

Random Forests

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No Institute Given

1 Introduction

Table 1. CART – AUC

Dataset name	SMOTE	polynom-fit-SMOTE	Lee	SMOBD	G-SMOTE	LQV-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-re	JFOTS-prom
abalone19	0.561 ± 0.012	0.563 ± 0.015	0.546 ± 0.038	0.565 ± 0.042	0.545 ± 0.052	0.537 ± 0.051	0.555 ± 0.047	0.561 ± 0.042	0.555 ± 0.019	0.540 ± 0.045	0.547 ± 0.070
abalone1	0.665 ± 0.059	0.669 ± 0.040	0.672 ± 0.051	0.685 ± 0.051	0.653 ± 0.033	0.684 ± 0.082	0.649 ± 0.038	0.667 ± 0.062	0.658 ± 0.041	0.561 ± 0.075	0.613 ± 0.061
ecoli - 0 - 1 - 3 - 7, s ₂ - 6	0.790 ± 0.115	0.790 ± 0.115	0.790 ± 0.115	0.815 ± 0.063	0.776 ± 0.100	0.790 ± 0.115	0.790 ± 0.115	0.790 ± 0.115	0.694 ± 0.110	0.609 ± 0.088	0.713 ± 0.115
glass - 0 - 1 - 6, s ₂	0.629 ± 0.058	0.570 ± 0.054	0.663 ± 0.054	0.642 ± 0.063	0.609 ± 0.057	0.588 ± 0.108	0.633 ± 0.108	0.628 ± 0.055	0.653 ± 0.106	0.576 ± 0.043	0.608 ± 0.052
glass - 0 - 1 - 6, s ₃	0.860 ± 0.133	0.858 ± 0.133	0.860 ± 0.133	0.860 ± 0.133	0.794 ± 0.185	0.804 ± 0.133	0.860 ± 0.133	0.860 ± 0.133	0.765 ± 0.151	0.883 ± 0.154	0.763 ± 0.158
glass2	0.591 ± 0.121	0.563 ± 0.077	0.577 ± 0.111	0.610 ± 0.101	0.599 ± 0.108	0.582 ± 0.110	0.575 ± 0.094	0.606 ± 0.124	0.586 ± 0.076	0.550 ± 0.077	0.616 ± 0.091
glass4	0.854 ± 0.086	0.835 ± 0.053	0.854 ± 0.087	0.845 ± 0.086	0.857 ± 0.082	0.808 ± 0.090	0.853 ± 0.090	0.854 ± 0.086	0.797 ± 0.109	0.764 ± 0.149	0.770 ± 0.114
glass5	0.851 ± 0.154	0.849 ± 0.153	0.851 ± 0.154	0.851 ± 0.154	0.862 ± 0.160	0.935 ± 0.107	0.851 ± 0.154	0.851 ± 0.154	0.836 ± 0.150	0.895 ± 0.127	0.791 ± 0.156
page - blocks - 1 - 3, s ₄	0.969 ± 0.059	0.949 ± 0.060	0.966 ± 0.068	0.964 ± 0.068	0.972 ± 0.063	0.962 ± 0.050	0.983 ± 0.032	0.969 ± 0.059	0.962 ± 0.062	0.884 ± 0.100	0.924 ± 0.089
yeast - 0 - 5 - 6 - 7 - 9, s ₄	0.696 ± 0.057	0.680 ± 0.048	0.713 ± 0.047	0.694 ± 0.056	0.677 ± 0.039	0.712 ± 0.055	0.688 ± 0.037	0.701 ± 0.042	0.692 ± 0.046	0.496 ± 0.008	0.675 ± 0.058
yeast - 1 - 2 - 8 - 9, s ₇	0.588 ± 0.028	0.578 ± 0.047	0.590 ± 0.030	0.578 ± 0.047	0.599 ± 0.051	0.647 ± 0.062	0.586 ± 0.023	0.604 ± 0.044	0.554 ± 0.057	0.511 ± 0.004	0.561 ± 0.041
yeast - 1 - 4 - 5 - 8, s ₉	0.532 ± 0.049	0.554 ± 0.026	0.535 ± 0.064	0.522 ± 0.045	0.537 ± 0.052	0.518 ± 0.041	0.551 ± 0.029	0.526 ± 0.048	0.506 ± 0.033	0.505 ± 0.003	0.538 ± 0.056
yeast - 1, s ₇	0.613 ± 0.057	0.623 ± 0.049	0.601 ± 0.067	0.635 ± 0.052	0.598 ± 0.055	0.659 ± 0.038	0.616 ± 0.048	0.609 ± 0.053	0.584 ± 0.046	0.511 ± 0.029	0.599 ± 0.068
yeast - 2, s ₄	0.845 ± 0.046	0.840 ± 0.055	0.865 ± 0.043	0.861 ± 0.068	0.854 ± 0.053	0.862 ± 0.041	0.865 ± 0.042	0.839 ± 0.037	0.815 ± 0.050	0.583 ± 0.141	0.810 ± 0.033
yeast - 2, s ₆	0.730 ± 0.089	0.762 ± 0.068	0.775 ± 0.104	0.778 ± 0.084	0.760 ± 0.070	0.751 ± 0.045	0.747 ± 0.065	0.741 ± 0.087	0.756 ± 0.049	0.520 ± 0.031	0.743 ± 0.049
yeast4	0.675 ± 0.044	0.657 ± 0.032	0.689 ± 0.061	0.699 ± 0.049	0.633 ± 0.041	0.719 ± 0.055	0.674 ± 0.083	0.678 ± 0.046	0.676 ± 0.050	0.497 ± 0.069	0.686 ± 0.055
yeast5	0.862 ± 0.073	0.846 ± 0.068	0.846 ± 0.064	0.859 ± 0.068	0.855 ± 0.065	0.878 ± 0.049	0.868 ± 0.057	0.864 ± 0.076	0.841 ± 0.048	0.510 ± 0.001	0.777 ± 0.113
yeast6	0.730 ± 0.066	0.692 ± 0.047	0.725 ± 0.067	0.747 ± 0.062	0.743 ± 0.047	0.768 ± 0.051	0.742 ± 0.059	0.731 ± 0.064	0.679 ± 0.058	0.521 ± 0.033	0.687 ± 0.050
cleveland - 0, s ₁	0.814 ± 0.055	0.731 ± 0.129	0.785 ± 0.103	0.782 ± 0.083	0.750 ± 0.127	0.745 ± 0.048	0.801 ± 0.063	0.814 ± 0.055	0.756 ± 0.084	0.736 ± 0.097	0.690 ± 0.070
ecoli - 0 - 1 - 4 - 7, s ₂ - 3 - 5 - 6	0.792 ± 0.074	0.794 ± 0.048	0.822 ± 0.039	0.790 ± 0.069	0.776 ± 0.066	0.822 ± 0.050	0.827 ± 0.054	0.806 ± 0.077	0.721 ± 0.104	0.550 ± 0.083	0.745 ± 0.084
ecoli - 0 - 1, s ₂ - 3 - 5 - 6	0.799 ± 0.062	0.806 ± 0.102	0.784 ± 0.059	0.749 ± 0.042	0.788 ± 0.041	0.841 ± 0.058	0.781 ± 0.050	0.800 ± 0.062	0.753 ± 0.087	0.649 ± 0.137	0.759 ± 0.083
ecoli - 0 - 2 - 6 - 7, s ₃ - 5	0.799 ± 0.045	0.787 ± 0.062	0.809 ± 0.054	0.822 ± 0.075	0.829 ± 0.057	0.827 ± 0.063	0.778 ± 0.066	0.802 ± 0.047	0.773 ± 0.057	0.566 ± 0.129	0.804 ± 0.060
ecoli - 0 - 6 - 7, s ₃ - 5	0.795 ± 0.069	0.794 ± 0.048	0.810 ± 0.052	0.813 ± 0.063	0.832 ± 0.070	0.834 ± 0.060	0.790 ± 0.056	0.796 ± 0.069	0.773 ± 0.056	0.594 ± 0.147	0.767 ± 0.098
ecoli - 0 - 6 - 7, s ₃	0.840 ± 0.068	0.840 ± 0.074	0.828 ± 0.068	0.838 ± 0.071	0.837 ± 0.064	0.842 ± 0.044	0.825 ± 0.060	0.839 ± 0.070	0.850 ± 0.078	0.574 ± 0.127	0.835 ± 0.094
glass - 0 - 1 - 4 - 6, s ₂	0.595 ± 0.051	0.560 ± 0.082	0.610 ± 0.072	0.591 ± 0.062	0.613 ± 0.070	0.638 ± 0.077	0.558 ± 0.066	0.576 ± 0.062	0.558 ± 0.071	0.557 ± 0.034	0.569 ± 0.069
glass - 0 - 1 - 5, s ₂	0.689 ± 0.067	0.597 ± 0.068	0.677 ± 0.082	0.713 ± 0.110	0.631 ± 0.069	0.605 ± 0.090	0.649 ± 0.079	0.678 ± 0.062	0.508 ± 0.070	0.536 ± 0.072	0.561 ± 0.088
yeast - 0 - 2 - 5 - 6, s ₃ - 7 - 8 - 9	0.713 ± 0.057	0.712 ± 0.051	0.735 ± 0.038	0.714 ± 0.027	0.717 ± 0.033	0.729 ± 0.046	0.709 ± 0.037	0.700 ± 0.034	0.646 ± 0.062	0.541 ± 0.061	0.645 ± 0.035
yeast - 0 - 3 - 5 - 9, s ₇ - 8	0.598 ± 0.035	0.638 ± 0.041	0.621 ± 0.044	0.623 ± 0.050	0.614 ± 0.049	0.629 ± 0.050	0.615 ± 0.028	0.630 ± 0.031	0.550 ± 0.059	0.512 ± 0.016	0.563 ± 0.064
abalone - 17, s ₇ - 8 - 9 - 10	0.644 ± 0.041	0.642 ± 0.033	0.643 ± 0.042	0.660 ± 0.045	0.645 ± 0.045	0.667 ± 0.024	0.646 ± 0.039	0.642 ± 0.036	0.633 ± 0.055	0.569 ± 0.057	0.603 ± 0.051
abalone - 19, s ₁₀ - 11 - 12 - 13	0.556 ± 0.041	0.517 ± 0.024	0.556 ± 0.050	0.548 ± 0.035	0.541 ± 0.055	0.576 ± 0.050	0.557 ± 0.034	0.560 ± 0.028	0.523 ± 0.039	0.514 ± 0.041	0.527 ± 0.058
abalone - 20, s ₃ - 9 - 10	0.696 ± 0.050	0.584 ± 0.065	0.671 ± 0.065	0.682 ± 0.050	0.630 ± 0.071	0.789 ± 0.061	0.681 ± 0.059	0.696 ± 0.050	0.621 ± 0.054	0.389 ± 0.042	0.606 ± 0.068
abalone - 21, s ₄	0.726 ± 0.121	0.655 ± 0.074	0.699 ± 0.092	0.691 ± 0.116	0.736 ± 0.075	0.790 ± 0.070	0.692 ± 0.105	0.734 ± 0.126	0.712 ± 0.125	0.614 ± 0.092	0.649 ± 0.081
flare - F	0.558 ± 0.035	0.581 ± 0.030	0.570 ± 0.045	0.578 ± 0.038	0.588 ± 0.025	0.580 ± 0.034	0.576 ± 0.048	0.577 ± 0.035	0.636 ± 0.083	0.575 ± 0.068	0.666 ± 0.078
kddcup - buffer_overflow, s ₁ - 1	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
kddcup - rootkit - insomn ₃ , s ₁ - 1	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
kr - vs - k - zero, s ₁ , right	0.961 ± 0.050	0.965 ± 0.051	0.965 ± 0.052	0.965 ± 0.051	0.968 ± 0.042	0.954 ± 0.074	0.954 ± 0.058	0.961 ± 0.050	0.771 ± 0.082	0.702 ± 0.042	0.858 ± 0.115
poker - 8 - 9, s ₃	0.572 ± 0.039	0.558 ± 0.049	0.566 ± 0.032	0.572 ± 0.032	0.545 ± 0.051	0.585 ± 0.070	0.543 ± 0.028	0.572 ± 0.039	0.531 ± 0.048	0.517 ± 0.054	0.522 ± 0.031
poker - 8 - 9, s ₄	0.680 ± 0.087	0.824 ± 0.141	0.670 ± 0.096	0.644 ± 0.084	0.750 ± 0.143	0.628 ± 0.096	0.657 ± 0.105	0.680 ± 0.087	0.969 ± 0.001	0.999 ± 0.001	0.999 ± 0.001
poker - 8, s ₄	0.685 ± 0.101	0.685 ± 0.163	0.703 ± 0.123	0.685 ± 0.095	0.691 ± 0.098	0.669 ± 0.162	0.677 ± 0.100	0.685 ± 0.101	0.931 ± 0.085	0.931 ± 0.084	0.832 ± 0.165
poker - 9, s ₇	0.564 ± 0.082	0.548 ± 0.063	0.564 ± 0.082	0.562 ± 0.084	0.586 ± 0.095	0.613 ± 0.127	0.563 ± 0.081	0.564 ± 0.082	0.686 ± 0.209	0.647 ± 0.162	0.621 ± 0.158
winequality - red - 3, s ₃	0.516 ± 0.043	0.529 ± 0.066	0.506 ± 0.040	0.518 ± 0.045	0.528 ± 0.089	0.565 ± 0.056	0.525 ± 0.064	0.516 ± 0.043	0.519 ± 0.047	0.528 ± 0.049	0.557 ± 0.082
winequality - red - 4	0.552 ± 0.048	0.528 ± 0.030	0.570 ± 0.029	0.572 ± 0.036	0.564 ± 0.049	0.571 ± 0.036	0.548 ± 0.017	0.552 ± 0.050	0.557 ± 0.031	0.531 ± 0.031	0.547 ± 0.038
winequality - red - 8, s ₄ - 7	0.543 ± 0.041	0.557 ± 0.050	0.550 ± 0.039	0.562 ± 0.051	0.556 ± 0.054	0.555 ± 0.043	0.545 ± 0.048	0.543 ± 0.041	0.544 ± 0.043	0.529 ± 0.053	0.539 ± 0.039
winequality - red - 8, s ₄	0.609 ± 0.052	0.608 ± 0.064	0.605 ± 0.046	0.603 ± 0.067	0.579 ± 0.047	0.614 ± 0.058	0.630 ± 0.056	0.609 ± 0.052	0.577 ± 0.044	0.566 ± 0.063	0.571 ± 0.058
winequality - white - 3 - 9, s ₃	0.566 ± 0.063	0.544 ± 0.047	0.540 ± 0.054	0.546 ± 0.056	0.533 ± 0.061	0.645 ± 0.056	0.535 ± 0.037	0.566 ± 0.063	0.528 ± 0.031	0.509 ± 0.019	0.525 ± 0.021
winequality - white - 3, s ₃	0.539 ± 0.045	0.557 ± 0.060	0.576 ± 0.061	0.567 ± 0.055	0.590 ± 0.046	0.737 ± 0.086	0.524 ± 0.047	0.539 ± 0.045	0.546 ± 0.032	0.578 ± 0.076	0.574 ± 0.066
winequality - white - 9, s ₄	0.722 ± 0.163	0.672 ± 0.100	0.721 ± 0.162	0.721 ± 0.162	0.722 ± 0.162	0.692 ± 0.141	0.721 ± 0.163	0.722 ± 0.163	0.573 ± 0.112	0.573 ± 0.112	0.573 ± 0.112
zoo - 3	0.658 ± 0.189	0.608 ± 0.123	0.665 ± 0.158	0.650 ± 0.156	0.635 ± 0.160	0.738 ± 0.159	0.639 ± 0.122	0.658 ± 0.189	0.509 ± 0.127	0.509 ± 0.127	0.000 ± 0.000
ecoli1	0.841 ± 0.056	0.818 ± 0.039	0.827 ± 0.049	0.836 ± 0.039	0.837 ± 0.041	0.842 ± 0.033	0.822 ± 0.048	0.860 ± 0.041	0.751 ± 0.067	0.556 ± 0.105	0.000 ± 0.000
ecoli2	0.855 ± 0.028	0.838 ± 0.035	0.850 ± 0.033	0.852 ± 0.036	0.848 ± 0.028	0.866 ± 0.037	0.852 ± 0.041	0.855 ± 0.028	0.777 ± 0.083	0.578 ± 0.113	0.000 ± 0.000
glass0	0.767 ± 0.036	0.770 ± 0.060	0.772 ± 0.038	0.787 ± 0.033	0.777 ± 0.042	0.802 ± 0.041	0.794 ± 0.040	0.774 ± 0.025	0.746 ± 0.051	0.673 ± 0.069	0.000 ± 0.000
glass1	0.719 ± 0.029	0.733 ± 0.031	0.727 ± 0.054	0.726 ± 0.058	0.714 ± 0.045	0.717 ± 0.046	0.726 ± 0.061	0.716 ± 0.053	0.676 ± 0.081	0.591 ± 0.058	0.000 ± 0.000
haberman	0.584 ± 0.035	0.567 ± 0.025	0.573 ± 0.041	0.563 ± 0.045	0.572 ± 0.052	0.577 ± 0.038	0.565 ± 0.055	0.596 ± 0.045	0.584 ± 0.025	0.536 ± 0.058	0.000 ± 0.000
page - blocks0	0.917 ± 0.012	0.898 ± 0.010	0.915 ± 0.010	0.914 ± 0.008	0.906 ± 0.009	0.900 ± 0.009	0.919 ± 0.011	0.917 ± 0.008	0.907 ± 0.013	0.895 ± 0.014	0.000 ± 0.000
pinus	0.665 ± 0.020	0.673 ± 0.023	0.660 ± 0.021	0.665 ± 0.015	0.660 ± 0.023	0.678 ± 0.027	0.658 ± 0.021	0.670 ± 0.025	0.659 ± 0.030	0.600 ± 0.041	0.000 ± 0.000
vehicle1	0.668 ± 0.024	0.668 ± 0.021	0.680 ± 0.022	0.673 ± 0.025	0.666 ± 0.027	0.685 ± 0.023	0.674 ± 0.024	0.676 ± 0.014	0.663 ± 0.019	0.665 ± 0.021	0.000 ±

Table 2. SVM – AUC

Dataset name	SMOTE	polynom-ft-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone19</i>	0.593 ± 0.063	0.569 ± 0.048	0.593 ± 0.057	0.599 ± 0.065	0.602 ± 0.063	0.655 ± 0.056	0.593 ± 0.062	0.593 ± 0.063	0.620 ± 0.082	0.597 ± 0.083	0.610 ± 0.047
<i>abalone18</i>	0.740 ± 0.052	0.698 ± 0.036	0.745 ± 0.055	0.750 ± 0.042	0.738 ± 0.053	0.792 ± 0.043	0.739 ± 0.038	0.739 ± 0.051	0.678 ± 0.060	0.661 ± 0.091	0.668 ± 0.076
<i>ecoli</i> – 0 – 1 – 3 – 7 – s_2	0.845 ± 0.075	0.847 ± 0.078	0.838 ± 0.074	0.842 ± 0.076	0.845 ± 0.079	0.828 ± 0.078	0.844 ± 0.075	0.845 ± 0.075	0.844 ± 0.110	0.840 ± 0.110	0.861 ± 0.092
<i>glass</i> – 0 – 1 – 6 – s_2	0.740 ± 0.099	0.697 ± 0.081	0.744 ± 0.090	0.740 ± 0.079	0.690 ± 0.076	0.622 ± 0.083	0.743 ± 0.072	0.740 ± 0.100	0.724 ± 0.090	0.673 ± 0.092	0.694 ± 0.065
<i>glass</i> – 0 – 1 – 6 – s_2	0.820 ± 0.098	0.820 ± 0.098	0.820 ± 0.098	0.820 ± 0.098	0.792 ± 0.116	0.843 ± 0.117	0.820 ± 0.098	0.820 ± 0.098	0.784 ± 0.123	0.869 ± 0.153	0.808 ± 0.146
<i>glass2</i>	0.642 ± 0.143	0.638 ± 0.134	0.648 ± 0.140	0.637 ± 0.137	0.651 ± 0.137	0.677 ± 0.158	0.648 ± 0.146	0.641 ± 0.143	0.626 ± 0.130	0.631 ± 0.118	0.643 ± 0.119
<i>glass</i>	0.892 ± 0.094	0.852 ± 0.116	0.883 ± 0.108	0.876 ± 0.121	0.876 ± 0.103	0.870 ± 0.111	0.876 ± 0.082	0.892 ± 0.094	0.821 ± 0.068	0.788 ± 0.142	0.810 ± 0.085
<i>glass5</i>	0.818 ± 0.106	0.809 ± 0.103	0.828 ± 0.099	0.828 ± 0.099	0.817 ± 0.106	0.854 ± 0.155	0.818 ± 0.106	0.818 ± 0.106	0.788 ± 0.098	0.870 ± 0.119	0.847 ± 0.117
<i>page</i> – blocks – 1 – 3 – s_4	0.904 ± 0.114	0.791 ± 0.070	0.908 ± 0.112	0.907 ± 0.112	0.903 ± 0.119	0.796 ± 0.048	0.888 ± 0.116	0.901 ± 0.114	0.819 ± 0.074	0.862 ± 0.073	0.855 ± 0.124
<i>yeast</i> – 0 – 5 – 6 – 7 – 9 – s_4	0.749 ± 0.047	0.741 ± 0.037	0.762 ± 0.040	0.752 ± 0.049	0.747 ± 0.055	0.765 ± 0.030	0.749 ± 0.041	0.746 ± 0.047	0.696 ± 0.066	0.496 ± 0.008	0.706 ± 0.068
<i>yeast</i> – 1 – 2 – 8 – 9 – s_7	0.606 ± 0.041	0.594 ± 0.054	0.608 ± 0.050	0.605 ± 0.049	0.620 ± 0.049	0.673 ± 0.069	0.605 ± 0.053	0.610 ± 0.038	0.566 ± 0.052	0.511 ± 0.004	0.584 ± 0.039
<i>yeast</i> – 1 – 4 – 5 – 8 – s_7	0.571 ± 0.051	0.568 ± 0.051	0.564 ± 0.047	0.561 ± 0.037	0.577 ± 0.047	0.600 ± 0.034	0.557 ± 0.035	0.571 ± 0.050	0.543 ± 0.033	0.505 ± 0.003	0.576 ± 0.050
<i>yeast</i> – 1 – s_7	0.690 ± 0.041	0.671 ± 0.046	0.691 ± 0.039	0.692 ± 0.043	0.664 ± 0.066	0.686 ± 0.064	0.683 ± 0.040	0.686 ± 0.041	0.596 ± 0.086	0.512 ± 0.030	0.630 ± 0.066
<i>yeast</i> – 2 – s_4	0.870 ± 0.039	0.862 ± 0.040	0.873 ± 0.039	0.875 ± 0.045	0.871 ± 0.046	0.869 ± 0.034	0.868 ± 0.046	0.870 ± 0.038	0.848 ± 0.033	0.605 ± 0.174	0.855 ± 0.054
<i>yeast</i> – 2 – s_8	0.736 ± 0.046	0.773 ± 0.051	0.747 ± 0.043	0.756 ± 0.040	0.738 ± 0.047	0.795 ± 0.064	0.740 ± 0.063	0.736 ± 0.046	0.756 ± 0.071	0.517 ± 0.025	0.692 ± 0.091
<i>yeast4</i>	0.765 ± 0.034	0.746 ± 0.032	0.769 ± 0.042	0.768 ± 0.032	0.760 ± 0.033	0.792 ± 0.032	0.757 ± 0.024	0.764 ± 0.034	0.688 ± 0.023	0.497 ± 0.009	0.744 ± 0.086
<i>yeast5</i>	0.927 ± 0.029	0.924 ± 0.030	0.927 ± 0.029	0.927 ± 0.029	0.930 ± 0.028	0.941 ± 0.024	0.927 ± 0.029	0.927 ± 0.029	0.900 ± 0.064	0.510 ± 0.001	0.860 ± 0.135
<i>ecoli</i> – 0 – 1 – 4 – 7 – s_5	0.872 ± 0.032	0.851 ± 0.020	0.887 ± 0.029	0.866 ± 0.019	0.870 ± 0.033	0.884 ± 0.033	0.871 ± 0.037	0.872 ± 0.032	0.758 ± 0.130	0.595 ± 0.135	0.836 ± 0.070
<i>ecoli</i> – 0 – 1 – s_2	0.843 ± 0.049	0.840 ± 0.046	0.848 ± 0.054	0.840 ± 0.049	0.844 ± 0.049	0.862 ± 0.034	0.842 ± 0.053	0.843 ± 0.049	0.756 ± 0.054	0.520 ± 0.031	0.816 ± 0.041
<i>ecoli</i> – 0 – 2 – 6 – 7 – s_3	0.834 ± 0.056	0.831 ± 0.056	0.838 ± 0.056	0.843 ± 0.056	0.853 ± 0.063	0.871 ± 0.050	0.835 ± 0.059	0.834 ± 0.056	0.827 ± 0.054	0.667 ± 0.149	0.851 ± 0.033
<i>ecoli</i> – 0 – 6 – 7 – s_3	0.846 ± 0.055	0.845 ± 0.055	0.843 ± 0.056	0.857 ± 0.059	0.856 ± 0.062	0.869 ± 0.060	0.846 ± 0.061	0.846 ± 0.055	0.845 ± 0.051	0.680 ± 0.159	0.852 ± 0.052
<i>ecoli</i> – 0 – 6 – 7 – s_3	0.861 ± 0.043	0.863 ± 0.043	0.863 ± 0.044	0.859 ± 0.043	0.860 ± 0.042	0.887 ± 0.047	0.859 ± 0.044	0.862 ± 0.042	0.861 ± 0.044	0.647 ± 0.163	0.884 ± 0.085
<i>glass</i> – 0 – 1 – 4 – 6 – s_2	0.710 ± 0.101	0.669 ± 0.128	0.713 ± 0.107	0.702 ± 0.131	0.665 ± 0.120	0.625 ± 0.090	0.716 ± 0.127	0.709 ± 0.101	0.669 ± 0.085	0.662 ± 0.083	0.631 ± 0.134
<i>glass</i> – 0 – 1 – 5 – s_2	0.696 ± 0.063	0.659 ± 0.067	0.701 ± 0.062	0.711 ± 0.071	0.671 ± 0.071	0.581 ± 0.049	0.685 ± 0.068	0.696 ± 0.063	0.673 ± 0.066	0.616 ± 0.162	0.641 ± 0.105
<i>yeast</i> – 0 – 2 – 5 – 6 – s_3	0.782 ± 0.026	0.775 ± 0.041	0.778 ± 0.032	0.788 ± 0.019	0.772 ± 0.038	0.791 ± 0.030	0.781 ± 0.029	0.783 ± 0.026	0.735 ± 0.062	0.559 ± 0.109	0.765 ± 0.050
<i>yeast</i> – 0 – 3 – 5 – 9 – s_3	0.696 ± 0.055	0.640 ± 0.032	0.687 ± 0.036	0.690 ± 0.045	0.689 ± 0.041	0.660 ± 0.053	0.692 ± 0.034	0.695 ± 0.036	0.634 ± 0.069	0.516 ± 0.027	0.588 ± 0.081
<i>abalone</i> – 17 – s_7	0.814 ± 0.021	0.742 ± 0.040	0.809 ± 0.024	0.810 ± 0.034	0.806 ± 0.028	0.823 ± 0.025	0.816 ± 0.024	0.813 ± 0.019	0.677 ± 0.073	0.722 ± 0.090	0.746 ± 0.114
<i>abalone</i> – 19 – s_3	0.633 ± 0.062	0.582 ± 0.058	0.637 ± 0.061	0.636 ± 0.052	0.629 ± 0.058	0.659 ± 0.075	0.629 ± 0.067	0.633 ± 0.062	0.631 ± 0.085	0.594 ± 0.058	0.572 ± 0.097
<i>abalone</i> – 20 – s_3	0.806 ± 0.048	0.775 ± 0.041	0.809 ± 0.043	0.802 ± 0.047	0.797 ± 0.051	0.884 ± 0.051	0.798 ± 0.055	0.806 ± 0.048	0.743 ± 0.109	0.742 ± 0.103	0.714 ± 0.111
<i>abalone</i> – 21 – s_8	0.798 ± 0.117	0.788 ± 0.120	0.798 ± 0.116	0.804 ± 0.117	0.799 ± 0.122	0.839 ± 0.070	0.798 ± 0.117	0.799 ± 0.117	0.771 ± 0.144	0.728 ± 0.125	0.771 ± 0.142
<i>flare</i> – F	0.738 ± 0.040	0.689 ± 0.046	0.732 ± 0.044	0.743 ± 0.049	0.725 ± 0.043	0.777 ± 0.047	0.738 ± 0.045	0.738 ± 0.040	0.681 ± 0.073	0.575 ± 0.068	0.727 ± 0.077
<i>kddcup</i> – buffer,overflow,attack	0.993 ± 0.013	0.997 ± 0.010	0.993 ± 0.013	0.993 ± 0.013	0.993 ± 0.013	1.000 ± 0.000	0.993 ± 0.013	0.993 ± 0.013	0.997 ± 0.010	0.997 ± 0.010	0.997 ± 0.010
<i>kddcup</i> – rootkit – insip,attack	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.973 ± 0.030	0.977 ± 0.023	0.977 ± 0.042	0.977 ± 0.042	0.977 ± 0.042
<i>kr</i> – vs – k – zeros,light	0.937 ± 0.052	0.934 ± 0.057	0.937 ± 0.052	0.937 ± 0.052	0.934 ± 0.057	0.950 ± 0.050	0.934 ± 0.057	0.937 ± 0.052	0.845 ± 0.076	0.701 ± 0.041	0.831 ± 0.108
<i>poker</i> – 8 – 9 – s_5	0.625 ± 0.067	0.588 ± 0.066	0.617 ± 0.058	0.613 ± 0.056	0.614 ± 0.073	0.677 ± 0.074	0.614 ± 0.047	0.625 ± 0.067	0.634 ± 0.079	0.562 ± 0.085	0.575 ± 0.073
<i>poker</i> – 8 – 9 – s_6	0.757 ± 0.064	0.724 ± 0.047	0.757 ± 0.064	0.744 ± 0.054	0.732 ± 0.066	0.937 ± 0.055	0.749 ± 0.086	0.757 ± 0.064	0.979 ± 0.041	0.986 ± 0.037	0.979 ± 0.041
<i>poker</i> – 8 – s_6	0.783 ± 0.073	0.712 ± 0.059	0.783 ± 0.073	0.789 ± 0.066	0.746 ± 0.081	0.968 ± 0.051	0.789 ± 0.065	0.783 ± 0.073	0.869 ± 0.123	0.950 ± 0.107	0.831 ± 0.152
<i>poker</i> – 9 – s_7	0.636 ± 0.104	0.636 ± 0.104	0.636 ± 0.104	0.636 ± 0.130	0.680 ± 0.135	0.611 ± 0.087	0.636 ± 0.104	0.729 ± 0.163	0.686 ± 0.139	0.657 ± 0.151	
<i>winequality</i> – red – 3 – s_5	0.540 ± 0.049	0.542 ± 0.050	0.539 ± 0.049	0.540 ± 0.049	0.541 ± 0.049	0.608 ± 0.057	0.550 ± 0.050	0.540 ± 0.049	0.539 ± 0.096	0.526 ± 0.117	0.516 ± 0.082
<i>winequality</i> – red – 4	0.638 ± 0.034	0.611 ± 0.029	0.632 ± 0.033	0.644 ± 0.035	0.625 ± 0.032	0.617 ± 0.029	0.641 ± 0.034	0.637 ± 0.033	0.548 ± 0.026	0.599 ± 0.051	0.609 ± 0.050
<i>winequality</i> – red – 8 – s_6	0.757 ± 0.054	0.550 ± 0.055	0.572 ± 0.054	0.571 ± 0.054	0.555 ± 0.062	0.541 ± 0.063	0.557 ± 0.048	0.571 ± 0.054	0.542 ± 0.067	0.518 ± 0.081	0.550 ± 0.060
<i>winequality</i> – red – 8 – s_6	0.614 ± 0.031	0.610 ± 0.024	0.615 ± 0.031	0.615 ± 0.030	0.625 ± 0.030	0.627 ± 0.065	0.625 ± 0.030	0.614 ± 0.031	0.637 ± 0.044	0.609 ± 0.096	0.622 ± 0.079
<i>winequality</i> – white – 3 – 9 – s_5	0.565 ± 0.051	0.529 ± 0.045	0.559 ± 0.057	0.560 ± 0.048	0.542 ± 0.039	0.685 ± 0.039	0.557 ± 0.051	0.565 ± 0.051	0.519 ± 0.064	0.528 ± 0.055	0.565 ± 0.055
<i>winequality</i> – white – 3 – s_7	0.533 ± 0.049	0.528 ± 0.041	0.549 ± 0.066	0.547 ± 0.067	0.546 ± 0.039	0.756 ± 0.077	0.539 ± 0.047	0.533 ± 0.049	0.561 ± 0.063	0.607 ± 0.121	0.594 ± 0.077
<i>winequality</i> – white – 9 – s_4	0.815 ± 0.134	0.815 ± 0.134	0.815 ± 0.134	0.699 ± 0.218	0.815 ± 0.134	0.695 ± 0.214	0.815 ± 0.134	0.815 ± 0.134	0.707 ± 0.175	0.707 ± 0.175	0.707 ± 0.175
<i>zoo</i> – 3	0.611 ± 0.162	0.611 ± 0.162	0.611 ± 0.162	0.597 ± 0.163	0.611 ± 0.162	0.397 ± 0.275	0.611 ± 0.162	0.547 ± 0.174	0.547 ± 0.174	0.000 ± 0.000	0.000 ± 0.000
<i>ecoli1</i>	0.885 ± 0.027	0.886 ± 0.020	0.886 ± 0.020	0.884 ± 0.020	0.883 ± 0.021	0.889 ± 0.015	0.881 ± 0.022	0.884 ± 0.026	0.875 ± 0.033	0.576 ± 0.145	0.000 ± 0.000
<i>ecoli2</i>	0.940 ± 0.024	0.932 ± 0.034	0.941 ± 0.024	0.940 ± 0.026	0.939 ± 0.025	0.938 ± 0.021	0.942 ± 0.022	0.939 ± 0.025	0.860 ± 0.082	0.604 ± 0.146	0.000 ± 0.000
<i>ecoli3</i>	0.889 ± 0.022	0.893 ± 0.024	0.887 ± 0.022	0.894 ± 0.017	0.894 ± 0.021	0.893 ± 0.019	0.887 ± 0.021	0.892 ± 0.021	0.858 ± 0.056	0.602 ± 0.169	0.000 ± 0.000
<i>glass0</i>	0.779 ± 0.040	0.790 ± 0.020	0.785 ± 0.039	0.778 ± 0.037	0.793 ± 0.038	0.771 ± 0.032	0.792 ± 0.034	0.779 ± 0.036	0.742 ± 0.032	0.724 ± 0.065	0.000 ± 0.000
<i>glass1</i>	0.701 ± 0.038	0.689 ± 0.043	0.690 ± 0.038	0.696 ± 0.034	0.703 ± 0.040	0.677 ± 0.038	0.698 ± 0.039	0.701 ± 0.044	0.694 ± 0.062	0.598 ± 0.048	0.000 ± 0.000
<i>haberman</i>	0.611 ± 0.026	0.642 ± 0.035	0.610 ± 0.026	0.597 ± 0.031	0.611 ± 0.029	0.627 ± 0.027	0.614 ± 0.034	0.611 ± 0.028	0.613 ± 0.029	0.559 ± 0.092	0.000 ± 0.000
<i>page</i> – block0	0.931 ± 0.008	0.900 ± 0.068	0.931 ± 0.007	0.923 ± 0.009	0.931 ± 0.008	0.848 ± 0.016	0.930 ± 0.008	0.932 ± 0.008	0.879 ± 0.034	0.892 ± 0.025	0.000 ± 0.000
<i>pinna</i>	0.727 ± 0.030	0.722 ± 0.027	0.729 ± 0.023	0.726 ± 0.022	0.729 ± 0.025	0.730 ± 0.017	0.732 ± 0.028	0.728 ± 0.032	0.706 ± 0.018	0.666 ± 0.039	0.000 ± 0.000
<i>vehicle1</i>	0.789 ± 0.027	0.749 ± 0.023	0.790 ± 0.026	0.790 ± 0.020	0.798 ± 0.015	0.792 ± 0.023	0.791 ± 0.019	0.793 ± 0.025	0.695 ± 0.047	0.894 ± 0.018	0.000 ± 0.000
<i>vehicle3</i>	0.789 ± 0.022	0.734 ± 0.017	0.790 ± 0.018	0.797 ± 0.026	0.788 ± 0.016	0.789 ± 0.023	0.789 ± 0.018	0.790 ± 0.021			

