Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.750 ± 0.158 [—]	0.904 ± 0.142 [1,4,5,6,7]	0.905 ± 0.142 [1,4,5,6,7]	0.779 ± 0.148 [6]	0.843 ± 0.163 [1,6]	0.772 ± 0.147 [—]	0.854 ± 0.163 [1,4,6]
ecoli-0-2-3-4-vs-5	0.890 ± 0.083 [—]	0.910 ± 0.078 [—]	0.908 ± 0.078 [—]	0.908 ± 0.079 [6]	0.907 ± 0.078 [—]	0.904 ± 0.082 [—]	0.909 ± 0.080 [4]
glass-0-1-6-vs-2	0.522 ± 0.062 [—]	0.676 ± 0.132 [—]	0.643 ± 0.124 [—]	0.712 ± 0.136 [3]	0.739 ± 0.101 [—]	0.739 ± 0.121 [—]	0.750 ± 0.105 [4]
ecoli-0-1-vs-5	0.891 ± 0.089 [—]	0.918 ± 0.074 [1,3]	0.916 ± 0.073 [1]	0.906 ± 0.078 [1,3]	0.914 ± 0.077 [1,2,3]	0.910 ± 0.080 [1,2,3]	0.918 ± 0.074 [1,2,3,5]
yeast-1-4-5-8-vs-7	0.501 ± 0.010 [—]	0.547 ± 0.075 [1]	0.553 ± 0.077 [4,5,6]	0.556 ± 0.081 [—]	0.593 ± 0.081 [—]	0.583 ± 0.091 [—]	0.614 ± 0.086 [3]
ecoli4	0.894 ± 0.100 [—]	0.918 ± 0.094 [1]	0.917 ± 0.094 [1]	0.925 ± 0.090 [1]	0.933 ± 0.086 [1,2,3,4]	0.925 ± 0.097 [1,2,3,4]	0.931 ± 0.086 [1,2,3,4]
led7digit-0-2-4-5-6-7-8-9-vs-1	0.635 ± 0.077 [—]	0.899 ± 0.066 [2,3,6]	0.857 ± 0.121 [—]	0.585 ± 0.091 [—]	0.657 ± 0.088 [2,3,4,7]	0.842 ± 0.102 [2,3]	0.837 ± 0.142 [2,3,4,6]
glass5	0.648 ± 0.165 [4]	0.823 ± 0.196 [1,3,4,5,6]	0.823 ± 0.203 [1,4,5]	0.824 ± 0.187 [1,6]	0.870 ± 0.172 [1,4]	0.787 ± 0.192 [1,4,5]	0.871 ± 0.173 [1,4,5]
ecoli-0-3-4-6-vs-5	0.895 ± 0.094 [—]	0.908 ± 0.089 [1,6]	0.906 ± 0.089 [1,6]	0.893 ± 0.087 [—]	0.901 ± 0.093 [1]	0.891 ± 0.094 [1]	0.898 ± 0.093 [1]
yeast-0-5-6-7-9-vs-4	0.649 ± 0.074 [4,6]	0.793 ± 0.065 [1]	0.797 ± 0.061 [1]	0.764 ± 0.062 [—]	0.795 ± 0.053 [1]	0.774 ± 0.066 [—]	0.803 ± 0.055 [1]
yeast6	0.757 ± 0.091 [—]	0.821 ± 0.087 [1,4,6]	0.818 ± 0.083 [1,4,6]	0.821 ± 0.083 [1]	0.835 ± 0.086 [1,4,6]	0.835 ± 0.084 [1]	0.843 ± 0.079 [1,4,6]
ecoli-0-6-7-vs-5	0.840 ± 0.108 [—]	0.876 ± 0.101 [1,3]	0.865 ± 0.100 [1]	0.865 ± 0.098 [1,3]	0.869 ± 0.105 [1,2,3]	0.868 ± 0.096 [1,3]	0.867 ± 0.104 [1,3]
glass-0-1-6-vs-5	0.668 ± 0.151 [—]	0.868 ± 0.157 [3]	0.853 ± 0.165 [—]	0.794 ± 0.175 [—]	0.898 ± 0.145 [3,4,6,7]	0.795 ± 0.175 [3,7]	0.897 ± 0.145 [3,4]
ecoli-0-1-3-7-vs-2-6	0.850 ± 0.200 [—]	0.841 ± 0.197 [1]	0.843 ± 0.198 [1]	0.849 ± 0.200 [1]	0.840 ± 0.205 [1,4]	0.844 ± 0.203 [1]	0.837 ± 0.202 [1]
yeast-0-2-5-6-vs-3-7-8-9	0.756 ± 0.042 [2,3,5,6,7]	0.790 ± 0.041 [7]	0.788 ± 0.042 [7]	0.759 ± 0.052 [2,3,5,6,7]	0.789 ± 0.047 [—]	0.751 ± 0.054 [7]	0.782 ± 0.049 [—]
ecoli-0-1-4-7-vs-5-6	0.865 ± 0.098 [—]	0.894 ± 0.085 [1,4,6]	0.894 ± 0.076 [1,4,6]	0.888 ± 0.081 [—]	0.900 ± 0.076 [1,4,6]	0.892 ± 0.077 [—]	0.899 ± 0.078 [1,4,6]
yeast5	0.821 ± 0.064 [—]	0.929 ± 0.052 [—]	0.929 ± 0.048 [—]	0.906 ± 0.064 [—]	0.938 ± 0.052 [2,3,6,7]	0.910 ± 0.061 [4]	0.930 ± 0.053 [2,3]
shuttle-c2-vs-c4	0.585 ± 0.177 [—]	0.995 ± 0.034 [1,6]	0.995 ± 0.034 [1,6]	0.715 ± 0.229 [1]	0.950 ± 0.141 [1,4,6]	0.725 ± 0.230 [1,4]	0.950 ± 0.141 [1,4,6]
ecoli-0-1-4-7-vs-2-3-5-6	0.833 ± 0.100 [—]	0.852 ± 0.077 [1,4,6]	0.857 ± 0.076 [1,4,6]	0.855 ± 0.082 [1]	0.858 ± 0.082 [1,4,6]	0.856 ± 0.083 [1]	0.857 ± 0.078 [1,4,6]
yeast-0-3-5-9-vs-7-8	0.641 ± 0.058 [—]	0.707 ± 0.064 [1,4,5,6,7]	0.697 ± 0.070 [1]	0.629 ± 0.053 [2]	0.659 ± 0.062 [2,3,4,7]	0.641 ± 0.051 [2]	0.666 ± 0.065 [2,3,4]
yeast-1-vs-7	0.529 ± 0.043 [—]	0.631 ± 0.098 [all]	0.634 ± 0.099 [1,4,5,6,7]	0.620 ± 0.087 [—]	0.632 ± 0.101 [1,4,6]	0.642 ± 0.092 [—]	0.652 ± 0.101 [1,4,6]
yeast-1-2-8-9-vs-7	0.508 ± 0.024 [—]	0.623 ± 0.085 [1]	0.634 ± 0.088 [1,2]	0.574 ± 0.075 [1]	0.643 ± 0.092 [1]	0.610 ± 0.093 [1,4]	0.676 ± 0.083 [1,4]
ecoli-0-1-4-6-vs-5	0.886 ± 0.091 [—]	0.914 ± 0.073 [1,4]	0.913 ± 0.077 [1,4]	0.899 ± 0.087 [1]	0.909 ± 0.075 [1,4,6]	0.898 ± 0.088 [1,4]	0.909 ± 0.075 [1,2,3,4,6]
glass-0-1-5-vs-2	0.533 ± 0.066 [—]	0.670 ± 0.135 [—]	0.658 ± 0.131 [—]	0.708 ± 0.138 [—]	0.739 ± 0.108 [—]	0.715 ± 0.119 [—]	0.733 ± 0.111 [—]
yeast-2-vs-4	0.820 ± 0.066 [—]	0.873 ± 0.061 [1,3]	0.873 ± 0.062 [1]	0.835 ± 0.063 [1,2,3]	0.852 ± 0.064 [1,2,3]	0.844 ± 0.066 [1,2,3]	0.856 ± 0.065 [1,2,3]
glass-0-6-vs-5	0.714 ± 0.194 [—]	0.950 ± 0.086 [1,4,5,6,7]	0.945 ± 0.103 [1,4,6]	0.767 ± 0.183 [—]	0.900 ± 0.133 [1,4,6]	0.791 ± 0.169 [—]	0.905 ± 0.131 [1,4]
glass2	0.547 ± 0.083 [—]	0.707 ± 0.129 [1,4,5,6]	0.712 ± 0.116 [1,4,6]	0.735 ± 0.129 [—]	0.760 ± 0.118 [1,4,6]	0.735 ± 0.126 [—]	0.748 ± 0.119 [1,4,6]
yeast-2-vs-8	0.774 ± 0.114 [—]	0.774 ± 0.106 [1]	0.786 ± 0.105 [1]	0.773 ± 0.115 [1]	0.771 ± 0.116 [1,2,3,6]	0.773 ± 0.115 [1,2,3]	0.772 ± 0.114 [1,2,3]
vowel0	0.970 ± 0.038 [2,5,7]	0.990 ± 0.026 [4,5,6,7]	0.991 ± 0.026 [—]	0.836 ± 0.060 [5,7]	0.948 ± 0.058 [—]	0.914 ± 0.061 [5,7]	0.952 ± 0.054 [—]
glass-0-4-vs-5	0.744 ± 0.204 [4,5,6,7]	0.956 ± 0.096 [1,4,5,6,7]	0.959 ± 0.091 [1,4,5,6,7]	0.835 ± 0.164 [—]	0.957 ± 0.075 [4,6]	0.842 ± 0.177 [4]	0.941 ± 0.088 [4,5,6]
glass-0-1-4-6-vs-2	0.518 ± 0.062 [—]	0.700 ± 0.131 [1,4,6,7]	0.691 ± 0.140 [1,4,6,7]	0.697 ± 0.133 [—]	0.739 ± 0.125 [1,4,6]	0.723 ± 0.113 [—]	0.728 ± 0.128 [1,4]
yeast4	0.555 ± 0.043 [—]	0.717 ± 0.076 [1]	0.718 ± 0.080 [1]	0.716 ± 0.060 [1]	0.740 ± 0.069 [1,3]	0.736 ± 0.075 [1]	0.770 ± 0.065 [1]
ecoli-0-4-6-vs-5	0.901 ± 0.084 [—]	0.916 ± 0.081 [1]	0.912 ± 0.082 [1,2]	0.907 ± 0.079 [1]	0.907 ± 0.082 [1,2,4]	0.908 ± 0.080 [1]	0.908 ± 0.083 [all]
page-blocks-1-3-vs-4	0.818 ± 0.106 [—]	0.912 ± 0.091 [3,4,5,6,7]	0.903 ± 0.094 [—]	0.771 ± 0.106 [1]	0.837 ± 0.086 [1]	0.806 ± 0.111 [1,5]	0.838 ± 0.091 [1]
yeast-0-2-5-7-9-vs-3-6-8	0.892 ± 0.042 [4]	0.896 ± 0.038 [1,4,5,6,7]	0.895 ± 0.039 [1,4,5,6,7]	0.898 ± 0.041 [—]	0.902 ± 0.041 [4,6]	0.894 ± 0.041 [4]	0.899 ± 0.040 [1,4,5,6]
ecoli-0-1-vs-2-3-5	0.833 ± 0.093 [—]	0.877 ± 0.089 [3]	0.873 ± 0.090 [—]	0.850 ± 0.092 [6]	0.857 ± 0.089 [1]	0.855 ± 0.089 [1]	0.853 ± 0.087 [—]
ecoli-0-6-7-vs-3-5	0.792 ± 0.119 [—]	0.863 ± 0.099 [1]	0.866 ± 0.095 [1]	0.827 ± 0.104 [1]	0.830 ± 0.108 [7]	0.835 ± 0.098 [1,7]	0.837 ± 0.100 [—]
ecoli-0-3-4-7-vs-5-6	0.869 ± 0.097 [—]	0.893 ± 0.075 [1]	0.893 ± 0.076 [1]	0.874 ± 0.082 [—]	0.898 ± 0.078 [—]	0.893 ± 0.073 [—]	0.903 ± 0.078 [—]
ecoli-0-2-6-7-vs-3-5	0.797 ± 0.125 [—]	0.859 ± 0.091 [—]	0.862 ± 0.081 [—]	0.832 ± 0.102 [—]	0.829 ± 0.101 [2,3,6]	0.847 ± 0.088 [—]	0.839 ± 0.096 [2,3,4,6]
shuttle-c0-vs-c4	0.996 ± 0.008 [—]	0.996 ± 0.008 [1,5]	0.996 ± 0.008 [1,5]	0.996 ± 0.008 [5]	0.996 ± 0.008 [—]	0.996 ± 0.008 [1,5,7]	0.996 ± 0.008 [—]
ecoli-0-3-4-vs-5	0.903 ± 0.105 [—]	0.912 ± 0.099 [—]	0.910 ± 0.099 [—]	0.911 ± 0.104 [—]	0.914 ± 0.103 [—]	0.909 ± 0.101 [—]	0.909 ± 0.106 [—]

