

Table 1: Accuracy

Classifier	Majority Voting ⁽¹⁾	Avg Aggregation ⁽²⁾	Decision Templates ⁽³⁾	OPTICS Decision Templates ⁽⁴⁾	Weighted OPTICS Decision Templates ⁽⁵⁾
Dataset					
ecoli-0_vs_1	0.97 ± 0.02 -	0.97 ± 0.02 -	0.97 ± 0.02 -	0.97 ± 0.01 -	0.97 ± 0.02 -
ecoli1	0.80 ± 0.09 -	0.79 ± 0.10 -	0.85 ± 0.03 1, 2	0.83 ± 0.02 -	0.85 ± 0.05 -
ecoli2	0.80 ± 0.11 2	0.80 ± 0.12 -	0.90 ± 0.04 1, 2, 5	0.94 ± 0.02 1, 2, 3, 5	0.81 ± 0.09 -
ecoli3	0.87 ± 0.03 2, 5	0.86 ± 0.03 5	0.86 ± 0.03 5	0.89 ± 0.03 1, 2, 3, 5	0.83 ± 0.05 -
glass-0-1-2-3_vs_4-5-6	0.89 ± 0.02 -	0.89 ± 0.02 -	0.88 ± 0.03 -	0.92 ± 0.02 1, 2, 3, 5	0.88 ± 0.03 -
glass0	0.64 ± 0.04 -	0.64 ± 0.04 -	0.64 ± 0.04 -	0.73 ± 0.04 1, 2, 3, 5	0.65 ± 0.04 -
glass1	0.58 ± 0.07 -	0.57 ± 0.07 -	0.59 ± 0.07 -	0.66 ± 0.02 1, 2, 3, 5	0.57 ± 0.05 -
glass6	0.92 ± 0.02 2, 5	0.91 ± 0.02 5	0.92 ± 0.02 2, 5	0.94 ± 0.01 2, 3, 5	0.88 ± 0.05 -
haberman	0.73 ± 0.02 4, 5	0.73 ± 0.02 4	0.72 ± 0.03 4, 5	0.64 ± 0.04 -	0.65 ± 0.09 -
iris0	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -
new-thyroid1	0.96 ± 0.02 5	0.96 ± 0.02 5	0.97 ± 0.02 5	0.98 ± 0.02 1, 2, 3, 5	0.95 ± 0.02 -
new-thyroid2	0.98 ± 0.01 5	0.98 ± 0.01 5	0.98 ± 0.01 5	0.98 ± 0.01 1, 2, 3, 5	0.97 ± 0.02 -
page-blocks0	0.90 ± 0.01 5	0.90 ± 0.01 5	0.90 ± 0.01 1, 2, 5	0.92 ± 0.01 1, 2, 3, 5	0.61 ± 0.05 -
pima	0.75 ± 0.02 4, 5	0.74 ± 0.02 4, 5	0.74 ± 0.02 4	0.65 ± 0.04 -	0.73 ± 0.02 4
segment0	0.80 ± 0.03 -	0.80 ± 0.03 -	0.81 ± 0.03 1, 2	0.96 ± 0.01 1, 2, 3, 5	0.82 ± 0.04 1, 2, 3
vehicle0	0.66 ± 0.02 -	0.66 ± 0.02 -	0.67 ± 0.02 -	0.79 ± 0.04 1, 2, 3, 5	0.67 ± 0.02 -
vehicle1	0.67 ± 0.01 2, 5	0.67 ± 0.01 5	0.68 ± 0.01 1, 2, 5	0.69 ± 0.02 1, 2, 3, 5	0.61 ± 0.05 -
vehicle2	0.78 ± 0.06 -	0.78 ± 0.06 -	0.79 ± 0.05 -	0.89 ± 0.03 1, 2, 3, 5	0.79 ± 0.07 -
vehicle3	0.67 ± 0.02 5	0.67 ± 0.02 5	0.68 ± 0.02 5	0.67 ± 0.03 5	0.60 ± 0.05 -
wisconsin	0.96 ± 0.01 5	0.96 ± 0.01 5	0.96 ± 0.01 5	0.96 ± 0.01 5	0.95 ± 0.01 -
yeast1	0.31 ± 0.01 -	0.31 ± 0.01 -	0.57 ± 0.16 1, 2	0.70 ± 0.01 1, 2, 3, 5	0.60 ± 0.07 1, 2
yeast3	0.51 ± 0.30 2	0.48 ± 0.26 -	0.88 ± 0.09 1, 2	0.92 ± 0.01 1, 2, 3	0.89 ± 0.06 1, 2