Table 3. KNN – BAC

Dataset name	SMOTE	polynom-ft-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone</i> -19	0.568 ± 0.069	0.519 ± 0.028	0.568 ± 0.069	0.567 ± 0.069	0.549 ± 0.043	0.554 ± 0.047	0.565 ± 0.062	0.568 ± 0.069	0.520 ± 0.030	0.497 ± 0.011	0.520 ± 0.032
<i>abalone</i> -18	0.719 ± 0.033	0.704 ± 0.044	0.704 ± 0.034	0.709 ± 0.040	0.700 ± 0.048	0.692 ± 0.033	0.714 ± 0.041	0.720 ± 0.033	0.645 ± 0.066	0.572 ± 0.063	0.627 ± 0.058
<i>ecoli</i> - 0 - 1 - 3 - 7 - s_2 - 6	0.834 ± 0.075	0.835 ± 0.076	0.834 ± 0.074	0.833 ± 0.074	0.835 ± 0.076	0.833 ± 0.076	0.834 ± 0.075	0.834 ± 0.075	0.800 ± 0.108	0.800 ± 0.106	0.820 ± 0.096
<i>glass</i> - 0 - 1 - 6 - s_2	0.718 ± 0.086	0.682 ± 0.045	0.713 ± 0.081	0.714 ± 0.084	0.700 ± 0.056	0.657 ± 0.063	0.725 ± 0.082	0.717 ± 0.085	0.638 ± 0.040	0.606 ± 0.086	0.660 ± 0.084
<i>glass</i> - 0 - 1 - 6 - s_2	0.914 ± 0.097	0.915 ± 0.098	0.914 ± 0.097	0.914 ± 0.098	0.894 ± 0.135	0.881 ± 0.120	0.914 ± 0.097	0.914 ± 0.097	0.878 ± 0.118	0.842 ± 0.192	0.801 ± 0.162
<i>glass</i> - 0 - 1 - 6 - s_2	0.723 ± 0.036	0.633 ± 0.137	0.637 ± 0.151	0.644 ± 0.141	0.630 ± 0.135	0.627 ± 0.112	0.635 ± 0.145	0.628 ± 0.133	0.640 ± 0.098	0.583 ± 0.096	0.596 ± 0.080
<i>glass2</i>	0.630 ± 0.134	0.903 ± 0.068	0.876 ± 0.056	0.885 ± 0.056	0.879 ± 0.071	0.863 ± 0.038	0.892 ± 0.048	0.901 ± 0.057	0.818 ± 0.061	0.752 ± 0.141	0.755 ± 0.062
<i>glass4</i>	0.901 ± 0.057	0.933 ± 0.110	0.921 ± 0.116	0.931 ± 0.110	0.922 ± 0.108	0.862 ± 0.108	0.931 ± 0.110	0.931 ± 0.110	0.821 ± 0.114	0.867 ± 0.136	0.831 ± 0.130
<i>glass5</i>	0.931 ± 0.110	0.978 ± 0.021	0.982 ± 0.023	0.983 ± 0.023	0.949 ± 0.095	0.980 ± 0.016	0.976 ± 0.025	0.983 ± 0.023	0.859 ± 0.104	0.835 ± 0.086	0.888 ± 0.110
<i>page - blocks</i> - 1 - 3 - s_1 - 0.983 ± 0.023	0.727 ± 0.045	0.740 ± 0.038	0.730 ± 0.040	0.733 ± 0.043	0.729 ± 0.053	0.731 ± 0.045	0.718 ± 0.035	0.725 ± 0.043	0.671 ± 0.068	0.498 ± 0.002	0.643 ± 0.072
<i>yeast</i> - 0 - 5 - 6 - 7 - 9 - s_4	0.672 ± 0.048	0.685 ± 0.045	0.668 ± 0.040	0.663 ± 0.040	0.649 ± 0.065	0.660 ± 0.052	0.667 ± 0.051	0.672 ± 0.048	0.586 ± 0.044	0.500 ± 0.000	0.567 ± 0.049
<i>yeast</i> - 1 - 2 - 8 - 9 - s_7	0.611 ± 0.040	0.595 ± 0.062	0.614 ± 0.044	0.594 ± 0.052	0.571 ± 0.051	0.577 ± 0.042	0.605 ± 0.039	0.611 ± 0.038	0.536 ± 0.036	0.500 ± 0.000	0.521 ± 0.048
<i>yeast</i> - 1 - 4 - 5 - 8 - s_7	0.723 ± 0.036	0.723 ± 0.042	0.726 ± 0.055	0.732 ± 0.042	0.702 ± 0.055	0.690 ± 0.033	0.701 ± 0.051	0.722 ± 0.055	0.648 ± 0.055	0.499 ± 0.002	0.575 ± 0.076
<i>yeast</i> - 1 - s_7	0.873 ± 0.030	0.863 ± 0.035	0.869 ± 0.033	0.871 ± 0.030	0.873 ± 0.029	0.861 ± 0.034	0.875 ± 0.027	0.874 ± 0.030	0.842 ± 0.048	0.603 ± 0.158	0.830 ± 0.047
<i>yeast</i> - 2 - s_8	0.802 ± 0.051	0.810 ± 0.046	0.794 ± 0.045	0.801 ± 0.053	0.803 ± 0.044	0.806 ± 0.057	0.798 ± 0.051	0.801 ± 0.050	0.772 ± 0.051	0.534 ± 0.105	0.802 ± 0.062
<i>yeast4</i>	0.729 ± 0.025	0.733 ± 0.034	0.729 ± 0.027	0.729 ± 0.027	0.713 ± 0.033	0.727 ± 0.045	0.735 ± 0.039	0.729 ± 0.025	0.662 ± 0.034	0.500 ± 0.000	0.640 ± 0.051
<i>yeast5</i>	0.929 ± 0.036	0.920 ± 0.035	0.925 ± 0.036	0.922 ± 0.035	0.910 ± 0.034	0.933 ± 0.049	0.929 ± 0.034	0.929 ± 0.036	0.865 ± 0.054	0.500 ± 0.000	0.817 ± 0.129
<i>yeast6</i>	0.814 ± 0.044	0.816 ± 0.038	0.815 ± 0.044	0.813 ± 0.044	0.812 ± 0.046	0.829 ± 0.035	0.809 ± 0.043	0.814 ± 0.044	0.733 ± 0.073	0.500 ± 0.000	0.775 ± 0.039
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.018	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.876 ± 0.069	0.868 ± 0.036	0.881 ± 0.029	0.875 ± 0.068	0.873 ± 0.033	0.813 ± 0.069	0.883 ± 0.024	0.876 ± 0.069	0.738 ± 0.086	0.719 ± 0.135	0.711 ± 0.117
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.024	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ±						

Table 4. CART – G-mean

Dataset name	SMOTE	polynom-ft-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone</i> -19	0.365 ± 0.148	0.075 ± 0.114	0.312 ± 0.188	0.387 ± 0.110	0.282 ± 0.171	0.332 ± 0.116	0.358 ± 0.122	0.365 ± 0.148	0.084 ± 0.132	0.354 ± 0.206	0.365 ± 0.176
<i>abalone</i> -18	0.605 ± 0.100	0.508 ± 0.072	0.619 ± 0.082	0.639 ± 0.076	0.584 ± 0.056	0.640 ± 0.133	0.588 ± 0.059	0.610 ± 0.105	0.583 ± 0.073	0.442 ± 0.144	0.511 ± 0.106
<i>ecoli</i> - 0 - 1 - 3 - 7 - s_2 - 6	0.723 ± 0.254	0.793 ± 0.086	0.723 ± 0.254	0.723 ± 0.254	0.793 ± 0.086	0.736 ± 0.145	0.723 ± 0.254	0.723 ± 0.254	0.594 ± 0.282	0.407 ± 0.274	0.619 ± 0.241
<i>glass</i> - 0 - 1 - 6 - s_2	0.565 ± 0.089	0.461 ± 0.086	0.614 ± 0.088	0.573 ± 0.101	0.522 ± 0.101	0.529 ± 0.151	0.552 ± 0.155	0.564 ± 0.085	0.567 ± 0.180	0.466 ± 0.089	0.516 ± 0.105
<i>glass</i> - 0 - 1 - 6 - s_2	0.829 ± 0.185	0.828 ± 0.185	0.829 ± 0.185	0.829 ± 0.185	0.706 ± 0.313	0.872 ± 0.170	0.829 ± 0.185	0.829 ± 0.185	0.704 ± 0.209	0.854 ± 0.204	0.701 ± 0.213
<i>glass</i> - 0 - 1 - 6 - s_2	0.431 ± 0.261	0.399 ± 0.218	0.402 ± 0.248	0.405 ± 0.204	0.430 ± 0.259	0.472 ± 0.299	0.405 ± 0.235	0.453 ± 0.267	0.422 ± 0.228	0.451 ± 0.106	0.520 ± 0.148
<i>glass</i> 2	0.841 ± 0.102	0.823 ± 0.064	0.841 ± 0.103	0.831 ± 0.101	0.847 ± 0.097	0.789 ± 0.113	0.840 ± 0.104	0.841 ± 0.102	0.704 ± 0.154	0.740 ± 0.159	0.732 ± 0.148
<i>glass</i> 5	0.813 ± 0.206	0.812 ± 0.205	0.813 ± 0.206	0.813 ± 0.206	0.826 ± 0.212	0.924 ± 0.129	0.813 ± 0.206	0.813 ± 0.206	0.796 ± 0.201	0.874 ± 0.165	0.742 ± 0.204
<i>page - blocks</i> - 1 - 3 - s_4	0.967 ± 0.065	0.945 ± 0.069	0.962 ± 0.077	0.961 ± 0.076	0.969 ± 0.072	0.960 ± 0.056	0.963 ± 0.034	0.967 ± 0.065	0.896 ± 0.070	0.874 ± 0.113	0.917 ± 0.100
<i>yeast</i> - 0 - 5 - 6 - 7 - 9 - s_4	0.658 ± 0.088	0.631 ± 0.068	0.683 ± 0.066	0.654 ± 0.085	0.631 ± 0.063	0.694 ± 0.070	0.649 ± 0.054	0.671 ± 0.056	0.603 ± 0.074	0.091 ± 0.057	0.627 ± 0.088
<i>yeast</i> - 1 - 2 - 8 - 9 - s_7	0.475 ± 0.059	0.424 ± 0.108	0.485 ± 0.061	0.453 ± 0.100	0.477 ± 0.105	0.598 ± 0.094	0.475 ± 0.048	0.503 ± 0.081	0.394 ± 0.111	0.143 ± 0.028	0.383 ± 0.160
<i>yeast</i> - 1 - 4 - 5 - 8 - s_7	0.357 ± 0.150	0.397 ± 0.066	0.359 ± 0.169	0.336 ± 0.140	0.326 ± 0.185	0.388 ± 0.102	0.420 ± 0.060	0.344 ± 0.142	0.196 ± 0.172	0.099 ± 0.027	0.365 ± 0.195
<i>yeast</i> - 1 - s_7	0.531 ± 0.092	0.536 ± 0.090	0.515 ± 0.103	0.568 ± 0.087	0.500 ± 0.094	0.631 ± 0.056	0.544 ± 0.077	0.526 ± 0.084	0.439 ± 0.103	0.099 ± 0.179	0.478 ± 0.187
<i>yeast</i> - 2 - s_4	0.837 ± 0.053	0.828 ± 0.065	0.858 ± 0.049	0.851 ± 0.079	0.845 ± 0.060	0.857 ± 0.046	0.859 ± 0.048	0.831 ± 0.042	0.800 ± 0.060	0.256 ± 0.341	0.792 ± 0.043
<i>yeast</i> - 2 - s_8	0.689 ± 0.129	0.726 ± 0.093	0.737 ± 0.149	0.750 ± 0.113	0.723 ± 0.092	0.727 ± 0.063	0.712 ± 0.090	0.704 ± 0.128	0.715 ± 0.068	0.187 ± 0.191	0.702 ± 0.069
<i>yeast</i> 4	0.612 ± 0.076	0.541 ± 0.057	0.631 ± 0.094	0.634 ± 0.076	0.538 ± 0.073	0.684 ± 0.077	0.597 ± 0.139	0.614 ± 0.079	0.605 ± 0.088	0.113 ± 0.022	0.472 ± 0.110
<i>yeast</i> 5	0.848 ± 0.089	0.829 ± 0.086	0.830 ± 0.077	0.845 ± 0.081	0.841 ± 0.076	0.873 ± 0.055	0.858 ± 0.066	0.850 ± 0.091	0.826 ± 0.058	0.142 ± 0.009	0.717 ± 0.209
<i>yeast</i> 6	0.683 ± 0.098	0.630 ± 0.070	0.675 ± 0.103	0.707 ± 0.090	0.702 ± 0.068	0.748 ± 0.063	0.701 ± 0.087	0.684 ± 0.095	0.603 ± 0.088	0.188 ± 0.138	0.615 ± 0.085
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_2 - 3 - 5 - 6	0.772 ± 0.097	0.776 ± 0.059	0.810 ± 0.047	0.771 ± 0.088	0.751 ± 0.082	0.818 ± 0.053	0.815 ± 0.063	0.787 ± 0.100	0.652 ± 0.161	0.244 ± 0.269	0.768 ± 0.117
<i>ecoli</i> - 0 - 1 - s_2 - 3 - 5	0.779 ± 0.077	0.773 ± 0.149	0.759 ± 0.078	0.719 ± 0.058	0.768 ± 0.055	0.831 ± 0.076	0.759 ± 0.064	0.781 ± 0.077	0.709 ± 0.154	0.430 ± 0.360	0.728 ± 0.106
<i>ecoli</i> - 0 - 2 - 6 - 7 - s_3 - 5	0.782 ± 0.058	0.761 ± 0.080	0.795 ± 0.067	0.807 ± 0.090	0.817 ± 0.064	0.820 ± 0.070	0.758 ± 0.079	0.785 ± 0.060	0.744 ± 0.074	0.292 ± 0.293	0.786 ± 0.075
<i>ecoli</i> - 0 - 6 - 7 - s_3 - 5	0.777 ± 0.084	0.772 ± 0.059	0.795 ± 0.067	0.800 ± 0.075	0.819 ± 0.081	0.826 ± 0.068	0.774 ± 0.068	0.779 ± 0.084	0.743 ± 0.081	0.366 ± 0.329	0.729 ± 0.154
<i>ecoli</i> - 0 - 6 - 7 - s_3	0.828 ± 0.077	0.825 ± 0.087	0.816 ± 0.076	0.827 ± 0.080	0.823 ± 0.071	0.835 ± 0.050	0.812 ± 0.067	0.827 ± 0.079	0.833 ± 0.106	0.363 ± 0.259	0.813 ± 0.124
<i>glass</i> - 0 - 1 - 4 - 6 - s_2	0.487 ± 0.109	0.389 ± 0.220	0.512 ± 0.136	0.481 ± 0.121	0.520 ± 0.131	0.597 ± 0.106	0.424 ± 0.113	0.428 ± 0.176	0.362 ± 0.211	0.432 ± 0.067	0.453 ± 0.121
<i>glass</i> - 0 - 1 - 5 - s_2	0.649 ± 0.092	0.508 ± 0.112	0.628 ± 0.114	0.679 ± 0.142	0.560 ± 0.113	0.534 ± 0.196	0.593 ± 0.112	0.635 ± 0.083	0.486 ± 0.172	0.366 ± 0.165	0.468 ± 0.142
<i>yeast</i> - 0 - 2 - 5 - 6 - s_3 - 7 - 8 - 9	0.684 ± 0.050	0.673 ± 0.070	0.712 ± 0.047	0.685 ± 0.037	0.686 ± 0.045	0.703 ± 0.062	0.680 ± 0.048	0.668 ± 0.049	0.564 ± 0.122	0.493 ± 0.054	0.566 ± 0.054
<i>yeast</i> - 0 - 3 - 5 - 9 - s_3 - 8	0.531 ± 0.071	0.568 ± 0.068	0.567 ± 0.069	0.576 ± 0.070	0.551 ± 0.068	0.587 ± 0.066	0.561 ± 0.045	0.584 ± 0.050	0.366 ± 0.169	0.153 ± 0.129	0.470 ± 0.107
<i>abalone</i> - 17 - s_7 - 8 - 9 - 10	0.559 ± 0.073	0.546 ± 0.062	0.557 ± 0.075	0.586 ± 0.075	0.552 ± 0.077	0.605 ± 0.036	0.562 ± 0.067	0.557 ± 0.066	0.519 ± 0.116	0.417 ± 0.164	0.507 ± 0.070
<i>abalone</i> - 19 - s_3 - 0 - 11 - 12 - 13	0.382 ± 0.149	0.203 ± 0.139	0.379 ± 0.154	0.382 ± 0.097	0.300 ± 0.185	0.468 ± 0.114	0.393 ± 0.092	0.411 ± 0.076	0.200 ± 0.180	0.316 ± 0.183	0.312 ± 0.223
<i>abalone</i> - 20 - s_3 - 9 - 10	0.634 ± 0.081	0.571 ± 0.210	0.599 ± 0.123	0.611 ± 0.088	0.504 ± 0.132	0.771 ± 0.078	0.609 ± 0.098	0.634 ± 0.081	0.476 ± 0.171	0.484 ± 0.102	0.485 ± 0.116
<i>abalone</i> - 21 - s_3	0.633 ± 0.253	0.554 ± 0.125	0.604 ± 0.221	0.585 ± 0.241	0.690 ± 0.098	0.768 ± 0.087	0.586 ± 0.234	0.642 ± 0.259	0.626 ± 0.200	0.473 ± 0.204	0.517 ± 0.203
<i>flare</i> - F	0.367 ± 0.098	0.422 ± 0.066	0.394 ± 0.110	0.419 ± 0.093	0.447 ± 0.050	0.425 ± 0.082	0.411 ± 0.105	0.421 ± 0.080	0.564 ± 0.122	0.413 ± 0.119	0.589 ± 0.146
<i>kddcup - buffer,ver,flow,sack</i>	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kddcup - rootkit - insip,sack</i>	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kr - vs - k - zero,s,light</i>	0.959 ± 0.053	0.963 ± 0.055	0.963 ± 0.055	0.963 ± 0.055	0.967 ± 0.044	0.950 ± 0.084	0.951 ± 0.063	0.959 ± 0.053	0.731 ± 0.119	0.697 ± 0.043	0.849 ± 0.123
<i>poker - 8 - 9 - s_3</i>	0.386 ± 0.143	0.300 ± 0.205	0.386 ± 0.080	0.404 ± 0.078	0.266 ± 0.195	0.430 ± 0.145	0.323 ± 0.073	0.386 ± 0.143	0.165 ± 0.210	0.330 ± 0.202	0.249 ± 0.173
<i>poker - 8 - 9 - s_3</i>	0.595 ± 0.142	0.787 ± 0.178	0.573 ± 0.155	0.529 ± 0.151	0.687 ± 0.188	0.465 ± 0.260	0.524 ± 0.228	0.595 ± 0.142	0.999 ± 0.001	0.999 ± 0.001	0.999 ± 0.001
<i>poker - 8 - s_3</i>	0.569 ± 0.225	0.537 ± 0.295	0.615 ± 0.179	0.590 ± 0.164	0.581 ± 0.222	0.521 ± 0.289	0.559 ± 0.221	0.569 ± 0.225	0.924 ± 0.094	0.924 ± 0.093	0.786 ± 0.227
<i>poker - 9 - s_7</i>	0.267 ± 0.274	0.267 ± 0.274	0.267 ± 0.274	0.267 ± 0.274	0.337 ± 0.285	0.373 ± 0.324	0.267 ± 0.273	0.267 ± 0.274	0.467 ± 0.118	0.449 ± 0.338	0.386 ± 0.347
<i>winequality - red - 3 - s_3</i>	0.132 ± 0.201	0.151 ± 0.235	0.088 ± 0.176	0.132 ± 0.202	0.120 ± 0.250	0.325 ± 0.219	0.150 ± 0.234	0.132 ± 0.201	0.133 ± 0.203	0.218 ± 0.218	0.282 ± 0.236
<i>winequality - red - 4</i>	0.391 ± 0.120	0.325 ± 0.083	0.458 ± 0.069	0.446 ± 0.078	0.409 ± 0.099	0.446 ± 0.075	0.401 ± 0.044	0.390 ± 0.123	0.316 ± 0.091	0.393 ± 0.111	0.365 ± 0.096
<i>winequality - red - 8 - s_3</i>	0.7	0.314 ± 0.168	0.327 ± 0.174	0.352 ± 0.188	0.319 ± 0.216	0.395 ± 0.095	0.312 ± 0.174	0.314 ± 0.168	0.283 ± 0.193	0.201 ± 0.213	0.286 ± 0.158
<i>winequality - red - 8 - s_3</i>	0.498 ± 0.107	0.479 ± 0.123	0.491 ± 0.099	0.463 ± 0.187	0.409 ± 0.156	0.514 ± 0.115	0.538 ± 0.107	0.498 ± 0.107	0.427 ± 0.092	0.327 ± 0.229	0.360 ± 0.202
<i>winequality - white - 3 - 9 - s_3</i>	0.361 ± 0.207	0.293 ± 0.173	0.285 ± 0.201	0.319 ± 0.189	0.225 ± 0.208	0.557 ± 0.102	0.312 ± 0.129	0.361 ± 0.207	0.230 ± 0.158	0.168 ± 0.137	0.235 ± 0.122
<i>winequality - white - 3 - s_3</i>	0.296 ± 0.165	0.317 ± 0.190	0.372 ± 0.208	0.383 ± 0.159	0.424 ± 0.153	0.690 ± 0.122	0.221 ± 0.193	0.296 ± 0.165	0.319 ± 0.121	0.347 ± 0.249	0.351 ± 0.206
<i>winequality - white - 9 - s_4</i>	0.588 ± 0.329	0.530 ± 0.275	0.587 ± 0.328	0.588 ± 0.327	0.588 ± 0.329	0.558 ± 0.302	0.587 ± 0.328	0.588 ± 0.329	0.263 ± 0.325	0.263 ± 0.325	0.263 ± 0.325
<i>zoo - 3</i>	0.451 ± 0.391	0.394 ± 0.329	0.496 ± 0.344	0.480 ± 0.336	0.424 ± 0.362	0.656 ± 0.267	0.467 ± 0.313	0.451 ± 0.391	0.321 ± 0.266	0.321 ± 0.266	0.000 ± 0.000
<i>ecoli</i> 1	0.835 ± 0.063	0.811 ± 0.044	0.821 ± 0.056	0.830 ± 0.045	0.832 ± 0.045	0.839 ± 0.037	0.814 ± 0.054	0.857 ± 0.044	0.737 ± 0.077	0.204 ± 0.285	0.000 ± 0.000
<i>ecoli</i> 2	0.850 ± 0.052	0.831 ± 0.040	0.841 ± 0.056	0.844 ± 0.042	0.842 ± 0.031	0.863 ± 0.038	0.846 ± 0.046	0.850 ± 0.052	0.756 ± 0.103	0.275 ± 0.300	0.000 ± 0.000
<i>ecoli</i> 3	0.719 ± 0.063	0.719 ± 0.083	0.748 ± 0.084	0.754 ± 0.061	0.747 ± 0.065	0.828 ± 0.054	0.758 ± 0.063	0.732 ± 0.067	0.738 ± 0.062	0.262 ± 0.268	0.000 ± 0.000
<i>glass</i> 0	0.763 ± 0.035	0.766 ± 0.065	0.765 ± 0.043	0.784 ± 0.035	0.774 ± 0.042	0.800 ± 0.041	0.791 ± 0.040	0.772 ± 0.025	0.670 ± 0.058	0.651 ± 0.093	0.000 ± 0.000
<i>glass</i> 1	0.716 ± 0.029	0.727 ± 0.034	0.723 ± 0.058	0.723 ± 0.060	0.708 ± 0.049	0.714 ± 0.047	0.723 ± 0.062	0.712 ± 0.036	0.537 ± 0.110	0.488 ± 0.104	0.000 ± 0.000
<i>haberman</i>	0.564 ± 0.045	0.542 ± 0.034	0.546 ± 0.061	0.531 ± 0.060	0.542 ± 0.069	0.559 ± 0.043	0.533 ± 0.074	0.573 ± 0.056	0.534 ± 0.047	0.465 ± 0.089	0.000 ± 0.000
<i>page - blocks</i> 0	0.915 ± 0.012	0.895 ± 0.011	0.913 ± 0.011	0.912 ± 0.008	0.903 ± 0.010	0.896 ± 0.010	0.918 ± 0.012	0.916 ± 0.008	0.904 ± 0.014	0.891 ± 0.016	0.000 ± 0.000
<i>pinna</i>	0.659 ± 0.021	0.666 ± 0.026	0.653 ± 0.022	0.658 ± 0.016	0.655 ± 0.021	0.674 ± 0.027	0.651 ± 0.023	0.664 ± 0.026	0.651 ± 0.031	0.581 ± 0.055	0.000 ± 0.000
<i>vehicle</i> 1	0.										

