± 0.098
<i>yeast5</i>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>2,3,7</sup>	<sup>1,2,3,6,7</sup>	<sup>2,3,4,7</sup>	<sup>3</sup>
	0.798 ± 0.083	0.935 ± 0.056	0.938 ± 0.049	0.929 ± 0.066	0.940 ± 0.055	0.940 ± 0.058	0.936 ± 0.049
<i>ecoli-0-4-6-vs-5</i>	<sup>−</sup>	<sup>1</sup>	<sup>1,7</sup>	<sup>1</sup>	<sup>1,7</sup>	<sup>1,4</sup>	<sup>1</sup>
	0.892 ± 0.095	0.910 ± 0.091	0.908 ± 0.091	0.893 ± 0.089	0.897 ± 0.091	0.893 ± 0.094	0.897 ± 0.091
<i>led7digit-0-2-4-5-6-7-8-9-vs-1</i>	<sup>−</sup>	<sup>4,5,6,7</sup>	<sup>4,5,6,7</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>
	0.494 ± 0.179	0.898 ± 0.063	0.863 ± 0.103	0.453 ± 0.210	0.529 ± 0.176	0.875 ± 0.087	0.858 ± 0.133
<i>ecoli-0-1-vs-5</i>	<sup>4</sup>	<sup>1,4,5</sup>	<sup>1,4,5</sup>	<sup>−</sup>	<sup>4</sup>	<sup>1,4,5</sup>	<sup>1,4,5</sup>
	0.879 ± 0.104	0.913 ± 0.083	0.912 ± 0.083	0.888 ± 0.094	0.891 ± 0.091	0.902 ± 0.085	0.905 ± 0.081
<i>ecoli-0-2-6-7-vs-3-5</i>	<sup>−</sup>	<sup>−</sup>	<sup>7</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.747 ± 0.192	0.847 ± 0.096	0.866 ± 0.087	0.806 ± 0.136	0.814 ± 0.134	0.823 ± 0.122	0.819 ± 0.122
<i>ecoli-0-1-4-7-vs-2-3-5-6</i>	<sup>−</sup>	<sup>1</sup>	<sup>1,4,5,6,7</sup>	<sup>−</sup>	<sup>−</sup>	<sup>1</sup>	<sup>−</sup>
	0.805 ± 0.133	0.841 ± 0.096	0.844 ± 0.098	0.845 ± 0.099	0.842 ± 0.099	0.842 ± 0.098	0.843 ± 0.097
<i>shuttle-c0-vs-c4</i>	<sup>−</sup>	<sup>−</sup>	<sup>1,5</sup>	<sup>2,3,6,7</sup>	<sup>2,6</sup>	<sup>2</sup>	<sup>2,5</sup>
	0.996 ± 0.008	0.996 ± 0.008	0.996 ± 0.008	0.995 ± 0.008	0.995 ± 0.008	0.995 ± 0.008	0.995 ± 0.008
<i>ecoli-0-6-7-vs-3-5</i>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.750 ± 0.159	0.834 ± 0.114	0.851 ± 0.108	0.805 ± 0.131	0.808 ± 0.131	0.808 ± 0.129	0.813 ± 0.121
<i>vowel0</i>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>−</sup>	<sup>1</sup>	<sup>4,5</sup>	<sup>1</sup>
	0.969 ± 0.041	0.999 ± 0.002	0.999 ± 0.001	0.781 ± 0.088	0.855 ± 0.073	0.924 ± 0.057	0.875 ± 0.061
<i>glass4</i>	<sup>4,5,6,7</sup>	<sup>1,4,5,6,7</sup>	<sup>1,4,5,6,7</sup>	<sup>−</sup>	<sup>4</sup>	<sup>4,5,7</sup>	<sup>4,5</sup>
	0.641 ± 0.310	0.875 ± 0.244	0.875 ± 0.243	0.746 ± 0.234	0.736 ± 0.254	0.748 ± 0.242	0.760 ± 0.238
<i>yeast-0-5-6-7-9-vs-4</i>	<sup>−</sup>	<sup>1,4,5,6,7</sup>	<sup>1,4,5,6,7</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.532 ± 0.164	0.793 ± 0.069	0.796 ± 0.071	0.776 ± 0.066	0.774 ± 0.061	0.798 ± 0.055	0.791 ± 0.068
<i>yeast-0-2-5-6-vs-3-7-8-9</i>	<sup>−</sup>	<sup>1,4,5</sup>	<sup>1,4,5</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1,4,5</sup>	<sup>1,5</sup>
	0.719 ± 0.058	0.785 ± 0.053	0.782 ± 0.053	0.735 ± 0.070	0.744 ± 0.075	0.738 ± 0.068	0.717 ± 0.072
<i>ecoli-0-1-vs-2-3-5</i>	<sup>−</sup>	<sup>all</sup>	<sup>1,4,5,6,7</sup>	<sup>1,7</sup>	<sup>1,7</sup>	<sup>1,7</sup>	<sup>−</sup>
	0.807 ± 0.125	0.869 ± 0.111	0.868 ± 0.108	0.839 ± 0.110	0.844 ± 0.108	0.839 ± 0.113	0.840 ± 0.108
<i>ecoli-0-3-4-vs-5</i>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1,7</sup>	<sup>−</sup>	<sup>−</sup>