Table 2: Sensitivity

Classifier	Majority Voting ⁽¹⁾	Avg Aggregation ⁽²⁾	Decision Templates ⁽³⁾	OPTICS Decision Templates ⁽⁴⁾	Weighted OPTICS Decision Templates ⁽⁵⁾
Dataset					
ecoli-0_vs_1	0.93 ± 0.05 -	0.93 ± 0.05 -	0.93 ± 0.05 -	0.94 ± 0.04 -	0.93 ± 0.06 -
ecoli1	0.90 ± 0.05 4	0.91 ± 0.05 4	0.90 ± 0.04 4	0.68 ± 0.18 -	0.90 ± 0.03 4
ecoli2	0.92 ± 0.05 4	0.93 ± 0.04 3, 4	0.91 ± 0.04 4	0.81 ± 0.08 -	0.92 ± 0.04 4
ecoli3	0.92 ± 0.06 4	0.91 ± 0.07 4	0.93 ± 0.06 4	0.52 ± 0.24 -	0.93 ± 0.05 4
glass-0-1-2-3_vs_4-5-6	0.77 ± 0.09 -	0.80 ± 0.08 1	0.82 ± 0.08 1, 2	0.84 ± 0.09 -	0.90 ± 0.09 1, 2, 3
glass0	0.90 ± 0.07 3, 4	0.90 ± 0.07 3, 4, 5	0.86 ± 0.08 4	0.43 ± 0.17 -	0.79 ± 0.18 4
glass1	0.90 ± 0.04 3, 4	0.90 ± 0.04 3, 4	0.82 ± 0.07 4	0.52 ± 0.12 -	0.76 ± 0.23 -
glass6	0.86 ± 0.07 -	0.86 ± 0.07 -	0.88 ± 0.07 -	0.81 ± 0.12 -	0.93 ± 0.06 1, 2, 3, 4
haberman	0.41 ± 0.11 -	0.42 ± 0.11 -	0.45 ± 0.11 1, 2, 4	0.35 ± 0.08 -	0.43 ± 0.16 -
iris0	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -
new-thyroid1	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -
new-thyroid2	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	0.99 ± 0.02 -	1.00 ± 0.00 -
page-blocks0	0.60 ± 0.02 -	0.60 ± 0.02 -	0.67 ± 0.02 1, 2	0.57 ± 0.13 -	0.74 ± 0.16 1, 2, 4
pima	0.67 ± 0.03 4	0.68 ± 0.02 1, 4	0.69 ± 0.03 1, 2, 4, 5	0.59 ± 0.08 -	0.67 ± 0.04 4
segment0	0.98 ± 0.01 4	0.98 ± 0.01 4	0.98 ± 0.01 4	0.80 ± 0.05 -	0.98 ± 0.01 4
vehicle0	0.92 ± 0.04 3, 4, 5	0.92 ± 0.04 3, 4, 5	0.89 ± 0.04 4, 5	0.53 ± 0.13 -	0.86 ± 0.06 4
vehicle1	0.70 ± 0.06 3, 4	0.70 ± 0.06 3, 4	0.69 ± 0.05 4	0.48 ± 0.09 -	0.72 ± 0.08 4
vehicle2	0.71 ± 0.08 -	0.72 ± 0.08 1	0.75 ± 0.07 1, 2	0.81 ± 0.08 1, 2, 3, 5	0.71 ± 0.07 -
vehicle3	0.66 ± 0.04 4	0.67 ± 0.04 3, 4	0.65 ± 0.04 4	0.37 ± 0.08 -	0.66 ± 0.06 4
wisconsin	0.98 ± 0.01 4	0.98 ± 0.01 4	0.98 ± 0.01 4	0.97 ± 0.01 -	0.99 ± 0.01 1, 2, 3, 4
yeast1	0.99 ± 0.01 3, 4, 5	0.99 ± 0.01 3, 4, 5	0.81 ± 0.12 4	0.39 ± 0.04 -	0.75 ± 0.09 4
yeast3	0.96 ± 0.03 3, 4, 5	0.97 ± 0.03 3, 4, 5	0.91 ± 0.04 4	0.59 ± 0.10 -	0.90 ± 0.03 4