Table 5. SVM – G-mean

Dataset name	SMOTE	polynom-ft-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom	
<i>abalone19</i>	0.500 ± 0.124	0.397 ± 0.159	0.301 ± 0.119	0.509 ± 0.129	0.511 ± 0.111	0.618 ± 0.081	0.500 ± 0.124	0.500 ± 0.124	0.569 ± 0.152	0.548 ± 0.125	0.591 ± 0.039	
<i>abalone18</i>	0.721 ± 0.064	0.649 ± 0.055	0.731 ± 0.043	0.736 ± 0.051	0.719 ± 0.066	0.769 ± 0.051	0.723 ± 0.046	0.721 ± 0.064	0.602 ± 0.109	0.638 ± 0.113	0.604 ± 0.128	
<i>ecoli</i> – 0 – 1 – 3 – 7 – s_2	0.826 ± 0.097	0.828 ± 0.099	0.821 ± 0.095	0.824 ± 0.097	0.827 ± 0.100	0.813 ± 0.098	0.826 ± 0.097	0.826 ± 0.097	0.821 ± 0.140	0.818 ± 0.140	0.845 ± 0.113	
<i>glass</i> – 0 – 1 – 6 – s_2	0.722 ± 0.120	0.660 ± 0.109	0.732 ± 0.102	0.730 ± 0.089	0.652 ± 0.111	0.551 ± 0.150	0.732 ± 0.084	0.721 ± 0.121	0.712 ± 0.100	0.609 ± 0.144	0.673 ± 0.079	
<i>glass</i> – 0 – 1 – 6 – s_2	0.791 ± 0.132	0.747 ± 0.164	0.791 ± 0.132	0.791 ± 0.132	0.747 ± 0.164	0.812 ± 0.193	0.791 ± 0.132	0.791 ± 0.132	0.713 ± 0.256	0.841 ± 0.201	0.770 ± 0.191	
<i>glass2</i>	0.546 ± 0.287	0.528 ± 0.283	0.554 ± 0.287	0.538 ± 0.284	0.555 ± 0.287	0.593 ± 0.302	0.552 ± 0.291	0.546 ± 0.286	0.500 ± 0.235	0.532 ± 0.163	0.588 ± 0.219	
<i>glass1</i>	0.880 ± 0.113	0.827 ± 0.153	0.866 ± 0.136	0.854 ± 0.158	0.859 ± 0.131	0.854 ± 0.136	0.862 ± 0.100	0.880 ± 0.113	0.799 ± 0.200	0.772 ± 0.158	0.783 ± 0.112	
<i>glass5</i>	0.786 ± 0.143	0.774 ± 0.139	0.800 ± 0.134	0.800 ± 0.134	0.785 ± 0.143	0.826 ± 0.200	0.786 ± 0.143	0.786 ± 0.143	0.751 ± 0.133	0.848 ± 0.154	0.823 ± 0.153	
<i>page</i> – blocks – 1 – 3 – s_4	0.801 ± 0.135	0.759 ± 0.097	0.890 ± 0.133	0.805 ± 0.133	0.889 ± 0.144	0.777 ± 0.061	0.873 ± 0.141	0.891 ± 0.135	0.799 ± 0.091	0.833 ± 0.081	0.804 ± 0.168	
<i>yeast</i> – 0 – 5 – 6 – 7 – 9 – s_4	0.732 ± 0.057	0.716 ± 0.046	0.749 ± 0.047	0.734 ± 0.060	0.730 ± 0.065	0.753 ± 0.037	0.733 ± 0.048	0.729 ± 0.058	0.639 ± 0.098	0.091 ± 0.057	0.678 ± 0.087	
<i>yeast</i> – 1 – 2 – 8 – 9 – s_7	0.557 ± 0.067	0.510 ± 0.119	0.563 ± 0.075	0.553 ± 0.075	0.567 ± 0.071	0.624 ± 0.106	0.553 ± 0.090	0.564 ± 0.056	0.452 ± 0.120	0.143 ± 0.028	0.510 ± 0.082	
<i>yeast</i> – 1 – 4 – 5 – 8 – s_7	0.510 ± 0.079	0.480 ± 0.091	0.495 ± 0.076	0.498 ± 0.064	0.507 ± 0.087	0.540 ± 0.073	0.487 ± 0.065	0.510 ± 0.079	0.428 ± 0.156	0.099 ± 0.027	0.533 ± 0.085	
<i>yeast</i> – 1 – s_7	0.672 ± 0.048	0.637 ± 0.060	0.675 ± 0.045	0.675 ± 0.050	0.627 ± 0.090	0.661 ± 0.077	0.664 ± 0.048	0.671 ± 0.049	0.504 ± 0.109	0.099 ± 0.168	0.529 ± 0.175	
<i>yeast</i> – 2 – s_4	0.863 ± 0.044	0.855 ± 0.046	0.868 ± 0.044	0.869 ± 0.051	0.864 ± 0.052	0.865 ± 0.037	0.862 ± 0.053	0.863 ± 0.044	0.837 ± 0.037	0.282 ± 0.380	0.846 ± 0.060	
<i>yeast</i> – 2 – s_8	0.705 ± 0.063	0.737 ± 0.069	0.718 ± 0.058	0.727 ± 0.059	0.704 ± 0.062	0.767 ± 0.086	0.705 ± 0.101	0.705 ± 0.063	0.718 ± 0.109	0.184 ± 0.184	0.650 ± 0.111	
<i>yeast4</i>	0.749 ± 0.040	0.718 ± 0.045	0.754 ± 0.049	0.753 ± 0.038	0.742 ± 0.042	0.784 ± 0.039	0.740 ± 0.030	0.749 ± 0.040	0.627 ± 0.044	0.113 ± 0.022	0.709 ± 0.135	
<i>yeast5</i>	0.925 ± 0.030	0.922 ± 0.031	0.926 ± 0.030	0.926 ± 0.030	0.928 ± 0.029	0.940 ± 0.025	0.926 ± 0.030	0.925 ± 0.030	0.893 ± 0.073	0.142 ± 0.009	0.818 ± 0.237	
<i>ecoli</i> – 0 – 1 – 4 – 7 – s_2	0.865 ± 0.036	0.840 ± 0.023	0.860 ± 0.034	0.859 ± 0.022	0.863 ± 0.038	0.881 ± 0.035	0.865 ± 0.041	0.865 ± 0.036	0.697 ± 0.193	0.358 ± 0.260	0.825 ± 0.085	
<i>ecoli</i> – 0 – 1 – s_2	0.844 ± 0.048	0.855 ± 0.051	0.854 ± 0.051	0.852 ± 0.050	0.846 ± 0.048	0.881 ± 0.055	0.849 ± 0.051	0.843 ± 0.048	0.514 ± 0.157	0.503 ± 0.416	0.809 ± 0.059	
<i>ecoli</i> – 0 – 2 – 6 – 7 – s_3	0.820 ± 0.064	0.826 ± 0.072	0.825 ± 0.066	0.830 ± 0.065	0.841 ± 0.073	0.865 ± 0.058	0.821 ± 0.070	0.820 ± 0.064	0.810 ± 0.064	0.525 ± 0.348	0.843 ± 0.060	
<i>ecoli</i> – 0 – 6 – 7 – s_3	0.834 ± 0.065	0.838 ± 0.067	0.830 ± 0.065	0.845 ± 0.070	0.844 ± 0.072	0.862 ± 0.068	0.833 ± 0.071	0.834 ± 0.065	0.832 ± 0.060	0.552 ± 0.332	0.843 ± 0.059	
<i>ecoli</i> – 0 – 6 – 7 – s_3	0.852 ± 0.049	0.854 ± 0.049	0.851 ± 0.050	0.850 ± 0.049	0.850 ± 0.048	0.883 ± 0.050	0.850 ± 0.049	0.853 ± 0.048	0.851 ± 0.051	0.470 ± 0.323	0.872 ± 0.103	
<i>glass</i> – 0 – 1 – 4 – 6 – s_2	0.678 ± 0.149	0.582 ± 0.248	0.680 ± 0.158	0.657 ± 0.186	0.588 ± 0.240	0.570 ± 0.132	0.678 ± 0.179	0.677 ± 0.149	0.568 ± 0.127	0.590 ± 0.141	0.577 ± 0.173	
<i>glass</i> – 0 – 1 – 5 – s_2	0.675 ± 0.079	0.609 ± 0.103	0.682 ± 0.078	0.690 ± 0.089	0.627 ± 0.098	0.494 ± 0.090	0.660 ± 0.088	0.675 ± 0.079	0.642 ± 0.088	0.469 ± 0.296	0.615 ± 0.128	
<i>yeast</i> – 0 – 2 – 5 – 6 – s_3	0.7 – 8 – 9	0.796 ± 0.034	0.749 ± 0.057	0.764 ± 0.036	0.775 ± 0.026	0.736 ± 0.043	0.779 ± 0.036	0.787 ± 0.035	0.768 ± 0.033	0.714 ± 0.063	0.494 ± 0.145	0.749 ± 0.060
<i>yeast</i> – 0 – 3 – 5 – 9 – s_3	0.680 ± 0.044	0.548 ± 0.060	0.672 ± 0.045	0.674 ± 0.057	0.672 ± 0.051	0.610 ± 0.087	0.676 ± 0.042	0.679 ± 0.045	0.604 ± 0.093	0.160 ± 0.139	0.565 ± 0.089	
<i>abalone</i> – 17 – s_7	8 – 9 – 10	0.808 ± 0.023	0.709 ± 0.053	0.802 ± 0.027	0.803 ± 0.038	0.797 ± 0.032	0.816 ± 0.028	0.810 ± 0.027	0.806 ± 0.022	0.606 ± 0.119	0.703 ± 0.104	0.734 ± 0.131
<i>abalone</i> – 19 – s_3	0 – 11 – 12 – 13	0.582 ± 0.101	0.445 ± 0.129	0.588 ± 0.098	0.589 ± 0.091	0.571 ± 0.092	0.617 ± 0.114	0.574 ± 0.106	0.582 ± 0.101	0.556 ± 0.162	0.550 ± 0.116	0.529 ± 0.136
<i>abalone</i> – 20 – s_3	0 – 9 – 10	0.789 ± 0.059	0.747 ± 0.055	0.794 ± 0.050	0.784 ± 0.058	0.776 ± 0.063	0.880 ± 0.055	0.778 ± 0.069	0.687 ± 0.164	0.721 ± 0.129	0.669 ± 0.163	
<i>abalone</i> – 21 – s_3	0.757 ± 0.171	0.741 ± 0.173	0.756 ± 0.170	0.765 ± 0.172	0.756 ± 0.177	0.824 ± 0.085	0.757 ± 0.171	0.757 ± 0.171	0.713 ± 0.211	0.690 ± 0.160	0.709 ± 0.210	
<i>flare</i> – F	0.723 ± 0.050	0.630 ± 0.068	0.717 ± 0.055	0.728 ± 0.060	0.707 ± 0.054	0.766 ± 0.057	0.722 ± 0.056	0.723 ± 0.050	0.641 ± 0.114	0.413 ± 0.119	0.706 ± 0.096	
<i>kddcup</i> – buffer,overflow,pack	0.393 ± 0.014	0.397 ± 0.010	0.393 ± 0.014	0.393 ± 0.014	0.393 ± 0.014	1.000 ± 0.000	0.393 ± 0.014	0.393 ± 0.014	0.397 ± 0.010	0.397 ± 0.010	0.397 ± 0.010	
<i>kddcup</i> – rootkit – insip,pack	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.972 ± 0.031	0.977 ± 0.023	0.976 ± 0.045	0.976 ± 0.045	0.976 ± 0.045	
<i>kr</i> – vs – k – zero,night	0.934 ± 0.055	0.930 ± 0.061	0.934 ± 0.055	0.934 ± 0.055	0.930 ± 0.061	0.948 ± 0.053	0.930 ± 0.061	0.934 ± 0.055	0.835 ± 0.083	0.697 ± 0.043	0.817 ± 0.120	
<i>poker</i> – 8 – 9 – s_3	0.512 ± 0.141	0.402 ± 0.185	0.499 ± 0.129	0.493 ± 0.126	0.480 ± 0.152	0.624 ± 0.119	0.499 ± 0.103	0.512 ± 0.141	0.527 ± 0.118	0.527 ± 0.103	0.479 ± 0.119	
<i>poker</i> – 8 – 9 – s_6	0.711 ± 0.092	0.666 ± 0.072	0.711 ± 0.092	0.695 ± 0.080	0.674 ± 0.100	0.934 ± 0.059	0.689 ± 0.134	0.711 ± 0.092	0.377 ± 0.044	0.985 ± 0.040	0.377 ± 0.044	
<i>poker</i> – 8 – s_6	0.746 ± 0.101	0.645 ± 0.091	0.746 ± 0.101	0.755 ± 0.089	0.692 ± 0.119	0.966 ± 0.056	0.755 ± 0.089	0.746 ± 0.101	0.846 ± 0.152	0.939 ± 0.153	0.808 ± 0.174	
<i>poker</i> – 9 – s_7	0.432 ± 0.296	0.432 ± 0.296	0.398 ± 0.340	0.501 ± 0.341	0.391 ± 0.267		0.432 ± 0.296	0.613 ± 0.333	0.554 ± 0.307	0.485 ± 0.340		
<i>winequality</i> – red – 3 – s_3	0.221 ± 0.221	0.222 ± 0.222	0.221 ± 0.221	0.221 ± 0.221	0.221 ± 0.221	0.452 ± 0.171	0.266 ± 0.217	0.221 ± 0.221	0.249 ± 0.266	0.354 ± 0.244	0.206 ± 0.258	
<i>winequality</i> – red – 4	0.585 ± 0.058	0.528 ± 0.054	0.576 ± 0.057	0.594 ± 0.057	0.559 ± 0.055	0.533 ± 0.057	0.589 ± 0.055	0.584 ± 0.058	0.425 ± 0.101	0.581 ± 0.054	0.509 ± 0.072	
<i>winequality</i> – red – 8 – s_6	0.7 – 7	0.410 ± 0.167	0.410 ± 0.167	0.409 ± 0.167	0.323 ± 0.226	0.347 ± 0.197	0.377 ± 0.154	0.410 ± 0.167	0.366 ± 0.211	0.424 ± 0.183	0.385 ± 0.169	
<i>winequality</i> – red – 8 – s_6	0.517 ± 0.061	0.517 ± 0.061	0.517 ± 0.061	0.517 ± 0.061	0.530 ± 0.060	0.547 ± 0.114	0.537 ± 0.056	0.517 ± 0.061	0.575 ± 0.075	0.560 ± 0.104	0.518 ± 0.191	
<i>winequality</i> – white – 3 – 9 – s_3	0.382 ± 0.160	0.228 ± 0.197	0.368 ± 0.165	0.374 ± 0.154	0.287 ± 0.161	0.624 ± 0.061	0.364 ± 0.157	0.382 ± 0.160	0.331 ± 0.175	0.461 ± 0.114	0.444 ± 0.113	
<i>winequality</i> – white – 3 – s_3	0.246 ± 0.209	0.194 ± 0.199	0.292 ± 0.217	0.292 ± 0.216	0.297 ± 0.165	0.713 ± 0.105	0.278 ± 0.194	0.246 ± 0.209	0.385 ± 0.175	0.485 ± 0.246	0.438 ± 0.206	
<i>winequality</i> – white – 9 – s_4	0.777 ± 0.168	0.777 ± 0.168	0.777 ± 0.168	0.441 ± 0.452	0.777 ± 0.168	0.437 ± 0.449	0.777 ± 0.168	0.777 ± 0.168	0.553 ± 0.373	0.553 ± 0.373	0.553 ± 0.373	
<i>zoo</i> – 3	0.297 ± 0.377	0.297 ± 0.377	0.297 ± 0.377	0.240 ± 0.373	0.297 ± 0.377	0.139 ± 0.278	0.297 ± 0.377	0.297 ± 0.377	0.359 ± 0.313	0.359 ± 0.313	0.000 ± 0.000	
<i>ecoli1</i>	0.884 ± 0.027	0.884 ± 0.020	0.885 ± 0.020	0.883 ± 0.020	0.883 ± 0.021	0.888 ± 0.015	0.880 ± 0.022	0.884 ± 0.026	0.874 ± 0.033	0.227 ± 0.328	0.000 ± 0.000	
<i>ecoli2</i>	0.940 ± 0.025	0.931 ± 0.037	0.940 ± 0.025	0.939 ± 0.027	0.938 ± 0.026	0.938 ± 0.021	0.942 ± 0.022	0.938 ± 0.026	0.857 ± 0.086	0.309 ± 0.346	0.000 ± 0.000	
<i>ecoli3</i>	0.888 ± 0.023	0.892 ± 0.026	0.886 ± 0.023	0.893 ± 0.018	0.893 ± 0.021	0.893 ± 0.019	0.886 ± 0.021	0.892 ± 0.022	0.854 ± 0.064	0.324 ± 0.356	0.000 ± 0.000	
<i>glass0</i>	0.772 ± 0.041	0.787 ± 0.020	0.779 ± 0.040	0.768 ± 0.041	0.788 ± 0.039	0.762 ± 0.037	0.786 ± 0.036	0.771 ± 0.037	0.723 ± 0.039	0.674 ± 0.112	0.000 ± 0.000	
<i>glass1</i>	0.694 ± 0.041	0.677 ± 0.038	0.680 ± 0.047	0.686 ± 0.036	0.691 ± 0.048	0.662 ± 0.044	0.687 ± 0.043	0.694 ± 0.047	0.675 ± 0.074	0.474 ± 0.093	0.000 ± 0.000	
<i>haberman</i>	0.584 ± 0.042	0.606 ± 0.052	0.596 ± 0.038	0.575 ± 0.055	0.589 ± 0.060	0.597 ± 0.046	0.596 ± 0.043	0.583 ± 0.046	0.573 ± 0.062	0.536 ± 0.105	0.000 ± 0.000	
<i>page</i> – blocks0	0.931 ± 0.008	0.897 ± 0.009	0.931 ± 0.007	0.922 ± 0.010	0.931 ± 0.009	0.838 ± 0.019	0.930 ± 0.009	0.931 ± 0.008	0.875 ± 0.037	0.888 ± 0.026	0.000 ± 0.000	
<i>pinus</i>	0.726 ± 0.030	0.715 ± 0.030	0.728 ± 0.024	0.725 ± 0.022	0.728 ± 0.025	0.728 ± 0.017	0.731 ± 0.028	0.727 ± 0.032	0.692 ± 0.018	0.639 ± 0.039	0.000 ± 0.000	
<i>vehicle1</i>	0.786 ± 0.026	0.741 ± 0.027	0.787 ± 0.026	0.787 ± 0.019	0.785 ± 0.014	0.789 ± 0.024	0.789 ± 0.018	0.789 ± 0.024	0.662 ± 0.070	0.798 ± 0.017	0.000 ± 0.000	
<i>vehicle3</i>	0.786 ± 0.020	0.728 ± 0.020	0.786 ± 0.016	0.793 ± 0.024	0.785 ± 0.015	0.786 ± 0.021	0.786 ± 0.017	0.787 ± 0.				

Table 6. KNN – Precision

Dataset name	SMOTE	polynom-Rt-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone19</i>	0.023 ± 0.017	0.019 ± 0.015	0.023 ± 0.016	0.023 ± 0.017	0.026 ± 0.018	0.020 ± 0.011	0.023 ± 0.015	0.023 ± 0.017	0.025 ± 0.030	0.002 ± 0.005	0.008 ± 0.005
<i>abalone19</i> – 18	0.244 ± 0.036	0.278 ± 0.044	0.220 ± 0.029	0.233 ± 0.033	0.259 ± 0.042	0.275 ± 0.045	0.243 ± 0.034	0.246 ± 0.038	0.507 ± 0.184	0.176 ± 0.130	0.410 ± 0.242
<i>ecoli</i> – 0 – 1 – 3 – 7 – 9 – s_2 – 6	0.378 ± 0.110	0.413 ± 0.150	0.381 ± 0.119	0.371 ± 0.113	0.414 ± 0.151	0.354 ± 0.099	0.374 ± 0.111	0.378 ± 0.110	0.315 ± 0.136	0.303 ± 0.082	0.425 ± 0.239
<i>glass</i> – 0 – 1 – 6 – s_2	0.278 ± 0.099	0.240 ± 0.046	0.271 ± 0.085	0.272 ± 0.084	0.277 ± 0.066	0.211 ± 0.052	0.288 ± 0.094	0.273 ± 0.093	0.239 ± 0.051	0.194 ± 0.128	0.277 ± 0.091
<i>glass</i> – 0 – 1 – 6 – s_2	0.089 ± 0.156	0.712 ± 0.154	0.086 ± 0.148	0.086 ± 0.191	0.064 ± 0.171	0.505 ± 0.214	0.076 ± 0.152	0.089 ± 0.156	0.575 ± 0.197	0.438 ± 0.241	0.538 ± 0.289
<i>glass2</i>	0.182 ± 0.110	0.180 ± 0.114	0.176 ± 0.109	0.180 ± 0.102	0.181 ± 0.113	0.170 ± 0.080	0.170 ± 0.104	0.176 ± 0.105	0.205 ± 0.103	0.154 ± 0.136	0.179 ± 0.075
<i>glass4</i>	0.558 ± 0.133	0.582 ± 0.119	0.532 ± 0.120	0.545 ± 0.141	0.550 ± 0.141	0.508 ± 0.135	0.556 ± 0.128	0.558 ± 0.133	0.569 ± 0.133	0.366 ± 0.203	0.539 ± 0.190
<i>glass5</i>	0.637 ± 0.131	0.679 ± 0.149	0.657 ± 0.165	0.637 ± 0.131	0.669 ± 0.157	0.408 ± 0.138	0.637 ± 0.131	0.637 ± 0.131	0.582 ± 0.190	0.547 ± 0.221	0.505 ± 0.201
<i>page – blacks</i> – 1 – 3 – s_4	0.778 ± 0.098	0.748 ± 0.095	0.768 ± 0.123	0.741 ± 0.110	0.774 ± 0.132	0.729 ± 0.119	0.778 ± 0.113	0.778 ± 0.098	0.740 ± 0.166	0.590 ± 0.203	0.757 ± 0.131
<i>yeast</i> – 0 – 5 – 6 – 7 – 9 – s_4	0.303 ± 0.042	0.315 ± 0.037	0.307 ± 0.037	0.319 ± 0.040	0.316 ± 0.049	0.331 ± 0.053	0.308 ± 0.045	0.300 ± 0.040	0.472 ± 0.122	0.000 ± 0.000	0.323 ± 0.138
<i>yeast</i> – 1 – 2 – 8 – 9 – s_2	0.096 ± 0.018	0.118 ± 0.023	0.094 ± 0.017	0.093 ± 0.016	0.114 ± 0.036	0.099 ± 0.022	0.094 ± 0.018	0.095 ± 0.017	0.464 ± 0.235	0.000 ± 0.000	0.184 ± 0.210
<i>yeast</i> – 1 – 4 – 5 – 8 – s_2	0.091 ± 0.016	0.093 ± 0.032	0.092 ± 0.019	0.086 ± 0.025	0.084 ± 0.028	0.080 ± 0.022	0.089 ± 0.017	0.091 ± 0.016	0.096 ± 0.067	0.000 ± 0.000	0.037 ± 0.046
<i>yeast</i> – 1 – s_2	0.202 ± 0.027	0.216 ± 0.037	0.201 ± 0.020	0.201 ± 0.027	0.213 ± 0.042	0.192 ± 0.024	0.188 ± 0.035	0.200 ± 0.027	0.303 ± 0.136	0.000 ± 0.000	0.255 ± 0.303
<i>yeast</i> – 2 – s_4	0.668 ± 0.074	0.609 ± 0.085	0.645 ± 0.072	0.645 ± 0.053	0.634 ± 0.070	0.616 ± 0.076	0.647 ± 0.078	0.672 ± 0.073	0.848 ± 0.053	0.226 ± 0.347	0.724 ± 0.088
<i>yeast</i> – 2 – s_8	0.271 ± 0.084	0.500 ± 0.084	0.261 ± 0.088	0.260 ± 0.075	0.347 ± 0.101	0.309 ± 0.042	0.256 ± 0.075	0.270 ± 0.085	0.661 ± 0.293	0.100 ± 0.300	0.503 ± 0.168
<i>yeast4</i>	0.200 ± 0.029	0.215 ± 0.030	0.202 ± 0.033	0.207 ± 0.035	0.217 ± 0.034	0.172 ± 0.020	0.211 ± 0.033	0.200 ± 0.029	0.430 ± 0.080	0.000 ± 0.000	0.295 ± 0.141
<i>yeast5</i>	0.504 ± 0.073	0.529 ± 0.071	0.499 ± 0.070	0.496 ± 0.060	0.522 ± 0.068	0.382 ± 0.060	0.493 ± 0.062	0.503 ± 0.074	0.641 ± 0.145	0.000 ± 0.000	0.505 ± 0.200
<i>ecoli</i> – 0 – 1 – 4 – 7 – s_2 – 3 – 5 – 6	0.554 ± 0.092	0.619 ± 0.087	0.551 ± 0.075	0.572 ± 0.082	0.559 ± 0.090	0.532 ± 0.085	0.545 ± 0.103	0.559 ± 0.092	0.751 ± 0.091	0.142 ± 0.182	0.564 ± 0.210
<i>ecoli</i> – 0 – 1 – s_2 – 3 – 5	0.729 ± 0.155	0.756 ± 0.148	0.701 ± 0.141	0.724 ± 0.150	0.773 ± 0.164	0.669 ± 0.162	0.691 ± 0.134	0.729 ± 0.155	0.801 ± 0.152	0.367 ± 0.340	0.642 ± 0.218
<i>ecoli</i> – 0 – 2 – 6 – 7 – s_1 – 5	0.579 ± 0.118	0.612 ± 0.110	0.576 ± 0.136	0.630 ± 0.140	0.586 ± 0.125	0.527 ± 0.104	0.577 ± 0.126	0.575 ± 0.117	0.822 ± 0.124	0.172 ± 0.163	0.687 ± 0.187
<i>ecoli</i> – 0 – 6 – 7 – s_1 – 5	0.613 ± 0.140	0.645 ± 0.128	0.607 ± 0.156	0.685 ± 0.164	0.614 ± 0.117	0.591 ± 0.126	0.609 ± 0.132	0.619 ± 0.133	0.808 ± 0.092	0.287 ± 0.337	0.678 ± 0.260
<i>ecoli</i> – 0 – 6 – 7 – s_2	0.642 ± 0.203	0.670 ± 0.189	0.642 ± 0.199	0.655 ± 0.204	0.665 ± 0.188	0.575 ± 0.140	0.645 ± 0.210	0.645 ± 0.201	0.816 ± 0.149	0.216 ± 0.312	0.773 ± 0.162
<i>glass</i> – 0 – 1 – 4 – 6 – s_2	0.237 ± 0.080	0.241 ± 0.085	0.231 ± 0.091	0.230 ± 0.085	0.230 ± 0.101	0.203 ± 0.063	0.231 ± 0.091	0.235 ± 0.081	0.117 ± 0.071	0.136 ± 0.130	0.120 ± 0.079
<i>glass</i> – 0 – 1 – 5 – s_2	0.226 ± 0.048	0.235 ± 0.065	0.227 ± 0.048	0.226 ± 0.059	0.246 ± 0.087	0.204 ± 0.049	0.239 ± 0.056	0.225 ± 0.049	0.235 ± 0.085	0.200 ± 0.148	0.204 ± 0.126
<i>yeast</i> – 0 – 2 – 5 – 6 – s_1 – 7 – 8 – 9	0.332 ± 0.027	0.368 ± 0.033	0.330 ± 0.023	0.336 ± 0.033	0.356 ± 0.025	0.379 ± 0.058	0.332 ± 0.033	0.334 ± 0.028	0.534 ± 0.137	0.187 ± 0.205	0.464 ± 0.090
<i>yeast</i> – 0 – 3 – 5 – 9 – s_2 – 8	0.252 ± 0.043	0.281 ± 0.053	0.250 ± 0.042	0.245 ± 0.046	0.263 ± 0.042	0.285 ± 0.060	0.241 ± 0.030	0.252 ± 0.041	0.282 ± 0.191	0.040 ± 0.120	0.188 ± 0.099
<i>abalone</i> – 17 – s_7 – 8 – 9 – 10	0.190 ± 0.032	0.281 ± 0.044	0.191 ± 0.030	0.187 ± 0.028	0.231 ± 0.043	0.210 ± 0.032	0.194 ± 0.033	0.190 ± 0.033	0.325 ± 0.063	0.156 ± 0.115	0.147 ± 0.111
<i>abalone</i> – 19 – s_1 (0 – 11 – 12 – 13	0.047 ± 0.012	0.056 ± 0.018	0.049 ± 0.012	0.049 ± 0.014	0.048 ± 0.025	0.047 ± 0.017	0.044 ± 0.014	0.047 ± 0.012	0.056 ± 0.036	0.016 ± 0.015	0.035 ± 0.036
<i>abalone</i> – 20 – s_1 – 9 – 10	0.164 ± 0.028	0.189 ± 0.051	0.160 ± 0.033	0.171 ± 0.031	0.166 ± 0.049	0.118 ± 0.029	0.167 ± 0.034	0.161 ± 0.028	0.284 ± 0.154	0.041 ± 0.052	0.188 ± 0.149
<i>abalone</i> – 21 – s_8	0.440 ± 0.119	0.520 ± 0.162	0.418 ± 0.108	0.412 ± 0.104	0.485 ± 0.165	0.393 ± 0.120	0.400 ± 0.098	0.437 ± 0.122	0.421 ± 0.200	0.318 ± 0.268	0.566 ± 0.187
<i>flare</i> – F	0.202 ± 0.038	0.209 ± 0.028	0.198 ± 0.040	0.202 ± 0.041	0.209 ± 0.039	0.195 ± 0.031	0.206 ± 0.046	0.197 ± 0.032	0.369 ± 0.253	0.150 ± 0.320	0.234 ± 0.139
<i>kddcup – buffer,ver,flow,sack</i>	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.994 ± 0.019	0.994 ± 0.019
<i>kddcup – rootkit – insip,sack</i>	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kr – vs – k – zero,s,light</i>	0.730 ± 0.153	0.765 ± 0.172	0.723 ± 0.157	0.741 ± 0.152	0.758 ± 0.164	0.527 ± 0.068	0.740 ± 0.155	0.730 ± 0.153	0.550 ± 0.324	0.000 ± 0.000	0.506 ± 0.375
<i>poker – 8 – 9 – s_5</i>	0.065 ± 0.026	0.091 ± 0.037	0.066 ± 0.029	0.064 ± 0.029	0.055 ± 0.045	0.053 ± 0.018	0.069 ± 0.027	0.065 ± 0.026	0.052 ± 0.064	0.017 ± 0.035	0.045 ± 0.057
<i>poker – 8 – 9 – s_6</i>	0.428 ± 0.060	0.466 ± 0.080	0.426 ± 0.058	0.435 ± 0.064	0.505 ± 0.050	0.360 ± 0.065	0.434 ± 0.092	0.428 ± 0.060	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>poker – 8 – s_6</i>	0.310 ± 0.074	0.341 ± 0.111	0.308 ± 0.075	0.297 ± 0.072	0.350 ± 0.102	0.267 ± 0.049	0.314 ± 0.085	0.310 ± 0.074	1.000 ± 0.000	1.000 ± 0.000	0.878 ± 0.300
<i>poker – 9 – s_2</i>	0.497 ± 0.228	0.507 ± 0.234	0.495 ± 0.226	0.523 ± 0.267	0.550 ± 0.268	0.652 ± 0.273	0.532 ± 0.241	0.497 ± 0.228	0.597 ± 0.459	0.698 ± 0.389	0.391 ± 0.382
<i>winequality – red</i> – 3 – s_5	0.081 ± 0.045	0.095 ± 0.058	0.081 ± 0.045	0.080 ± 0.045	0.091 ± 0.051	0.161 ± 0.098	0.088 ± 0.050	0.081 ± 0.045	0.063 ± 0.074	0.008 ± 0.023	0.059 ± 0.053
<i>winequality – red</i> – 4	0.082 ± 0.015	0.080 ± 0.023	0.081 ± 0.018	0.080 ± 0.012	0.096 ± 0.025	0.085 ± 0.023	0.084 ± 0.015	0.082 ± 0.015	0.116 ± 0.063	0.054 ± 0.055	0.082 ± 0.037
<i>winequality – red</i> – 8 – s_6 – 7	0.031 ± 0.024	0.040 ± 0.029	0.033 ± 0.023	0.033 ± 0.024	0.042 ± 0.026	0.040 ± 0.030	0.035 ± 0.020	0.031 ± 0.024	0.041 ± 0.033	0.040 ± 0.049	0.040 ± 0.039
<i>winequality – red</i> – 8 – s_6	0.090 ± 0.019	0.108 ± 0.036	0.087 ± 0.023	0.089 ± 0.019	0.092 ± 0.038	0.094 ± 0.036	0.097 ± 0.037	0.090 ± 0.019	0.089 ± 0.049	0.082 ± 0.054	0.125 ± 0.084
<i>winequality – white</i> – 3 – 9 – s_5	0.068 ± 0.019	0.097 ± 0.030	0.066 ± 0.017	0.066 ± 0.017	0.082 ± 0.027	0.136 ± 0.074	0.060 ± 0.016	0.068 ± 0.019	0.158 ± 0.284	0.024 ± 0.019	0.091 ± 0.061
<i>winequality – white</i> – 3 – s_5	0.112 ± 0.065	0.100 ± 0.065	0.111 ± 0.066	0.105 ± 0.067	0.237 ± 0.270	0.414 ± 0.245	0.114 ± 0.068	0.112 ± 0.065	0.147 ± 0.101	0.110 ± 0.078	0.165 ± 0.062
<i>winequality – white</i> – 9 – s_4	0.514 ± 0.337	0.536 ± 0.319	0.514 ± 0.337	0.421 ± 0.392	0.516 ± 0.335	0.465 ± 0.373	0.514 ± 0.337	0.514 ± 0.337	0.165 ± 0.129	0.165 ± 0.129	0.165 ± 0.129
<i>zoo</i> – 3 – 0.460 ± 0.260	0.460 ± 0.260	0.460 ± 0.260	0.460 ± 0.260	0.367 ± 0.354	0.460 ± 0.260	0.367 ± 0.354	0.460 ± 0.260	0.460 ± 0.260	0.253 ± 0.238	0.253 ± 0.238	0.000 ± 0.000
<i>ecoli1</i>	0.700 ± 0.057	0.713 ± 0.065	0.694 ± 0.047	0.710 ± 0.041	0.700 ± 0.054	0.700 ± 0.056	0.691 ± 0.046	0.697 ± 0.055	0.646 ± 0.041	0.139 ± 0.280	0.000 ± 0.000
<i>ecoli2</i>	0.692 ± 0.080	0.751 ± 0.089	0.687 ± 0.100	0.693 ± 0.088	0.725 ± 0.073	0.669 ± 0.064	0.689 ± 0.090	0.690 ± 0.079	0.637 ± 0.148	0.193 ± 0.309	0.000 ± 0.000
<i>ecoli3</i>	0.475 ± 0.036	0.482 ± 0.036	0.473 ± 0.024	0.478 ± 0.043	0.475 ± 0.040	0.424 ± 0.034	0.476 ± 0.035	0.473 ± 0.037	0.539 ± 0.072	0.113 ± 0.180	0.000 ± 0.000
<i>glass0</i>	0.608 ± 0.053	0.611 ± 0.056	0.599 ± 0.038	0.606 ± 0.043	0.608 ± 0.051	0.608 ± 0.055	0.616 ± 0.050	0.614 ± 0.054	0.611 ± 0.034	0.508 ± 0.204	0.000 ± 0.000
<i>glass1</i>	0.614 ± 0.061	0.620 ± 0.068	0.633 ± 0.070	0.634 ± 0.053	0.626 ± 0.059	0.633 ± 0.042	0.616 ± 0.048	0.616 ± 0.064	0.602 ± 0.070	0.444 ± 0.196	0.000 ± 0.000
<i>haberman</i>	0.366 ± 0.033	0.400 ± 0.035	0.346 ± 0.032	0.355 ± 0.015	0.359 ± 0.040	0.362 ± 0.029	0.348 ± 0.021	0.364 ± 0.035	0.435 ± 0.065	0.308 ± 0.120	0.000 ± 0.000
<i>page – black0</i>	0.733 ± 0.025	0.804 ± 0.021	0.732 ± 0.026	0.750 ± 0.029	0.738 ± 0.015	0.855 ± 0.012	0.728 ± 0.025	0.732 ± 0.024	0.824 ± 0.034	0.000 ± 0.000	0.000 ± 0.000
<i>pinna</i>	0.549 ± 0.026	0.586 ± 0.019	0.554 ± 0.013	0.552 ± 0.019	0.549 ± 0.022	0.569 ± 0.027	0.553 ± 0.019	0.556 ± 0.029	0.601 ± 0.031	0.491 ± 0.075	0.000 ± 0.000
<i>vehicle1</i>	0.476 ± 0.020	0.516 ± 0.027	0.476 ± 0.023	0.490 ± 0.021	0.486 ± 0.018	0.496 ± 0.022	0.487 ± 0.022	0.477 ± 0.021	0.505 ± 0.036	0.493 ±	