Table 1: Results for BAC metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	1.659 [—]	5.012 [1,4,6]	4.841 [1,4,6]	2.780 [1]	5.024 [1,4,6]	3.415 [1,4]	5.268 [1,4,6]

Table 2: Results for mean ranks according to BAC metric

Table 3: Results for F1 metric

Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.572 ± 0.309 [4,6]	0.660 ± 0.240 [4,5,6,7]	0.671 ± 0.240 [4,5,6,7]	0.535 ± 0.244 [6]	0.580 ± 0.251 [6]	0.517 ± 0.247	0.593 ± 0.253 [6]
ecoli-0-2-3-4-vs-5	0.852 ± 0.121 [2,3,5,7]	0.806 ± 0.127	0.793 ± 0.130	0.835 ± 0.132 [3,7]	0.815 ± 0.124	0.823 ± 0.133 [3]	0.810 ± 0.130
glass-0-1-6-vs-2	0.088 ± 0.169	0.321 ± 0.161 [1,3]	0.277 ± 0.144 [1]	0.336 ± 0.135 [1,3]	0.326 ± 0.093 [1]	0.332 ± 0.106 [1,3]	0.337 ± 0.095 [1,3,5]
ecoli-0-1-vs-5	0.855 ± 0.117	0.847 ± 0.105 [3]	0.827 ± 0.105	0.875 ± 0.105 [3]	0.868 ± 0.110 [3]	0.876 ± 0.108 [2,3]	0.870 ± 0.106 [3]
yeast-1-4-5-8-vs-7	0.004 ± 0.031	0.113 ± 0.102 [1]	0.121 ± 0.100 [1]	0.121 ± 0.100 [1]	0.144 ± 0.064 [1,2,3]	0.142 ± 0.087 [1,2]	0.154 ± 0.065 [1,2,3,4]
ecoli4	0.853 ± 0.143 [2,3]	0.773 ± 0.144	0.759 ± 0.144	0.874 ± 0.129 [2,3,5,6,7]	0.838 ± 0.131 [2,3,7]	0.844 ± 0.148 [2,3,7]	0.819 ± 0.132 [2,3]
led7digit-0-2-4-5-6-7-8-9-vs-1	0.388 ± 0.185 [4]	0.675 ± 0.087 [1,4,5]	0.619 ± 0.170 [1,4,5]	0.249 ± 0.219	0.397 ± 0.178 [4]	0.679 ± 0.137 [1,3,4,5]	0.624 ± 0.202 [1,4,5]
glass5	0.325 ± 0.332	0.524 ± 0.308 [1,6]	0.527 ± 0.325 [1,6]	0.519 ± 0.294 [1,6]	0.500 ± 0.229 [1]	0.468 ± 0.293	0.515 ± 0.237 [1]
ecoli-0-3-4-6-vs-5	0.853 ± 0.140 [all]	0.798 ± 0.136	0.786 ± 0.132	0.784 ± 0.151	0.781 ± 0.157	0.783 ± 0.162	0.777 ± 0.159
yeast-0-5-6-7-9-vs-4	0.405 ± 0.157	0.552 ± 0.090 [1,6]	0.545 ± 0.081 [1,6]	0.561 ± 0.098 [1,6]	0.559 ± 0.080 [1,6,7]	0.523 ± 0.090 [1]	0.535 ± 0.081 [1]
yeast6	0.553 ± 0.158 [2,3,5,6,7]	0.486 ± 0.116 [3]	0.474 ± 0.115	0.545 ± 0.126 [2,3,5,6,7]	0.512 ± 0.118 [2,3,7]	0.496 ± 0.103 [7]	0.472 ± 0.110
ecoli-0-6-7-vs-5	0.774 ± 0.170 [2,3,7]	0.717 ± 0.163 [3]	0.677 ± 0.159	0.782 ± 0.161 [2,3,5,7]	0.755 ± 0.172 [2,3,7]	0.777 ± 0.153 [2,3,5,7]	0.740 ± 0.166 [3]
glass-0-1-6-vs-5	0.332 ± 0.282	0.585 ± 0.253 [1,4]	0.564 ± 0.263 [1]	0.496 ± 0.285 [1]	0.589 ± 0.237 [1,4]	0.498 ± 0.279 [1]	0.587 ± 0.236 [1,4]
ecoli-0-1-3-7-vs-2-6	0.727 ± 0.386 [2,3,5,7]	0.549 ± 0.336	0.580 ± 0.348	0.713 ± 0.383 [2,3,5,7]	0.617 ± 0.368 [2,3]	0.675 ± 0.369 [2,3,7]	0.544 ± 0.335
yeast-0-2-5-6-vs-3-7-8-9	0.626 ± 0.075 [2,3,6]	0.557 ± 0.058	0.540 ± 0.057	0.618 ± 0.091 [2,3]	0.623 ± 0.079 [2,3]	0.607 ± 0.094 [2,3]	0.623 ± 0.085 [2,3]
ecoli-0-1-4-7-vs-5-6	0.812 ± 0.160 [2,3]	0.758 ± 0.136	0.746 ± 0.121	0.827 ± 0.108 [2,3,6]	0.832 ± 0.117 [2,3,6,7]	0.799 ± 0.108 [2,3]	0.813 ± 0.122 [2,3]
yeast5	0.706 ± 0.114 [6]	0.701 ± 0.083 [6]	0.695 ± 0.085	0.708 ± 0.090 [6,7]	0.700 ± 0.084	0.685 ± 0.088	0.692 ± 0.089
shuttle-c2-vs-c4	0.180 ± 0.366	0.993 ± 0.046 [1,4,6]	0.993 ± 0.046 [1,4,6]	0.453 ± 0.465 [1]	0.907 ± 0.275 [1,4,6]	0.473 ± 0.467 [1]	0.907 ± 0.275 [1,4,6]
ecoli-0-1-4-7-vs-2-3-5-6	0.773 ± 0.159 [2,3]	0.690 ± 0.110	0.681 ± 0.109	0.800 ± 0.117 [2,3,5,6,7]	0.769 ± 0.118 [2,3,7]	0.781 ± 0.116 [2,3]	0.752 ± 0.115 [2,3]
yeast-0-3-5-9-vs-7-8	0.397 ± 0.126	0.411 ± 0.091 [3,4]	0.389 ± 0.095	0.370 ± 0.121	0.396 ± 0.114 [4]	0.387 ± 0.109	0.397 ± 0.113
yeast-1-vs-7	0.101 ± 0.143	0.277 ± 0.146 [1,3,5,6]	0.271 ± 0.139 [1,5,6]	0.254 ± 0.126 [1]	0.243 ± 0.115 [1]	0.238 ± 0.097 [1]	0.247 ± 0.098 [1]
yeast-1-2-8-9-vs-7	0.026 ± 0.079	0.225 ± 0.133 [1,4,5,6]	0.235 ± 0.129 [1,4,5,6,7]	0.153 ± 0.124 [1]	0.186 ± 0.109 [1,6]	0.147 ± 0.087 [1]	0.199 ± 0.072 [1,4,6]
ecoli-0-1-4-6-vs-5	0.845 ± 0.127 [3]	0.820 ± 0.102	0.806 ± 0.108	0.846 ± 0.122 [3]	0.838 ± 0.101 [3]	0.838 ± 0.130 [3]	0.838 ± 0.101 [3]
glass-0-1-5-vs-2	0.113 ± 0.179	0.326 ± 0.160 [1,3]	0.309 ± 0.156 [1]	0.343 ± 0.138 [1]	0.339 ± 0.096 [1]	0.324 ± 0.101 [1]	0.338 ± 0.098 [1]
yeast-2-vs-4	0.752 ± 0.104	0.763 ± 0.089 [1,3]	0.754 ± 0.094 [1]	0.760 ± 0.094 [1]	0.769 ± 0.096 [1]	0.765 ± 0.099 [1]	0.762 ± 0.096 [1]
glass-0-6-vs-5	0.490 ± 0.393	0.837 ± 0.179 [1,4,5,6]	0.823 ± 0.213 [1,4,6]	0.610 ± 0.345 [1]	0.777 ± 0.234 [1,4,6]	0.641 ± 0.298 [1]	0.783 ± 0.230 [1,4,6]
glass2	0.152 ± 0.209	0.364 ± 0.161 [1,6,7]	0.365 ± 0.147 [1,5,6,7]	0.352 ± 0.134 [1,6]	0.341 ± 0.114 [1,6]	0.313 ± 0.108 [1]	0.328 ± 0.106 [1]
yeast-2-vs-8	0.661 ± 0.209 [2,3,5,7]	0.493 ± 0.144	0.486 ± 0.137	0.661 ± 0.209 [2,3,5,7]	0.632 ± 0.199 [2,3]	0.661 ± 0.209 [2,3,5,7]	0.616 ± 0.201 [2,3]
vowel0	0.963 ± 0.046 [4,5,6,7]	0.974 ± 0.040 [1,4,5,6,7]	0.981 ± 0.032 [1,4,5,6,7]	0.764 ± 0.093	0.901 ± 0.076 [4,6]	0.859 ± 0.082 [4]	0.918 ± 0.071 [4,5,6]
glass-0-4-vs-5	0.547 ± 0.415	0.861 ± 0.193 [1,4,6,7]	0.857 ± 0.198 [1,4,6,7]	0.693 ± 0.287	0.841 ± 0.193 [1,4,6]	0.676 ± 0.319	0.816 ± 0.193 [1,4]
glass-0-1-4-6-vs-2	0.074 ± 0.165	0.347 ± 0.161 [1,4,6,7]	0.333 ± 0.175 [1,4,6,7]	0.318 ± 0.141	0.324 ± 0.111 [1,4,6]	0.318 ± 0.109	0.323 ± 0.119 [1,4]
yeast4	0.170 ± 0.122	0.387 ± 0.114 [1,6]	0.373 ± 0.111 [1]	0.420 ± 0.106 [1,2,3,6,7]	0.411 ± 0.101 [1,3,6,7]	0.381 ± 0.101 [1]	0.385 ± 0.085 [1]
ecoli-0-4-6-vs-5	0.860 ± 0.134 [3,4,5,6,7]	0.846 ± 0.135 [3,4,5,6,7]	0.816 ± 0.140	0.808 ± 0.127	0.800 ± 0.140	0.816 ± 0.129 [5]	0.805 ± 0.145
page-blocks-1-3-vs-4	0.648 ± 0.152	0.676 ± 0.134 [4,6]	0.681 ± 0.132 [4,6]	0.585 ± 0.176	0.651 ± 0.136 [4]	0.616 ± 0.174	0.694 ± 0.152 [1,4,5,6]
yeast-0-2-5-7-9-vs-3-6-8	0.829 ± 0.059 [all]	0.742 ± 0.053 [3]	0.733 ± 0.056	0.822 ± 0.058 [2,3,5,7]	0.798 ± 0.064 [2,3]	0.818 ± 0.057 [2,3,5,7]	0.794 ± 0.061 [2,3]
ecoli-0-1-vs-2-3-5	0.773 ± 0.150 [2,3]	0.733 ± 0.121	0.725 ± 0.125	0.800 ± 0.138 [1,2,3,7]	0.786 ± 0.131 [2,3,7]	0.802 ± 0.132 [1,2,3,7]	0.772 ± 0.130 [2,3]
ecoli-0-6-7-vs-3-5	0.689 ± 0.199	0.739 ± 0.165	0.729 ± 0.154	0.725 ± 0.182	0.714 ± 0.186	0.722 ± 0.172	0.711 ± 0.176
ecoli-0-3-4-7-vs-5-6	0.813 ± 0.131 [2,3]	0.757 ± 0.107	0.750 ± 0.113	0.797 ± 0.120 [2,3]	0.814 ± 0.111 [2,3,6]	0.791 ± 0.111 [2,3]	0.815 ± 0.112 [2,3,6]
ecoli-0-2-6-7-vs-3-5	0.699 ± 0.217	0.727 ± 0.140	0.724 ± 0.115	0.731 ± 0.174 [5,7]	0.701 ± 0.162	0.738 ± 0.146 [5,7]	0.699 ± 0.159
shuttle-c0-vs-c4	0.996 ± 0.008	0.996 ± 0.008	0.996 ± 0.008	0.995 ± 0.008	0.996 ± 0.008	0.995 ± 0.008	0.996 ± 0.008
ecoli-0-3-4-vs-5	0.861 ± 0.162 [all]	0.812 ± 0.159	0.801 ± 0.157	0.834 ± 0.165	0.827 ± 0.171	0.833 ± 0.166 [3]	0.820 ± 0.174