Table 3: Specificity

Classifier	Majority Voting ⁽¹⁾	Avg Aggregation ⁽²⁾	Decision Templates ⁽³⁾	OPTICS Decision Templates ⁽⁴⁾	Weighted OPTICS Decision Templates ⁽⁵⁾
Dataset					
ecoli-0_vs_1	0.99 ± 0.02 -	0.99 ± 0.02 -	0.99 ± 0.02 -	0.99 ± 0.01 -	0.98 ± 0.03 -
ecoli1	0.77 ± 0.13 -	0.76 ± 0.14 -	0.84 ± 0.04 1, 2	0.88 ± 0.05 1, 2, 3, 5	0.84 ± 0.06 -
ecoli2	0.78 ± 0.14 2	0.77 ± 0.15 -	0.89 ± 0.04 1, 2, 5	0.96 ± 0.02 1, 2, 3, 5	0.79 ± 0.11 -
ecoli3	0.86 ± 0.03 5	0.86 ± 0.04 5	0.86 ± 0.03 5	0.93 ± 0.03 1, 2, 3, 5	0.82 ± 0.06 -
glass-0-1-2-3_vs_4-5-6	0.93 ± 0.03 3, 5	0.91 ± 0.03 5	0.90 ± 0.03 -	0.94 ± 0.02 2, 3, 5	0.88 ± 0.04 -
glass0	0.51 ± 0.06 -	0.51 ± 0.06 -	0.53 ± 0.06 1, 2	0.87 ± 0.06 1, 2, 3, 5	0.59 ± 0.09 1, 2
glass1	0.40 ± 0.11 -	0.39 ± 0.10 -	0.46 ± 0.10 1, 2	0.74 ± 0.07 1, 2, 3, 5	0.47 ± 0.20 -
glass6	0.93 ± 0.03 2, 5	0.92 ± 0.03 5	0.93 ± 0.03 5	0.96 ± 0.02 1, 2, 3, 5	0.87 ± 0.07 -
haberman	0.84 ± 0.06 4	0.84 ± 0.07 4	0.81 ± 0.06 -	0.75 ± 0.07 -	0.73 ± 0.16 -
iris0	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -
new-thyroid1	0.96 ± 0.02 5	0.96 ± 0.02 5	0.96 ± 0.02 5	0.98 ± 0.02 1, 2, 3, 5	0.94 ± 0.02 -
new-thyroid2	0.97 ± 0.02 5	0.97 ± 0.02 5	0.97 ± 0.02 5	0.98 ± 0.01 1, 2, 3, 5	0.96 ± 0.03 -
page-blocks0	0.93 ± 0.01 2, 3, 5	0.93 ± 0.01 3, 5	0.93 ± 0.01 5	0.96 ± 0.01 1, 2, 3, 5	0.60 ± 0.06 -
pima	0.78 ± 0.03 2, 3, 4, 5	0.77 ± 0.03 3, 4	0.77 ± 0.02 4	0.68 ± 0.04 -	0.76 ± 0.03 4
segment0	0.77 ± 0.04 -	0.77 ± 0.04 -	0.79 ± 0.04 1, 2	0.98 ± 0.00 1, 2, 3, 5	0.79 ± 0.04 1, 2, 3
vehicle0	0.59 ± 0.03 -	0.58 ± 0.03 -	0.60 ± 0.03 1, 2	0.87 ± 0.03 1, 2, 3, 5	0.61 ± 0.03 1, 2, 3
vehicle1	0.66 ± 0.02 5	0.65 ± 0.02 5	0.67 ± 0.02 1, 2, 5	0.77 ± 0.04 1, 2, 3, 5	0.58 ± 0.06 -
vehicle2	0.81 ± 0.07 -	0.81 ± 0.07 -	0.80 ± 0.06 -	0.92 ± 0.03 1, 2, 3, 5	0.82 ± 0.09 -
vehicle3	0.68 ± 0.04 2, 5	0.67 ± 0.04 5	0.68 ± 0.03 5	0.77 ± 0.06 1, 2, 3, 5	0.58 ± 0.09 -
wisconsin	0.95 ± 0.02 5	0.95 ± 0.02 5	0.95 ± 0.02 5	0.95 ± 0.02 5	0.92 ± 0.02 -
yeast1	0.03 ± 0.01 -	0.03 ± 0.01 -	0.47 ± 0.27 1, 2	0.82 ± 0.02 1, 2, 3, 5	0.54 ± 0.12 1, 2
yeast3	0.46 ± 0.34 2	0.42 ± 0.29 -	0.87 ± 0.10 1, 2	0.96 ± 0.01 1, 2, 3, 5	0.89 ± 0.07 1, 2