Table 7. CART – Recall

Dataset name	SMOTE	polynom-Rt-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone19</i>	0.162 ± 0.089	0.019 ± 0.029	0.131 ± 0.081	0.169 ± 0.089	0.112 ± 0.101	0.131 ± 0.099	0.150 ± 0.102	0.162 ± 0.089	0.025 ± 0.041	0.319 ± 0.311	0.312 ± 0.357
<i>abalone18</i>	0.410 ± 0.123	0.281 ± 0.078	0.420 ± 0.119	0.452 ± 0.098	0.367 ± 0.068	0.486 ± 0.170	0.381 ± 0.077	0.419 ± 0.131	0.382 ± 0.086	0.332 ± 0.248	0.295 ± 0.120
<i>ecoli - 0 - 1 - 3 - 7, s₂ - 6</i>	0.600 ± 0.232	0.650 ± 0.128	0.600 ± 0.232	0.600 ± 0.232	0.650 ± 0.128	0.575 ± 0.199	0.600 ± 0.232	0.600 ± 0.232	0.417 ± 0.211	0.250 ± 0.183	0.450 ± 0.221
<i>glass - 0 - 1 - 6, s₂</i>	0.367 ± 0.114	0.244 ± 0.088	0.435 ± 0.125	0.375 ± 0.137	0.318 ± 0.128	0.369 ± 0.187	0.364 ± 0.211	0.365 ± 0.108	0.382 ± 0.206	0.450 ± 0.301	0.308 ± 0.115
<i>glass - 0 - 1 - 6, s₃</i>	0.735 ± 0.273	0.735 ± 0.273	0.735 ± 0.273	0.735 ± 0.273	0.610 ± 0.300	0.805 ± 0.272	0.735 ± 0.273	0.735 ± 0.273	0.555 ± 0.306	0.805 ± 0.313	0.560 ± 0.322
<i>glass2</i>	0.275 ± 0.223	0.233 ± 0.160	0.239 ± 0.199	0.312 ± 0.182	0.274 ± 0.216	0.318 ± 0.230	0.239 ± 0.175	0.300 ± 0.232	0.251 ± 0.158	0.479 ± 0.285	0.331 ± 0.175
<i>glass4</i>	0.740 ± 0.165	0.707 ± 0.109	0.740 ± 0.165	0.724 ± 0.164	0.755 ± 0.151	0.681 ± 0.187	0.740 ± 0.165	0.619 ± 0.222	0.600 ± 0.146	0.581 ± 0.219	
<i>glass5</i>	0.720 ± 0.316	0.720 ± 0.316	0.720 ± 0.316	0.720 ± 0.316	0.745 ± 0.327	0.890 ± 0.221	0.720 ± 0.316	0.690 ± 0.309	0.815 ± 0.296	0.610 ± 0.314	
<i>page - blacks - 1 - 3, s₄</i>	0.943 ± 0.119	0.907 ± 0.124	0.930 ± 0.137	0.936 ± 0.137	0.950 ± 0.128	0.943 ± 0.105	0.971 ± 0.065	0.943 ± 0.119	0.814 ± 0.129	0.793 ± 0.176	0.857 ± 0.172
<i>yeast - 0 - 5 - 6 - 7 - 9, s₄</i>	0.493 ± 0.131	0.436 ± 0.101	0.524 ± 0.107	0.482 ± 0.125	0.442 ± 0.085	0.573 ± 0.119	0.470 ± 0.090	0.509 ± 0.088	0.401 ± 0.307	0.980 ± 0.020	0.444 ± 0.124
<i>yeast - 1 - 2 - 8 - 9, s₇</i>	0.247 ± 0.060	0.200 ± 0.089	0.260 ± 0.063	0.233 ± 0.100	0.253 ± 0.107	0.420 ± 0.133	0.247 ± 0.052	0.280 ± 0.088	0.180 ± 0.099	1.000 ± 0.000	0.207 ± 0.159
<i>yeast - 1 - 4 - 5 - 8, s₇</i>	0.167 ± 0.095	0.173 ± 0.053	0.167 ± 0.124	0.147 ± 0.083	0.153 ± 0.112	0.193 ± 0.101	0.200 ± 0.060	0.153 ± 0.085	0.073 ± 0.076	1.000 ± 0.000	0.253 ± 0.251
<i>yeast - 1, s₇</i>	0.820 ± 0.111	0.520 ± 0.102	0.307 ± 0.120	0.367 ± 0.109	0.287 ± 0.116	0.487 ± 0.066	0.340 ± 0.105	0.315 ± 0.069	0.213 ± 0.063	0.760 ± 0.308	0.440 ± 0.285
<i>yeast - 2, s₄</i>	0.741 ± 0.098	0.718 ± 0.114	0.709 ± 0.093	0.762 ± 0.137	0.754 ± 0.112	0.796 ± 0.091	0.773 ± 0.093	0.729 ± 0.078	0.668 ± 0.103	0.775 ± 0.310	0.651 ± 0.076
<i>yeast - 2, s₈</i>	0.530 ± 0.185	0.550 ± 0.136	0.600 ± 0.228	0.610 ± 0.181	0.550 ± 0.150	0.580 ± 0.108	0.540 ± 0.128	0.550 ± 0.180	0.520 ± 0.098	0.940 ± 0.120	0.510 ± 0.104
<i>yeast4</i>	0.401 ± 0.096	0.306 ± 0.066	0.428 ± 0.123	0.428 ± 0.102	0.307 ± 0.079	0.511 ± 0.110	0.394 ± 0.165	0.405 ± 0.100	0.387 ± 0.100	0.980 ± 0.020	0.243 ± 0.113
<i>yeast5</i>	0.736 ± 0.149	0.705 ± 0.137	0.705 ± 0.129	0.732 ± 0.139	0.723 ± 0.132	0.795 ± 0.098	0.750 ± 0.117	0.741 ± 0.155	0.695 ± 0.100	1.000 ± 0.000	0.664 ± 0.179
<i>ecoli - 0 - 1 - 4 - 7, s₂ - 3 - 5 - 6</i>	0.648 ± 0.154	0.634 ± 0.089	0.696 ± 0.090	0.640 ± 0.130	0.601 ± 0.133	0.750 ± 0.092	0.702 ± 0.104	0.675 ± 0.169	0.464 ± 0.219	0.141 ± 0.186	0.540 ± 0.155
<i>ecoli - 0 - 1, s₂ - 3 - 5</i>	0.642 ± 0.129	0.642 ± 0.214	0.608 ± 0.129	0.550 ± 0.093	0.625 ± 0.093	0.758 ± 0.137	0.617 ± 0.113	0.650 ± 0.128	0.558 ± 0.190	0.333 ± 0.296	0.575 ± 0.169
<i>ecoli - 0 - 2 - 6 - 7, s₃ - 5</i>	0.655 ± 0.106	0.609 ± 0.135	0.682 ± 0.117	0.700 ± 0.163	0.709 ± 0.121	0.755 ± 0.122	0.618 ± 0.127	0.655 ± 0.106	0.582 ± 0.116	0.182 ± 0.244	0.655 ± 0.121
<i>ecoli - 0 - 6 - 7, s₃ - 5</i>	0.655 ± 0.140	0.627 ± 0.103	0.682 ± 0.124	0.691 ± 0.130	0.718 ± 0.155	0.764 ± 0.136	0.655 ± 0.121	0.655 ± 0.140	0.582 ± 0.136	0.327 ± 0.315	0.582 ± 0.183
<i>ecoli - 0 - 6 - 7, s₄</i>	0.720 ± 0.125	0.710 ± 0.151	0.700 ± 0.118	0.720 ± 0.125	0.700 ± 0.126	0.760 ± 0.102	0.690 ± 0.104	0.720 ± 0.125	0.730 ± 0.168	0.670 ± 0.332	0.700 ± 0.200
<i>glass - 0 - 1 - 4 - 6, s₂</i>	0.272 ± 0.108	0.222 ± 0.157	0.310 ± 0.148	0.272 ± 0.131	0.318 ± 0.143	0.447 ± 0.163	0.211 ± 0.112	0.235 ± 0.129	0.192 ± 0.148	0.494 ± 0.347	0.358 ± 0.269
<i>glass - 0 - 1 - 5, s₂</i>	0.482 ± 0.146	0.303 ± 0.122	0.461 ± 0.180	0.550 ± 0.213	0.364 ± 0.138	0.407 ± 0.188	0.411 ± 0.159	0.457 ± 0.129	0.293 ± 0.123	0.596 ± 0.295	0.325 ± 0.205
<i>yeast - 0 - 2 - 5 - 6, s₃ - 7 - 8 - 9</i>	0.522 ± 0.078	0.492 ± 0.104	0.560 ± 0.076	0.518 ± 0.056	0.513 ± 0.068	0.550 ± 0.102	0.514 ± 0.069	0.499 ± 0.075	0.356 ± 0.126	0.833 ± 0.151	0.342 ± 0.061
<i>yeast - 0 - 3 - 5 - 9, s₂ - 8</i>	0.336 ± 0.086	0.556 ± 0.083	0.380 ± 0.065	0.386 ± 0.090	0.352 ± 0.087	0.412 ± 0.088	0.388 ± 0.066	0.400 ± 0.067	0.176 ± 0.118	0.832 ± 0.204	0.320 ± 0.174
<i>abalone - 17, s₇ - 8 - 9 - 10</i>	0.334 ± 0.089	0.310 ± 0.069	0.331 ± 0.090	0.366 ± 0.093	0.321 ± 0.090	0.390 ± 0.046	0.334 ± 0.082	0.331 ± 0.077	0.290 ± 0.110	0.272 ± 0.224	0.334 ± 0.187
<i>abalone - 19, s₃ - 11 - 12 - 13</i>	0.181 ± 0.090	0.062 ± 0.048	0.181 ± 0.110	0.169 ± 0.084	0.131 ± 0.113	0.262 ± 0.111	0.175 ± 0.083	0.188 ± 0.062	0.075 ± 0.083	0.312 ± 0.310	0.188 ± 0.163
<i>abalone - 20, s₃ - 9 - 10</i>	0.423 ± 0.105	0.185 ± 0.130	0.377 ± 0.126	0.392 ± 0.100	0.277 ± 0.143	0.638 ± 0.119	0.392 ± 0.121	0.423 ± 0.105	0.282 ± 0.110	0.392 ± 0.258	0.369 ± 0.147
<i>abalone - 21, s₃</i>	0.486 ± 0.257	0.329 ± 0.144	0.429 ± 0.192	0.414 ± 0.234	0.500 ± 0.146	0.629 ± 0.146	0.414 ± 0.225	0.500 ± 0.265	0.443 ± 0.259	0.314 ± 0.237	0.316 ± 0.167
<i>flare - F</i>	0.149 ± 0.073	0.187 ± 0.062	0.173 ± 0.093	0.192 ± 0.081	0.210 ± 0.049	0.195 ± 0.074	0.187 ± 0.100	0.191 ± 0.075	0.386 ± 0.181	0.949 ± 0.052	0.416 ± 0.208
<i>kidcup - buffer, s₇ s₇ flows, s₄ s₄ k</i>	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kidcup - rocket - insip, s₄ s₄ k</i>	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kr - vs - k - zero, s₄ right</i>	0.925 ± 0.101	0.932 ± 0.103	0.932 ± 0.103	0.932 ± 0.103	0.939 ± 0.083	0.915 ± 0.148	0.909 ± 0.116	0.925 ± 0.101	0.570 ± 0.186	0.733 ± 0.071	0.777 ± 0.172
<i>poker - 8 - 9, s₃</i>	0.175 ± 0.078	0.135 ± 0.100	0.160 ± 0.063	0.175 ± 0.067	0.111 ± 0.102	0.215 ± 0.140	0.113 ± 0.056	0.175 ± 0.078	0.072 ± 0.088	0.219 ± 0.197	0.156 ± 0.217
<i>poker - 8 - 9, s₄</i>	0.383 ± 0.172	0.654 ± 0.277	0.358 ± 0.186	0.308 ± 0.161	0.513 ± 0.278	0.294 ± 0.188	0.333 ± 0.208	0.383 ± 0.172	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>poker - 8, s₄</i>	0.379 ± 0.197	0.378 ± 0.324	0.414 ± 0.246	0.378 ± 0.189	0.389 ± 0.192	0.363 ± 0.311	0.364 ± 0.193	0.376 ± 0.197	0.863 ± 0.160	0.863 ± 0.160	0.672 ± 0.319
<i>poker - 9, s₇</i>	0.150 ± 0.166	0.125 ± 0.125	0.150 ± 0.166	0.150 ± 0.166	0.200 ± 0.187	0.250 ± 0.250	0.150 ± 0.166	0.400 ± 0.406	0.325 ± 0.317	0.275 ± 0.305	
<i>winequality - red - 3, s₃</i>	0.090 ± 0.092	0.080 ± 0.133	0.040 ± 0.080	0.090 ± 0.092	0.080 ± 0.181	0.160 ± 0.120	0.080 ± 0.133	0.060 ± 0.092	0.100 ± 0.100	0.140 ± 0.128	
<i>winequality - red - 4</i>	0.182 ± 0.101	0.121 ± 0.062	0.234 ± 0.069	0.223 ± 0.077	0.186 ± 0.075	0.223 ± 0.079	0.177 ± 0.038	0.182 ± 0.104	0.113 ± 0.064	0.207 ± 0.126	0.151 ± 0.071
<i>winequality - red - 8, s₄ - 7</i>	0.133 ± 0.083	0.156 ± 0.102	0.144 ± 0.087	0.167 ± 0.102	0.156 ± 0.113	0.178 ± 0.089	0.133 ± 0.097	0.133 ± 0.083	0.022 ± 0.092	0.089 ± 0.109	0.111 ± 0.086
<i>winequality - red - 8, s₆</i>	0.278 ± 0.114	0.256 ± 0.132	0.267 ± 0.102	0.267 ± 0.142	0.200 ± 0.097	0.300 ± 0.122	0.322 ± 0.126	0.278 ± 0.114	0.200 ± 0.083	0.167 ± 0.134	0.178 ± 0.124
<i>winequality - white - 3 - 9, s₃</i>	0.183 ± 0.129	0.120 ± 0.098	0.128 ± 0.106	0.145 ± 0.113	0.097 ± 0.121	0.338 ± 0.117	0.120 ± 0.073	0.183 ± 0.129	0.079 ± 0.061	0.049 ± 0.040	0.072 ± 0.042
<i>winequality - white - 3, s₇</i>	0.120 ± 0.087	0.140 ± 0.120	0.190 ± 0.130	0.180 ± 0.108	0.210 ± 0.094	0.510 ± 0.176	0.090 ± 0.094	0.120 ± 0.087	0.120 ± 0.060	0.190 ± 0.158	0.170 ± 0.135
<i>winequality - white - 9, s₄</i>	0.467 ± 0.332	0.367 ± 0.208	0.467 ± 0.332	0.467 ± 0.332	0.467 ± 0.332	0.417 ± 0.281	0.467 ± 0.332	0.467 ± 0.332	0.183 ± 0.229	0.183 ± 0.229	0.183 ± 0.229
<i>zoo - 3</i>	0.383 ± 0.380	0.283 ± 0.248	0.383 ± 0.308	0.367 ± 0.306	0.333 ± 0.325	0.517 ± 0.293	0.333 ± 0.236	0.383 ± 0.380	0.317 ± 0.311	0.317 ± 0.311	0.000 ± 0.000
<i>ecoli1</i>	0.775 ± 0.123	0.728 ± 0.088	0.747 ± 0.104	0.754 ± 0.091	0.765 ± 0.097	0.806 ± 0.090	0.733 ± 0.113	0.809 ± 0.084	0.620 ± 0.122	0.821 ± 0.309	0.000 ± 0.000
<i>ecoli2</i>	0.773 ± 0.070	0.738 ± 0.078	0.756 ± 0.064	0.758 ± 0.080	0.758 ± 0.060	0.827 ± 0.085	0.773 ± 0.102	0.769 ± 0.069	0.627 ± 0.158	0.662 ± 0.391	0.000 ± 0.000
<i>ecoli3</i>	0.561 ± 0.095	0.561 ± 0.132	0.622 ± 0.140	0.617 ± 0.103	0.606 ± 0.100	0.771 ± 0.103	0.628 ± 0.106	0.584 ± 0.108	0.589 ± 0.096	0.715 ± 0.335	0.000 ± 0.000
<i>glass0</i>	0.743 ± 0.096	0.726 ± 0.106	0.706 ± 0.096	0.743 ± 0.076	0.749 ± 0.080	0.774 ± 0.071	0.751 ± 0.075	0.743 ± 0.048	0.671 ± 0.092	0.611 ± 0.127	0.000 ± 0.000
<i>glass1</i>	0.666 ± 0.047	0.668 ± 0.078	0.687 ± 0.110	0.679 ± 0.073	0.647 ± 0.094	0.674 ± 0.074	0.682 ± 0.091	0.645 ± 0.056	0.571 ± 0.160	0.853 ± 0.132	0.000 ± 0.000
<i>haberman</i>	0.445 ± 0.078	0.408 ± 0.059	0.417 ± 0.101	0.390 ± 0.087	0.407 ± 0.106	0.442 ± 0.065	0.397 ± 0.113	0.449 ± 0.092	0.361 ± 0.080	0.281 ± 0.097	0.000 ± 0.000
<i>page - black0</i>	0.865 ± 0.026	0.820 ± 0.019	0.861 ± 0.022	0.858 ± 0.015	0.838 ± 0.021	0.823 ± 0.018	0.869 ± 0.024	0.864 ± 0.017	0.836 ± 0.026	0.815 ± 0.028	0.000 ± 0.000
<i>pinna</i>	0.588 ± 0.050	0.584 ± 0.044	0.572 ± 0.045	0.581 ± 0.039	0.585 ± 0.041	0.611 ± 0.038	0.565 ± 0.036	0.590 ± 0.039	0.564 ± 0.043	0.472 ± 0.103	0.000 ± 0.000
<i>vehicle1</i>	0.510 ± 0.058	0.519 ± 0.044	0.540 ± 0.085	0.527 ± 0.055	0.525 ± 0.059	0.579 ± 0.047	0.543 ± 0.053	0.537 ± 0.044	0.512 ± 0.044	0.506 ± 0.042	0.000 ± 0.000
<i>vehicle3</i>	0.534 ± 0.046										

Table 8. SVM – Recall

Dataset name	SMOTE	polynom-Rt-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone19</i>	0.300 ± 0.131	0.194 ± 0.099	0.300 ± 0.121	0.312 ± 0.137	0.306 ± 0.132	0.456 ± 0.119	0.300 ± 0.131	0.300 ± 0.131	0.475 ± 0.211	0.637 ± 0.276	0.663 ± 0.179
<i>abalone18</i>	0.590 ± 0.107	0.448 ± 0.077	0.610 ± 0.073	0.614 ± 0.081	0.586 ± 0.107	0.648 ± 0.083	0.595 ± 0.071	0.590 ± 0.107	0.395 ± 0.154	0.681 ± 0.068	0.438 ± 0.184
<i>ecoli</i> – 0 – 1 – 3 – 7 – s_2 – 6	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.725 ± 0.179	0.700 ± 0.155	0.700 ± 0.155	0.742 ± 0.248	0.742 ± 0.248	0.775 ± 0.211
<i>glass</i> – 0 – 1 – 6 – s_2	0.629 ± 0.196	0.504 ± 0.167	0.654 ± 0.175	0.643 ± 0.138	0.511 ± 0.181	0.394 ± 0.208	0.643 ± 0.129	0.629 ± 0.196	0.635 ± 0.163	0.815 ± 0.203	0.589 ± 0.151
<i>glass</i> – 0 – 1 – 6 – s_2	0.650 ± 0.201	0.590 ± 0.234	0.650 ± 0.201	0.650 ± 0.201	0.590 ± 0.234	0.720 ± 0.290	0.650 ± 0.201	0.650 ± 0.201	0.590 ± 0.258	0.805 ± 0.313	0.665 ± 0.300
<i>glass2</i>	0.458 ± 0.275	0.415 ± 0.259	0.471 ± 0.274	0.449 ± 0.273	0.472 ± 0.278	0.539 ± 0.297	0.471 ± 0.285	0.458 ± 0.275	0.482 ± 0.281	0.764 ± 0.264	0.569 ± 0.267
<i>glass</i> 0.802 ± 0.195	0.721 ± 0.238	0.721 ± 0.238	0.786 ± 0.225	0.771 ± 0.250	0.769 ± 0.214	0.798 ± 0.233	0.769 ± 0.171	0.802 ± 0.195	0.660 ± 0.140	0.752 ± 0.101	0.640 ± 0.179
<i>glass5</i>	0.645 ± 0.217	0.625 ± 0.211	0.665 ± 0.203	0.665 ± 0.203	0.645 ± 0.217	0.755 ± 0.298	0.645 ± 0.217	0.645 ± 0.217	0.600 ± 0.210	0.795 ± 0.258	0.770 ± 0.273
<i>page</i> – <i>blocks</i> – 1 – 3 – s_4	0.836 ± 0.228	0.593 ± 0.143	0.843 ± 0.223	0.843 ± 0.223	0.836 ± 0.227	0.636 ± 0.098	0.807 ± 0.233	0.836 ± 0.228	0.750 ± 0.215	0.879 ± 0.150	0.729 ± 0.280
<i>yeast</i> – 0 – 5 – 6 – 7 – 9 – s_4	0.604 ± 0.098	0.556 ± 0.066	0.635 ± 0.087	0.600 ± 0.097	0.600 ± 0.101	0.639 ± 0.065	0.604 ± 0.082	0.600 ± 0.099	0.440 ± 0.135	0.980 ± 0.020	0.543 ± 0.140
<i>yeast</i> – 1 – 2 – 8 – 9 – s_7	0.380 ± 0.090	0.320 ± 0.129	0.393 ± 0.101	0.373 ± 0.100	0.380 ± 0.090	0.447 ± 0.149	0.380 ± 0.112	0.387 ± 0.078	0.293 ± 0.205	1.000 ± 0.000	0.400 ± 0.219
<i>yeast</i> – 1 – 4 – 5 – 8 – s_7	0.327 ± 0.101	0.280 ± 0.107	0.307 ± 0.100	0.313 ± 0.090	0.320 ± 0.107	0.353 ± 0.090	0.300 ± 0.095	0.327 ± 0.101	0.293 ± 0.177	1.000 ± 0.000	0.533 ± 0.240
<i>yeast</i> – 1 – s_7	0.540 ± 0.076	0.467 ± 0.089	0.547 ± 0.065	0.547 ± 0.078	0.467 ± 0.140	0.520 ± 0.115	0.533 ± 0.079	0.540 ± 0.076	0.320 ± 0.157	0.973 ± 0.060	0.547 ± 0.286
<i>yeast</i> – 2 – s_4	0.781 ± 0.088	0.761 ± 0.088	0.792 ± 0.088	0.792 ± 0.098	0.792 ± 0.108	0.788 ± 0.068	0.781 ± 0.101	0.781 ± 0.088	0.718 ± 0.061	0.918 ± 0.120	0.749 ± 0.107
<i>yeast</i> – 2 – s_8	0.550 ± 0.120	0.550 ± 0.102	0.560 ± 0.102	0.570 ± 0.110	0.530 ± 0.100	0.610 ± 0.137	0.560 ± 0.162	0.550 ± 0.120	0.560 ± 0.162	0.940 ± 0.120	0.510 ± 0.164
<i>yeast4</i>	0.619 ± 0.071	0.550 ± 0.066	0.628 ± 0.087	0.623 ± 0.066	0.604 ± 0.071	0.689 ± 0.077	0.600 ± 0.054	0.619 ± 0.071	0.420 ± 0.097	0.980 ± 0.020	0.595 ± 0.215
<i>yeast5</i>	0.882 ± 0.058	0.873 ± 0.060	0.882 ± 0.058	0.882 ± 0.058	0.886 ± 0.055	0.936 ± 0.051	0.882 ± 0.058	0.882 ± 0.058	0.823 ± 0.136	1.000 ± 0.000	0.845 ± 0.140
<i>ecoli</i> – 0 – 1 – 4 – 7 – s_3 – 3 – 5 – 6	0.771 ± 0.096	0.717 ± 0.041	0.765 ± 0.066	0.758 ± 0.037	0.772 ± 0.077	0.820 ± 0.069	0.779 ± 0.071	0.771 ± 0.066	0.540 ± 0.273	0.788 ± 0.152	0.726 ± 0.135
<i>ecoli</i> – 0 – 1 – s_2 – 3 – 5	0.733 ± 0.090	0.608 ± 0.139	0.733 ± 0.090	0.733 ± 0.090	0.825 ± 0.115	0.750 ± 0.091	0.733 ± 0.090	0.608 ± 0.139	0.733 ± 0.090	0.833 ± 0.139	0.717 ± 0.107
<i>ecoli</i> – 0 – 2 – 6 – 7 – s_3 – 5	0.700 ± 0.122	0.700 ± 0.122	0.709 ± 0.114	0.709 ± 0.106	0.736 ± 0.125	0.809 ± 0.125	0.700 ± 0.122	0.700 ± 0.122	0.673 ± 0.101	0.764 ± 0.153	0.764 ± 0.109
<i>ecoli</i> – 0 – 6 – 7 – s_3 – 5	0.718 ± 0.111	0.718 ± 0.111	0.718 ± 0.111	0.736 ± 0.118	0.736 ± 0.125	0.800 ± 0.134	0.718 ± 0.125	0.718 ± 0.111	0.709 ± 0.106	0.764 ± 0.153	0.764 ± 0.116
<i>ecoli</i> – 0 – 6 – 7 – s_3	0.700 ± 0.092	0.750 ± 0.092	0.750 ± 0.092	0.750 ± 0.092	0.830 ± 0.110	0.750 ± 0.092	0.750 ± 0.092	0.750 ± 0.092	0.740 ± 0.092	0.870 ± 0.140	0.790 ± 0.181
<i>glass</i> – 0 – 1 – 4 – 6 – s_2	0.568 ± 0.209	0.456 ± 0.262	0.592 ± 0.235	0.553 ± 0.274	0.471 ± 0.243	0.411 ± 0.185	0.589 ± 0.267	0.568 ± 0.209	0.561 ± 0.263	0.869 ± 0.165	0.658 ± 0.313
<i>glass</i> – 0 – 1 – 5 – s_2	0.554 ± 0.135	0.433 ± 0.142	0.565 ± 0.130	0.578 ± 0.159	0.453 ± 0.132	0.290 ± 0.098	0.532 ± 0.150	0.554 ± 0.135	0.562 ± 0.205	0.811 ± 0.155	0.572 ± 0.203
<i>yeast</i> – 0 – 2 – 5 – 6 – s_3 – 7 – 8 – 9	0.635 ± 0.064	0.588 ± 0.087	0.635 ± 0.056	0.651 ± 0.057	0.621 ± 0.063	0.657 ± 0.061	0.643 ± 0.063	0.637 ± 0.062	0.592 ± 0.074	0.729 ± 0.078	0.621 ± 0.096
<i>yeast</i> – 0 – 3 – 5 – 9 – s_3 – 8	0.560 ± 0.082	0.516 ± 0.070	0.556 ± 0.081	0.556 ± 0.095	0.548 ± 0.084	0.428 ± 0.123	0.552 ± 0.071	0.560 ± 0.082	0.512 ± 0.172	0.976 ± 0.072	0.504 ± 0.140
<i>abalone</i> – 17 – s_7 – 8 – 9 – 10	0.717 ± 0.043	0.528 ± 0.079	0.707 ± 0.047	0.707 ± 0.069	0.693 ± 0.054	0.724 ± 0.056	0.721 ± 0.052	0.714 ± 0.041	0.410 ± 0.174	0.793 ± 0.109	0.717 ± 0.159
<i>abalone</i> – 19 – s_3 – 0 – 11 – 12 – 13	0.419 ± 0.158	0.231 ± 0.125	0.425 ± 0.155	0.425 ± 0.142	0.387 ± 0.136	0.463 ± 0.163	0.406 ± 0.164	0.419 ± 0.158	0.412 ± 0.233	0.694 ± 0.141	0.488 ± 0.214
<i>abalone</i> – 20 – s_3 – 9 – 10	0.654 ± 0.099	0.577 ± 0.086	0.692 ± 0.086	0.646 ± 0.099	0.631 ± 0.108	0.823 ± 0.103	0.638 ± 0.114	0.654 ± 0.099	0.523 ± 0.238	0.838 ± 0.060	0.546 ± 0.221
<i>abalone</i> – 21 – s_3	0.614 ± 0.239	0.586 ± 0.243	0.614 ± 0.239	0.629 ± 0.241	0.614 ± 0.248	0.700 ± 0.135	0.614 ± 0.239	0.614 ± 0.239	0.571 ± 0.221	0.557 ± 0.289	
<i>flare</i> – <i>F</i>	0.604 ± 0.093	0.419 ± 0.095	0.600 ± 0.097	0.609 ± 0.105	0.577 ± 0.090	0.674 ± 0.117	0.600 ± 0.095	0.604 ± 0.093	0.525 ± 0.200	0.949 ± 0.052	0.605 ± 0.163
<i>kddcup</i> – <i>buffer_overflow</i> , s_{ack}	0.987 ± 0.027	0.993 ± 0.020	0.987 ± 0.027	0.987 ± 0.027	1.000 ± 0.000	0.987 ± 0.027	0.987 ± 0.027	0.987 ± 0.027	0.993 ± 0.020	0.993 ± 0.020	
<i>kddcup</i> – <i>rockit</i> – <i>insp</i> , s_{ack}	0.955 ± 0.045	0.955 ± 0.045	0.955 ± 0.045	0.955 ± 0.045	0.955 ± 0.045	0.955 ± 0.045	0.945 ± 0.060	0.955 ± 0.045	0.955 ± 0.045	0.955 ± 0.045	0.955 ± 0.045
<i>kr</i> – <i>vs</i> – <i>k</i> – <i>zeros</i> , s_{right}	0.880 ± 0.102	0.872 ± 0.113	0.880 ± 0.102	0.880 ± 0.102	0.872 ± 0.113	0.918 ± 0.099	0.872 ± 0.113	0.880 ± 0.102	0.752 ± 0.146	0.733 ± 0.071	0.753 ± 0.195
<i>poker</i> – 8 – 9 – s_5	0.297 ± 0.142	0.201 ± 0.135	0.280 ± 0.126	0.272 ± 0.121	0.263 ± 0.155	0.452 ± 0.167	0.273 ± 0.105	0.297 ± 0.142	0.397 ± 0.160	0.480 ± 0.180	0.333 ± 0.194
<i>poker</i> – 8 – 9 – s_6	0.514 ± 0.127	0.449 ± 0.095	0.514 ± 0.127	0.489 ± 0.107	0.465 ± 0.132	0.888 ± 0.112	0.489 ± 0.172	0.514 ± 0.127	0.960 ± 0.084	0.975 ± 0.075	0.960 ± 0.084
<i>poker</i> – 8 – s_6	0.567 ± 0.146	0.425 ± 0.118	0.567 ± 0.146	0.578 ± 0.131	0.493 ± 0.161	0.944 ± 0.102	0.578 ± 0.131	0.567 ± 0.146	0.740 ± 0.245	0.940 ± 0.211	0.694 ± 0.250
<i>poker</i> – 9 – s_7	0.275 ± 0.208	0.250 ± 0.194	0.275 ± 0.208	0.275 ± 0.208	0.275 ± 0.261	0.375 ± 0.280	0.225 ± 0.175	0.275 ± 0.208	0.500 ± 0.296	0.425 ± 0.275	0.375 ± 0.301
<i>winequality</i> – <i>red</i> – 3 – s_5	0.100 ± 0.100	0.100 ± 0.100	0.100 ± 0.100	0.100 ± 0.100	0.100 ± 0.100	0.240 ± 0.120	0.120 ± 0.098	0.100 ± 0.100	0.140 ± 0.180	0.240 ± 0.196	0.120 ± 0.160
<i>winequality</i> – <i>red</i> – 4	0.393 ± 0.088	0.309 ± 0.063	0.392 ± 0.084	0.404 ± 0.084	0.351 ± 0.090	0.313 ± 0.062	0.397 ± 0.084	0.393 ± 0.088	0.250 ± 0.150	0.552 ± 0.151	0.412 ± 0.097
<i>winequality</i> – <i>red</i> – 8 – s_6 – 7	0.211 ± 0.116	0.156 ± 0.113	0.211 ± 0.116	0.211 ± 0.116	0.167 ± 0.134	0.178 ± 0.133	0.178 ± 0.102	0.211 ± 0.116	0.210 ± 0.161	0.311 ± 0.178	0.200 ± 0.139
<i>winequality</i> – <i>red</i> – 8 – s_6	0.289 ± 0.074	0.267 ± 0.054	0.289 ± 0.074	0.289 ± 0.074	0.300 ± 0.071	0.344 ± 0.136	0.311 ± 0.067	0.289 ± 0.074	0.378 ± 0.102	0.444 ± 0.217	0.333 ± 0.149
<i>winequality</i> – <i>white</i> – 3 – 9 – s_5	0.181 ± 0.109	0.095 ± 0.093	0.174 ± 0.123	0.174 ± 0.102	0.112 ± 0.081	0.410 ± 0.087	0.166 ± 0.106	0.181 ± 0.109	0.167 ± 0.113	0.372 ± 0.212	0.248 ± 0.145
<i>winequality</i> – <i>white</i> – 3 – s_5	0.110 ± 0.104	0.080 ± 0.087	0.140 ± 0.143	0.140 ± 0.143	0.120 ± 0.087	0.530 ± 0.155	0.120 ± 0.098	0.110 ± 0.104	0.210 ± 0.145	0.370 ± 0.290	0.260 ± 0.191
<i>winequality</i> – <i>white</i> – 9 – s_4	0.633 ± 0.267	0.633 ± 0.267	0.633 ± 0.267	0.400 ± 0.436	0.633 ± 0.267	0.400 ± 0.436	0.633 ± 0.267	0.633 ± 0.267	0.483 ± 0.361	0.483 ± 0.361	0.483 ± 0.361
<i>zoo</i> – 3	0.233 ± 0.327	0.233 ± 0.327	0.233 ± 0.327	0.200 ± 0.332	0.233 ± 0.327	0.100 ± 0.200	0.233 ± 0.327	0.233 ± 0.327	0.383 ± 0.380	0.383 ± 0.380	0.000 ± 0.000
<i>ecoli1</i>	0.896 ± 0.050	0.839 ± 0.035	0.891 ± 0.047	0.883 ± 0.040	0.883 ± 0.040	0.925 ± 0.027	0.886 ± 0.047	0.896 ± 0.050	0.904 ± 0.073	0.967 ± 0.062	0.000 ± 0.000
<i>ecoli2</i>	0.915 ± 0.054	0.892 ± 0.073	0.915 ± 0.054	0.912 ± 0.057	0.912 ± 0.057	0.923 ± 0.042	0.919 ± 0.047	0.912 ± 0.057	0.838 ± 0.080	0.935 ± 0.106	0.000 ± 0.000
<i>ecoli3</i>	0.880 ± 0.054	0.869 ± 0.056	0.880 ± 0.054	0.880 ± 0.047	0.891 ± 0.054	0.920 ± 0.038	0.874 ± 0.050	0.886 ± 0.051	0.816 ± 0.122	0.954 ± 0.035	0.000 ± 0.000
<i>glass0</i>	0.860 ± 0.064	0.811 ± 0.063	0.863 ± 0.065	0.877 ± 0.070	0.869 ± 0.062	0.869 ± 0.055	0.874 ± 0.056	0.866 ± 0.063	0.894 ± 0.066	0.951 ± 0.057	0.000 ± 0.000
<i>glass1</i>	0.758 ± 0.078	0.771 ± 0.098	0.745 ± 0.081	0.745 ± 0.105	0.763 ± 0.096	0.674 ± 0.159	0.750 ± 0.102	0.753 ± 0.078	0.711 ± 0.159	0.945 ± 0.034	0.000 ± 0.000
<i>haberman</i>	0.475 ± 0.121	0.440 ± 0.081	0.470 ± 0.097	0.484 ± 0.122	0.492 ± 0.129	0.458 ± 0.104	0.484 ± 0.097	0.470 ± 0.122	0.488 ± 0.097	0.562 ± 0.139	0.000 ± 0.000
<i>page</i> – <i>block04</i>	0.916 ± 0.019	0.824 ± 0.018	0.914 ± 0.017	0.891 ± 0.023	0.914 ± 0.020	0.719 ± 0.033	0.915 ± 0.020	0.916 ± 0.019	0.830 ± 0.088	0.963 ± 0.015	0.000 ± 0.000
<i>pinna</i>	0.708 ± 0.047	0.635 ± 0.057	0.705 ± 0.049	0.694 ± 0.037	0.709 ± 0.037	0.688 ± 0.024	0.711 ± 0.051	0.712 ± 0.044	0.565 ± 0.030	0.844 ± 0.038	0.000 ± 0.000
<i>vehicle1</i>	0.825 ± 0.086	0.653 ± 0.058	0.827 ± 0.077	0.822 ± 0.078	0.836 ± 0.058	0.830 ± 0.067	0.821 ± 0.067	0.831 ± 0.084	0.		