	0.888 ± 0.132	0.905 ± 0.121	0.903 ± 0.121	0.900 ± 0.126	0.900 ± 0.126	0.897 ± 0.126	0.893 ± 0.135
<i>glass5</i>	<sup>−</sup>	<sup>3</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>
	0.394 ± 0.387	0.712 ± 0.376	0.718 ± 0.377	0.764 ± 0.329	0.782 ± 0.311	0.796 ± 0.291	0.777 ± 0.311
<i>yeast4</i>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>
	0.288 ± 0.183	0.677 ± 0.113	0.679 ± 0.109	0.723 ± 0.092	0.720 ± 0.096	0.777 ± 0.094	0.775 ± 0.085
<i>glass-0-4-vs-5</i>	<sup>−</sup>	<sup>1</sup>	<sup>1,2</sup>	<sup>1,2,3</sup>	<sup>1,2,3</sup>	<sup>1,2,3,4,5</sup>	<sup>1,2,3,4,5</sup>
	0.560 ± 0.419	0.969 ± 0.072	0.981 ± 0.048	0.764 ± 0.287	0.807 ± 0.269	0.803 ± 0.267	0.777 ± 0.265
<i>yeast6</i>	<sup>−</sup>	<sup>1,4,5,6,7</sup>	<sup>1,4,5,6,7</sup>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>
	0.707 ± 0.136	0.797 ± 0.122	0.792 ± 0.129	0.827 ± 0.101	0.832 ± 0.099	0.848 ± 0.095	0.853 ± 0.088
<i>page-blocks-1-3-vs-4</i>	<sup>−</sup>	<sup>1,3</sup>	<sup>1</sup>	<sup>1,2,3</sup>	<sup>1,2,3,4</sup>	<sup>1,2,3</sup>	<sup>1,2,3</sup>
	0.789 ± 0.138	0.928 ± 0.073	0.928 ± 0.076	0.691 ± 0.185	0.742 ± 0.171	0.786 ± 0.171	0.765 ± 0.143
<i>yeast-1-vs-7</i>	<sup>4</sup>	<sup>1,4,5,6,7</sup>	<sup>1,4,5,6,7</sup>	<sup>−</sup>	<sup>4</sup>	<sup>4,5</sup>	<sup>4,5</sup>
	0.142 ± 0.199	0.581 ± 0.197	0.610 ± 0.161	0.603 ± 0.136	0.558 ± 0.158	0.651 ± 0.135	0.618 ± 0.152
<i>ecoli-0-1-3-7-vs-2-6</i>	<sup>−</sup>	<sup>1</sup>	<sup>1,5</sup>	<sup>1,5</sup>	<sup>1</sup>	<sup>1,2,4,5</sup>	<sup>1,5</sup>
	0.741 ± 0.387	0.735 ± 0.383	0.737 ± 0.385	0.734 ± 0.384	0.735 ± 0.384	0.724 ± 0.377	0.731 ± 0.381
<i>yeast-1-4-5-8-vs-7</i>	<sup>all</sup>	<sup>6</sup>	<sup>2,6,7</sup>	<sup>6</sup>	<sup>6</sup>	<sup>−</sup>	<sup>6</sup>
	0.008 ± 0.056	0.376 ± 0.212	0.419 ± 0.228	0.559 ± 0.159	0.543 ± 0.180	0.603 ± 0.162	0.588 ± 0.147
<i>ecoli-0-1-4-7-vs-5-6</i>	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1,2,3,5</sup>	<sup>1,2,3</sup>	<sup>1,2,3,5</sup>	<sup>1,2,3</sup>
	0.844 ± 0.132	0.900 ± 0.080	0.901 ± 0.077	0.888 ± 0.085	0.878 ± 0.094	0.895 ± 0.083	0.890 ± 0.085
<i>yeast-2-vs-8</i>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>4</sup>
	0.718 ± 0.181	0.740 ± 0.178	0.747 ± 0.147	0.718 ± 0.181	0.728 ± 0.154	0.717 ± 0.180	0.731 ± 0.155
<i>yeast-0-2-5-7-9-vs-3-6-8</i>	<sup>−</sup>	<sup>1,4,5,7</sup>	<sup>2,7</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.885 ± 0.047	0.897 ± 0.044	0.894 ± 0.043	0.893 ± 0.043	0.897 ± 0.041	0.890 ± 0.046	0.893 ± 0.042
<i>glass2</i>	<sup>−</sup>	<sup>1,3</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>	<sup>−</sup>
	0.201 ± 0.271	0.668 ± 0.222	0.655 ± 0.216	0.752 ± 0.109	0.747 ± 0.105	0.726 ± 0.089	0.740 ± 0.103
	<sup>−</sup>	<sup>1</sup>	<sup>1</sup>	<sup>all</sup>	<sup>1,2,3,6,7</sup>	<sup>1,3</sup>	<sup>1,2,3,6</sup>

Table 11: Results for GMEAN metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
<i>Mean rank</i>	1.573	5.183	5.256	3.512	3.866	4.500	4.110
	−	1,4,5,7	1,4,5,7	1	1	1,4	1

Table 12: Results for mean ranks according to GMEAN metric