Table 4: Precision

Classifier	Majority Voting ⁽¹⁾	Avg Aggregation ⁽²⁾	Decision Templates ⁽³⁾	OPTICS Decision Templates ⁽⁴⁾	Weighted OPTICS Decision Templates ⁽⁵⁾
Dataset					
ecoli-0_vs_1	0.98 ± 0.04 -	0.98 ± 0.04 -	0.98 ± 0.04 -	0.98 ± 0.03 -	0.97 ± 0.05 -
ecoli1	0.57 ± 0.11 -	0.56 ± 0.11 -	0.63 ± 0.05 1, 2	0.63 ± 0.05 -	0.63 ± 0.07 -
ecoli2	0.49 ± 0.16 2	0.48 ± 0.16 -	0.62 ± 0.09 1, 2, 5	0.81 ± 0.07 1, 2, 3, 5	0.48 ± 0.13 -
ecoli3	0.45 ± 0.07 2, 5	0.43 ± 0.07 5	0.44 ± 0.06 5	0.46 ± 0.16 -	0.40 ± 0.09 -
glass-0-1-2-3_vs_4-5-6	0.78 ± 0.06 5	0.75 ± 0.06 -	0.73 ± 0.06 -	0.82 ± 0.04 3, 5	0.71 ± 0.06 -
glass0	0.47 ± 0.03 -	0.47 ± 0.03 -	0.47 ± 0.03 -	0.61 ± 0.07 1, 2, 3, 5	0.48 ± 0.05 -
glass1	0.46 ± 0.05 -	0.45 ± 0.04 -	0.46 ± 0.05 -	0.52 ± 0.04 1, 2, 3, 5	0.45 ± 0.06 -
glass6	0.68 ± 0.09 2, 5	0.64 ± 0.08 -	0.67 ± 0.08 2, 5	0.76 ± 0.06 1, 2, 3, 5	0.56 ± 0.13 -
haberman	0.50 ± 0.07 4, 5	0.50 ± 0.06 3, 4, 5	0.48 ± 0.05 4	0.33 ± 0.05 -	0.40 ± 0.10 -
iris0	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -
new-thyroid1	0.82 ± 0.06 5	0.82 ± 0.06 5	0.83 ± 0.06 5	0.92 ± 0.07 1, 2, 3, 5	0.78 ± 0.06 -
new-thyroid2	0.87 ± 0.06 5	0.87 ± 0.06 5	0.87 ± 0.06 5	0.92 ± 0.05 1, 2, 3, 5	0.83 ± 0.09 -
page-blocks0	0.51 ± 0.03 5	0.50 ± 0.03 5	0.51 ± 0.02 1, 2, 5	0.61 ± 0.04 1, 2, 3, 5	0.18 ± 0.04 -
pima	0.63 ± 0.03 2, 3, 4, 5	0.62 ± 0.03 3, 4, 5	0.61 ± 0.02 4	0.49 ± 0.05 -	0.60 ± 0.03 4
segment0	0.42 ± 0.04 -	0.42 ± 0.04 -	0.44 ± 0.04 1, 2	0.88 ± 0.03 1, 2, 3, 5	0.45 ± 0.05 1, 2, 3
vehicle0	0.41 ± 0.02 -	0.41 ± 0.01 -	0.40 ± 0.02 -	0.55 ± 0.09 1, 2, 3, 5	0.40 ± 0.02 -
vehicle1	0.42 ± 0.01 2, 5	0.41 ± 0.01 5	0.42 ± 0.01 2, 5	0.42 ± 0.03 5	0.37 ± 0.04 -
vehicle2	0.58 ± 0.09 -	0.58 ± 0.09 -	0.57 ± 0.07 -	0.78 ± 0.07 1, 2, 3, 5	0.60 ± 0.10 -
vehicle3	0.41 ± 0.02 4, 5	0.41 ± 0.02 4, 5	0.41 ± 0.02 4, 5	0.35 ± 0.04 -	0.35 ± 0.04 -
wisconsin	0.91 ± 0.02 5	0.91 ± 0.02 5	0.91 ± 0.02 5	0.91 ± 0.02 5	0.87 ± 0.03 -
yeast1	0.29 ± 0.00 -	0.29 ± 0.00 -	0.41 ± 0.08 1, 2	0.47 ± 0.03 1, 2, 5	0.41 ± 0.04 1, 2
yeast3	0.27 ± 0.18 2	0.22 ± 0.11 -	0.51 ± 0.11 1, 2	0.65 ± 0.04 1, 2, 3, 5	0.53 ± 0.12 1, 2