Table 9. KNN – AUC

Dataset name	SMOTE	polynom-ft-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone</i> -19	0.568 ± 0.069	0.519 ± 0.028	0.568 ± 0.069	0.567 ± 0.069	0.549 ± 0.043	0.554 ± 0.047	0.565 ± 0.062	0.568 ± 0.069	0.520 ± 0.030	0.497 ± 0.011	0.520 ± 0.032
<i>abalone</i> -18	0.719 ± 0.033	0.704 ± 0.044	0.704 ± 0.044	0.709 ± 0.049	0.700 ± 0.048	0.692 ± 0.033	0.714 ± 0.041	0.720 ± 0.033	0.645 ± 0.066	0.572 ± 0.063	0.627 ± 0.058
<i>ecoli</i> - 0 - 1 - 3 - 7 - s_2 - 6	0.834 ± 0.075	0.835 ± 0.076	0.834 ± 0.074	0.833 ± 0.074	0.835 ± 0.076	0.833 ± 0.076	0.834 ± 0.075	0.834 ± 0.075	0.800 ± 0.108	0.800 ± 0.106	0.820 ± 0.096
<i>glass</i> - 0 - 1 - 6 - s_2	0.718 ± 0.086	0.682 ± 0.045	0.713 ± 0.081	0.714 ± 0.084	0.700 ± 0.056	0.657 ± 0.063	0.725 ± 0.082	0.717 ± 0.085	0.638 ± 0.040	0.606 ± 0.086	0.660 ± 0.084
<i>glass</i> - 0 - 1 - 6 - s_2	0.914 ± 0.097	0.915 ± 0.098	0.914 ± 0.097	0.914 ± 0.098	0.894 ± 0.135	0.881 ± 0.120	0.914 ± 0.097	0.914 ± 0.097	0.878 ± 0.118	0.842 ± 0.192	0.801 ± 0.162
<i>glass</i> - 0 - 1 - 6 - s_2	0.630 ± 0.134	0.633 ± 0.137	0.637 ± 0.151	0.644 ± 0.141	0.630 ± 0.135	0.627 ± 0.112	0.635 ± 0.145	0.628 ± 0.133	0.640 ± 0.098	0.583 ± 0.096	0.596 ± 0.080
<i>glass2</i>	0.901 ± 0.057	0.903 ± 0.068	0.876 ± 0.056	0.885 ± 0.056	0.879 ± 0.071	0.863 ± 0.038	0.892 ± 0.048	0.901 ± 0.057	0.818 ± 0.061	0.752 ± 0.141	0.755 ± 0.062
<i>glass5</i>	0.931 ± 0.110	0.933 ± 0.110	0.921 ± 0.116	0.931 ± 0.110	0.922 ± 0.108	0.862 ± 0.108	0.931 ± 0.110	0.931 ± 0.110	0.821 ± 0.114	0.867 ± 0.136	0.831 ± 0.130
<i>page - blocks</i> - 1 - 3 - s_1 - 0.983 ± 0.023	0.978 ± 0.021	0.982 ± 0.023	0.983 ± 0.023	0.949 ± 0.095	0.980 ± 0.016	0.976 ± 0.025	0.983 ± 0.023	0.989 ± 0.014	0.835 ± 0.086	0.888 ± 0.110	
<i>yeast</i> - 0 - 5 - 6 - 7 - 9 - s_4	0.727 ± 0.045	0.740 ± 0.038	0.730 ± 0.040	0.733 ± 0.043	0.729 ± 0.053	0.731 ± 0.045	0.718 ± 0.035	0.725 ± 0.043	0.671 ± 0.068	0.498 ± 0.002	0.643 ± 0.072
<i>yeast</i> - 1 - 2 - 8 - 9 - s_7	0.672 ± 0.048	0.685 ± 0.045	0.668 ± 0.040	0.663 ± 0.040	0.649 ± 0.065	0.660 ± 0.052	0.667 ± 0.051	0.672 ± 0.048	0.586 ± 0.044	0.500 ± 0.000	0.567 ± 0.049
<i>yeast</i> - 1 - 4 - 5 - 8 - s_7	0.611 ± 0.040	0.595 ± 0.062	0.614 ± 0.044	0.594 ± 0.052	0.571 ± 0.051	0.577 ± 0.042	0.605 ± 0.039	0.611 ± 0.038	0.536 ± 0.036	0.500 ± 0.000	0.521 ± 0.048
<i>yeast</i> - 1 - s_7	0.723 ± 0.036	0.723 ± 0.042	0.726 ± 0.055	0.732 ± 0.042	0.702 ± 0.055	0.690 ± 0.033	0.701 ± 0.051	0.722 ± 0.035	0.648 ± 0.035	0.499 ± 0.002	0.575 ± 0.076
<i>yeast</i> - 2 - s_4	0.873 ± 0.030	0.863 ± 0.035	0.869 ± 0.033	0.871 ± 0.030	0.873 ± 0.029	0.861 ± 0.034	0.875 ± 0.027	0.874 ± 0.030	0.842 ± 0.048	0.603 ± 0.158	0.830 ± 0.047
<i>yeast</i> - 2 - s_8	0.802 ± 0.051	0.810 ± 0.046	0.794 ± 0.045	0.801 ± 0.053	0.803 ± 0.044	0.806 ± 0.057	0.798 ± 0.051	0.801 ± 0.050	0.772 ± 0.051	0.534 ± 0.105	0.802 ± 0.062
<i>yeast4</i>	0.729 ± 0.025	0.733 ± 0.034	0.729 ± 0.027	0.729 ± 0.027	0.713 ± 0.033	0.727 ± 0.045	0.735 ± 0.039	0.729 ± 0.025	0.662 ± 0.034	0.500 ± 0.000	0.640 ± 0.051
<i>yeast5</i>	0.929 ± 0.036	0.920 ± 0.035	0.925 ± 0.036	0.922 ± 0.035	0.910 ± 0.034	0.933 ± 0.049	0.929 ± 0.034	0.929 ± 0.036	0.865 ± 0.054	0.500 ± 0.000	0.817 ± 0.129
<i>yeast6</i>	0.814 ± 0.044	0.816 ± 0.038	0.815 ± 0.044	0.813 ± 0.044	0.812 ± 0.046	0.829 ± 0.035	0.809 ± 0.043	0.814 ± 0.044	0.733 ± 0.073	0.500 ± 0.000	0.775 ± 0.039
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.883 ± 0.018	0.878 ± 0.021	0.880 ± 0.018	0.876 ± 0.018	0.884 ± 0.022	0.877 ± 0.028	0.882 ± 0.021	0.884 ± 0.018	0.739 ± 0.121	0.568 ± 0.099	0.803 ± 0.098
<i>ecoli</i> - 0 - 1 - s_2 - 3 - 5	0.884 ± 0.024	0.887 ± 0.026	0.878 ± 0.025	0.880 ± 0.025	0.879 ± 0.024	0.875 ± 0.042	0.886 ± 0.030	0.884 ± 0.024	0.821 ± 0.04	0.689 ± 0.160	0.820 ± 0.066
<i>ecoli</i> - 0 - 2 - 6 - 7 - s_3 - 5	0.839 ± 0.051	0.839 ± 0.051	0.842 ± 0.061	0.840 ± 0.053	0.843 ± 0.057	0.840 ± 0.038	0.838 ± 0.049	0.839 ± 0.050	0.810 ± 0.041	0.588 ± 0.122	0.840 ± 0.027
<i>ecoli</i> - 0 - 6 - 7 - s_3 - 5	0.851 ± 0.054	0.855 ± 0.053	0.854 ± 0.064	0.858 ± 0.050	0.847 ± 0.061	0.841 ± 0.052	0.851 ± 0.052	0.852 ± 0.053	0.813 ± 0.051	0.614 ± 0.143	0.799 ± 0.079
<i>ecoli</i> - 0 - 6 - 7 - s_3	0.866 ± 0.047	0.865 ± 0.056	0.867 ± 0.045	0.867 ± 0.053	0.870 ± 0.046	0.870 ± 0.036	0.865 ± 0.049	0.867 ± 0.048	0.830 ± 0.065	0.589 ± 0.121	0.865 ± 0.063
<i>glass</i> - 0 - 1 - 4 - 6 - s_2 - 0.674 ± 0.098	0.665 ± 0.088	0.671 ± 0.103	0.673 ± 0.099	0.673 ± 0.099	0.645 ± 0.101	0.624 ± 0.058	0.666 ± 0.105	0.669 ± 0.095	0.549 ± 0.071	0.582 ± 0.110	0.567 ± 0.085
<i>glass</i> - 0 - 1 - 5 - s_2	0.676 ± 0.059	0.674 ± 0.055	0.684 ± 0.063	0.669 ± 0.065	0.667 ± 0.084	0.631 ± 0.060	0.683 ± 0.059	0.675 ± 0.060	0.657 ± 0.088	0.622 ± 0.128	0.595 ± 0.111
<i>yeast</i> - 0 - 2 - 5 - 6 - s_3 - 7 - 8 - 9	0.772 ± 0.031	0.768 ± 0.025	0.775 ± 0.028	0.772 ± 0.026	0.773 ± 0.039	0.764 ± 0.033	0.772 ± 0.031	0.773 ± 0.032	0.684 ± 0.075	0.533 ± 0.058	0.683 ± 0.036
<i>yeast</i> - 0 - 3 - 5 - 9 - s_3 - 8	0.679 ± 0.037	0.675 ± 0.035	0.679 ± 0.037	0.670 ± 0.043	0.678 ± 0.037	0.681 ± 0.050	0.669 ± 0.039	0.680 ± 0.038	0.599 ± 0.063	0.502 ± 0.011	0.561 ± 0.065
<i>abalone</i> - 17 - s_7 - 8 - 9 - 10	0.749 ± 0.046	0.719 ± 0.034	0.752 ± 0.045	0.745 ± 0.046	0.713 ± 0.044	0.739 ± 0.042	0.743 ± 0.044	0.749 ± 0.046	0.606 ± 0.033	0.582 ± 0.077	0.612 ± 0.072
<i>abalone</i> - 19 - s_3 - 0 - 11 - 12 - 13	0.583 ± 0.037	0.551 ± 0.025	0.587 ± 0.040	0.589 ± 0.047	0.554 ± 0.046	0.569 ± 0.045	0.570 ± 0.044	0.582 ± 0.037	0.535 ± 0.032	0.515 ± 0.033	0.523 ± 0.044
<i>abalone</i> - 20 - s_3 - 9 - 10	0.579 ± 0.055	0.602 ± 0.025	0.738 ± 0.092	0.761 ± 0.067	0.667 ± 0.058	0.709 ± 0.052	0.743 ± 0.082	0.746 ± 0.058	0.635 ± 0.056	0.549 ± 0.077	0.638 ± 0.048
<i>abalone</i> - 20 - s_3 - 9 - 10	0.749 ± 0.046	0.719 ± 0.034	0.815 ± 0.074	0.815 ± 0.076	0.797 ± 0.080	0.794 ± 0.065	0.822 ± 0.080	0.830 ± 0.084	0.703 ± 0.095	0.667 ± 0.121	0.710 ± 0.089
<i>flare</i> - F	0.693 ± 0.044	0.674 ± 0.035	0.690 ± 0.050	0.693 ± 0.044	0.671 ± 0.043	0.693 ± 0.036	0.694 ± 0.041	0.692 ± 0.044	0.552 ± 0.042	0.504 ± 0.009	0.566 ± 0.053
<i>kddcup - buffer,verflows,sack</i>	0.957 ± 0.047	0.964 ± 0.040	0.957 ± 0.047	0.957 ± 0.047	0.947 ± 0.059	0.960 ± 0.042	0.947 ± 0.043	0.957 ± 0.047	0.957 ± 0.045	0.957 ± 0.045	0.957 ± 0.045
<i>kddcup - rootkit - insip,sack</i>	0.973 ± 0.022	0.973 ± 0.022	0.973 ± 0.022	0.973 ± 0.022	0.953 ± 0.045	0.943 ± 0.027	0.955 ± 0.050	0.973 ± 0.022	0.964 ± 0.040	0.964 ± 0.040	0.964 ± 0.040
<i>kr - vs - k - zeros,right</i>	0.940 ± 0.050	0.930 ± 0.053	0.944 ± 0.050	0.944 ± 0.049	0.926 ± 0.061	0.940 ± 0.062	0.929 ± 0.060	0.940 ± 0.050	0.757 ± 0.163	0.500 ± 0.000	0.749 ± 0.175
<i>poker - 8 - 9 - s_3</i>	0.609 ± 0.059	0.614 ± 0.061	0.617 ± 0.065	0.608 ± 0.062	0.548 ± 0.044	0.643 ± 0.048	0.614 ± 0.061	0.609 ± 0.059	0.546 ± 0.069	0.514 ± 0.036	0.550 ± 0.075
<i>poker - 8 - 9 - s_6</i>	0.949 ± 0.040	0.912 ± 0.033	0.949 ± 0.039	0.949 ± 0.039	0.904 ± 0.053	0.976 ± 0.027	0.937 ± 0.031	0.949 ± 0.040	0.988 ± 0.038	0.976 ± 0.048	0.976 ± 0.048
<i>poker - 8 - s_6</i>	0.942 ± 0.061	0.951 ± 0.057	0.942 ± 0.061	0.942 ± 0.061	0.975 ± 0.066	0.978 ± 0.018	0.932 ± 0.078	0.942 ± 0.061	0.906 ± 0.122	0.931 ± 0.133	0.864 ± 0.167
<i>poker - 9 - s_7</i>	0.839 ± 0.152	0.839 ± 0.152	0.839 ± 0.152	0.839 ± 0.152	0.816 ± 0.135	0.795 ± 0.125	0.828 ± 0.145	0.839 ± 0.152	0.793 ± 0.233	0.806 ± 0.192	0.721 ± 0.197
<i>winequality - red - 3 - s_3</i>	0.584 ± 0.061	0.577 ± 0.053	0.584 ± 0.061	0.583 ± 0.061	0.578 ± 0.053	0.592 ± 0.064	0.575 ± 0.052	0.584 ± 0.061	0.543 ± 0.069	0.493 ± 0.033	0.560 ± 0.058
<i>winequality - red - 4</i>	0.597 ± 0.027	0.583 ± 0.043	0.596 ± 0.029	0.596 ± 0.021	0.588 ± 0.036	0.557 ± 0.024	0.602 ± 0.024	0.597 ± 0.026	0.540 ± 0.025	0.521 ± 0.038	0.558 ± 0.047
<i>winequality - red - 8 - s_3 - 7</i>	0.530 ± 0.064	0.543 ± 0.068	0.536 ± 0.063	0.537 ± 0.063	0.536 ± 0.055	0.530 ± 0.060	0.534 ± 0.055	0.531 ± 0.064	0.542 ± 0.058	0.534 ± 0.070	0.536 ± 0.045
<i>winequality - red - 8 - s_3 - 6</i>	0.630 ± 0.052	0.624 ± 0.055	0.635 ± 0.051	0.635 ± 0.051	0.595 ± 0.050	0.600 ± 0.052	0.632 ± 0.043	0.635 ± 0.050	0.593 ± 0.064	0.584 ± 0.077	0.616 ± 0.088
<i>winequality - white - 3 - 9 - s_3 - 6</i>	0.618 ± 0.030	0.613 ± 0.033	0.617 ± 0.035	0.617 ± 0.034	0.573 ± 0.029	0.602 ± 0.053	0.599 ± 0.034	0.618 ± 0.030	0.547 ± 0.046	0.518 ± 0.029	0.575 ± 0.054
<i>winequality - white - 3 - s_3</i>	0.630 ± 0.086	0.575 ± 0.064	0.630 ± 0.092	0.619 ± 0.094	0.577 ± 0.059	0.644 ± 0.084	0.630 ± 0.089	0.630 ± 0.086	0.585 ± 0.074	0.599 ± 0.089	0.570 ± 0.054
<i>winequality - white - 9 - s_4</i>	0.878 ± 0.091	0.882 ± 0.095	0.878 ± 0.091	0.766 ± 0.164	0.879 ± 0.092	0.774 ± 0.172	0.878 ± 0.091	0.878 ± 0.091	0.726 ± 0.177	0.726 ± 0.177	0.726 ± 0.177
<i>zoo - 3 - 0.827 ± 0.157</i>	0.827 ± 0.157	0.827 ± 0.157	0.827 ± 0.157	0.717 ± 0.191	0.827 ± 0.157	0.692 ± 0.167	0.827 ± 0.157	0.827 ± 0.157	0.630 ± 0.130	0.630 ± 0.130	0.600 ± 0.000
<i>ecoli1</i>	0.864 ± 0.026	0.863 ± 0.019	0.868 ± 0.030	0.871 ± 0.024	0.870 ± 0.026	0.864 ± 0.028	0.863 ± 0.033	0.867 ± 0.023	0.802 ± 0.055	0.563 ± 0.127	0.000 ± 0.000
<i>ecoli2</i>	0.915 ± 0.028	0.922 ± 0.025	0.913 ± 0.027	0.914 ± 0.027	0.919 ± 0.029	0.911 ± 0.021	0.914 ± 0.027	0.915 ± 0.028	0.837 ± 0.086	0.584 ± 0.138	0.000 ± 0.000
<i>ecoli3</i>	0.866 ± 0.019	0.857 ± 0.022	0.868 ± 0.015	0.859 ± 0.025	0.851 ± 0.033	0.851 ± 0.028	0.861 ± 0.018	0.865 ± 0.015	0.800 ± 0.053	0.575 ± 0.119	0.000 ± 0.000
<i>glass0</i>	0.791 ± 0.035	0.799 ± 0.036	0.786 ± 0.034	0.794 ± 0.028	0.793 ± 0.028	0.787 ± 0.041	0.800 ± 0.030	0.800 ± 0.034	0.778 ± 0.047	0.700 ± 0.116	0.000 ± 0.000
<i>glass1</i>	0.738 ± 0.047	0.749 ± 0.053	0.745 ± 0.044	0.748 ± 0.037	0.739 ± 0.042	0.740 ± 0.031	0.736 ± 0.030	0.738 ± 0.051	0.698 ± 0.068	0.531 ± 0.081	0.000 ± 0.000
<i>haberman</i>	0.601 ± 0.034	0.616 ± 0.036	0.587 ± 0.044	0.588 ± 0.016	0.588 ± 0.039	0.587 ± 0.030	0.584 ± 0.029	0.599 ± 0.030	0.600 ± 0.024	0.535 ± 0.074	0.000 ± 0.000
<i>page - blocks0</i>	0.929 ± 0.010	0.911 ± 0.012	0.928 ± 0.012	0.921 ± 0.012	0.924 ± 0.011	0.887 ± 0.016	0.931 ± 0.009	0.930 ± 0.010	0.895 ± 0.018	0.905 ± 0.012	0.000 ± 0.000
<i>pinas</i>	0.685 ± 0.021	0.708 ± 0.018	0.686 ± 0.013	0.687 ± 0.016	0.683 ± 0.017	0.690 ± 0.021	0.687 ± 0.017	0.693 ± 0.024	0.686 ± 0.020	0.616 ± 0.053	0.000 ± 0.000