Table 3: Results for F1 metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	3.585	4.305 [3]	3.476	4.549 [1,6]	4.390	3.744	3.951

Table 4: Results for mean ranks according to F1 metric

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Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.728 ± 0.384 [all]	0.571 ± 0.260 [4,5,6,7]	0.587 ± 0.263 [5,6]	0.533 ± 0.290 [6]	0.517 ± 0.264 [—]	0.505 ± 0.287 [—]	0.527 ± 0.269 [—]
ecoli-0-2-3-4-vs-5	0.960 ± 0.092 [all]	0.805 ± 0.188 [—]	0.782 ± 0.192 [—]	0.867 ± 0.178 [2,3,5,7]	0.825 ± 0.176 [—]	0.848 ± 0.178 [2,3,7]	0.804 ± 0.170 [—]
glass-0-1-6-vs-2	0.161 ± 0.334 [—]	0.243 ± 0.141 [all]	0.208 ± 0.121 [—]	0.240 ± 0.113 [2,3,5,7]	0.211 ± 0.068 [—]	0.217 ± 0.076 [2,3,7]	0.219 ± 0.067 [—]
ecoli-0-1-vs-5	0.972 ± 0.076 [—]	0.868 ± 0.135 [1,3,5,6]	0.831 ± 0.144 [1]	0.966 ± 0.085 [1,5,6,7]	0.926 ± 0.116 [1]	0.957 ± 0.092 [1]	0.921 ± 0.120 [1,5]
yeast-1-4-5-8-vs-7	0.007 ± 0.046 [2,3]	0.090 ± 0.082 [3]	0.092 ± 0.076 [—]	0.089 ± 0.075 [2,3,5,7]	0.094 ± 0.043 [2,3]	0.096 ± 0.062 [2,3]	0.096 ± 0.041 [2,3]
ecoli4	0.973 ± 0.073 [—]	0.754 ± 0.193 [1]	0.729 ± 0.190 [1]	0.922 ± 0.118 [1]	0.832 ± 0.162 [1]	0.866 ± 0.153 [1]	0.803 ± 0.176 [1]
led7digit-0-2-4-5-6-7-8-9-vs-1	0.782 ± 0.304 [all]	0.564 ± 0.090 [—]	0.533 ± 0.131 [—]	0.511 ± 0.406 [2,3,5,7]	0.498 ± 0.239 [2,3,7]	0.705 ± 0.136 [2,3,5,7]	0.583 ± 0.160 [2,3]
glass5	0.377 ± 0.406 [—]	0.464 ± 0.311 [5]	0.465 ± 0.322 [—]	0.466 ± 0.318 [—]	0.386 ± 0.208 [—]	0.430 ± 0.326 [2,3,4,5,7]	0.404 ± 0.222 [3,5]
ecoli-0-3-4-6-vs-5	0.946 ± 0.119 [—]	0.787 ± 0.171 [5,7]	0.766 ± 0.163 [5,7]	0.773 ± 0.177 [5,6]	0.753 ± 0.180 [—]	0.776 ± 0.186 [—]	0.750 ± 0.184 [—]
yeast-0-5-6-7-9-vs-4	0.647 ± 0.237 [all]	0.480 ± 0.096 [—]	0.463 ± 0.085 [—]	0.564 ± 0.123 [—]	0.493 ± 0.102 [—]	0.462 ± 0.106 [—]	0.443 ± 0.103 [—]
yeast6	0.626 ± 0.178 [all]	0.392 ± 0.105 [3,7]	0.379 ± 0.104 [—]	0.475 ± 0.123 [2,3,5,6,7]	0.416 ± 0.110 [6,7]	0.393 ± 0.088 [—]	0.363 ± 0.111 [—]
ecoli-0-6-7-vs-5	0.953 ± 0.114 [all]	0.693 ± 0.204 [3,7]	0.637 ± 0.196 [—]	0.852 ± 0.181 [2,3,5,6,7]	0.774 ± 0.201 [3,7]	0.834 ± 0.181 [7]	0.749 ± 0.201 [—]
glass-0-1-6-vs-5	0.373 ± 0.371 [all]	0.514 ± 0.277 [3]	0.494 ± 0.275 [—]	0.449 ± 0.290 [2,3,5,7]	0.477 ± 0.232 [2,3,7]	0.448 ± 0.280 [2,3,5,7]	0.475 ± 0.233 [3]
ecoli-0-1-3-7-vs-2-6	0.790 ± 0.401 [—]	0.534 ± 0.383 [—]	0.573 ± 0.392 [—]	0.770 ± 0.402 [—]	0.614 ± 0.401 [—]	0.713 ± 0.401 [2,3,7]	0.520 ± 0.377 [—]
yeast-0-2-5-6-vs-3-7-8-9	0.779 ± 0.092 [2,3,5,7]	0.488 ± 0.061 [—]	0.459 ± 0.056 [—]	0.737 ± 0.102 [2,3,5,7]	0.640 ± 0.091 [—]	0.746 ± 0.107 [2,3,7]	0.656 ± 0.099 [—]
ecoli-0-1-4-7-vs-5-6	0.967 ± 0.091 [all]	0.749 ± 0.175 [3]	0.713 ± 0.162 [—]	0.906 ± 0.122 [2,3,5,7]	0.876 ± 0.143 [2,3]	0.821 ± 0.131 [2,3,5,7]	0.840 ± 0.151 [2,3,5]
yeast5	0.794 ± 0.140 [all]	0.591 ± 0.094 [3]	0.581 ± 0.093 [—]	0.628 ± 0.096 [2,3,6,7]	0.580 ± 0.090 [2,3,6,7]	0.587 ± 0.093 [2,3]	0.578 ± 0.100 [2,3]
shuttle-c2-vs-c4	0.200 ± 0.400 [all]	1.000 ± 0.000 [—]	1.000 ± 0.000 [—]	0.500 ± 0.500 [2,3,5,6,7]	0.920 ± 0.271 [—]	0.520 ± 0.499 [—]	0.920 ± 0.271 [—]
ecoli-0-1-4-7-vs-2-3-5-6	0.979 ± 0.065 [—]	0.672 ± 0.148 [1,4,6]	0.648 ± 0.149 [1,4,6]	0.947 ± 0.106 [1]	0.849 ± 0.131 [1,4,6]	0.888 ± 0.121 [1]	0.812 ± 0.158 [1,4,6]
yeast-0-3-5-9-vs-7-8	0.605 ± 0.176 [2,3,5,7]	0.342 ± 0.086 [3]	0.316 ± 0.084 [—]	0.592 ± 0.213 [2,3,5,7]	0.449 ± 0.143 [2,3,7]	0.567 ± 0.199 [2,3,7]	0.417 ± 0.144 [2,3]
yeast-1-vs-7	0.330 ± 0.464 [2,3,5,7]	0.249 ± 0.140 [3]	0.230 ± 0.120 [—]	0.228 ± 0.128 [2,3,5,7]	0.190 ± 0.109 [2,3,7]	0.169 ± 0.086 [2,3,5,7]	0.172 ± 0.071 [2,3]