Table 5: F1 score

Classifier	Majority Voting ⁽¹⁾	Avg Aggregation ⁽²⁾	Decision Templates ⁽³⁾	OPTICS Decision Templates ⁽⁴⁾	Weighted OPTICS Decision Templates ⁽⁵⁾
Dataset					
ecoli-0_vs_1	0.95 ± 0.02 -	0.95 ± 0.02 -	0.95 ± 0.02 -	0.96 ± 0.02 -	0.95 ± 0.03 -
ecoli1	0.69 ± 0.08 -	0.69 ± 0.09 -	0.74 ± 0.04 1, 2, 4	0.64 ± 0.09 -	0.74 ± 0.06 1, 2, 4
ecoli2	0.62 ± 0.13 -	0.62 ± 0.14 -	0.73 ± 0.07 1, 2, 5	0.81 ± 0.05 1, 2, 3, 5	0.62 ± 0.11 -
ecoli3	0.60 ± 0.06 2, 4, 5	0.58 ± 0.06 4	0.59 ± 0.05 4, 5	0.48 ± 0.18 -	0.55 ± 0.08 -
glass-0-1-2-3_vs_4-5-6	0.77 ± 0.04 -	0.77 ± 0.05 -	0.77 ± 0.06 -	0.83 ± 0.05 1, 2	0.79 ± 0.05 -
glass0	0.62 ± 0.04 4	0.62 ± 0.04 4	0.61 ± 0.04 4	0.49 ± 0.14 -	0.59 ± 0.08 4
glass1	0.60 ± 0.05 4	0.60 ± 0.04 4	0.59 ± 0.05 4	0.51 ± 0.07 -	0.54 ± 0.07 -
glass6	0.75 ± 0.05 2, 5	0.73 ± 0.05 -	0.75 ± 0.05 2, 5	0.78 ± 0.04 5	0.69 ± 0.09 -
haberman	0.44 ± 0.06 4, 5	0.44 ± 0.06 4, 5	0.45 ± 0.06 1, 2, 4, 5	0.34 ± 0.05 -	0.38 ± 0.07 -
iris0	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -
new-thyroid1	0.90 ± 0.04 5	0.90 ± 0.04 5	0.91 ± 0.04 5	0.95 ± 0.04 1, 2, 3, 5	0.87 ± 0.04 -
new-thyroid2	0.93 ± 0.04 5	0.93 ± 0.04 5	0.93 ± 0.04 5	0.95 ± 0.02 5	0.91 ± 0.05 -
page-blocks0	0.55 ± 0.02 5	0.55 ± 0.02 5	0.58 ± 0.02 1, 2, 5	0.58 ± 0.09 5	0.28 ± 0.06 -
pima	0.65 ± 0.02 4, 5	0.65 ± 0.02 4, 5	0.65 ± 0.02 4, 5	0.54 ± 0.05 -	0.64 ± 0.02 4
segment0	0.59 ± 0.04 -	0.59 ± 0.04 -	0.60 ± 0.04 1, 2	0.84 ± 0.03 1, 2, 3, 5	0.61 ± 0.05 1, 2, 3
vehicle0	0.56 ± 0.02 5	0.56 ± 0.02 5	0.56 ± 0.02 -	0.54 ± 0.11 -	0.55 ± 0.03 -
vehicle1	0.52 ± 0.03 2, 4, 5	0.52 ± 0.02 4, 5	0.52 ± 0.02 2, 4, 5	0.44 ± 0.05 -	0.49 ± 0.05 4
vehicle2	0.63 ± 0.08 -	0.64 ± 0.07 -	0.65 ± 0.07 -	0.79 ± 0.05 1, 2, 3, 5	0.65 ± 0.07 -
vehicle3	0.50 ± 0.01 4, 5	0.50 ± 0.01 4, 5	0.50 ± 0.01 4, 5	0.35 ± 0.05 -	0.45 ± 0.03 4
wisconsin	0.94 ± 0.01 5	0.94 ± 0.01 5	0.94 ± 0.01 5	0.94 ± 0.01 5	0.93 ± 0.01 -
yeast1	0.45 ± 0.00 -	0.45 ± 0.00 -	0.54 ± 0.05 1, 2, 4	0.43 ± 0.03 -	0.53 ± 0.04 1, 2, 4
yeast3	0.39 ± 0.20 2	0.34 ± 0.14 -	0.65 ± 0.11 1, 2	0.61 ± 0.06 1, 2	0.66 ± 0.10 1, 2