Table 10. CART – BAC

Dataset name	SMOTE	polynom-Rt-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone19</i>	0.561 ± 0.012	0.503 ± 0.015	0.546 ± 0.038	0.565 ± 0.042	0.545 ± 0.052	0.537 ± 0.051	0.555 ± 0.047	0.561 ± 0.042	0.565 ± 0.019	0.540 ± 0.045	0.547 ± 0.070
<i>abalone17</i>	0.665 ± 0.059	0.609 ± 0.040	0.672 ± 0.051	0.685 ± 0.051	0.653 ± 0.033	0.684 ± 0.082	0.649 ± 0.038	0.667 ± 0.062	0.658 ± 0.041	0.561 ± 0.075	0.613 ± 0.061
<i>ecoli</i> – 0 – 1 – 3 – 7 – s_2 – 6	0.790 ± 0.115	0.790 ± 0.115	0.790 ± 0.115	0.815 ± 0.063	0.776 ± 0.100	0.790 ± 0.115	0.790 ± 0.115	0.790 ± 0.115	0.694 ± 0.100	0.609 ± 0.088	0.713 ± 0.115
<i>glass</i> – 0 – 1 – 6 – s_2	0.629 ± 0.058	0.570 ± 0.054	0.663 ± 0.054	0.642 ± 0.063	0.609 ± 0.057	0.588 ± 0.108	0.633 ± 0.108	0.628 ± 0.055	0.653 ± 0.106	0.576 ± 0.043	0.608 ± 0.052
<i>glass</i> – 0 – 1 – 6 – s_2	0.860 ± 0.133	0.858 ± 0.133	0.860 ± 0.133	0.860 ± 0.133	0.794 ± 0.148	0.894 ± 0.133	0.860 ± 0.133	0.860 ± 0.133	0.765 ± 0.151	0.883 ± 0.154	0.763 ± 0.158
<i>glass2</i>	0.591 ± 0.121	0.563 ± 0.077	0.577 ± 0.111	0.610 ± 0.101	0.599 ± 0.108	0.582 ± 0.110	0.575 ± 0.094	0.606 ± 0.124	0.586 ± 0.076	0.550 ± 0.077	0.616 ± 0.091
<i>glass4</i>	0.854 ± 0.086	0.835 ± 0.053	0.854 ± 0.087	0.845 ± 0.086	0.857 ± 0.082	0.808 ± 0.090	0.853 ± 0.090	0.854 ± 0.086	0.797 ± 0.109	0.764 ± 0.140	0.770 ± 0.114
<i>glass5</i>	0.851 ± 0.154	0.849 ± 0.153	0.851 ± 0.154	0.851 ± 0.154	0.862 ± 0.160	0.935 ± 0.107	0.851 ± 0.154	0.851 ± 0.154	0.836 ± 0.150	0.895 ± 0.127	0.791 ± 0.156
<i>page</i> – blocks – 1 – 3 – s_4	0.960 ± 0.059	0.949 ± 0.060	0.966 ± 0.068	0.964 ± 0.068	0.972 ± 0.063	0.962 ± 0.050	0.983 ± 0.032	0.969 ± 0.059	0.962 ± 0.062	0.884 ± 0.100	0.924 ± 0.089
<i>yeast</i> – 0 – 5 – 6 – 7 – 9 – s_4	0.696 ± 0.057	0.680 ± 0.048	0.713 ± 0.047	0.694 ± 0.056	0.677 ± 0.039	0.712 ± 0.055	0.688 ± 0.037	0.701 ± 0.042	0.662 ± 0.046	0.496 ± 0.008	0.675 ± 0.058
<i>yeast</i> – 1 – 2 – 8 – 9 – s_7	0.588 ± 0.028	0.578 ± 0.047	0.590 ± 0.030	0.578 ± 0.047	0.599 ± 0.051	0.647 ± 0.062	0.586 ± 0.023	0.604 ± 0.044	0.554 ± 0.057	0.511 ± 0.004	0.561 ± 0.041
<i>yeast</i> – 1 – 4 – 5 – 8 – s_7	0.532 ± 0.049	0.554 ± 0.026	0.535 ± 0.064	0.523 ± 0.045	0.537 ± 0.053	0.518 ± 0.041	0.551 ± 0.029	0.526 ± 0.048	0.506 ± 0.033	0.505 ± 0.003	0.538 ± 0.056
<i>yeast</i> – 1 – s_7	0.613 ± 0.057	0.623 ± 0.049	0.601 ± 0.067	0.635 ± 0.052	0.598 ± 0.055	0.659 ± 0.038	0.616 ± 0.048	0.609 ± 0.053	0.584 ± 0.046	0.511 ± 0.029	0.599 ± 0.068
<i>yeast</i> – 2 – s_4	0.845 ± 0.046	0.840 ± 0.055	0.865 ± 0.043	0.861 ± 0.068	0.854 ± 0.053	0.862 ± 0.041	0.865 ± 0.042	0.839 ± 0.037	0.815 ± 0.050	0.583 ± 0.141	0.810 ± 0.033
<i>yeast</i> – 2 – s_8	0.730 ± 0.089	0.762 ± 0.068	0.775 ± 0.104	0.778 ± 0.084	0.760 ± 0.070	0.751 ± 0.045	0.747 ± 0.065	0.741 ± 0.087	0.756 ± 0.049	0.520 ± 0.031	0.743 ± 0.049
<i>yeast4</i>	0.675 ± 0.044	0.637 ± 0.032	0.689 ± 0.061	0.690 ± 0.049	0.633 ± 0.041	0.719 ± 0.055	0.674 ± 0.083	0.678 ± 0.046	0.676 ± 0.050	0.497 ± 0.009	0.696 ± 0.055
<i>yeast5</i>	0.862 ± 0.073	0.846 ± 0.068	0.846 ± 0.064	0.859 ± 0.068	0.855 ± 0.065	0.878 ± 0.049	0.868 ± 0.057	0.864 ± 0.076	0.841 ± 0.048	0.510 ± 0.001	0.777 ± 0.113
<i>ecoli</i> – 0 – 1 – 4 – 7 – s_2 – 3 – 5 – 6	0.792 ± 0.074	0.794 ± 0.048	0.822 ± 0.059	0.790 ± 0.069	0.776 ± 0.066	0.822 ± 0.050	0.827 ± 0.054	0.806 ± 0.077	0.721 ± 0.104	0.550 ± 0.083	0.745 ± 0.084
<i>ecoli</i> – 0 – 1 – s_2 – 3 – 5	0.799 ± 0.062	0.806 ± 0.102	0.784 ± 0.059	0.749 ± 0.042	0.788 ± 0.041	0.841 ± 0.058	0.781 ± 0.050	0.800 ± 0.062	0.753 ± 0.087	0.649 ± 0.137	0.759 ± 0.083
<i>ecoli</i> – 0 – 2 – 6 – 7 – s_3 – 5	0.799 ± 0.045	0.787 ± 0.062	0.809 ± 0.054	0.822 ± 0.075	0.829 ± 0.057	0.827 ± 0.063	0.778 ± 0.066	0.802 ± 0.047	0.773 ± 0.057	0.566 ± 0.120	0.804 ± 0.060
<i>ecoli</i> – 0 – 6 – 7 – s_3 – 5	0.795 ± 0.069	0.794 ± 0.048	0.810 ± 0.052	0.813 ± 0.063	0.832 ± 0.070	0.834 ± 0.060	0.790 ± 0.056	0.796 ± 0.069	0.773 ± 0.056	0.594 ± 0.147	0.767 ± 0.098
<i>ecoli</i> – 0 – 6 – 7 – s_3	0.840 ± 0.068	0.840 ± 0.074	0.828 ± 0.068	0.838 ± 0.071	0.837 ± 0.061	0.842 ± 0.044	0.825 ± 0.060	0.830 ± 0.070	0.850 ± 0.078	0.574 ± 0.127	0.835 ± 0.094
<i>glass</i> – 0 – 1 – 4 – 6 – s_2	0.595 ± 0.051	0.560 ± 0.082	0.610 ± 0.072	0.591 ± 0.062	0.613 ± 0.070	0.638 ± 0.077	0.558 ± 0.066	0.576 ± 0.062	0.558 ± 0.071	0.557 ± 0.034	0.569 ± 0.069
<i>glass</i> – 0 – 1 – 5 – s_2	0.689 ± 0.067	0.597 ± 0.068	0.677 ± 0.082	0.713 ± 0.110	0.631 ± 0.069	0.605 ± 0.090	0.649 ± 0.079	0.678 ± 0.062	0.598 ± 0.070	0.536 ± 0.072	0.561 ± 0.088
<i>yeast</i> – 0 – 2 – 5 – 6 – s_3 – 7 – 8 – 9	0.713 ± 0.037	0.712 ± 0.051	0.735 ± 0.038	0.714 ± 0.027	0.717 ± 0.033	0.728 ± 0.046	0.709 ± 0.037	0.700 ± 0.034	0.646 ± 0.062	0.541 ± 0.061	0.643 ± 0.035
<i>yeast</i> – 0 – 3 – 5 – 9 – s_2 – 8	0.598 ± 0.035	0.638 ± 0.041	0.621 ± 0.044	0.623 ± 0.050	0.614 ± 0.049	0.629 ± 0.050	0.615 ± 0.028	0.630 ± 0.031	0.550 ± 0.059	0.512 ± 0.016	0.563 ± 0.064
<i>abalone</i> – 17 – s_7 – 8 – 9 – 10	0.644 ± 0.041	0.642 ± 0.033	0.643 ± 0.042	0.660 ± 0.045	0.645 ± 0.045	0.667 ± 0.024	0.646 ± 0.039	0.642 ± 0.036	0.633 ± 0.055	0.569 ± 0.057	0.603 ± 0.051
<i>abalone</i> – 19 – s_3 – 0 – 11 – 12 – 13	0.556 ± 0.041	0.517 ± 0.024	0.556 ± 0.050	0.548 ± 0.035	0.541 ± 0.055	0.576 ± 0.050	0.557 ± 0.034	0.560 ± 0.028	0.523 ± 0.039	0.514 ± 0.041	0.527 ± 0.058
<i>abalone</i> – 20 – s_3 – 9 – 10	0.696 ± 0.050	0.584 ± 0.065	0.671 ± 0.065	0.682 ± 0.050	0.630 ± 0.077	0.789 ± 0.061	0.681 ± 0.059	0.696 ± 0.050	0.621 ± 0.054	0.589 ± 0.042	0.696 ± 0.068
<i>abalone</i> – 21 – s_3	0.726 ± 0.121	0.655 ± 0.074	0.699 ± 0.092	0.691 ± 0.116	0.736 ± 0.075	0.790 ± 0.070	0.692 ± 0.105	0.734 ± 0.126	0.712 ± 0.125	0.614 ± 0.092	0.649 ± 0.081
<i>flare</i> – F	0.558 ± 0.035	0.581 ± 0.030	0.570 ± 0.045	0.578 ± 0.038	0.588 ± 0.025	0.580 ± 0.034	0.576 ± 0.048	0.577 ± 0.035	0.636 ± 0.083	0.575 ± 0.068	0.666 ± 0.078
<i>kidcup</i> – <i>buffer</i> – <i>ver</i> – <i>flow</i> – s_{ack}	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kidcup</i> – <i>roslit</i> – <i>insep</i> – s_{ack}	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kr</i> – <i>es</i> – k – <i>zeros</i> – <i>right</i>	0.961 ± 0.050	0.965 ± 0.051	0.965 ± 0.052	0.965 ± 0.051	0.968 ± 0.042	0.954 ± 0.074	0.954 ± 0.058	0.961 ± 0.050	0.771 ± 0.082	0.702 ± 0.042	0.858 ± 0.115
<i>poker</i> – 8 – 9 – s_3	0.572 ± 0.039	0.558 ± 0.049	0.566 ± 0.032	0.572 ± 0.032	0.545 ± 0.051	0.585 ± 0.070	0.543 ± 0.028	0.572 ± 0.039	0.531 ± 0.048	0.517 ± 0.054	0.522 ± 0.031
<i>poker</i> – 8 – 9 – s_6	0.680 ± 0.087	0.824 ± 0.141	0.670 ± 0.096	0.644 ± 0.084	0.730 ± 0.141	0.628 ± 0.096	0.657 ± 0.105	0.680 ± 0.087	0.999 ± 0.001	0.999 ± 0.001	0.999 ± 0.001
<i>poker</i> – 8 – s_6	0.685 ± 0.101	0.685 ± 0.163	0.703 ± 0.123	0.685 ± 0.095	0.691 ± 0.098	0.669 ± 0.162	0.677 ± 0.160	0.685 ± 0.101	0.931 ± 0.085	0.931 ± 0.084	0.832 ± 0.165
<i>poker</i> – 9 – s_7	0.564 ± 0.082	0.548 ± 0.063	0.564 ± 0.082	0.562 ± 0.084	0.586 ± 0.095	0.613 ± 0.127	0.563 ± 0.081	0.561 ± 0.082	0.686 ± 0.209	0.647 ± 0.162	0.621 ± 0.158
<i>winequality</i> – red – 3 – s_3	0.516 ± 0.043	0.529 ± 0.066	0.506 ± 0.040	0.518 ± 0.045	0.528 ± 0.089	0.565 ± 0.056	0.525 ± 0.064	0.516 ± 0.043	0.519 ± 0.047	0.528 ± 0.049	0.557 ± 0.062
<i>winequality</i> – red – 4	0.552 ± 0.048	0.528 ± 0.030	0.576 ± 0.079	0.572 ± 0.036	0.564 ± 0.049	0.571 ± 0.036	0.548 ± 0.017	0.552 ± 0.050	0.537 ± 0.031	0.531 ± 0.031	0.547 ± 0.038
<i>winequality</i> – red – 8 – s_6 – 7	0.543 ± 0.041	0.557 ± 0.050	0.550 ± 0.039	0.562 ± 0.051	0.556 ± 0.054	0.555 ± 0.043	0.545 ± 0.048	0.543 ± 0.041	0.544 ± 0.043	0.529 ± 0.053	0.539 ± 0.039
<i>winequality</i> – red – 8 – s_6	0.609 ± 0.052	0.608 ± 0.064	0.605 ± 0.046	0.603 ± 0.067	0.579 ± 0.047	0.614 ± 0.058	0.630 ± 0.056	0.609 ± 0.052	0.577 ± 0.044	0.566 ± 0.063	0.571 ± 0.058
<i>winequality</i> – white – 3 – 9 – s_3	0.566 ± 0.063	0.544 ± 0.047	0.540 ± 0.054	0.546 ± 0.056	0.533 ± 0.061	0.643 ± 0.056	0.535 ± 0.037	0.566 ± 0.063	0.528 ± 0.031	0.509 ± 0.019	0.525 ± 0.021
<i>winequality</i> – white – 3 – s_7	0.539 ± 0.045	0.557 ± 0.060	0.576 ± 0.061	0.567 ± 0.055	0.590 ± 0.046	0.737 ± 0.086	0.524 ± 0.047	0.539 ± 0.045	0.546 ± 0.032	0.578 ± 0.076	0.574 ± 0.066
<i>winequality</i> – white – 9 – s_4	0.722 ± 0.163	0.672 ± 0.100	0.721 ± 0.162	0.721 ± 0.162	0.722 ± 0.162	0.692 ± 0.141	0.721 ± 0.162	0.722 ± 0.163	0.573 ± 0.112	0.573 ± 0.112	0.573 ± 0.112
<i>zoo</i> – 3	0.658 ± 0.189	0.608 ± 0.123	0.665 ± 0.158	0.650 ± 0.156	0.635 ± 0.160	0.738 ± 0.159	0.639 ± 0.122	0.658 ± 0.189	0.509 ± 0.127	0.500 ± 0.127	0.000 ± 0.000
<i>ecoli1</i>	0.841 ± 0.056	0.818 ± 0.039	0.827 ± 0.049	0.836 ± 0.039	0.837 ± 0.041	0.842 ± 0.033	0.822 ± 0.048	0.860 ± 0.041	0.751 ± 0.067	0.556 ± 0.105	0.000 ± 0.000
<i>ecoli2</i>	0.855 ± 0.028	0.838 ± 0.035	0.850 ± 0.053	0.852 ± 0.036	0.848 ± 0.029	0.866 ± 0.037	0.852 ± 0.041	0.855 ± 0.028	0.777 ± 0.083	0.578 ± 0.113	0.000 ± 0.000
<i>ecoli3</i>	0.745 ± 0.049	0.748 ± 0.065	0.768 ± 0.067	0.772 ± 0.049	0.766 ± 0.053	0.833 ± 0.049	0.775 ± 0.051	0.755 ± 0.053	0.760 ± 0.050	0.554 ± 0.100	0.000 ± 0.000
<i>glass0</i>	0.767 ± 0.036	0.770 ± 0.060	0.772 ± 0.038	0.787 ± 0.033	0.777 ± 0.042	0.802 ± 0.041	0.794 ± 0.040	0.774 ± 0.025	0.746 ± 0.051	0.673 ± 0.069	0.000 ± 0.000
<i>glass1</i>	0.719 ± 0.029	0.733 ± 0.031	0.727 ± 0.054	0.726 ± 0.058	0.714 ± 0.045	0.717 ± 0.046	0.726 ± 0.061	0.716 ± 0.033	0.676 ± 0.081	0.591 ± 0.058	0.000 ± 0.000
<i>haberman</i>	0.584 ± 0.035	0.567 ± 0.025	0.573 ± 0.041	0.563 ± 0.045	0.572 ± 0.052	0.577 ± 0.038	0.565 ± 0.055	0.596 ± 0.045	0.584 ± 0.025	0.536 ± 0.058	0.000 ± 0.000
<i>page</i> – blocks0	0.917 ± 0.012	0.898 ± 0.010	0.915 ± 0.010	0.914 ± 0.008	0.906 ± 0.009	0.900 ± 0.009	0.919 ± 0.011	0.917 ± 0.008	0.907 ± 0.013	0.895 ± 0.014	0.000 ± 0.000
<i>pinna</i>	0.665 ± 0.020	0.673 ± 0.023	0.660 ± 0.021	0.665 ± 0.015	0.660 ± 0.021	0.678 ± 0.027	0.658 ± 0.021	0.670 ± 0.025	0.659 ± 0.030	0.600 ± 0.041	0.000 ± 0.000
<i>vehicle1</i>	0.698 ± 0.024	0.698 ± 0.021	0.690 ± 0.032	0.671 ± 0.025	0.696 ± 0.027	0.685 ± 0.023	0.674 ± 0.024	0.676 ± 0.014	0.663 ± 0.019		

Table 11. SVM – BAC

Dataset name	SMOTE	polynom-ft-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone</i> -19	0.593 ± 0.063	0.569 ± 0.048	0.593 ± 0.057	0.599 ± 0.065	0.602 ± 0.063	0.655 ± 0.056	0.593 ± 0.062	0.593 ± 0.063	0.620 ± 0.082	0.597 ± 0.083	0.610 ± 0.047
<i>abalone</i> -18	0.740 ± 0.052	0.698 ± 0.036	0.745 ± 0.055	0.750 ± 0.042	0.738 ± 0.053	0.792 ± 0.043	0.739 ± 0.038	0.739 ± 0.051	0.678 ± 0.060	0.661 ± 0.091	0.668 ± 0.076
<i>ecoli</i> - 0 - 1 - 3 - 7 - s_2 - 6	0.845 ± 0.075	0.847 ± 0.078	0.838 ± 0.074	0.842 ± 0.076	0.845 ± 0.079	0.828 ± 0.078	0.844 ± 0.075	0.845 ± 0.075	0.844 ± 0.110	0.840 ± 0.110	0.861 ± 0.092
<i>glass</i> - 0 - 1 - 6 - s_2	0.740 ± 0.099	0.697 ± 0.081	0.744 ± 0.090	0.740 ± 0.079	0.690 ± 0.076	0.622 ± 0.083	0.743 ± 0.072	0.740 ± 0.100	0.724 ± 0.090	0.673 ± 0.092	0.694 ± 0.065
<i>glass</i> - 0 - 1 - 6 - s_2	0.820 ± 0.098	0.792 ± 0.117	0.820 ± 0.098	0.820 ± 0.098	0.792 ± 0.116	0.843 ± 0.117	0.820 ± 0.098	0.820 ± 0.098	0.784 ± 0.123	0.869 ± 0.153	0.808 ± 0.146
<i>glass2</i>	0.642 ± 0.143	0.638 ± 0.134	0.648 ± 0.140	0.637 ± 0.137	0.651 ± 0.137	0.677 ± 0.158	0.648 ± 0.146	0.641 ± 0.143	0.626 ± 0.130	0.631 ± 0.118	0.643 ± 0.119
<i>glass</i>	0.892 ± 0.094	0.852 ± 0.116	0.883 ± 0.108	0.876 ± 0.121	0.876 ± 0.103	0.870 ± 0.111	0.876 ± 0.082	0.892 ± 0.094	0.821 ± 0.068	0.788 ± 0.142	0.810 ± 0.085
<i>glass5</i>	0.818 ± 0.106	0.809 ± 0.103	0.828 ± 0.099	0.828 ± 0.099	0.817 ± 0.106	0.854 ± 0.155	0.818 ± 0.106	0.818 ± 0.106	0.788 ± 0.098	0.870 ± 0.119	0.847 ± 0.117
<i>page - blocks</i> - 1 - 3 - s_4	0.904 ± 0.114	0.791 ± 0.070	0.908 ± 0.112	0.907 ± 0.112	0.903 ± 0.119	0.796 ± 0.048	0.888 ± 0.116	0.901 ± 0.114	0.819 ± 0.074	0.862 ± 0.073	0.855 ± 0.124
<i>yeast</i> - 0 - 5 - 6 - 7 - 9 - s_4	0.749 ± 0.047	0.741 ± 0.037	0.762 ± 0.040	0.752 ± 0.049	0.747 ± 0.055	0.765 ± 0.030	0.749 ± 0.041	0.746 ± 0.047	0.696 ± 0.066	0.496 ± 0.008	0.706 ± 0.068
<i>yeast</i> - 1 - 2 - 8 - 9 - s_7	0.606 ± 0.041	0.594 ± 0.054	0.608 ± 0.050	0.605 ± 0.049	0.620 ± 0.049	0.673 ± 0.069	0.605 ± 0.053	0.610 ± 0.038	0.566 ± 0.052	0.511 ± 0.004	0.584 ± 0.039
<i>yeast</i> - 1 - 4 - 5 - 8 - s_7	0.571 ± 0.051	0.568 ± 0.051	0.564 ± 0.047	0.561 ± 0.037	0.577 ± 0.047	0.600 ± 0.054	0.557 ± 0.035	0.571 ± 0.050	0.543 ± 0.035	0.505 ± 0.003	0.576 ± 0.050
<i>yeast</i> - 1 - s_7	0.690 ± 0.041	0.671 ± 0.046	0.691 ± 0.039	0.692 ± 0.043	0.664 ± 0.066	0.686 ± 0.064	0.683 ± 0.040	0.686 ± 0.041	0.596 ± 0.086	0.512 ± 0.030	0.630 ± 0.066
<i>yeast</i> - 2 - s_4	0.870 ± 0.039	0.862 ± 0.040	0.873 ± 0.039	0.875 ± 0.045	0.871 ± 0.046	0.869 ± 0.034	0.868 ± 0.046	0.870 ± 0.038	0.848 ± 0.033	0.605 ± 0.174	0.855 ± 0.054
<i>yeast</i> - 2 - s_8	0.736 ± 0.046	0.773 ± 0.051	0.747 ± 0.043	0.756 ± 0.040	0.738 ± 0.047	0.795 ± 0.064	0.740 ± 0.063	0.736 ± 0.046	0.756 ± 0.071	0.517 ± 0.025	0.692 ± 0.091
<i>yeast4</i>	0.765 ± 0.034	0.746 ± 0.032	0.769 ± 0.042	0.768 ± 0.032	0.760 ± 0.033	0.792 ± 0.052	0.757 ± 0.024	0.764 ± 0.034	0.688 ± 0.023	0.497 ± 0.009	0.744 ± 0.086
<i>yeast5</i>	0.927 ± 0.029	0.924 ± 0.030	0.927 ± 0.029	0.927 ± 0.029	0.930 ± 0.028	0.941 ± 0.024	0.927 ± 0.029	0.927 ± 0.029	0.900 ± 0.064	0.510 ± 0.001	0.860 ± 0.135
<i>ecoli</i> - 0 - 1 - 4 - 7 - s_3 - 3 - 5 - 6	0.872 ± 0.032	0.851 ± 0.020	0.887 ± 0.029	0.866 ± 0.019	0.870 ± 0.033	0.884 ± 0.033	0.871 ± 0.037	0.872 ± 0.032	0.758 ± 0.130	0.595 ± 0.135	0.836 ± 0.070
<i>ecoli</i> - 0 - 1 - s_2 - 3 - 5	0.854 ± 0.041	0.865 ± 0.044	0.863 ± 0.044	0.861 ± 0.043	0.856 ± 0.041	0.886 ± 0.047	0.858 ± 0.045	0.853 ± 0.041	0.793 ± 0.088	0.692 ± 0.199	0.820 ± 0.055
<i>ecoli</i> - 0 - 2 - 6 - 7 - s_3 - 5	0.834 ± 0.056	0.842 ± 0.061	0.838 ± 0.056	0.843 ± 0.056	0.853 ± 0.063	0.871 ± 0.050	0.835 ± 0.059	0.834 ± 0.056	0.827 ± 0.054	0.667 ± 0.149	0.851 ± 0.033
<i>ecoli</i> - 0 - 6 - 7 - s_3 - 5	0.846 ± 0.055	0.851 ± 0.056	0.843 ± 0.056	0.857 ± 0.059	0.856 ± 0.062	0.869 ± 0.060	0.846 ± 0.061	0.846 ± 0.055	0.845 ± 0.051	0.680 ± 0.159	0.852 ± 0.052
<i>ecoli</i> - 0 - 6 - 7 - s_3	0.861 ± 0.043	0.863 ± 0.043	0.863 ± 0.044	0.859 ± 0.043	0.860 ± 0.042	0.887 ± 0.047	0.859 ± 0.044	0.862 ± 0.042	0.861 ± 0.044	0.647 ± 0.163	0.884 ± 0.085
<i>glass</i> - 0 - 1 - 4 - 6 - s_2	0.710 ± 0.101	0.669 ± 0.128	0.713 ± 0.107	0.702 ± 0.131	0.665 ± 0.120	0.625 ± 0.090	0.716 ± 0.127	0.709 ± 0.101	0.669 ± 0.085	0.662 ± 0.083	0.631 ± 0.134
<i>glass</i> - 0 - 1 - 5 - s_2	0.696 ± 0.063	0.659 ± 0.067	0.701 ± 0.062	0.711 ± 0.071	0.671 ± 0.071	0.581 ± 0.049	0.685 ± 0.068	0.696 ± 0.063	0.673 ± 0.066	0.616 ± 0.162	0.641 ± 0.105
<i>yeast</i> - 0 - 2 - 5 - 6 - s_3 - 7 - 8 - 9	0.782 ± 0.026	0.775 ± 0.041	0.778 ± 0.032	0.788 ± 0.019	0.772 ± 0.038	0.791 ± 0.030	0.781 ± 0.029	0.783 ± 0.026	0.735 ± 0.062	0.559 ± 0.109	0.765 ± 0.050
<i>yeast</i> - 0 - 3 - 5 - 9 - s_3 - 8	0.696 ± 0.055	0.640 ± 0.032	0.687 ± 0.036	0.690 ± 0.045	0.689 ± 0.041	0.660 ± 0.053	0.692 ± 0.034	0.695 ± 0.036	0.634 ± 0.069	0.516 ± 0.027	0.588 ± 0.081
<i>abalone</i> - 17 - s_7 - 8 - 9 - 10	0.814 ± 0.021	0.742 ± 0.040	0.809 ± 0.024	0.810 ± 0.034	0.806 ± 0.028	0.823 ± 0.025	0.816 ± 0.024	0.813 ± 0.019	0.677 ± 0.073	0.722 ± 0.099	0.746 ± 0.114
<i>abalone</i> - 19 - s_3 - 0 - 11 - 12 - 13	0.633 ± 0.062	0.582 ± 0.058	0.637 ± 0.061	0.636 ± 0.052	0.629 ± 0.058	0.659 ± 0.075	0.629 ± 0.067	0.633 ± 0.062	0.631 ± 0.085	0.594 ± 0.058	0.572 ± 0.097
<i>abalone</i> - 20 - s_3 - 9 - 10	0.806 ± 0.048	0.775 ± 0.041	0.809 ± 0.043	0.802 ± 0.047	0.797 ± 0.051	0.884 ± 0.051	0.798 ± 0.055	0.806 ± 0.048	0.743 ± 0.109	0.742 ± 0.103	0.714 ± 0.111
<i>abalone</i> - 21 - s_8	0.798 ± 0.117	0.788 ± 0.120	0.798 ± 0.116	0.804 ± 0.117	0.799 ± 0.122	0.839 ± 0.070	0.798 ± 0.117	0.799 ± 0.117	0.771 ± 0.144	0.728 ± 0.125	0.771 ± 0.142
<i>flare</i> - F	0.738 ± 0.040	0.689 ± 0.046	0.732 ± 0.044	0.743 ± 0.049	0.725 ± 0.043	0.777 ± 0.047	0.738 ± 0.045	0.738 ± 0.040	0.681 ± 0.073	0.575 ± 0.068	0.727 ± 0.077
<i>kddcup - buffer,verflow,sack</i>	0.393 ± 0.013	0.397 ± 0.010	0.393 ± 0.013	0.393 ± 0.013	0.393 ± 0.013	1.000 ± 0.000	0.393 ± 0.013	0.393 ± 0.013	0.397 ± 0.010	0.397 ± 0.010	0.397 ± 0.010
<i>kddcup - rocket - insip,sack</i>	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.977 ± 0.023	0.973 ± 0.030	0.977 ± 0.023	0.977 ± 0.042	0.977 ± 0.042	0.977 ± 0.042
<i>kr - vs - k - zeros,light</i>	0.937 ± 0.052	0.934 ± 0.057	0.937 ± 0.052	0.937 ± 0.052	0.934 ± 0.057	0.950 ± 0.050	0.934 ± 0.057	0.937 ± 0.052	0.845 ± 0.076	0.701 ± 0.041	0.831 ± 0.108
<i>poker - 8 - 9 - s_3</i>	0.625 ± 0.067	0.588 ± 0.066	0.617 ± 0.058	0.613 ± 0.056	0.614 ± 0.073	0.677 ± 0.074	0.614 ± 0.047	0.625 ± 0.067	0.634 ± 0.079	0.562 ± 0.085	0.575 ± 0.073
<i>poker - 8 - 9 - s_6</i>	0.757 ± 0.064	0.724 ± 0.047	0.757 ± 0.064	0.744 ± 0.054	0.732 ± 0.066	0.937 ± 0.055	0.749 ± 0.086	0.757 ± 0.064	0.979 ± 0.041	0.986 ± 0.037	0.979 ± 0.041
<i>poker - 8 - s_6</i>	0.783 ± 0.073	0.712 ± 0.059	0.783 ± 0.073	0.789 ± 0.066	0.746 ± 0.081	0.968 ± 0.051	0.789 ± 0.065	0.783 ± 0.073	0.869 ± 0.123	0.930 ± 0.107	0.831 ± 0.152
<i>poker - 9 - s_7</i>	0.636 ± 0.104	0.636 ± 0.104	0.636 ± 0.104	0.636 ± 0.130	0.680 ± 0.135	0.611 ± 0.087	0.636 ± 0.104	0.729 ± 0.163	0.686 ± 0.139	0.657 ± 0.151	
<i>winequality - red - 3 - s_3</i>	0.540 ± 0.049	0.542 ± 0.050	0.539 ± 0.049	0.540 ± 0.049	0.541 ± 0.049	0.608 ± 0.057	0.550 ± 0.050	0.540 ± 0.049	0.539 ± 0.096	0.526 ± 0.117	0.516 ± 0.082
<i>winequality - red - 4</i>	0.638 ± 0.034	0.611 ± 0.029	0.632 ± 0.033	0.644 ± 0.035	0.625 ± 0.032	0.617 ± 0.029	0.641 ± 0.034	0.637 ± 0.033	0.548 ± 0.026	0.599 ± 0.051	0.609 ± 0.050
<i>winequality - red - 8 - s_6 - 7</i>	0.571 ± 0.054	0.550 ± 0.055	0.572 ± 0.054	0.571 ± 0.054	0.555 ± 0.062	0.541 ± 0.063	0.557 ± 0.048	0.571 ± 0.054	0.542 ± 0.067	0.518 ± 0.081	0.550 ± 0.060
<i>winequality - red - 8 - s_6</i>	0.614 ± 0.031	0.610 ± 0.024	0.615 ± 0.031	0.615 ± 0.030	0.625 ± 0.030	0.627 ± 0.065	0.625 ± 0.030	0.614 ± 0.031	0.637 ± 0.044	0.609 ± 0.096	0.622 ± 0.079
<i>winequality - white - 3 - 9 - s_3</i>	0.565 ± 0.051	0.529 ± 0.045	0.559 ± 0.057	0.560 ± 0.048	0.542 ± 0.039	0.685 ± 0.039	0.557 ± 0.051	0.565 ± 0.051	0.519 ± 0.064	0.528 ± 0.055	0.565 ± 0.055
<i>winequality - white - 3 - s_7</i>	0.533 ± 0.049	0.528 ± 0.041	0.549 ± 0.066	0.547 ± 0.067	0.546 ± 0.039	0.756 ± 0.077	0.539 ± 0.047	0.533 ± 0.049	0.561 ± 0.063	0.607 ± 0.121	0.594 ± 0.077
<i>winequality - white - 9 - s_4</i>	0.815 ± 0.134	0.815 ± 0.134	0.815 ± 0.134	0.699 ± 0.218	0.815 ± 0.134	0.695 ± 0.214	0.815 ± 0.134	0.815 ± 0.134	0.707 ± 0.175	0.707 ± 0.175	0.707 ± 0.175
<i>zoo - 3</i>	0.611 ± 0.162	0.611 ± 0.162	0.597 ± 0.163	0.611 ± 0.162	0.397 ± 0.275		0.547 ± 0.174	0.547 ± 0.174	0.547 ± 0.174	0.000 ± 0.000	0.000 ± 0.000
<i>ecoli1</i>	0.885 ± 0.027	0.886 ± 0.020	0.886 ± 0.020	0.884 ± 0.020	0.883 ± 0.021	0.889 ± 0.015	0.881 ± 0.022	0.884 ± 0.026	0.875 ± 0.033	0.576 ± 0.145	0.000 ± 0.000
<i>ecoli2</i>	0.940 ± 0.024	0.932 ± 0.034	0.941 ± 0.024	0.940 ± 0.026	0.939 ± 0.025	0.938 ± 0.021	0.942 ± 0.022	0.939 ± 0.025	0.860 ± 0.082	0.604 ± 0.146	0.000 ± 0.000
<i>ecoli3</i>	0.889 ± 0.022	0.893 ± 0.024	0.887 ± 0.022	0.894 ± 0.017	0.894 ± 0.021	0.893 ± 0.019	0.887 ± 0.021	0.892 ± 0.021	0.858 ± 0.056	0.602 ± 0.169	0.000 ± 0.000
<i>glass0</i>	0.779 ± 0.040	0.790 ± 0.020	0.785 ± 0.039	0.778 ± 0.037	0.793 ± 0.038	0.771 ± 0.032	0.792 ± 0.034	0.779 ± 0.036	0.742 ± 0.032	0.724 ± 0.065	0.000 ± 0.000
<i>glass1</i>	0.701 ± 0.038	0.689 ± 0.043	0.690 ± 0.038	0.696 ± 0.034	0.703 ± 0.040	0.677 ± 0.038	0.698 ± 0.039	0.701 ± 0.044	0.694 ± 0.062	0.598 ± 0.048	0.000 ± 0.000
<i>haberman</i>	0.611 ± 0.026	0.642 ± 0.035	0.610 ± 0.026	0.597 ± 0.031	0.611 ± 0.039	0.627 ± 0.027	0.614 ± 0.034	0.611 ± 0.028	0.613 ± 0.039	0.539 ± 0.092	0.000 ± 0.000
<i>page - block0</i>	0.931 ± 0.008	0.900 ± 0.068	0.931 ± 0.007	0.923 ± 0.009	0.931 ± 0.008	0.848 ± 0.016	0.930 ± 0.008	0.932 ± 0.008	0.879 ± 0.034	0.892 ± 0.025	0.000 ± 0.000
<i>pinna</i>	0.727 ± 0.030	0.722 ± 0.027	0.729 ± 0.023	0.726 ± 0.022	0.729 ± 0.025	0.730 ± 0.017	0.732 ± 0.028	0.728 ± 0.032	0.706 ± 0.018	0.666 ± 0.039	0.000 ± 0.000
<i>vehicle1</i>	0.789 ± 0.027	0.749 ± 0.023	0.790 ± 0.026	0.790 ± 0.020	0.798 ± 0.015	0.792 ± 0.023	0.791 ± 0.019	0.793 ± 0.025	0.695 ± 0.051	0.894 ± 0.018	0.000 ± 0.000
<i>vehicle3</i>	0.789 ± 0.022	0.734 ± 0.017	0.790 ± 0.018	0.797 ± 0.026	0.788 ± 0.016	0.789 ± 0.02					