yeast-1-2-8-9-vs-7	0.070 ± 0.223 [—]	0.191 ± 0.122 [3,5,6,7]	0.195 ± 0.112 [5,6,7]	0.138 ± 0.128 [5,6,7]	0.132 ± 0.098 [—]	0.098 ± 0.061 [—]	0.129 ± 0.049 [—]
ecoli-0-1-4-6-vs-5	0.960 ± 0.100 [—]	0.825 ± 0.148 [1,4,5,6,7]	0.797 ± 0.148 [1,4,5,6,7]	0.921 ± 0.125 [1,6]	0.877 ± 0.134 [1,6]	0.900 ± 0.138 [1]	0.877 ± 0.134 [1,6]
glass-0-1-5-vs-2	0.186 ± 0.333 [2,3,5,6,7]	0.250 ± 0.122 [—]	0.235 ± 0.119 [—]	0.240 ± 0.099 [2,3,7]	0.220 ± 0.070 [2,3]	0.213 ± 0.072 [2,3]	0.221 ± 0.069 [2,3]
yeast-2-vs-4	0.922 ± 0.095 [—]	0.769 ± 0.113 [1,3,5,6,7]	0.746 ± 0.114 [1]	0.877 ± 0.098 [1,6]	0.842 ± 0.106 [1]	0.863 ± 0.118 [1]	0.816 ± 0.124 [1]
glass-0-6-vs-5	0.600 ± 0.469 [all]	0.815 ± 0.237 [3]	0.795 ± 0.262 [—]	0.740 ± 0.402 [2,3,5,7]	0.792 ± 0.275 [2,3,7]	0.770 ± 0.358 [2,3,7]	0.795 ± 0.272 [2,3]
glass2	0.260 ± 0.387 [—]	0.291 ± 0.140 [1]	0.285 ± 0.131 [1]	0.251 ± 0.105 [—]	0.224 ± 0.085 [1]	0.203 ± 0.074 [1]	0.215 ± 0.076 [1]
yeast-2-vs-8	0.908 ± 0.200 [—]	0.485 ± 0.207 [4,5,6,7]	0.440 ± 0.173 [4,5,6,7]	0.908 ± 0.200 [5,6,7]	0.834 ± 0.227 [6]	0.908 ± 0.200 [—]	0.764 ± 0.247 [—]
vowel0	0.989 ± 0.027 [2,3,5,7]	0.967 ± 0.050 [3]	0.982 ± 0.032 [—]	0.888 ± 0.094 [2,3,5,7]	0.906 ± 0.074 [2,3,7]	0.894 ± 0.085 [2,3,5,7]	0.933 ± 0.064 [2,3]
glass-0-4-vs-5	0.660 ± 0.473 [2,4,5,6,7]	0.828 ± 0.235 [4,5,6,7]	0.815 ± 0.243 [4,5,6,7]	0.768 ± 0.335 [—]	0.801 ± 0.259 [4]	0.706 ± 0.358 [—]	0.793 ± 0.261 [4,5,6]
glass-0-1-4-6-vs-2	0.133 ± 0.310 [—]	0.261 ± 0.124 [6]	0.250 ± 0.136 [6]	0.226 ± 0.102 [—]	0.210 ± 0.074 [—]	0.209 ± 0.078 [—]	0.212 ± 0.083 [—]
yeast4	0.358 ± 0.276 [—]	0.342 ± 0.115 [1,4,5,6,7]	0.315 ± 0.096 [1,5,6,7]	0.399 ± 0.122 [1,5,6]	0.351 ± 0.097 [1]	0.311 ± 0.087 [1]	0.291 ± 0.078 [1]
ecoli-0-4-6-vs-5	0.935 ± 0.135 [—]	0.868 ± 0.169 [3,6,7]	0.804 ± 0.172 [7]	0.803 ± 0.171 [2,3,5,6,7]	0.781 ± 0.181 [3,6,7]	0.818 ± 0.171 [—]	0.790 ± 0.187 [—]
page-blocks-1-3-vs-4	0.686 ± 0.174 [all]	0.567 ± 0.139 [3,4,5,7]	0.589 ± 0.143 [—]	0.658 ± 0.204 [—]	0.634 ± 0.175 [—]	0.657 ± 0.210 [5,7]	0.727 ± 0.195 [—]
yeast-0-2-5-7-9-vs-3-6-8	0.871 ± 0.068 [2,3]	0.671 ± 0.069 [—]	0.656 ± 0.073 [2]	0.837 ± 0.067 [2,3]	0.776 ± 0.083 [2,3]	0.836 ± 0.069 [2,3]	0.772 ± 0.082 [2,3,4,5,6]
ecoli-0-1-vs-2-3-5	0.968 ± 0.081 [all]	0.726 ± 0.165 [3]	0.711 ± 0.155 [—]	0.970 ± 0.084 [2,3,5,7]	0.901 ± 0.127 [2,3]	0.952 ± 0.098 [2,3,5,7]	0.876 ± 0.146 [2,3]
ecoli-0-6-7-vs-3-5	0.907 ± 0.169 [2,3,5,7]	0.761 ± 0.212 [—]	0.733 ± 0.200 [—]	0.822 ± 0.201 [2,3,5,7]	0.783 ± 0.213 [2,3]	0.777 ± 0.198 [2,3,5,7]	0.746 ± 0.209 [2,3]
ecoli-0-3-4-7-vs-5-6	0.944 ± 0.091 [all]	0.730 ± 0.150 [—]	0.716 ± 0.160 [—]	0.859 ± 0.131 [3,5,7]	0.829 ± 0.118 [—]	0.788 ± 0.133 [—]	0.817 ± 0.112 [—]
ecoli-0-2-6-7-vs-3-5	0.933 ± 0.175 [all]	0.760 ± 0.202 [—]	0.749 ± 0.199 [—]	0.815 ± 0.183 [2,3,6]	0.753 ± 0.194 [2,3,6]	0.789 ± 0.182 [2,3]	0.719 ± 0.198 [2,3]
shuttle-c0-vs-c4	1.000 ± 0.000 [—]	1.000 ± 0.000 [—]	1.000 ± 0.000 [—]	1.000 ± 0.000 [3,5,7]	1.000 ± 0.000 [—]	1.000 ± 0.000 [5,7]	1.000 ± 0.000 [—]
ecoli-0-3-4-vs-5	0.958 ± 0.111 [all]	0.826 ± 0.183 [—]	0.807 ± 0.182 [—]	0.858 ± 0.168 [—]	0.833 ± 0.183 [—]	0.859 ± 0.174 [3]	0.831 ± 0.185 [—]

Table 5: Results for Precision metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	5.317 [3,5,6,7]	3.963 [3,7]	3.049 [—]	4.976 [2,3,5,6,7]	3.659 [—]	3.878 [7]	3.159 [—]

Table 6: Results for mean ranks according to Precision metric

Table 7 — Results for Recall metric. Values shown as mean ± std; the bracketed superscript indicates the methods (numbered 1–7) over which the result is statistically significant (− = none).

Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.513 ± 0.310 [−]	0.857 ± 0.278 [1,4,5,6,7]	0.857 ± 0.278 [1,4,5,6,7]	0.600 ± 0.288 [1]	0.740 ± 0.318 [1,4,6]	0.590 ± 0.283 [1]	0.760 ± 0.316 [1,4,6]
ecoli-0-2-3-4-vs-5	0.785 ± 0.165 [−]	0.850 ± 0.158 [1]	0.850 ± 0.158 [1]	0.835 ± 0.155 [1]	0.840 ± 0.156 [1]	0.830 ± 0.161 [1]	0.845 ± 0.157 [1]
glass-0-1-6-vs-2	0.065 ± 0.123 [−]	0.517 ± 0.254 [1,3]	0.457 ± 0.252 [1]	0.623 ± 0.274 [1]	0.762 ± 0.211 [1]	0.745 ± 0.234 [1]	0.772 ± 0.226 [1]
ecoli-0-1-vs-5	0.785 ± 0.180 [−]	0.850 ± 0.150 [1]	0.850 ± 0.150 [1]	0.815 ± 0.156 [1,2,3]	0.835 ± 0.155 [1,2,3,4]	0.825 ± 0.160 [1,2,3,4]	0.845 ± 0.149 [1,2,3,4]
yeast-1-4-5-8-vs-7	0.003 ± 0.023 [−]	0.160 ± 0.156 [1]	0.183 ± 0.160 [1]	0.203 ± 0.167 [1]	0.333 ± 0.173 [1]	0.297 ± 0.180 [−]	0.403 ± 0.170 [1]
ecoli4	0.790 ± 0.202 [−]	0.860 ± 0.194 [1]	0.860 ± 0.194 [1]	0.855 ± 0.180 [1]	0.880 ± 0.174 [1,2,3,4]	0.860 ± 0.194 [1,2,3,4]	0.880 ± 0.174 [all]
led7digit-0-2-4-5-6-7-8-9-vs-1	0.279 ± 0.155 [4]	0.861 ± 0.135 [all]	0.775 ± 0.249 [1,4,5,6]	0.185 ± 0.182 [−]	0.347 ± 0.171 [1]	0.718 ± 0.215 [1]	0.719 ± 0.290 [1]
glass5	0.310 ± 0.330 [4]	0.680 ± 0.396 [1,4,5,6]	0.680 ± 0.409 [1,4,5,6]	0.690 ± 0.372 [−]	0.800 ± 0.346 [1,4,5]	0.620 ± 0.381 [1,4,5]	0.800 ± 0.346 [1,4,5]
ecoli-0-3-4-6-vs-5	0.795 ± 0.185 [−]	0.845 ± 0.179 [1]	0.845 ± 0.179 [1]	0.815 ± 0.164 [1]	0.835 ± 0.177 [1,2,3,4,6]	0.810 ± 0.177 [1]	0.830 ± 0.176 [1,2,3,4,6]
yeast-0-5-6-7-9-vs-4	0.317 ± 0.153 [−]	0.667 ± 0.136 [1]	0.681 ± 0.129 [1]	0.579 ± 0.127 [−]	0.669 ± 0.113 [1]	0.634 ± 0.141 [−]	0.710 ± 0.118 [1]
yeast6	0.523 ± 0.184 [−]	0.669 ± 0.177 [1,4]	0.663 ± 0.168 [1,4]	0.660 ± 0.166 [1]	0.694 ± 0.173 [1,4,6]	0.697 ± 0.170 [1,4]	0.720 ± 0.161 [all]
ecoli-0-6-7-vs-5	0.685 ± 0.216 [−]	0.795 ± 0.204 [1,4]	0.785 ± 0.206 [1]	0.745 ± 0.190 [1]	0.765 ± 0.202 [1,4]	0.755 ± 0.190 [1,4]	0.765 ± 0.202 [1,2,3,4]
glass-0-1-6-vs-5	0.360 ± 0.316 [−]	0.780 ± 0.318 [1,4]	0.750 ± 0.335 [1]	0.630 ± 0.357 [1]	0.850 ± 0.287 [1]	0.630 ± 0.357 [1]	0.850 ± 0.287 [1]
ecoli-0-1-3-7-vs-2-6	0.700 ± 0.400 [−]	0.700 ± 0.400 [1,4,6]	0.700 ± 0.400 [1]	0.700 ± 0.400 [1]	0.700 ± 0.400 [1,3,4,6]	0.700 ± 0.400 [1]	0.700 ± 0.400 [1,3,4,6]
yeast-0-2-5-6-vs-3-7-8-9	0.529 ± 0.083 [−]	0.657 ± 0.084 [1]	0.664 ± 0.085 [1,4,6]	0.540 ± 0.103 [1]	0.616 ± 0.095 [1]	0.522 ± 0.110 [1]	0.600 ± 0.097 [1]
ecoli-0-1-4-7-vs-5-6	0.732 ± 0.198 [−]	0.816 ± 0.173 [1,4,5,6,7]	0.820 ± 0.156 [1,4,5,6,7]	0.784 ± 0.164 [6]	0.812 ± 0.151 [1,4,6]	0.800 ± 0.154 [−]	0.812 ± 0.157 [1,4,6]
yeast5	0.647 ± 0.127 [−]	0.878 ± 0.104 [1]	0.877 ± 0.095 [1]	0.828 ± 0.129 [1]	0.896 ± 0.103 [1]	0.839 ± 0.123 [1]	0.880 ± 0.106 [1]
shuttle-c2-vs-c4	0.170 ± 0.355 [−]	0.990 ± 0.069 [1,4,6]	0.990 ± 0.069 [1,4,6]	0.430 ± 0.458 [1]	0.900 ± 0.282 [1,4,6]	0.450 ± 0.460 [1]	0.900 ± 0.282 [1,4,6]
ecoli-0-1-4-7-vs-2-3-5-6	0.668 ± 0.202 [−]	0.744 ± 0.158 [1,4,6]	0.758 ± 0.159 [1,4,6]	0.715 ± 0.167 [1]	0.730 ± 0.167 [1,4,6]	0.722 ± 0.168 [1]	0.734 ± 0.161 [1,4,6]
yeast-0-3-5-9-vs-7-8	0.306 ± 0.115 [−]	0.530 ± 0.125 [1]	0.522 ± 0.140 [1,4,6]	0.284 ± 0.108 [1]	0.372 ± 0.124 [1]	0.314 ± 0.107 [1]	0.400 ± 0.132 [1]
yeast-1-vs-7	0.060 ± 0.086 [−]	0.340 ± 0.194 [1,4,5,6,7]	0.353 ± 0.196 [1,4,5,6,7]	0.323 ± 0.180 [−]	0.387 ± 0.217 [1,4,6]	0.443 ± 0.201 [4]	0.463 ± 0.211 [1,4,6]
yeast-1-2-8-9-vs-7	0.017 ± 0.049 [−]	0.287 ± 0.170 [1]	0.313 ± 0.175 [1]	0.190 ± 0.149 [1]	0.373 ± 0.195 [1,4]	0.320 ± 0.188 [1,2,3,4,5]	0.457 ± 0.166 [1,2,3,4,5]
ecoli-0-1-4-6-vs-5	0.775 ± 0.182 [−]	0.845 ± 0.149 [1,4]	0.845 ± 0.157 [1,4]	0.805 ± 0.175 [1]	0.830 ± 0.153 [1,2,3,4]	0.805 ± 0.175 [1,4]	0.830 ± 0.153 [all]
glass-0-1-5-vs-2	0.090 ± 0.139 [−]	0.497 ± 0.267 [1]	0.483 ± 0.262 [1]	0.628 ± 0.278 [1]	0.783 ± 0.226 [1]	0.725 ± 0.247 [−]	0.760 ± 0.239 [1]
yeast-2-vs-4	0.647 ± 0.132 [−]	0.774 ± 0.123 [1]	0.778 ± 0.125 [1]	0.682 ± 0.126 [1,2,3]	0.719 ± 0.127 [1,2,3,4]	0.701 ± 0.132 [1,2,3,4]	0.732 ± 0.132 [1,2,3,4]
glass-0-6-vs-5	0.440 ± 0.382 [−]	0.930 ± 0.173 [1,4,5,6,7]	0.920 ± 0.208 [1,4,5,6,7]	0.550 ± 0.350 [1]	0.830 ± 0.257 [1,4]	0.600 ± 0.331 [1,4]	0.840 ± 0.253 [1,4,6]
glass2	0.117 ± 0.164 [−]	0.533 ± 0.260 [1,4,5,6]	0.547 ± 0.236 [1,4,6]	0.642 ± 0.261 [1]	0.755 ± 0.231 [1,4,6]	0.720 ± 0.249 [1]	0.735 ± 0.241 [1,4,6]
yeast-2-vs-8	0.550 ± 0.229 [−]	0.580 ± 0.220 [1]	0.610 ± 0.218 [1]	0.550 ± 0.229 [1,2,3]	0.550 ± 0.229 [1,2,3,4]	0.550 ± 0.229 [1,2,3,4]	0.555 ± 0.225 [1,2,3,4]
vowel0	0.941 ± 0.077 [−]	0.983 ± 0.053 [−]	0.983 ± 0.053 [1,4,5,6,7]	0.681 ± 0.119 [1]	0.907 ± 0.118 [−]	0.839 ± 0.123 [1]	0.911 ± 0.109 [1]
glass-0-4-vs-5	0.490 ± 0.406 [4,6]	0.940 ± 0.190 [1,4,5,6,7]	0.950 ± 0.180 [1,4,5,6,7]	0.700 ± 0.331 [−]	0.960 ± 0.135 [4,6]	0.720 ± 0.362 [4]	0.930 ± 0.173 [4,6]
glass-0-1-4-6-vs-2	0.055 ± 0.122 [−]	0.538 ± 0.259 [1,4,6]	0.520 ± 0.281 [1,4,6]	0.573 ± 0.276 [1]	0.732 ± 0.242 [1,4,6]	0.697 ± 0.217 [1]	0.705 ± 0.240 [1,4,6]
yeast4	0.117 ± 0.088 [−]	0.468 ± 0.154 [1]	0.474 ± 0.162 [1]	0.459 ± 0.119 [1]	0.515 ± 0.139 [1,2,3,4]	0.513 ± 0.153 [1,2,3,4]	0.593 ± 0.132 [1,2,3,4]
ecoli-0-4-6-vs-5	0.810 ± 0.162 [−]	0.850 ± 0.158 [1]	0.850 ± 0.158 [1]	0.840 ± 0.156 [1]	0.845 ± 0.157 [1,2,4]	0.840 ± 0.156 [1,2,3,4]	0.845 ± 0.157 [all]
page-blocks-1-3-vs-4	0.657 ± 0.217 [−]	0.869 ± 0.182 [1,4,5,6,7]	0.847 ± 0.191 [1,4,5,6,7]	0.562 ± 0.211 [−]	0.703 ± 0.173 [1,4,6]	0.638 ± 0.228 [4]	0.696 ± 0.180 [4,6]
yeast-0-2-5-7-9-vs-3-6-8	0.797 ± 0.084 [4]	0.839 ± 0.078 [1,4,5,6,7]	0.840 ± 0.080 [1,4,5,6,7]	0.813 ± 0.083 [−]	0.830 ± 0.083 [1,4,6]	0.806 ± 0.083 [4]	0.826 ± 0.082 [4,6]
ecoli-0-1-vs-2-3-5	0.670 ± 0.187 [−]	0.792 ± 0.184 [1,4,6,7]	0.787 ± 0.186 [1,4,6,7]	0.703 ± 0.184 [1]	0.724 ± 0.180 [1,4,6]	0.715 ± 0.179 [−]	0.719 ± 0.176 [1,4,6]
ecoli-0-6-7-vs-3-5	0.593 ± 0.237 [−]	0.760 ± 0.196 [1,4,5,6,7]	0.770 ± 0.189 [1,4,5,6,7]	0.672 ± 0.201 [−]	0.685 ± 0.206 [1]	0.694 ± 0.188 [1]	0.704 ± 0.191 [1]
ecoli-0-3-4-7-vs-5-6	0.744 ± 0.196 [−]	0.824 ± 0.158 [1,4,5,6,7]	0.828 ± 0.160 [1,4,5,6,7]	0.764 ± 0.163 [1]	0.816 ± 0.154 [1]	0.812 ± 0.146 [1]	0.828 ± 0.154 [1]
ecoli-0-2-6-7-vs-3-5	0.597 ± 0.251 [−]	0.754 ± 0.193 [1,4]	0.764 ± 0.177 [1,4]	0.681 ± 0.198 [−]	0.686 ± 0.201 [1,4]	0.718 ± 0.176 [1]	0.714 ± 0.189 [1,4]
shuttle-c0-vs-c4	0.992 ± 0.016 [−]	0.992 ± 0.016 [1,4,5]	0.992 ± 0.016 [1,4,5,7]	0.991 ± 0.016 [1]	0.992 ± 0.016 [1]	0.991 ± 0.016 [1]	0.992 ± 0.016 [1]
ecoli-0-3-4-vs-5	0.810 ± 0.209 [−]	0.850 ± 0.200 [−]	0.850 ± 0.200 [−]	0.840 ± 0.204 [−]	0.850 ± 0.200 [−]	0.835 ± 0.197 [−]	0.840 ± 0.204 [−]