Table 6: Balanced Accuracy

Classifier	Majority Voting ⁽¹⁾	Avg Aggregation ⁽²⁾	Decision Templates ⁽³⁾	OPTICS Decision Templates ⁽⁴⁾	Weighted OPTICS Decision Templates ⁽⁵⁾
Dataset					
ecoli-0_vs_1	0.96 ± 0.02 -	0.96 ± 0.02 -	0.96 ± 0.02 -	0.96 ± 0.02 -	0.96 ± 0.03 -
ecoli1	0.83 ± 0.05 -	0.84 ± 0.06 -	0.87 ± 0.02 1, 2, 4	0.78 ± 0.07 -	0.87 ± 0.04 1, 2, 4
ecoli2	0.85 ± 0.06 -	0.85 ± 0.06 -	0.90 ± 0.03 1, 5	0.89 ± 0.04 -	0.86 ± 0.05 -
ecoli3	0.89 ± 0.03 2, 4, 5	0.88 ± 0.03 4	0.89 ± 0.03 4, 5	0.73 ± 0.11 -	0.88 ± 0.03 4
glass-0-1-2-3_vs_4-5-6	0.85 ± 0.03 -	0.85 ± 0.04 -	0.86 ± 0.04 -	0.89 ± 0.04 -	0.89 ± 0.04 1, 2, 3
glass0	0.71 ± 0.04 4	0.71 ± 0.04 4	0.70 ± 0.04 -	0.65 ± 0.07 -	0.69 ± 0.06 -
glass1	0.65 ± 0.06 -	0.65 ± 0.05 -	0.64 ± 0.06 -	0.63 ± 0.04 -	0.61 ± 0.03 -
glass6	0.90 ± 0.03 2	0.89 ± 0.03 -	0.90 ± 0.03 2	0.89 ± 0.05 -	0.90 ± 0.02 -
haberman	0.63 ± 0.03 4, 5	0.63 ± 0.03 4, 5	0.63 ± 0.04 4, 5	0.55 ± 0.03 -	0.58 ± 0.05 -
iris0	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -
new-thyroid1	0.98 ± 0.01 5	0.98 ± 0.01 5	0.98 ± 0.01 5	0.99 ± 0.01 1, 2, 3, 5	0.97 ± 0.01 -
new-thyroid2	0.99 ± 0.01 5	0.99 ± 0.01 5	0.99 ± 0.01 5	0.99 ± 0.01 -	0.98 ± 0.01 -
page-blocks0	0.76 ± 0.01 5	0.77 ± 0.01 5	0.80 ± 0.01 1, 2, 5	0.76 ± 0.06 5	0.67 ± 0.08 -
pima	0.73 ± 0.02 4, 5	0.73 ± 0.02 4, 5	0.73 ± 0.02 4, 5	0.63 ± 0.04 -	0.72 ± 0.02 4
segment0	0.88 ± 0.02 -	0.88 ± 0.02 -	0.88 ± 0.02 1, 2	0.89 ± 0.02 -	0.89 ± 0.02 1, 2
vehicle0	0.75 ± 0.02 3, 5	0.75 ± 0.02 3, 5	0.74 ± 0.03 -	0.70 ± 0.07 -	0.73 ± 0.03 -
vehicle1	0.68 ± 0.02 2, 4, 5	0.68 ± 0.02 4, 5	0.68 ± 0.02 2, 4, 5	0.62 ± 0.03 -	0.65 ± 0.05 -
vehicle2	0.76 ± 0.06 -	0.77 ± 0.06 -	0.77 ± 0.05 1, 5	0.86 ± 0.04 1, 2, 3, 5	0.77 ± 0.05 -
vehicle3	0.67 ± 0.01 4, 5	0.67 ± 0.01 4, 5	0.67 ± 0.01 4, 5	0.57 ± 0.03 -	0.62 ± 0.03 4
wisconsin	0.96 ± 0.01 5	0.96 ± 0.01 5	0.96 ± 0.01 5	0.96 ± 0.01 -	0.96 ± 0.01 -
yeast1	0.51 ± 0.01 -	0.51 ± 0.01 -	0.64 ± 0.08 1, 2	0.61 ± 0.02 1, 2	0.65 ± 0.04 1, 2, 4
yeast3	0.71 ± 0.16 2	0.69 ± 0.14 -	0.89 ± 0.04 1, 2, 4	0.77 ± 0.05 -	0.89 ± 0.04 1, 2, 4