Table 12. KNN – G-mean

Dataset name	SMOTE	polynom-ft-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone</i> - 19	0.392 ± 0.183	0.189 ± 0.159	0.392 ± 0.183	0.392 ± 0.183	0.319 ± 0.174	0.380 ± 0.106	0.388 ± 0.176	0.392 ± 0.183	0.187 ± 0.161	0.049 ± 0.097	0.322 ± 0.183
<i>abalone</i> - 18	0.696 ± 0.043	0.666 ± 0.064	0.676 ± 0.047	0.681 ± 0.055	0.662 ± 0.069	0.649 ± 0.054	0.687 ± 0.056	0.696 ± 0.044	0.534 ± 0.118	0.531 ± 0.247	0.534 ± 0.088
<i>ecoli</i> - 0 - 1 - 3 - 7 - 9 - x_2 - 6	0.818 ± 0.097	0.817 ± 0.096	0.817 ± 0.096	0.816 ± 0.096	0.818 ± 0.097	0.816 ± 0.097	0.817 ± 0.096	0.817 ± 0.096	0.771 ± 0.135	0.771 ± 0.133	0.797 ± 0.117
<i>glass</i> - 0 - 1 - 6 - x_2	0.704 ± 0.096	0.663 ± 0.056	0.697 ± 0.092	0.699 ± 0.094	0.679 ± 0.069	0.629 ± 0.089	0.709 ± 0.095	0.703 ± 0.095	0.591 ± 0.066	0.456 ± 0.254	0.597 ± 0.145
<i>glass</i> - 0 - 1 - 6 - x_2	0.905 ± 0.110	0.906 ± 0.111	0.905 ± 0.110	0.904 ± 0.111	0.873 ± 0.175	0.863 ± 0.158	0.904 ± 0.110	0.905 ± 0.110	0.859 ± 0.157	0.767 ± 0.326	0.756 ± 0.213
<i>glass2</i>	0.543 ± 0.246	0.523 ± 0.201	0.522 ± 0.300	0.558 ± 0.255	0.513 ± 0.288	0.551 ± 0.222	0.520 ± 0.295	0.541 ± 0.245	0.562 ± 0.211	0.382 ± 0.282	0.508 ± 0.138
<i>glass4</i>	0.897 ± 0.063	0.898 ± 0.075	0.870 ± 0.063	0.880 ± 0.062	0.873 ± 0.077	0.858 ± 0.042	0.888 ± 0.054	0.897 ± 0.063	0.801 ± 0.083	0.643 ± 0.328	0.719 ± 0.090
<i>glass5</i>	0.917 ± 0.145	0.919 ± 0.146	0.906 ± 0.151	0.917 ± 0.145	0.908 ± 0.143	0.849 ± 0.125	0.917 ± 0.145	0.917 ± 0.145	0.791 ± 0.151	0.842 ± 0.172	0.802 ± 0.164
<i>page - blacks</i> - 1 - 3 - x_3	0.983 ± 0.023	0.978 ± 0.021	0.982 ± 0.023	0.983 ± 0.023	0.941 ± 0.118	0.980 ± 0.016	0.976 ± 0.026	0.983 ± 0.023	0.841 ± 0.125	0.821 ± 0.096	0.872 ± 0.134
<i>yeast</i> - 0 - 5 - 6 - 7 - 9 - x_4	0.714 ± 0.053	0.730 ± 0.045	0.717 ± 0.050	0.719 ± 0.050	0.713 ± 0.066	0.717 ± 0.054	0.702 ± 0.043	0.711 ± 0.052	0.599 ± 0.108	0.000 ± 0.000	0.579 ± 0.108
<i>yeast</i> - 1 - 2 - 8 - 9 - x_7	0.646 ± 0.063	0.654 ± 0.060	0.642 ± 0.054	0.634 ± 0.055	0.586 ± 0.121	0.621 ± 0.079	0.638 ± 0.067	0.646 ± 0.063	0.440 ± 0.097	0.000 ± 0.000	0.362 ± 0.188
<i>yeast</i> - 1 - 4 - 5 - 8 - x_7	0.573 ± 0.058	0.528 ± 0.098	0.577 ± 0.060	0.543 ± 0.086	0.482 ± 0.092	0.519 ± 0.063	0.563 ± 0.062	0.573 ± 0.052	0.297 ± 0.169	0.000 ± 0.000	0.202 ± 0.220
<i>yeast</i> - 1 - x_7	0.715 ± 0.040	0.711 ± 0.049	0.717 ± 0.040	0.726 ± 0.047	0.682 ± 0.067	0.671 ± 0.040	0.688 ± 0.058	0.715 ± 0.039	0.489 ± 0.082	0.000 ± 0.000	0.314 ± 0.269
<i>yeast</i> - 2 - x_4	0.868 ± 0.034	0.857 ± 0.039	0.864 ± 0.037	0.867 ± 0.034	0.869 ± 0.032	0.856 ± 0.037	0.870 ± 0.030	0.869 ± 0.034	0.828 ± 0.057	0.250 ± 0.382	0.816 ± 0.055
<i>yeast</i> - 2 - x_8	0.789 ± 0.064	0.791 ± 0.059	0.782 ± 0.058	0.789 ± 0.065	0.788 ± 0.057	0.792 ± 0.068	0.787 ± 0.063	0.789 ± 0.063	0.745 ± 0.061	0.084 ± 0.251	0.779 ± 0.081
<i>yeast4</i>	0.702 ± 0.035	0.704 ± 0.046	0.702 ± 0.036	0.700 ± 0.038	0.675 ± 0.048	0.701 ± 0.059	0.708 ± 0.051	0.702 ± 0.034	0.575 ± 0.058	0.000 ± 0.000	0.539 ± 0.103
<i>yeast5</i>	0.927 ± 0.040	0.917 ± 0.039	0.922 ± 0.040	0.920 ± 0.038	0.907 ± 0.037	0.931 ± 0.052	0.927 ± 0.037	0.927 ± 0.040	0.854 ± 0.064	0.000 ± 0.000	0.753 ± 0.267
<i>ecoli</i> - 0 - 1 - 4 - 7 - x_5 - 3 - 5 - 6	0.882 ± 0.018	0.874 ± 0.026	0.878 ± 0.020	0.873 ± 0.020	0.882 ± 0.021	0.874 ± 0.030	0.880 ± 0.022	0.882 ± 0.019	0.672 ± 0.180	0.273 ± 0.300	0.784 ± 0.122
<i>ecoli</i> - 0 - 1 - x_2 - 3 - 5	0.880 ± 0.028	0.882 ± 0.030	0.873 ± 0.029	0.875 ± 0.029	0.874 ± 0.028	0.871 ± 0.045	0.882 ± 0.034	0.880 ± 0.028	0.786 ± 0.173	0.482 ± 0.397	0.808 ± 0.073
<i>ecoli</i> - 0 - 2 - 6 - 7 - x_3 - 5	0.831 ± 0.059	0.829 ± 0.060	0.833 ± 0.068	0.831 ± 0.061	0.834 ± 0.065	0.834 ± 0.042	0.830 ± 0.057	0.830 ± 0.058	0.789 ± 0.050	0.359 ± 0.298	0.831 ± 0.032
<i>ecoli</i> - 0 - 6 - 7 - x_3 - 5	0.844 ± 0.061	0.848 ± 0.060	0.847 ± 0.071	0.850 ± 0.059	0.838 ± 0.068	0.833 ± 0.057	0.844 ± 0.060	0.845 ± 0.060	0.792 ± 0.065	0.373 ± 0.344	0.780 ± 0.095
<i>ecoli</i> - 0 - 6 - 7 - x_5	0.860 ± 0.051	0.856 ± 0.066	0.860 ± 0.050	0.859 ± 0.063	0.863 ± 0.052	0.866 ± 0.039	0.859 ± 0.054	0.860 ± 0.053	0.812 ± 0.078	0.318 ± 0.333	0.854 ± 0.075
<i>glass</i> - 0 - 1 - 4 - 6 - x_2	0.636 ± 0.142	0.623 ± 0.134	0.628 ± 0.162	0.628 ± 0.160	0.587 ± 0.156	0.573 ± 0.087	0.617 ± 0.164	0.629 ± 0.139	0.393 ± 0.218	0.361 ± 0.314	0.403 ± 0.234
<i>glass</i> - 0 - 1 - 5 - x_2	0.662 ± 0.070	0.660 ± 0.063	0.673 ± 0.073	0.654 ± 0.077	0.638 ± 0.122	0.602 ± 0.078	0.669 ± 0.068	0.661 ± 0.070	0.619 ± 0.135	0.418 ± 0.323	0.494 ± 0.218
<i>yeast</i> - 0 - 2 - 5 - 6 - x_3 - 7 - 8 - 9	0.767 ± 0.036	0.760 ± 0.030	0.771 ± 0.031	0.768 ± 0.028	0.767 ± 0.034	0.753 ± 0.036	0.768 ± 0.035	0.768 ± 0.036	0.696 ± 0.146	0.219 ± 0.202	0.629 ± 0.056
<i>yeast</i> - 0 - 3 - 5 - 9 - x_7 - 8	0.662 ± 0.042	0.649 ± 0.043	0.662 ± 0.043	0.652 ± 0.050	0.657 ± 0.048	0.653 ± 0.065	0.650 ± 0.037	0.664 ± 0.044	0.420 ± 0.149	0.028 ± 0.084	0.386 ± 0.196
<i>abalone</i> - 17 - s_7 - 8 - 9 - 10	0.722 ± 0.061	0.672 ± 0.048	0.726 ± 0.060	0.717 ± 0.060	0.666 ± 0.062	0.706 ± 0.056	0.714 ± 0.059	0.721 ± 0.061	0.465 ± 0.072	0.387 ± 0.215	0.442 ± 0.233
<i>abalone</i> - 19 - s_3 - 0 - 11 - 12 - 13	0.492 ± 0.070	0.379 ± 0.064	0.498 ± 0.076	0.500 ± 0.091	0.385 ± 0.153	0.454 ± 0.085	0.462 ± 0.085	0.492 ± 0.070	0.300 ± 0.130	0.251 ± 0.218	0.291 ± 0.203
<i>abalone</i> - 20 - s_3 - 9 - 10	0.714 ± 0.080	0.580 ± 0.045	0.721 ± 0.098	0.728 ± 0.093	0.584 ± 0.099	0.661 ± 0.085	0.696 ± 0.129	0.708 ± 0.085	0.513 ± 0.128	0.198 ± 0.264	0.544 ± 0.115
<i>abalone</i> - 21 - s_3	0.810 ± 0.104	0.732 ± 0.107	0.793 ± 0.092	0.794 ± 0.093	0.768 ± 0.101	0.769 ± 0.082	0.801 ± 0.098	0.810 ± 0.104	0.625 ± 0.159	0.515 ± 0.290	0.633 ± 0.150
<i>flare</i> - F	0.651 ± 0.061	0.619 ± 0.057	0.647 ± 0.072	0.651 ± 0.063	0.614 ± 0.068	0.654 ± 0.053	0.653 ± 0.057	0.651 ± 0.062	0.286 ± 0.168	0.043 ± 0.085	0.328 ± 0.193
<i>kddcup - buffer,verflows,pack</i>	0.954 ± 0.051	0.954 ± 0.051	0.954 ± 0.051	0.954 ± 0.051	0.944 ± 0.054	0.958 ± 0.044	0.944 ± 0.046	0.954 ± 0.051	0.954 ± 0.048	0.954 ± 0.048	0.954 ± 0.048
<i>kddcup - rootkit - insip,pack</i>	0.972 ± 0.023	0.962 ± 0.043	0.972 ± 0.023	0.972 ± 0.023	0.952 ± 0.049	0.943 ± 0.029	0.952 ± 0.055	0.972 ± 0.023	0.962 ± 0.042	0.962 ± 0.042	0.962 ± 0.042
<i>kr - vs - k - zeros,light</i>	0.937 ± 0.052	0.926 ± 0.057	0.941 ± 0.052	0.941 ± 0.052	0.921 ± 0.067	0.936 ± 0.068	0.924 ± 0.066	0.937 ± 0.052	0.634 ± 0.339	0.000 ± 0.000	0.588 ± 0.393
<i>poker - 8 - 9 - s_3</i>	0.486 ± 0.126	0.406 ± 0.091	0.498 ± 0.136	0.484 ± 0.129	0.294 ± 0.170	0.577 ± 0.084	0.492 ± 0.132	0.486 ± 0.126	0.296 ± 0.242	0.086 ± 0.173	0.215 ± 0.267
<i>poker - 8 - 9 - s_6</i>	0.948 ± 0.042	0.908 ± 0.036	0.947 ± 0.041	0.947 ± 0.041	0.899 ± 0.060	0.976 ± 0.027	0.936 ± 0.032	0.948 ± 0.042	0.987 ± 0.040	0.974 ± 0.051	0.974 ± 0.051
<i>poker - 8 - s_6</i>	0.940 ± 0.065	0.838 ± 0.067	0.940 ± 0.065	0.939 ± 0.065	0.960 ± 0.122	0.978 ± 0.018	0.926 ± 0.087	0.940 ± 0.065	0.889 ± 0.148	0.918 ± 0.138	0.798 ± 0.301
<i>poker - 9 - s_7</i>	0.773 ± 0.290	0.773 ± 0.291	0.773 ± 0.290	0.773 ± 0.291	0.748 ± 0.276	0.723 ± 0.265	0.761 ± 0.284	0.773 ± 0.290	0.635 ± 0.441	0.719 ± 0.319	0.558 ± 0.393
<i>winequality - red - 3 - s_3</i>	0.388 ± 0.206	0.371 ± 0.193	0.388 ± 0.206	0.388 ± 0.206	0.371 ± 0.193	0.392 ± 0.208	0.371 ± 0.192	0.388 ± 0.206	0.239 ± 0.244	0.044 ± 0.132	0.324 ± 0.219
<i>winequality - red - 4</i>	0.525 ± 0.046	0.484 ± 0.086	0.520 ± 0.055	0.525 ± 0.039	0.482 ± 0.074	0.410 ± 0.056	0.535 ± 0.039	0.525 ± 0.046	0.331 ± 0.088	0.198 ± 0.190	0.415 ± 0.102
<i>winequality - red - 8 - s_6</i>	0.7 - 0.7	0.332 ± 0.195	0.345 ± 0.197	0.345 ± 0.197	0.334 ± 0.148	0.302 ± 0.179	0.356 ± 0.152	0.332 ± 0.195	0.296 ± 0.213	0.232 ± 0.246	0.328 ± 0.135
<i>winequality - red - 8 - s_6</i>	0.573 ± 0.083	0.555 ± 0.089	0.573 ± 0.083	0.573 ± 0.083	0.486 ± 0.100	0.496 ± 0.102	0.567 ± 0.074	0.573 ± 0.083	0.456 ± 0.174	0.403 ± 0.231	0.491 ± 0.201
<i>winequality - white - 3 - 9 - s_3</i>	0.533 ± 0.061	0.504 ± 0.069	0.532 ± 0.068	0.532 ± 0.067	0.415 ± 0.069	0.462 ± 0.111	0.496 ± 0.072	0.533 ± 0.061	0.295 ± 0.174	0.238 ± 0.164	0.390 ± 0.160
<i>winequality - white - 3 - s_3</i>	0.489 ± 0.249	0.360 ± 0.208	0.494 ± 0.254	0.485 ± 0.255	0.367 ± 0.201	0.502 ± 0.209	0.479 ± 0.264	0.489 ± 0.249	0.397 ± 0.214	0.420 ± 0.242	0.354 ± 0.196
<i>winequality - white - 9 - s_4</i>	0.865 ± 0.105	0.869 ± 0.109	0.865 ± 0.105	0.864 ± 0.105	0.865 ± 0.106	0.853 ± 0.351	0.865 ± 0.105	0.865 ± 0.105	0.567 ± 0.383	0.567 ± 0.383	0.567 ± 0.383
<i>zoo - 3</i>	0.769 ± 0.280	0.769 ± 0.280	0.769 ± 0.280	0.545 ± 0.387	0.769 ± 0.280	0.516 ± 0.362	0.769 ± 0.280	0.769 ± 0.280	0.410 ± 0.343	0.410 ± 0.343	0.000 ± 0.000
<i>ecoli1</i>	0.863 ± 0.027	0.862 ± 0.021	0.867 ± 0.030	0.870 ± 0.025	0.869 ± 0.027	0.863 ± 0.030	0.862 ± 0.034	0.866 ± 0.023	0.793 ± 0.068	0.162 ± 0.325	0.000 ± 0.000
<i>ecoli2</i>	0.914 ± 0.029	0.921 ± 0.027	0.911 ± 0.028	0.913 ± 0.028	0.918 ± 0.030	0.911 ± 0.021	0.913 ± 0.027	0.914 ± 0.029	0.830 ± 0.094	0.229 ± 0.354	0.000 ± 0.000
<i>ecoli3</i>	0.865 ± 0.020	0.856 ± 0.023	0.867 ± 0.015	0.858 ± 0.026	0.849 ± 0.036	0.850 ± 0.029	0.860 ± 0.019	0.865 ± 0.016	0.786 ± 0.063	0.220 ± 0.339	0.000 ± 0.000
<i>glass0</i>	0.787 ± 0.035	0.794 ± 0.037	0.782 ± 0.033	0.789 ± 0.028	0.789 ± 0.028	0.785 ± 0.040	0.796 ± 0.030	0.796 ± 0.035	0.775 ± 0.048	0.649 ± 0.237	0.000 ± 0.000
<i>glass1</i>	0.736 ± 0.049	0.747 ± 0.053	0.743 ± 0.045	0.746 ± 0.039	0.737 ± 0.043	0.738 ± 0.033	0.735 ± 0.031	0.736 ± 0.053	0.683 ± 0.096	0.299 ± 0.233	0.000 ± 0.000
<i>haberman</i>	0.595 ± 0.037	0.601 ± 0.051	0.575 ± 0.055	0.580 ± 0.026	0.575 ± 0.050	0.570 ± 0.045	0.574 ± 0.038	0.594 ± 0.031	0.560 ± 0.031	0.468 ± 0.119	0.000 ± 0.000
<i>page - black0</i>	0.929 ± 0.010	0.929 ± 0.010	0.927 ± 0.012	0.920 ± 0.012	0.923 ± 0.011	0.881 ± 0.018	0.931 ± 0.009	0.929 ± 0.010	0.890 ± 0.020	0.903 ± 0.013	0.000 ± 0.000
<i>pinas</i>	0.684 ± 0.021	0.706 ± 0.019	0.684 ± 0.014	0.687 ± 0.016	0.682 ± 0.017	0.688 ± 0.022	0.686 ± 0.017	0.692 ± 0.024	0.676 ± 0.023	0.606 ± 0.058	0.000 ± 0.000
<i>vehicle1</i>	0.722 ± 0.026	0.739 ± 0.018	0.720 ± 0.024	0.735 ± 0.025	0.726 ± 0.018	0.718 ± 0.023	0.730 ± 0.023	0.723 ± 0.027	0.646 ± 0.030	0.714 ± 0.032	0.000 ± 0.000
<i>vehicle3</i>	0.707 ± 0.019	0.696 ± 0.030	0.711 ± 0.019	0.717 ± 0.025							

Table 13. CART – Precision

Dataset name	SMOTE	polynom-Rt-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone19</i>	0.028 ± 0.014	0.013 ± 0.019	0.023 ± 0.014	0.031 ± 0.013	0.038 ± 0.035	0.018 ± 0.015	0.026 ± 0.012	0.028 ± 0.014	0.009 ± 0.015	0.011 ± 0.010	0.012 ± 0.008
<i>abalone19</i> – 18	0.226 ± 0.058	0.222 ± 0.067	0.227 ± 0.029	0.256 ± 0.070	0.270 ± 0.059	0.196 ± 0.057	0.224 ± 0.048	0.230 ± 0.057	0.341 ± 0.078	0.147 ± 0.117	0.260 ± 0.116
<i>ecoli</i> – 0 – 1 – 3 – 7 – 9 – s_2	6	4.38 ± 0.237	0.488 ± 0.186	4.38 ± 0.237	4.38 ± 0.237	0.488 ± 0.186	4.433 ± 0.240	4.38 ± 0.237	4.38 ± 0.237	0.149 ± 0.124	0.363 ± 0.262
<i>glass</i> – 0 – 1 – 6 – s_2	0.222 ± 0.146	0.222 ± 0.146	0.281 ± 0.059	0.284 ± 0.073	0.268 ± 0.116	0.168 ± 0.106	0.262 ± 0.128	0.254 ± 0.087	0.328 ± 0.180	0.180 ± 0.070	0.323 ± 0.238
<i>glass</i> – 0 – 1 – 6 – s_2	0.759 ± 0.181	0.704 ± 0.145	0.759 ± 0.181	0.759 ± 0.181	0.604 ± 0.290	0.747 ± 0.186	0.759 ± 0.181	0.759 ± 0.181	0.583 ± 0.228	0.534 ± 0.207	0.587 ± 0.342
<i>glass2</i>	0.214 ± 0.174	0.174 ± 0.128	0.214 ± 0.185	0.237 ± 0.164	0.240 ± 0.221	0.143 ± 0.081	0.204 ± 0.153	0.228 ± 0.173	0.205 ± 0.141	0.151 ± 0.111	0.230 ± 0.130
<i>glass4</i>	0.610 ± 0.155	0.573 ± 0.117	0.614 ± 0.167	0.604 ± 0.160	0.580 ± 0.186	0.425 ± 0.122	0.612 ± 0.176	0.610 ± 0.155	0.677 ± 0.208	0.552 ± 0.321	0.489 ± 0.209
<i>glass5</i>	0.693 ± 0.211	0.620 ± 0.145	0.693 ± 0.211	0.693 ± 0.211	0.660 ± 0.181	0.734 ± 0.202	0.693 ± 0.211	0.693 ± 0.211	0.665 ± 0.150	0.710 ± 0.238	0.566 ± 0.220
<i>page</i> – blocks – 1 – 3 – s_1	0.931 ± 0.030	0.965 ± 0.080	0.930 ± 0.031	0.906 ± 0.076	0.922 ± 0.046	0.777 ± 0.084	0.928 ± 0.035	0.931 ± 0.030	0.846 ± 0.085	0.719 ± 0.267	0.857 ± 0.136
<i>yeast</i> – 0 – 5 – 6 – 7 – 9 – s_4	0.340 ± 0.051	0.377 ± 0.045	0.370 ± 0.062	0.354 ± 0.050	0.355 ± 0.072	0.290 ± 0.040	0.353 ± 0.044	0.348 ± 0.079	0.342 ± 0.096	0.003 ± 0.003	0.336 ± 0.066
<i>yeast</i> – 1 – 2 – 8 – 9 – s_7	0.101 ± 0.020	0.133 ± 0.063	0.101 ± 0.033	0.089 ± 0.030	0.130 ± 0.047	0.097 ± 0.023	0.098 ± 0.017	0.113 ± 0.033	0.106 ± 0.083	0.032 ± 0.000	0.122 ± 0.089
<i>yeast</i> – 1 – 4 – 5 – 8 – s_7	0.072 ± 0.044	0.112 ± 0.041	0.073 ± 0.053	0.065 ± 0.042	0.076 ± 0.048	0.050 ± 0.019	0.086 ± 0.025	0.070 ± 0.048	0.050 ± 0.066	0.044 ± 0.000	0.057 ± 0.042
<i>yeast</i> – 1 – s_7	0.203 ± 0.070	0.234 ± 0.065	0.178 ± 0.062	0.214 ± 0.056	0.186 ± 0.065	0.169 ± 0.021	0.186 ± 0.051	0.198 ± 0.071	0.270 ± 0.120	0.055 ± 0.029	0.161 ± 0.079
<i>yeast</i> – 2 – s_4	0.621 ± 0.047	0.673 ± 0.044	0.689 ± 0.044	0.677 ± 0.069	0.653 ± 0.079	0.559 ± 0.073	0.676 ± 0.055	0.619 ± 0.059	0.670 ± 0.058	0.259 ± 0.269	0.715 ± 0.093
<i>yeast</i> – 2 – s_8	0.273 ± 0.116	0.518 ± 0.154	0.377 ± 0.161	0.346 ± 0.088	0.481 ± 0.131	0.259 ± 0.064	0.386 ± 0.144	0.287 ± 0.113	0.792 ± 0.202	0.044 ± 0.005	0.595 ± 0.269
<i>yeast4</i>	0.223 ± 0.033	0.258 ± 0.052	0.233 ± 0.056	0.240 ± 0.049	0.216 ± 0.059	0.202 ± 0.040	0.237 ± 0.092	0.226 ± 0.035	0.280 ± 0.077	0.034 ± 0.001	0.234 ± 0.110
<i>yeast5</i>	0.649 ± 0.091	0.624 ± 0.086	0.623 ± 0.080	0.618 ± 0.101	0.638 ± 0.056	0.393 ± 0.060	0.646 ± 0.077	0.655 ± 0.095	0.643 ± 0.099	0.030 ± 0.000	0.546 ± 0.191
<i>ecoli</i> – 0 – 1 – 4 – 7 – s_3	3 – 5 – 6	0.502 ± 0.110	0.583 ± 0.115	0.583 ± 0.100	0.510 ± 0.109	0.536 ± 0.073	0.423 ± 0.111	0.539 ± 0.116	0.530 ± 0.149	0.674 ± 0.091	0.119 ± 0.161
<i>ecoli</i> – 0 – 1 – s_2	3 – 5	0.654 ± 0.151	0.708 ± 0.060	0.629 ± 0.069	0.579 ± 0.149	0.620 ± 0.134	0.530 ± 0.066	0.614 ± 0.178	0.611 ± 0.143	0.566 ± 0.125	0.337 ± 0.135
<i>ecoli</i> – 0 – 2 – 6 – 7 – s_3	5	0.581 ± 0.102	0.691 ± 0.140	0.566 ± 0.113	0.608 ± 0.128	0.606 ± 0.057	0.470 ± 0.121	0.547 ± 0.134	0.607 ± 0.110	0.666 ± 0.136	0.174 ± 0.221
<i>ecoli</i> – 0 – 6 – 7 – s_3	5	0.563 ± 0.149	0.746 ± 0.229	0.608 ± 0.165	0.586 ± 0.161	0.625 ± 0.123	0.510 ± 0.146	0.537 ± 0.145	0.570 ± 0.143	0.716 ± 0.165	0.277 ± 0.279
<i>ecoli</i> – 0 – 6 – 7 – s_3	0.697 ± 0.197	0.744 ± 0.157	0.676 ± 0.216	0.687 ± 0.224	0.775 ± 0.182	0.545 ± 0.136	0.688 ± 0.200	0.676 ± 0.205	0.764 ± 0.156	0.268 ± 0.302	0.758 ± 0.146
<i>glass</i> – 0 – 1 – 4 – 6 – s_2	0.231 ± 0.080	0.164 ± 0.111	0.237 ± 0.096	0.219 ± 0.088	0.244 ± 0.101	0.192 ± 0.055	0.184 ± 0.099	0.201 ± 0.102	0.167 ± 0.127	0.130 ± 0.041	0.171 ± 0.090
<i>glass</i> – 0 – 1 – 5 – s_2	0.335 ± 0.060	0.249 ± 0.137	0.392 ± 0.230	0.340 ± 0.138	0.317 ± 0.152	0.181 ± 0.077	0.300 ± 0.102	0.338 ± 0.098	0.281 ± 0.130	0.180 ± 0.098	0.173 ± 0.107
<i>yeast</i> – 0 – 2 – 5 – 6 – s_3	7 – 8 – 9	0.377 ± 0.050	0.444 ± 0.067	0.409 ± 0.051	0.394 ± 0.055	0.416 ± 0.048	0.395 ± 0.052	0.373 ± 0.056	0.359 ± 0.046	0.409 ± 0.162	0.185 ± 0.168
<i>yeast</i> – 0 – 3 – 5 – 9 – s_7	8	0.296 ± 0.036	0.326 ± 0.058	0.237 ± 0.046	0.226 ± 0.055	0.240 ± 0.062	0.233 ± 0.062	0.230 ± 0.031	0.244 ± 0.044	0.230 ± 0.196	0.105 ± 0.011
<i>abalone</i> – 17 – s_7	8 – 9 – 10	0.162 ± 0.052	0.229 ± 0.038	0.160 ± 0.023	0.172 ± 0.037	0.205 ± 0.050	0.155 ± 0.033	0.176 ± 0.045	0.236 ± 0.073	0.088 ± 0.070	0.139 ± 0.086
<i>abalone</i> – 19 – s_3	0 – 11 – 12 – 13	0.049 ± 0.022	0.040 ± 0.031	0.047 ± 0.023	0.043 ± 0.015	0.050 ± 0.037	0.045 ± 0.017	0.055 ± 0.018	0.053 ± 0.016	0.043 ± 0.044	0.020 ± 0.013
<i>abalone</i> – 20 – s_4	5 – 9 – 10	0.155 ± 0.024	0.128 ± 0.097	0.161 ± 0.065	0.159 ± 0.042	0.169 ± 0.060	0.137 ± 0.031	0.161 ± 0.045	0.156 ± 0.024	0.180 ± 0.095	0.049 ± 0.032
<i>abalone</i> – 21 – s_8	0.278 ± 0.171	0.354 ± 0.197	0.272 ± 0.166	0.264 ± 0.191	0.382 ± 0.208	0.278 ± 0.121	0.281 ± 0.179	0.285 ± 0.173	0.425 ± 0.166	0.240 ± 0.210	0.399 ± 0.271
<i>flare</i> – F	0.155 ± 0.060	0.247 ± 0.080	0.175 ± 0.067	0.187 ± 0.051	0.224 ± 0.070	0.215 ± 0.094	0.177 ± 0.058	0.180 ± 0.044	0.177 ± 0.121	0.051 ± 0.018	0.201 ± 0.077
<i>kidcup</i> – buffer – s_7	verflows – s_4 ack	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kidcup</i> – rocket – s_4 ack	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
<i>kr</i> – s_8 – k – zeros – s_4 right	0.881 ± 0.077	0.888 ± 0.067	0.911 ± 0.071	0.899 ± 0.065	0.895 ± 0.093	0.748 ± 0.158	0.901 ± 0.094	0.881 ± 0.077	0.645 ± 0.282	0.045 ± 0.016	0.595 ± 0.352
<i>poker</i> – 8 – 9 – s_3	0.066 ± 0.033	0.079 ± 0.065	0.066 ± 0.028	0.068 ± 0.024	0.059 ± 0.059	0.056 ± 0.034	0.049 ± 0.022	0.066 ± 0.033	0.051 ± 0.083	0.031 ± 0.042	0.052 ± 0.061
<i>poker</i> – 8 – 9 – s_6	0.247 ± 0.095	0.643 ± 0.299	0.345 ± 0.312	0.255 ± 0.209	0.469 ± 0.318	0.145 ± 0.125	0.274 ± 0.188	0.247 ± 0.095	0.938 ± 0.099	0.934 ± 0.107	0.947 ± 0.106
<i>poker</i> – 8 – s_6	0.509 ± 0.530	0.375 ± 0.291	0.451 ± 0.263	0.420 ± 0.268	0.503 ± 0.308	0.315 ± 0.381	0.474 ± 0.347	0.509 ± 0.339	0.951 ± 0.114	0.967 ± 0.100	0.745 ± 0.393
<i>poker</i> – 9 – s_7	0.166 ± 0.198	0.120 ± 0.126	0.166 ± 0.198	0.166 ± 0.198	0.199 ± 0.209	0.271 ± 0.320	0.148 ± 0.176	0.160 ± 0.198	0.341 ± 0.402	0.272 ± 0.317	0.278 ± 0.333
<i>winequality</i> – red – 3 – s_3	0.026 ± 0.045	0.073 ± 0.151	0.025 ± 0.060	0.042 ± 0.077	0.026 ± 0.061	0.070 ± 0.056	0.034 ± 0.059	0.026 ± 0.045	0.053 ± 0.101	0.053 ± 0.096	0.085 ± 0.088
<i>winequality</i> – red – 4	0.072 ± 0.035	0.060 ± 0.028	0.086 ± 0.016	0.090 ± 0.030	0.104 ± 0.048	0.086 ± 0.021	0.069 ± 0.012	0.071 ± 0.036	0.090 ± 0.049	0.049 ± 0.021	0.090 ± 0.047
<i>winequality</i> – red – 8 – s_6	7	0.060 ± 0.045	0.072 ± 0.045	0.060 ± 0.039	0.079 ± 0.044	0.074 ± 0.063	0.055 ± 0.025	0.061 ± 0.041	0.060 ± 0.045	0.057 ± 0.047	0.050 ± 0.063
<i>winequality</i> – red – 8 – s_6	0.123 ± 0.048	0.201 ± 0.174	0.121 ± 0.041	0.116 ± 0.058	0.132 ± 0.087	0.107 ± 0.044	0.140 ± 0.054	0.123 ± 0.048	0.124 ± 0.075	0.105 ± 0.079	0.193 ± 0.276
<i>winequality</i> – white – 3 – 9 – s_3	0.059 ± 0.048	0.055 ± 0.038	0.047 ± 0.042	0.045 ± 0.038	0.054 ± 0.067	0.101 ± 0.029	0.041 ± 0.024	0.059 ± 0.048	0.059 ± 0.055	0.029 ± 0.029	0.065 ± 0.060
<i>winequality</i> – white – 3 – s_7	0.068 ± 0.047	0.111 ± 0.088	0.088 ± 0.054	0.085 ± 0.052	0.136 ± 0.052	0.252 ± 0.070	0.047 ± 0.044	0.068 ± 0.047	0.097 ± 0.056	0.122 ± 0.124	0.146 ± 0.113
<i>winequality</i> – white – 9 – s_4	0.377 ± 0.294	0.345 ± 0.283	0.360 ± 0.282	0.380 ± 0.277	0.368 ± 0.277	0.363 ± 0.280	0.360 ± 0.282	0.377 ± 0.294	0.167 ± 0.300	0.167 ± 0.300	0.167 ± 0.300
<i>zoo</i> – 3	0.196 ± 0.192	0.170 ± 0.169	0.301 ± 0.296	0.274 ± 0.293	0.246 ± 0.300	0.579 ± 0.380	0.334 ± 0.365	0.196 ± 0.192	0.104 ± 0.163	0.104 ± 0.163	0.000 ± 0.000
<i>ecoli1</i>	0.715 ± 0.043	0.705 ± 0.047	0.708 ± 0.040	0.736 ± 0.048	0.718 ± 0.024	0.666 ± 0.041	0.712 ± 0.038	0.731 ± 0.043	0.698 ± 0.085	0.296 ± 0.203	0.000 ± 0.000
<i>ecoli2</i>	0.706 ± 0.080	0.702 ± 0.097	0.740 ± 0.129	0.714 ± 0.082	0.708 ± 0.104	0.624 ± 0.078	0.692 ± 0.099	0.724 ± 0.092	0.669 ± 0.120	0.270 ± 0.271	0.000 ± 0.000
<i>ecoli3</i>	0.474 ± 0.059	0.504 ± 0.083	0.462 ± 0.084	0.503 ± 0.072	0.497 ± 0.078	0.462 ± 0.051	0.486 ± 0.068	0.482 ± 0.062	0.516 ± 0.102	0.198 ± 0.178	0.000 ± 0.000
<i>glass0</i>	0.637 ± 0.044	0.656 ± 0.076	0.689 ± 0.072	0.689 ± 0.067	0.664 ± 0.094	0.693 ± 0.069	0.710 ± 0.111	0.660 ± 0.066	0.646 ± 0.067	0.563 ± 0.126	0.000 ± 0.000
<i>glass1</i>	0.620 ± 0.044	0.649 ± 0.047	0.620 ± 0.053	0.629 ± 0.079	0.619 ± 0.051	0.610 ± 0.061	0.620 ± 0.072	0.625 ± 0.041	0.594 ± 0.092	0.441 ± 0.107	0.000 ± 0.000
<i>haberman</i>	0.366 ± 0.040	0.350 ± 0.027	0.352 ± 0.043	0.345 ± 0.055	0.353 ± 0.059	0.359 ± 0.047	0.344 ± 0.063	0.388 ± 0.055	0.408 ± 0.051	0.327 ± 0.105	0.000 ± 0.000
<i>page</i> – block0	0.763 ± 0.029	0.798 ± 0.020	0.756 ± 0.028	0.762 ± 0.033	0.787 ± 0.018	0.800 ± 0.016	0.765 ± 0.028	0.771 ± 0.024	0.812 ± 0.025	0.785 ± 0.025	0.000 ± 0.000
<i>pinna</i>	0.552 ± 0.030	0.566 ± 0.022	0.553 ± 0.038	0.556 ± 0.028	0.543 ± 0.032	0.564 ± 0.040	0.550 ± 0.031	0.559 ± 0.034	0.553 ± 0.034	0.484 ± 0.051	0.000 ± 0.000
<i>vehicle1</i>	0.495 ± 0.033	0.498 ± 0.039	0.505 ± 0.024	0.496 ± 0.034	0.486 ± 0.033	0.492 ± 0.044	0.491 ± 0.030	0.503 ± 0.025	0.489 ± 0.033	0.498 ± 0.031	0.000 ± 0.000
<i>vehicle3</i>	0.471 ± 0.033	0.512 ± 0.040	0.467 ± 0.042	0.477 ± 0.038	0.475 ± 0.027	0.486 ± 0.037	0.490 ± 0.025				