Table 7: Results for Recall metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	1.427 [−]	5.232 [1,4,6]	5.366 [1,4,6]	2.463 [1]	4.939 [1,4,6]	3.305 [1,4]	5.268 [1,4,6]

Table 8: Results for mean ranks according to Recall metric

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Dataset	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.750 ± 0.158 [−]	0.904 ± 0.142 [1,4,5,6,7]	0.905 ± 0.142 [1,4,5,6,7]	0.779 ± 0.148 [−]	0.843 ± 0.163 [6]	0.772 ± 0.147 [−]	0.854 ± 0.163 [1,4,6]
ecoli-0-2-3-4-vs-5	0.890 ± 0.083 [−]	0.910 ± 0.078 [1,6]	0.908 ± 0.078 [−]	0.908 ± 0.079 [6]	0.907 ± 0.078 [1,6]	0.904 ± 0.082 [−]	0.909 ± 0.080 [1,4,6]
glass-0-1-6-vs-2	0.522 ± 0.062 [−]	0.676 ± 0.132 [−]	0.643 ± 0.124 [−]	0.712 ± 0.136 [3]	0.739 ± 0.101 [−]	0.739 ± 0.121 [−]	0.750 ± 0.105 [4]
ecoli-0-1-vs-5	0.891 ± 0.089 [−]	0.918 ± 0.074 [1,3]	0.916 ± 0.073 [1]	0.906 ± 0.078 [1,3]	0.914 ± 0.077 [1,2,3]	0.910 ± 0.080 [1,2,3]	0.918 ± 0.074 [1,2,3,5]
yeast-1-4-5-8-vs-7	0.501 ± 0.010 [−]	0.547 ± 0.075 [3]	0.553 ± 0.077 [4,5,6]	0.556 ± 0.081 [−]	0.593 ± 0.081 [−]	0.583 ± 0.091 [−]	0.614 ± 0.086 [3]
ecoli4	0.894 ± 0.100 [−]	0.918 ± 0.094 [1]	0.917 ± 0.094 [1]	0.925 ± 0.090 [1]	0.933 ± 0.086 [1,2,3,4]	0.925 ± 0.097 [1,2,3,4]	0.931 ± 0.086 [1,2,3,4,6]
led7digit-0-2-4-5-6-7-8-9-vs-1	0.635 ± 0.077 [−]	0.899 ± 0.066 [−]	0.857 ± 0.121 [−]	0.585 ± 0.091 [2,3,6]	0.657 ± 0.088 [2,3,4,7]	0.842 ± 0.102 [2,3]	0.837 ± 0.142 [2,3,4,6]
glass5	0.648 ± 0.165 [4]	0.823 ± 0.196 [1,3,4,5,6]	0.823 ± 0.203 [1,4,5]	0.824 ± 0.187 [−]	0.870 ± 0.172 [1,4]	0.787 ± 0.192 [1,4,5]	0.871 ± 0.173 [1,4,5]
ecoli-0-3-4-6-vs-5	0.895 ± 0.094 [−]	0.908 ± 0.089 [1,6]	0.906 ± 0.089 [1,6]	0.893 ± 0.087 [1,6]	0.901 ± 0.093 [1]	0.891 ± 0.094 [1]	0.898 ± 0.093 [1]
yeast-0-5-6-7-9-vs-4	0.649 ± 0.074 [4,6]	0.793 ± 0.065 [−]	0.797 ± 0.061 [−]	0.764 ± 0.062 [−]	0.795 ± 0.053 [1]	0.774 ± 0.066 [−]	0.803 ± 0.055 [1]
yeast6	0.757 ± 0.091 [−]	0.821 ± 0.087 [1,4,6]	0.818 ± 0.083 [1,4,6]	0.821 ± 0.083 [1]	0.835 ± 0.086 [1,4,6]	0.835 ± 0.084 [1]	0.843 ± 0.079 [1,4,6]
ecoli-0-6-7-vs-5	0.840 ± 0.108 [−]	0.875 ± 0.101 [1,3]	0.865 ± 0.100 [1]	0.865 ± 0.098 [1,3]	0.869 ± 0.105 [1,2,3]	0.868 ± 0.096 [1,3]	0.867 ± 0.104 [1,3]
glass-0-1-6-vs-5	0.668 ± 0.151 [−]	0.868 ± 0.157 [3]	0.853 ± 0.165 [−]	0.794 ± 0.175 [−]	0.898 ± 0.145 [3,4,6,7]	0.795 ± 0.175 [3,7]	0.897 ± 0.145 [3,4]
ecoli-0-1-3-7-vs-2-6	0.850 ± 0.200 [−]	0.841 ± 0.197 [1,4]	0.843 ± 0.198 [1]	0.849 ± 0.200 [1]	0.840 ± 0.205 [1,4]	0.844 ± 0.203 [1]	0.837 ± 0.202 [1]
yeast-0-2-5-6-vs-3-7-8-9	0.756 ± 0.042 [2,3,5,6,7]	0.790 ± 0.041 [7]	0.788 ± 0.042 [7]	0.759 ± 0.052 [2,3,5,6,7]	0.789 ± 0.047 [−]	0.751 ± 0.054 [2,5,7]	0.782 ± 0.049 [−]
ecoli-0-1-4-7-vs-5-6	0.865 ± 0.098 [−]	0.894 ± 0.085 [1,4,6]	0.894 ± 0.076 [1,4,6]	0.888 ± 0.081 [−]	0.900 ± 0.076 [1,4,6]	0.892 ± 0.077 [−]	0.899 ± 0.078 [1,4,6]
yeast5	0.821 ± 0.064 [−]	0.929 ± 0.052 [−]	0.929 ± 0.048 [−]	0.906 ± 0.064 [−]	0.938 ± 0.052 [2,3,6,7]	0.910 ± 0.061 [4]	0.930 ± 0.053 [2,3]
shuttle-c2-vs-c4	0.585 ± 0.177 [−]	0.995 ± 0.034 [1,6]	0.995 ± 0.034 [1,6]	0.715 ± 0.229 [1]	0.950 ± 0.141 [1,4,6]	0.725 ± 0.230 [1,4]	0.950 ± 0.141 [1,4,6]
ecoli-0-1-4-7-vs-2-3-5-6	0.833 ± 0.100 [−]	0.852 ± 0.077 [1,4,6]	0.857 ± 0.076 [1,4,6]	0.855 ± 0.082 [1]	0.858 ± 0.082 [1,4,6]	0.856 ± 0.083 [1]	0.857 ± 0.078 [1,4,6]
yeast-0-3-5-9-vs-7-8	0.641 ± 0.058 [−]	0.707 ± 0.064 [1]	0.697 ± 0.070 [1]	0.629 ± 0.053 [2]	0.659 ± 0.062 [2,3,4,7]	0.641 ± 0.051 [2]	0.666 ± 0.065 [2,3,4]
yeast-1-vs-7	0.529 ± 0.043 [−]	0.631 ± 0.098 [all]	0.634 ± 0.099 [1,4,5,6,7]	0.620 ± 0.087 [−]	0.632 ± 0.101 [1,4,6]	0.642 ± 0.092 [−]	0.652 ± 0.101 [1,4,6]
yeast-1-2-8-9-vs-7	0.508 ± 0.024 [−]	0.623 ± 0.085 [1]	0.634 ± 0.088 [1,2]	0.574 ± 0.075 [−]	0.643 ± 0.092 [1]	0.610 ± 0.093 [1,4]	0.676 ± 0.083 [1,4]
ecoli-0-1-4-6-vs-5	0.886 ± 0.091 [−]	0.914 ± 0.073 [1,4]	0.913 ± 0.077 [1,4]	0.899 ± 0.087 [1]	0.909 ± 0.075 [1,4,6]	0.898 ± 0.088 [1,4]	0.909 ± 0.075 [1,2,3,4,6]
glass-0-1-5-vs-2	0.533 ± 0.066 [−]	0.670 ± 0.135 [−]	0.658 ± 0.131 [−]	0.708 ± 0.138 [−]	0.739 ± 0.108 [−]	0.715 ± 0.119 [−]	0.733 ± 0.111 [−]
yeast-2-vs-4	0.820 ± 0.066 [−]	0.873 ± 0.061 [1]	0.873 ± 0.062 [1]	0.835 ± 0.063 [1,2,3]	0.852 ± 0.064 [1,2,3]	0.844 ± 0.066 [1]	0.856 ± 0.065 [1,2,3]
glass-0-6-vs-5	0.714 ± 0.194 [−]	0.950 ± 0.086 [1,4,5,6,7]	0.945 ± 0.103 [1,4,5,6,7]	0.767 ± 0.183 [−]	0.900 ± 0.133 [1]	0.791 ± 0.169 [−]	0.905 ± 0.131 [1,4]
glass2	0.547 ± 0.083 [−]	0.707 ± 0.129 [1,4,5,6]	0.712 ± 0.116 [1,4,6]	0.735 ± 0.129 [−]	0.760 ± 0.118 [1,4,6]	0.735 ± 0.126 [−]	0.748 ± 0.119 [1,4,6]
yeast-2-vs-8	0.774 ± 0.114 [−]	0.774 ± 0.106 [1]	0.786 ± 0.105 [1]	0.773 ± 0.115 [1]	0.771 ± 0.116 [1,2,3,6]	0.773 ± 0.115 [1,2,3]	0.772 ± 0.114 [1,2,3]
vowel0	0.970 ± 0.038 [2,5,7]	0.990 ± 0.026 [4,5,6,7]	0.991 ± 0.026 [4,5,6,7]	0.836 ± 0.060 [−]	0.948 ± 0.058 [5,7]	0.914 ± 0.061 [5,7]	0.952 ± 0.054 [−]
glass-0-4-vs-5	0.744 ± 0.204 [4,5,6,7]	0.956 ± 0.096 [1,4,5,6,7]	0.959 ± 0.091 [1,4,5,6,7]	0.835 ± 0.164 [−]	0.957 ± 0.075 [4,6]	0.842 ± 0.177 [4]	0.941 ± 0.088 [4,5,6]
glass-0-1-4-6-vs-2	0.518 ± 0.062 [−]	0.700 ± 0.131 [1,4,6,7]	0.691 ± 0.140 [1,4,6,7]	0.697 ± 0.133 [−]	0.739 ± 0.125 [1,4,6]	0.723 ± 0.113 [−]	0.728 ± 0.128 [1,4]
yeast4	0.555 ± 0.043 [−]	0.717 ± 0.076 [1]	0.718 ± 0.080 [1]	0.716 ± 0.060 [1]	0.740 ± 0.069 [1,3]	0.736 ± 0.075 [1]	0.770 ± 0.065 [1]
ecoli-0-4-6-vs-5	0.901 ± 0.084 [−]	0.916 ± 0.081 [1]	0.912 ± 0.082 [1,2]	0.907 ± 0.079 [1]	0.907 ± 0.082 [1,2,4]	0.908 ± 0.080 [1]	0.908 ± 0.083 [all]
page-blocks-1-3-vs-4	0.818 ± 0.106 [−]	0.912 ± 0.091 [3,4,5,6,7]	0.903 ± 0.094 [1]	0.771 ± 0.106 [1]	0.837 ± 0.086 [1]	0.806 ± 0.111 [1,5]	0.838 ± 0.091 [1]
yeast-0-2-5-7-9-vs-3-6-8	0.892 ± 0.042 [4]	0.896 ± 0.038 [1,4,5,6,7]	0.895 ± 0.039 [1,4,5,6,7]	0.898 ± 0.041 [−]	0.902 ± 0.041 [4,6]	0.894 ± 0.041 [4]	0.899 ± 0.040 [1,4,5,6]
ecoli-0-1-vs-2-3-5	0.833 ± 0.093 [−]	0.877 ± 0.089 [3]	0.873 ± 0.090 [−]	0.850 ± 0.092 [6]	0.857 ± 0.089 [1]	0.855 ± 0.089 [−]	0.853 ± 0.087 [−]
ecoli-0-6-7-vs-3-5	0.792 ± 0.119 [−]	0.863 ± 0.099 [1]	0.866 ± 0.095 [1]	0.827 ± 0.104 [1]	0.830 ± 0.108 [7]	0.835 ± 0.098 [1,7]	0.837 ± 0.100 [−]
ecoli-0-3-4-7-vs-5-6	0.869 ± 0.097 [−]	0.893 ± 0.075 [1]	0.893 ± 0.076 [1]	0.874 ± 0.082 [−]	0.898 ± 0.078 [1]	0.893 ± 0.073 [1]	0.903 ± 0.078 [1]
ecoli-0-2-6-7-vs-3-5	0.797 ± 0.125 [−]	0.859 ± 0.091 [1]	0.862 ± 0.081 [1]	0.832 ± 0.102 [1]	0.829 ± 0.101 [2,3]	0.847 ± 0.088 [−]	0.839 ± 0.096 [2,3,4,6]
shuttle-c0-vs-c4	0.996 ± 0.008 [−]	0.996 ± 0.008 [1,5]	0.996 ± 0.008 [1,5]	0.996 ± 0.008 [5]	0.996 ± 0.008 [−]	0.996 ± 0.008 [1,5,7]	0.996 ± 0.008 [−]
ecoli-0-3-4-vs-5	0.903 ± 0.105 [−]	0.912 ± 0.099 [−]	0.910 ± 0.099 [−]	0.911 ± 0.104 [−]	0.914 ± 0.103 [−]	0.909 ± 0.101 [−]	0.909 ± 0.106 [−]