Table 7: G-mean

Classifier	Majority Voting ⁽¹⁾	Avg Aggregation ⁽²⁾	Decision Templates ⁽³⁾	OPTICS Decision Templates ⁽⁴⁾	Weighted OPTICS Decision Templates ⁽⁵⁾
Dataset					
ecoli-0_vs_1	0.96 ± 0.02 -	0.96 ± 0.02 -	0.96 ± 0.02 -	0.96 ± 0.02 -	0.96 ± 0.03 -
ecoli1	0.83 ± 0.06 -	0.83 ± 0.07 -	0.87 ± 0.02 1, 2, 4	0.76 ± 0.09 -	0.87 ± 0.04 1, 2, 4
ecoli2	0.84 ± 0.07 -	0.84 ± 0.07 -	0.90 ± 0.03 1, 5	0.88 ± 0.04 -	0.85 ± 0.06 -
ecoli3	0.89 ± 0.03 2, 4, 5	0.88 ± 0.03 4	0.89 ± 0.03 4, 5	0.67 ± 0.19 -	0.87 ± 0.03 4
glass-0-1-2-3_vs_4-5-6	0.84 ± 0.04 -	0.85 ± 0.04 -	0.86 ± 0.05 -	0.89 ± 0.04 -	0.89 ± 0.04 1, 2, 3
glass0	0.68 ± 0.04 -	0.68 ± 0.04 -	0.67 ± 0.04 -	0.59 ± 0.12 5	0.67 ± 0.06 4
glass1	0.60 ± 0.08 -	0.59 ± 0.08 -	0.61 ± 0.07 -	0.61 ± 0.05 5	0.55 ± 0.05 -
glass6	0.90 ± 0.03 2	0.89 ± 0.03 -	0.90 ± 0.03 2	0.88 ± 0.06 -	0.90 ± 0.03 -
haberman	0.58 ± 0.06 4	0.59 ± 0.06 4	0.60 ± 0.06 1, 2, 4, 5	0.50 ± 0.05 -	0.53 ± 0.07 -
iris0	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -	1.00 ± 0.00 -
new-thyroid1	0.98 ± 0.01 5	0.98 ± 0.01 5	0.98 ± 0.01 5	0.99 ± 0.01 1, 2, 3, 5	0.97 ± 0.01 -
new-thyroid2	0.99 ± 0.01 5	0.99 ± 0.01 5	0.99 ± 0.01 5	0.99 ± 0.01 -	0.98 ± 0.01 -
page-blocks0	0.75 ± 0.01 5	0.75 ± 0.01 5	0.79 ± 0.01 1, 2, 5	0.73 ± 0.09 5	0.66 ± 0.08 -