Table 9: Results for AUC metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	1.659	5.012	4.841	2.780	5.024	3.415	5.268
	−	1,4,6	1,4,6	1	1,4,6	1,4	1,4,6

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)
glass4	0.641 ± 0.310 [−]	0.870 ± 0.242 [1,4,5,6,7]	0.871 ± 0.242 [1,4,5,6,7]	0.716 ± 0.253 [6]	0.793 ± 0.272 [1,6]	0.708 ± 0.251 [−]	0.805 ± 0.272 [1,4,6]
ecoli-0-2-3-4-vs-5	0.878 ± 0.100 [−]	0.903 ± 0.086 [1,6]	0.901 ± 0.087 [1,6]	0.901 ± 0.088 [6]	0.901 ± 0.087 [1,6]	0.897 ± 0.092 [−]	0.902 ± 0.089 [1,4,6]
glass-0-1-6-vs-2	0.118 ± 0.222 [−]	0.618 ± 0.224 [1]	0.565 ± 0.239 [1]	0.681 ± 0.178 [1]	0.728 ± 0.107 [1]	0.727 ± 0.132 [1]	0.738 ± 0.112 [4]
ecoli-0-1-vs-5	0.879 ± 0.104 [−]	0.911 ± 0.082 [1,3]	0.909 ± 0.082 [1]	0.897 ± 0.088 [1,3]	0.906 ± 0.087 [1,2,3]	0.902 ± 0.090 [1,2,3]	0.912 ± 0.083 [1,2,3,5]
yeast-1-4-5-8-vs-7	0.008 ± 0.056 [−]	0.296 ± 0.245 [3]	0.330 ± 0.243 [4,5,6]	0.355 ± 0.240 [−]	0.502 ± 0.169 [−]	0.467 ± 0.197 [−]	0.558 ± 0.144 [3]
ecoli4	0.879 ± 0.124 [−]	0.908 ± 0.112 [1]	0.907 ± 0.112 [1]	0.916 ± 0.103 [1]	0.926 ± 0.099 [1,2,3,4]	0.915 ± 0.116 [1,2,3,4]	0.924 ± 0.098 [1,2,3,4,6]
led7digit-0-2-4-5-6-7-8-9-vs-1	0.494 ± 0.179 [−]	0.895 ± 0.071 [1,3,4,5,6]	0.832 ± 0.184 [−]	0.338 ± 0.260 [2,3,6]	0.556 ± 0.162 [2,3,4,7]	0.820 ± 0.137 [2,3]	0.803 ± 0.199 [2,3,4,6]
glass5	0.394 ± 0.387 [4]	0.716 ± 0.376 [1,3,4,5,6]	0.709 ± 0.392 [1,4,5]	0.736 ± 0.345 [−]	0.807 ± 0.314 [1,4]	0.679 ± 0.362 [−]	0.809 ± 0.315 [1,4,5]
ecoli-0-3-4-6-vs-5	0.883 ± 0.108 [−]	0.900 ± 0.101 [1,6]	0.898 ± 0.101 [1,6]	0.885 ± 0.097 [1,6]	0.893 ± 0.104 [1]	0.882 ± 0.105 [1]	0.890 ± 0.103 [1,6]
yeast-0-5-6-7-9-vs-4	0.532 ± 0.164 [6]	0.779 ± 0.078 [−]	0.784 ± 0.071 [−]	0.736 ± 0.082 [1]	0.782 ± 0.064 [1]	0.756 ± 0.080 [−]	0.794 ± 0.063 [1]
yeast6	0.707 ± 0.136 [−]	0.799 ± 0.112 [1,4,6]	0.795 ± 0.108 [1,4,6]	0.798 ± 0.106 [1]	0.815 ± 0.112 [1,4,6]	0.816 ± 0.107 [1]	0.828 ± 0.098 [1,4,6]
ecoli-0-6-7-vs-5	0.814 ± 0.139 [−]	0.863 ± 0.119 [1,3]	0.852 ± 0.121 [1]	0.849 ± 0.116 [1]	0.855 ± 0.123 [1,2,3]	0.854 ± 0.115 [1]	0.853 ± 0.122 [1,3]
glass-0-1-6-vs-5	0.459 ± 0.368 [−]	0.818 ± 0.272 [3]	0.793 ± 0.293 [−]	0.701 ± 0.332 [−]	0.863 ± 0.244 [3,4,6,7]	0.701 ± 0.332 [3,7]	0.862 ± 0.244 [3,4]
ecoli-0-1-3-7-vs-2-6	0.741 ± 0.387 [−]	0.734 ± 0.383 [1,4]	0.735 ± 0.384 [1]	0.741 ± 0.387 [1]	0.736 ± 0.385 [1,4]	0.739 ± 0.385 [1]	0.733 ± 0.382 [1,4]
yeast-0-2-5-6-vs-3-7-8-9	0.719 ± 0.058 [2,3,5,7]	0.777 ± 0.049 [−]	0.777 ± 0.050 [−]	0.723 ± 0.072 [2,3,5,7]	0.767 ± 0.063 [−]	0.711 ± 0.077 [2,3,7]	0.758 ± 0.066 [−]
ecoli-0-1-4-7-vs-5-6	0.844 ± 0.132 [−]	0.884 ± 0.104 [1,4,6]	0.886 ± 0.088 [1,4,6]	0.877 ± 0.091 [1]	0.892 ± 0.085 [1,4,6]	0.883 ± 0.086 [−]	0.890 ± 0.089 [1,4,6]
yeast5	0.798 ± 0.083 [−]	0.926 ± 0.057 [−]	0.926 ± 0.052 [−]	0.900 ± 0.073 [−]	0.935 ± 0.056 [2,3,6,7]	0.905 ± 0.068 [4]	0.927 ± 0.057 [2,3]
shuttle-c2-vs-c4	0.182 ± 0.369 [−]	0.994 ± 0.041 [1,6]	0.994 ± 0.041 [1,6]	0.459 ± 0.468 [1]	0.908 ± 0.273 [1,4,6]	0.479 ± 0.469 [1,4]	0.908 ± 0.273 [1,4,6]
ecoli-0-1-4-7-vs-2-3-5-6	0.805 ± 0.133 [−]	0.840 ± 0.092 [1,4,6]	0.845 ± 0.091 [1,4,6]	0.837 ± 0.100 [1]	0.842 ± 0.100 [1,4,6]	0.839 ± 0.100 [1]	0.842 ± 0.095 [1,4,6]
yeast-0-3-5-9-vs-7-8	0.533 ± 0.123 [−]	0.679 ± 0.084 [4,6]	0.668 ± 0.095 [5,7]	0.512 ± 0.120 [−]	0.580 ± 0.124 [2,4]	0.538 ± 0.114 [−]	0.597 ± 0.123 [2,4,5]
yeast-1-vs-7	0.142 ± 0.199 [−]	0.526 ± 0.190 [all]	0.535 ± 0.192 [1,4,5,6,7]	0.512 ± 0.180 [−]	0.542 ± 0.203 [1,4,6]	0.583 ± 0.167 [−]	0.593 ± 0.187 [1,4,6]
yeast-1-2-8-9-vs-7	0.041 ± 0.122 [−]	0.481 ± 0.210 [1]	0.507 ± 0.206 [1,2]	0.355 ± 0.236 [1]	0.540 ± 0.214 [1]	0.495 ± 0.206 [1,2,4]	0.628 ± 0.117 [1,2,3,4]
ecoli-0-1-4-6-vs-5	0.873 ± 0.105 [−]	0.908 ± 0.081 [1,4]	0.906 ± 0.087 [1,4]	0.889 ± 0.100 [1]	0.902 ± 0.084 [1,4]	0.888 ± 0.100 [1,4]	0.902 ± 0.084 [1,2,3,4,6]
glass-0-1-5-vs-2	0.161 ± 0.246 [−]	0.606 ± 0.226 [−]	0.593 ± 0.222 [−]	0.673 ± 0.198 [1]	0.720 ± 0.143 [1,2,3]	0.694 ± 0.153 [1,2,3]	0.713 ± 0.147 [1,2,3]
yeast-2-vs-4	0.797 ± 0.083 [−]	0.865 ± 0.069 [1]	0.865 ± 0.071 [1]	0.817 ± 0.076 [1,2,3]	0.838 ± 0.075 [1,2,3]	0.828 ± 0.078 [1,2,3]	0.843 ± 0.076 [1,2,3]
glass-0-6-vs-5	0.521 ± 0.407 [−]	0.944 ± 0.099 [1,4,5,6,7]	0.930 ± 0.162 [1,4,5,6,7]	0.651 ± 0.349 [−]	0.879 ± 0.183 [1]	0.703 ± 0.312 [−]	0.885 ± 0.181 [1,4]
glass2	0.201 ± 0.271 [−]	0.649 ± 0.215 [1,4,5,6]	0.665 ± 0.188 [1,4,6]	0.701 ± 0.194 [1]	0.743 ± 0.156 [1,4,6]	0.715 ± 0.164 [1]	0.729 ± 0.158 [1,4,6]
yeast-2-vs-8	0.718 ± 0.181 [−]	0.733 ± 0.148 [1]	0.751 ± 0.142 [1]	0.718 ± 0.181 [1]	0.717 ± 0.180 [1,2,3,6]	0.718 ± 0.181 [1,2,3]	0.720 ± 0.178 [1,2,3]
vowel0	0.969 ± 0.041 [5]	0.989 ± 0.028 [1,4,5,6,7]	0.990 ± 0.028 [1,4,5,6,7]	0.818 ± 0.074 [5]	0.945 ± 0.065 [−]	0.908 ± 0.068 [5]	0.949 ± 0.059 [1,4,6]
glass-0-4-vs-5	0.560 ± 0.419 [4,5,6,7]	0.942 ± 0.157 [1,4,5,6,7]	0.947 ± 0.153 [1,4,5,6,7]	0.770 ± 0.289 [−]	0.953 ± 0.084 [4,6]	0.762 ± 0.330 [4]	0.935 ± 0.101 [4,5,6]
glass-0-1-4-6-vs-2	0.098 ± 0.210 [−]	0.642 ± 0.229 [1,4,6,7]	0.615 ± 0.261 [1,4,6,7]	0.639 ± 0.240 [1]	0.716 ± 0.180 [1,4,6]	0.706 ± 0.148 [1]	0.705 ± 0.182 [1,4]
yeast4	0.288 ± 0.183 [−]	0.662 ± 0.116 [1]	0.664 ± 0.121 [1]	0.662 ± 0.091 [1]	0.698 ± 0.097 [1,3]	0.692 ± 0.111 [1]	0.744 ± 0.083 [1,3]
ecoli-0-4-6-vs-5	0.892 ± 0.095 [−]	0.909 ± 0.090 [1]	0.905 ± 0.090 [1,2]	0.900 ± 0.088 [1]	0.901 ± 0.090 [1,2,4]	0.901 ± 0.088 [1]	0.902 ± 0.091 [all]
page-blocks-1-3-vs-4	0.789 ± 0.138 [−]	0.905 ± 0.105 [3,4,5,6,7]	0.895 ± 0.110 [1]	0.727 ± 0.145 [1]	0.820 ± 0.103 [1,6]	0.773 ± 0.146 [1]	0.819 ± 0.109 [1]
yeast-0-2-5-7-9-vs-3-6-8	0.885 ± 0.047 [4]	0.893 ± 0.041 [1,4,5,6,7]	0.892 ± 0.042 [1,4,5,6,7]	0.892 ± 0.046 [−]	0.898 ± 0.045 [1,4,6,7]	0.889 ± 0.046 [4]	0.895 ± 0.044 [1,4,6]
ecoli-0-1-vs-2-3-5	0.807 ± 0.125 [−]	0.865 ± 0.106 [3]	0.861 ± 0.109 [−]	0.829 ± 0.114 [6]	0.839 ± 0.109 [1]	0.836 ± 0.110 [−]	0.835 ± 0.107 [−]
ecoli-0-6-7-vs-3-5	0.750 ± 0.159 [−]	0.849 ± 0.118 [1]	0.853 ± 0.113 [1]	0.803 ± 0.129 [1]	0.808 ± 0.132 [7]	0.815 ± 0.119 [1,7]	0.818 ± 0.120 [−]
ecoli-0-3-4-7-vs-5-6	0.852 ± 0.116 [−]	0.885 ± 0.085 [1]	0.886 ± 0.086 [1]	0.862 ± 0.095 [−]	0.890 ± 0.086 [1]	0.886 ± 0.081 [1]	0.896 ± 0.087 [1]
ecoli-0-2-6-7-vs-3-5	0.747 ± 0.192 [−]	0.844 ± 0.111 [1]	0.850 ± 0.096 [1]	0.809 ± 0.127 [−]	0.807 ± 0.125 [−]	0.830 ± 0.106 [1]	0.822 ± 0.115 [2,3,6]
shuttle-c0-vs-c4	0.996 ± 0.008 [−]	0.996 ± 0.008 [1,5]	0.996 ± 0.008 [1,5]	0.995 ± 0.008 [5]	0.996 ± 0.008 [−]	0.995 ± 0.008 [1,5,7]	0.996 ± 0.008 [−]
ecoli-0-3-4-vs-5	0.888 ± 0.132 [−]	0.901 ± 0.121 [−]	0.899 ± 0.120 [−]	0.900 ± 0.126 [−]	0.904 ± 0.124 [3]	0.898 ± 0.122 [−]	0.898 ± 0.127 [−]

Table 11: Results for GMEAN metric

	kNN (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	1.537 [−]	5.061 [1,4,6]	4.866 [1,4,6]	2.720 [1]	5.110 [1,4,6]	3.427 [1,4]	5.280 [1,4,6]

Table 12: Results for mean ranks according to GMEAN metric