pima	0.73 ± 0.02 4, 5	0.73 ± 0.02 4, 5	0.73 ± 0.02 4, 5	0.63 ± 0.05 -	0.72 ± 0.02 4
segment0	0.87 ± 0.02 -	0.87 ± 0.02 -	0.88 ± 0.02 1, 2	0.89 ± 0.03 -	0.88 ± 0.02 1, 2, 3
vehicle0	0.73 ± 0.02 -	0.73 ± 0.02 -	0.73 ± 0.02 -	0.67 ± 0.09 -	0.72 ± 0.03 -
vehicle1	0.68 ± 0.02 2, 4, 5	0.68 ± 0.02 4, 5	0.68 ± 0.02 2, 4, 5	0.60 ± 0.05 -	0.64 ± 0.05 4
vehicle2	0.76 ± 0.06 -	0.76 ± 0.06 -	0.77 ± 0.05 1, 5	0.86 ± 0.04 1, 2, 3, 5	0.76 ± 0.05 -
vehicle3	0.67 ± 0.01 4, 5	0.67 ± 0.01 4, 5	0.67 ± 0.01 4, 5	0.52 ± 0.05 -	0.61 ± 0.03 4
wisconsin	0.96 ± 0.01 5	0.96 ± 0.01 5	0.96 ± 0.01 5	0.96 ± 0.01 -	0.96 ± 0.01 -
yeast1	0.18 ± 0.02 -	0.17 ± 0.03 -	0.56 ± 0.20 1, 2	0.57 ± 0.03 1, 2	0.63 ± 0.06 1, 2, 4
yeast3	0.61 ± 0.24 2	0.59 ± 0.22 -	0.89 ± 0.05 1, 2, 4	0.75 ± 0.06 -	0.89 ± 0.04 1, 2, 4

Table 8: Ranking

Classifier	Majority Voting ⁽¹⁾	Avg Aggregation ⁽²⁾	Decision Templates ⁽³⁾	OPTICS Decision Templates ⁽⁴⁾	Weighted OPTICS Decision Templates ⁽⁵⁾
Accuracy	3.05 2	2.14 -	3.39 2, 5	4.18 1, 2, 3, 5	2.25 -
Sensitivity	3.07 4	3.61 1, 4	3.27 4	1.68 -	3.36 4
Specificity	3.00 2	2.07 -	3.07 2	4.59 1, 2, 3, 5	2.27 -
Precision	3.20 2	2.34 -	3.27 2, 5	4.27 1, 2, 3, 5	1.91 -
F1 score	3.20 -	2.80 -	3.82 2, 5	2.86 -	2.32 -
Balanced Accuracy	2.98 -	2.86 -	3.93 1, 2, 4, 5	2.64 -	2.59 -
G-mean	3.00 -	2.73 -	3.95 1, 2, 4, 5	2.73 -	2.59 -