Table 14. SVM – Precision

Dataset name	SMOTE	polynom-rlt-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-rc	JFOTS-prom
<i>abalone</i> -19	0.019 ± 0.008	0.026 ± 0.013	0.019 ± 0.008	0.020 ± 0.008	0.022 ± 0.008	0.024 ± 0.006	0.019 ± 0.008	0.017 ± 0.009	0.011 ± 0.004	0.012 ± 0.002	
<i>abalone</i> -18	0.247 ± 0.040	0.361 ± 0.062	0.239 ± 0.030	0.254 ± 0.052	0.250 ± 0.055	0.331 ± 0.077	0.240 ± 0.042	0.245 ± 0.039	0.523 ± 0.193	0.146 ± 0.060	0.361 ± 0.244
<i>ecoli</i> -0-1-3-7- s_2 -6	0.775 ± 0.287	0.842 ± 0.256	0.544 ± 0.260	0.648 ± 0.273	0.802 ± 0.308	0.297 ± 0.239	0.725 ± 0.287	0.775 ± 0.287	0.283 ± 0.252	0.284 ± 0.098	0.408 ± 0.250
<i>glass</i> -0-1-6- s_2	0.294 ± 0.091	0.315 ± 0.098	0.276 ± 0.073	0.283 ± 0.081	0.285 ± 0.076	0.194 ± 0.057	0.292 ± 0.081	0.293 ± 0.093	0.260 ± 0.084	0.181 ± 0.089	0.262 ± 0.088
<i>glass</i> -0-1-6- s_2	0.837 ± 0.170	0.845 ± 0.198	0.837 ± 0.170	0.837 ± 0.170	0.840 ± 0.179	0.592 ± 0.267	0.837 ± 0.170	0.837 ± 0.170	0.836 ± 0.331	0.386 ± 0.134	0.465 ± 0.219
<i>glass2</i>	0.189 ± 0.107	0.210 ± 0.117	0.192 ± 0.106	0.185 ± 0.103	0.195 ± 0.107	0.218 ± 0.126	0.192 ± 0.112	0.188 ± 0.106	0.171 ± 0.126	0.147 ± 0.070	0.149 ± 0.073
<i>glass4</i>	0.768 ± 0.106	0.755 ± 0.111	0.749 ± 0.105	0.749 ± 0.105	0.782 ± 0.125	0.485 ± 0.113	0.770 ± 0.134	0.768 ± 0.106	0.741 ± 0.153	0.445 ± 0.230	0.738 ± 0.191
<i>glass5</i>	0.788 ± 0.151	0.823 ± 0.151	0.803 ± 0.139	0.803 ± 0.139	0.771 ± 0.179	0.454 ± 0.232	0.788 ± 0.151	0.788 ± 0.151	0.630 ± 0.202	0.566 ± 0.297	0.438 ± 0.245
<i>page-blacks</i> -1-3- s_4	0.650 ± 0.107	0.801 ± 0.131	0.658 ± 0.109	0.640 ± 0.112	0.637 ± 0.128	0.490 ± 0.089	0.613 ± 0.102	0.650 ± 0.107	0.516 ± 0.318	0.411 ± 0.263	0.584 ± 0.217
<i>yeast</i> -0-5-6-7-9- s_4	0.384 ± 0.063	0.448 ± 0.079	0.390 ± 0.066	0.410 ± 0.082	0.388 ± 0.083	0.391 ± 0.051	0.392 ± 0.073	0.381 ± 0.064	0.506 ± 0.106	0.096 ± 0.003	0.361 ± 0.142
<i>yeast</i> -1-2-8-9- s_7	0.072 ± 0.020	0.072 ± 0.023	0.070 ± 0.021	0.074 ± 0.028	0.088 ± 0.032	0.125 ± 0.029	0.071 ± 0.025	0.074 ± 0.020	0.236 ± 0.297	0.032 ± 0.000	0.121 ± 0.138
<i>yeast</i> -1-4-5-8- s_7	0.076 ± 0.024	0.080 ± 0.027	0.073 ± 0.021	0.070 ± 0.016	0.080 ± 0.023	0.095 ± 0.017	0.068 ± 0.014	0.076 ± 0.023	0.069 ± 0.038	0.044 ± 0.000	0.061 ± 0.011
<i>yeast</i> -1- s_7	0.194 ± 0.039	0.211 ± 0.044	0.193 ± 0.039	0.193 ± 0.038	0.190 ± 0.041	0.205 ± 0.054	0.184 ± 0.032	0.193 ± 0.040	0.356 ± 0.217	0.068 ± 0.007	0.266 ± 0.261
<i>yeast</i> -2- s_4	0.685 ± 0.065	0.710 ± 0.067	0.667 ± 0.066	0.683 ± 0.058	0.651 ± 0.089	0.641 ± 0.070	0.670 ± 0.063	0.689 ± 0.068	0.826 ± 0.137	0.291 ± 0.297	0.696 ± 0.104
<i>yeast</i> -2- s_8	0.429 ± 0.292	0.888 ± 0.121	0.451 ± 0.277	0.493 ± 0.285	0.518 ± 0.321	0.588 ± 0.095	0.355 ± 0.206	0.429 ± 0.292	0.617 ± 0.343	0.044 ± 0.004	0.433 ± 0.331
<i>yeast4</i>	0.201 ± 0.031	0.255 ± 0.033	0.204 ± 0.030	0.208 ± 0.030	0.207 ± 0.028	0.197 ± 0.036	0.205 ± 0.029	0.201 ± 0.031	0.387 ± 0.131	0.034 ± 0.001	0.211 ± 0.108
<i>yeast5</i>	0.502 ± 0.067	0.541 ± 0.081	0.502 ± 0.065	0.504 ± 0.072	0.515 ± 0.077	0.347 ± 0.043	0.502 ± 0.064	0.502 ± 0.067	0.555 ± 0.125	0.030 ± 0.000	0.445 ± 0.179
<i>yeast6</i>	0.306 ± 0.042	0.336 ± 0.045	0.309 ± 0.044	0.279 ± 0.039	0.320 ± 0.042	0.168 ± 0.014	0.297 ± 0.045	0.306 ± 0.042	0.464 ± 0.139	0.025 ± 0.003	0.359 ± 0.156
<i>ecoli</i> -0-1-4-7- s_2 -3-5-6	0.732 ± 0.067	0.814 ± 0.037	0.719 ± 0.057	0.733 ± 0.068	0.711 ± 0.099	0.588 ± 0.080	0.688 ± 0.108	0.732 ± 0.067	0.713 ± 0.140	0.191 ± 0.166	0.617 ± 0.182
<i>ecoli</i> -0-1- s_2 -3-5	0.777 ± 0.103	0.808 ± 0.090	0.790 ± 0.102	0.768 ± 0.123	0.810 ± 0.093	0.609 ± 0.131	0.739 ± 0.152	0.771 ± 0.105	0.755 ± 0.165	0.388 ± 0.291	0.628 ± 0.217
<i>ecoli</i> -0-2-6-7- s_3 -5	0.766 ± 0.189	0.863 ± 0.167	0.777 ± 0.212	0.813 ± 0.192	0.803 ± 0.216	0.619 ± 0.127	0.767 ± 0.173	0.766 ± 0.189	0.813 ± 0.154	0.245 ± 0.120	0.660 ± 0.198
<i>ecoli</i> -0-6-7- s_3 -5	0.805 ± 0.190	0.858 ± 0.147	0.768 ± 0.211	0.825 ± 0.180	0.813 ± 0.185	0.627 ± 0.161	0.800 ± 0.183	0.805 ± 0.190	0.817 ± 0.092	0.373 ± 0.306	0.691 ± 0.210
<i>ecoli</i> -0-6-7- s_3	0.786 ± 0.181	0.808 ± 0.179	0.813 ± 0.175	0.768 ± 0.203	0.772 ± 0.198	0.643 ± 0.152	0.771 ± 0.220	0.792 ± 0.178	0.831 ± 0.114	0.300 ± 0.328	0.809 ± 0.107
<i>glass</i> -0-1-4-6- s_2	0.253 ± 0.082	0.251 ± 0.122	0.237 ± 0.071	0.243 ± 0.096	0.228 ± 0.109	0.191 ± 0.071	0.243 ± 0.090	0.251 ± 0.083	0.127 ± 0.042	0.141 ± 0.041	0.140 ± 0.069
<i>glass</i> -0-1-5- s_2	0.278 ± 0.062	0.300 ± 0.086	0.278 ± 0.058	0.289 ± 0.055	0.325 ± 0.103	0.215 ± 0.090	0.270 ± 0.057	0.279 ± 0.061	0.246 ± 0.066	0.195 ± 0.121	0.201 ± 0.084
<i>yeast</i> -0-2-5-6- s_3 -7-8-9	0.503 ± 0.061	0.436 ± 0.085	0.489 ± 0.093	0.500 ± 0.067	0.494 ± 0.108	0.502 ± 0.076	0.485 ± 0.088	0.504 ± 0.061	0.449 ± 0.145	0.178 ± 0.155	0.439 ± 0.085
<i>yeast</i> -0-3-5-9- s_3 -8	0.272 ± 0.039	0.518 ± 0.126	0.256 ± 0.036	0.259 ± 0.040	0.263 ± 0.039	0.319 ± 0.082	0.272 ± 0.047	0.270 ± 0.042	0.251 ± 0.182	0.103 ± 0.008	0.187 ± 0.118
<i>abalone</i> -17- s_7 -8-9-10	0.174 ± 0.025	0.246 ± 0.055	0.172 ± 0.026	0.177 ± 0.029	0.183 ± 0.039	0.198 ± 0.041	0.174 ± 0.027	0.173 ± 0.025	0.244 ± 0.121	0.085 ± 0.062	0.111 ± 0.068
<i>abalone</i> -19- s_3 -0-11-12-13	0.051 ± 0.010	0.063 ± 0.028	0.052 ± 0.009	0.053 ± 0.008	0.057 ± 0.012	0.061 ± 0.018	0.051 ± 0.012	0.051 ± 0.010	0.063 ± 0.027	0.029 ± 0.007	0.032 ± 0.013
<i>abalone</i> -20- s_3 -9-10	0.189 ± 0.054	0.234 ± 0.049	0.191 ± 0.056	0.188 ± 0.052	0.202 ± 0.048	0.173 ± 0.027	0.182 ± 0.048	0.189 ± 0.055	0.266 ± 0.146	0.050 ± 0.017	0.153 ± 0.099
<i>abalone</i> -21- s_3	0.466 ± 0.088	0.623 ± 0.171	0.452 ± 0.101	0.441 ± 0.083	0.463 ± 0.101	0.454 ± 0.112	0.462 ± 0.117	0.472 ± 0.084	0.414 ± 0.169	0.268 ± 0.209	0.497 ± 0.170
<i>flare</i> -F	0.166 ± 0.019	0.305 ± 0.056	0.137 ± 0.021	0.173 ± 0.021	0.161 ± 0.022	0.197 ± 0.033	0.169 ± 0.025	0.166 ± 0.019	0.137 ± 0.039	0.051 ± 0.018	0.182 ± 0.084
<i>kidcup-buffer-ver</i>	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.988 ± 0.035	0.988 ± 0.035
<i>kidcup-rookit</i>	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.992 ± 0.025	0.992 ± 0.025
<i>kr-es-k-zero</i>	0.785 ± 0.139	0.787 ± 0.141	0.785 ± 0.139	0.781 ± 0.142	0.796 ± 0.151	0.504 ± 0.082	0.799 ± 0.143	0.785 ± 0.139	0.262 ± 0.159	0.044 ± 0.014	0.409 ± 0.392
<i>poker</i> -8-9- s_3	0.068 ± 0.025	0.079 ± 0.047	0.065 ± 0.020	0.063 ± 0.021	0.079 ± 0.033	0.060 ± 0.028	0.067 ± 0.015	0.068 ± 0.025	0.084 ± 0.091	0.021 ± 0.013	0.036 ± 0.025
<i>poker</i> -8-9- s_3	0.358 ± 0.068	0.969 ± 0.062	0.358 ± 0.068	0.940 ± 0.105	0.879 ± 0.146	0.541 ± 0.085	0.887 ± 0.150	0.958 ± 0.068	0.941 ± 0.176	0.941 ± 0.176	0.941 ± 0.176
<i>poker</i> -8- s_3	0.942 ± 0.092	0.910 ± 0.111	0.942 ± 0.092	0.917 ± 0.105	0.965 ± 0.149	0.579 ± 0.135	0.942 ± 0.092	0.942 ± 0.092	0.933 ± 0.200	1.000 ± 0.000	0.901 ± 0.296
<i>poker</i> -9- s_7	0.617 ± 0.435	0.617 ± 0.435	0.617 ± 0.435	0.617 ± 0.435	0.617 ± 0.435	0.617 ± 0.435	0.617 ± 0.435	0.617 ± 0.435	0.613 ± 0.474	0.459 ± 0.450	0.369 ± 0.424
<i>winequality-red</i> -3- s_3	0.068 ± 0.080	0.079 ± 0.088	0.067 ± 0.080	0.067 ± 0.080	0.071 ± 0.082	0.153 ± 0.107	0.094 ± 0.094	0.068 ± 0.080	0.052 ± 0.072	0.029 ± 0.025	0.024 ± 0.024
<i>winequality-red</i> -4	0.102 ± 0.010	0.108 ± 0.017	0.100 ± 0.008	0.105 ± 0.010	0.107 ± 0.019	0.125 ± 0.033	0.105 ± 0.008	0.102 ± 0.009	0.076 ± 0.042	0.049 ± 0.011	0.074 ± 0.019
<i>winequality-red</i> -8- s_3 -7	0.058 ± 0.028	0.060 ± 0.029	0.058 ± 0.027	0.051 ± 0.039	0.038 ± 0.024		0.055 ± 0.029	0.058 ± 0.028	0.033 ± 0.021	0.024 ± 0.017	0.040 ± 0.022
<i>winequality-red</i> -8- s_3	0.122 ± 0.019	0.122 ± 0.019	0.123 ± 0.019	0.151 ± 0.030	0.095 ± 0.031		0.132 ± 0.032	0.122 ± 0.019	0.102 ± 0.038	0.069 ± 0.030	0.106 ± 0.059
<i>winequality-white</i> -3-9- s_3	0.054 ± 0.028	0.039 ± 0.037	0.049 ± 0.028	0.053 ± 0.027	0.065 ± 0.044	0.172 ± 0.066	0.052 ± 0.029	0.054 ± 0.028	0.068 ± 0.095	0.020 ± 0.008	0.049 ± 0.034
<i>winequality-white</i> -3- s_3	0.051 ± 0.044	0.054 ± 0.056	0.061 ± 0.047	0.038 ± 0.045	0.089 ± 0.059	0.430 ± 0.151	0.062 ± 0.046	0.051 ± 0.044	0.055 ± 0.032	0.049 ± 0.027	0.067 ± 0.029
<i>winequality-white</i> -9- s_4	0.900 ± 0.213	0.900 ± 0.213	0.900 ± 0.213	0.433 ± 0.473	0.917 ± 0.171	0.308 ± 0.384	0.900 ± 0.213	0.900 ± 0.213	0.190 ± 0.166	0.190 ± 0.166	0.190 ± 0.166
<i>zoo</i> -3- 0.317 ± 0.411	0.317 ± 0.411	0.317 ± 0.411	0.317 ± 0.411	0.317 ± 0.411	0.317 ± 0.411	0.317 ± 0.411	0.317 ± 0.411	0.317 ± 0.411	0.122 ± 0.191	0.122 ± 0.191	0.000 ± 0.000
<i>ecoli1</i>	0.679 ± 0.037	0.789 ± 0.050	0.690 ± 0.026	0.695 ± 0.031	0.693 ± 0.045	0.652 ± 0.031	0.681 ± 0.036	0.678 ± 0.035	0.637 ± 0.025	0.320 ± 0.184	0.000 ± 0.000
<i>ecoli2</i>	0.833 ± 0.047	0.859 ± 0.042	0.837 ± 0.050	0.845 ± 0.053	0.839 ± 0.050	0.790 ± 0.065	0.834 ± 0.055	0.837 ± 0.055	0.637 ± 0.177	0.286 ± 0.220	0.000 ± 0.000
<i>ecoli3</i>	0.504 ± 0.032	0.555 ± 0.052	0.494 ± 0.027	0.531 ± 0.049	0.503 ± 0.032	0.447 ± 0.037	0.506 ± 0.039	0.507 ± 0.031	0.519 ± 0.081	0.178 ± 0.122	0.000 ± 0.000
<i>glass0</i>	0.585 ± 0.058	0.636 ± 0.050	0.594 ± 0.057	0.579 ± 0.064	0.607 ± 0.065	0.573 ± 0.069	0.600 ± 0.056	0.582 ± 0.057	0.519 ± 0.043	0.492 ± 0.070	0.000 ± 0.000
<i>glass1</i>	0.550 ± 0.062	0.528 ± 0.056	0.542 ± 0.069	0.548 ± 0.060	0.555 ± 0.074	0.555 ± 0.076	0.555 ± 0.077	0.552 ± 0.068	0.578 ± 0.103	0.414 ± 0.041	0.000 ± 0.000
<i>haberman</i>	0.421 ± 0.064	0.507 ± 0.059	0.428 ± 0.049	0.382 ± 0.047	0.400 ± 0.048	0.455 ± 0.046	0.409 ± 0.055	0.419 ± 0.055	0.444 ± 0.039	0.341 ± 0.118	0.000 ± 0.000
<i>page-black0</i>	0.664 ± 0.017	0.801 ± 0.026	0.667 ± 0.019	0.690 ± 0.023	0.668 ± 0.016	0.778 ± 0.044	0.659 ± 0.016	0.664 ± 0.017	0.637 ± 0.045	0.393 ± 0.083	0.000 ± 0.000
<i>pinna</i>	0.600 ± 0.040	0.640 ± 0.033	0.606 ± 0.030	0.607 ± 0.031	0.604 ± 0.039	0.620 ± 0.032	0.608 ± 0.035	0.600 ± 0.040	0.670 ± 0.049	0.471 ± 0.032	0.000 ± 0.000
<i>vehicle1</i>	0.538 ± 0.022	0.593 ± 0.033	0.538 ± 0.027	0.542 ± 0.028	0.548 ± 0.028	0.541 ± 0.025	0.544 ± 0.025	0.540 ± 0.022	0.594 ± 0.044	0.518	

Table 15. KNN – Recall

Dataset name	SMOTE	polynom-Rt-SMOTE	Lee	SMOBD	G-SMOTE	LVQ-SMOTE	Assembled-SMOTE	SMOTE-TomekLinks	JFOTS-pr	JFOTS-re	JFOTS-prom
<i>abalone</i> – 19	0.200 ± 0.139	0.062 ± 0.056	0.200 ± 0.139	0.200 ± 0.139	0.138 ± 0.087	0.175 ± 0.092	0.194 ± 0.126	0.200 ± 0.139	0.062 ± 0.062	0.033 ± 0.025	0.169 ± 0.128
<i>abalone</i> – 18	0.543 ± 0.068	0.486 ± 0.090	0.531 ± 0.076	0.524 ± 0.088	0.486 ± 0.106	0.462 ± 0.083	0.529 ± 0.086	0.543 ± 0.068	0.305 ± 0.140	0.186 ± 0.166	0.314 ± 0.109
<i>ecoli</i> – 0 – 1 – 3 – 7 – 9	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.700 ± 0.155	0.642 ± 0.224	0.642 ± 0.224	0.675 ± 0.199
<i>glass</i> – 0 – 1 – 6	0.850 ± 0.196	0.531 ± 0.083	0.587 ± 0.145	0.589 ± 0.143	0.544 ± 0.110	0.497 ± 0.142	0.603 ± 0.145	0.600 ± 0.142	0.414 ± 0.098	0.314 ± 0.207	0.431 ± 0.195
<i>glass</i> – 0 – 1 – 6	0.850 ± 0.196	0.850 ± 0.196	0.850 ± 0.196	0.850 ± 0.196	0.810 ± 0.270	0.810 ± 0.246	0.850 ± 0.196	0.850 ± 0.196	0.790 ± 0.237	0.725 ± 0.386	0.640 ± 0.322
<i>glass2</i> – 0.424 ± 0.259	0.426 ± 0.270	0.436 ± 0.310	0.460 ± 0.292	0.411 ± 0.280	0.438 ± 0.236	0.435 ± 0.303	0.424 ± 0.259	0.424 ± 0.259	0.424 ± 0.200	0.265 ± 0.236	0.318 ± 0.159
<i>glass2</i> – 0.850 ± 0.111	0.850 ± 0.134	0.850 ± 0.134	0.802 ± 0.114	0.819 ± 0.105	0.805 ± 0.132	0.783 ± 0.078	0.833 ± 0.099	0.850 ± 0.111	0.674 ± 0.122	0.555 ± 0.299	0.550 ± 0.139
<i>glass5</i> – 0.885 ± 0.226	0.885 ± 0.226	0.885 ± 0.226	0.865 ± 0.241	0.885 ± 0.226	0.865 ± 0.221	0.780 ± 0.212	0.885 ± 0.226	0.885 ± 0.226	0.670 ± 0.241	0.775 ± 0.287	0.700 ± 0.273
<i>page – blacks</i> – 1 – 3	0.986 ± 0.043	0.979 ± 0.046	0.986 ± 0.043	0.986 ± 0.043	0.914 ± 0.188	0.986 ± 0.029	0.971 ± 0.047	0.986 ± 0.043	0.786 ± 0.207	0.707 ± 0.158	0.793 ± 0.222
<i>yeast</i> – 0 – 5 – 6 – 7 – 9	0.627 ± 0.078	0.604 ± 0.090	0.608 ± 0.086	0.604 ± 0.085	0.596 ± 0.108	0.592 ± 0.081	0.576 ± 0.069	0.600 ± 0.090	0.388 ± 0.134	0.000 ± 0.000	0.385 ± 0.139
<i>yeast</i> – 1 – 2 – 8 – 9	0.500 ± 0.100	0.493 ± 0.095	0.493 ± 0.085	0.480 ± 0.088	0.400 ± 0.133	0.453 ± 0.111	0.487 ± 0.108	0.500 ± 0.100	0.213 ± 0.093	0.000 ± 0.000	0.173 ± 0.100
<i>yeast</i> – 1 – 4 – 5 – 8	0.407 ± 0.081	0.340 ± 0.125	0.413 ± 0.083	0.367 ± 0.100	0.280 ± 0.102	0.333 ± 0.079	0.393 ± 0.081	0.407 ± 0.076	0.127 ± 0.096	0.000 ± 0.000	0.100 ± 0.131
<i>yeast</i> – 1	0.620 ± 0.073	0.600 ± 0.079	0.627 ± 0.060	0.647 ± 0.085	0.547 ± 0.107	0.540 ± 0.076	0.580 ± 0.099	0.620 ± 0.073	0.260 ± 0.092	0.000 ± 0.000	0.180 ± 0.171
<i>yeast</i> – 2	0.792 ± 0.071	0.784 ± 0.082	0.788 ± 0.077	0.792 ± 0.070	0.800 ± 0.069	0.777 ± 0.065	0.800 ± 0.067	0.792 ± 0.071	0.698 ± 0.096	0.214 ± 0.329	0.690 ± 0.097
<i>yeast</i> – 2	0.700 ± 0.134	0.650 ± 0.102	0.690 ± 0.122	0.700 ± 0.134	0.670 ± 0.110	0.680 ± 0.125	0.700 ± 0.134	0.700 ± 0.134	0.580 ± 0.087	0.070 ± 0.210	0.640 ± 0.143
<i>yeast4</i> – 0.537 ± 0.057	0.537 ± 0.075	0.537 ± 0.057	0.533 ± 0.062	0.490 ± 0.072	0.548 ± 0.098	0.514 ± 0.082	0.537 ± 0.057	0.537 ± 0.057	0.340 ± 0.072	0.000 ± 0.000	0.313 ± 0.112
<i>yeast5</i> – 0.886 ± 0.077	0.864 ± 0.073	0.877 ± 0.076	0.873 ± 0.073	0.845 ± 0.071	0.914 ± 0.103	0.886 ± 0.071	0.886 ± 0.077	0.886 ± 0.077	0.745 ± 0.115	0.000 ± 0.000	0.650 ± 0.261
<i>yeast6</i> – 0.687 ± 0.094	0.675 ± 0.080	0.687 ± 0.094	0.687 ± 0.094	0.670 ± 0.096	0.766 ± 0.073	0.687 ± 0.094	0.687 ± 0.094	0.687 ± 0.094	0.482 ± 0.147	0.000 ± 0.000	0.576 ± 0.081
<i>ecoli</i> – 0 – 1 – 4 – 7	0.834 ± 0.034	0.802 ± 0.140	0.817 ± 0.052	0.802 ± 0.140	0.783 ± 0.078	0.662 ± 0.147	0.817 ± 0.052	0.802 ± 0.140	0.536 ± 0.185	0.493 ± 0.275	0.502 ± 0.232
<i>ecoli</i> – 0 – 1	0.834 ± 0.034	0.806 ± 0.056	0.827 ± 0.048	0.813 ± 0.048	0.834 ± 0.049	0.826 ± 0.060	0.834 ± 0.034	0.834 ± 0.034	0.402 ± 0.247	0.179 ± 0.222	0.665 ± 0.178
<i>ecoli</i> – 0 – 1	0.834 ± 0.034	0.808 ± 0.065	0.800 ± 0.067	0.800 ± 0.067	0.792 ± 0.067	0.800 ± 0.076	0.817 ± 0.073	0.808 ± 0.065	0.658 ± 0.209	0.417 ± 0.348	0.700 ± 0.119
<i>ecoli</i> – 0 – 2 – 6 – 7	0.497 ± 0.184	0.736 ± 0.118	0.755 ± 0.129	0.736 ± 0.118	0.755 ± 0.129	0.764 ± 0.093	0.745 ± 0.114	0.745 ± 0.114	0.636 ± 0.081	0.245 ± 0.279	0.727 ± 0.070
<i>ecoli</i> – 0 – 6 – 7	0.497 ± 0.184	0.764 ± 0.109	0.773 ± 0.124	0.764 ± 0.109	0.755 ± 0.129	0.745 ± 0.106	0.764 ± 0.109	0.764 ± 0.109	0.645 ± 0.111	0.273 ± 0.293	0.655 ± 0.145
<i>ecoli</i> – 0 – 6 – 7	0.497 ± 0.184	0.780 ± 0.125	0.790 ± 0.104	0.790 ± 0.122	0.790 ± 0.104	0.810 ± 0.094	0.790 ± 0.104	0.790 ± 0.104	0.680 ± 0.140	0.230 ± 0.257	0.760 ± 0.143
<i>glass</i> – 0 – 1 – 4 – 6	0.497 ± 0.184	0.472 ± 0.166	0.496 ± 0.198	0.496 ± 0.198	0.424 ± 0.191	0.399 ± 0.126	0.474 ± 0.204	0.485 ± 0.179	0.243 ± 0.169	0.268 ± 0.258	0.261 ± 0.213
<i>glass</i> – 0 – 1 – 5	0.497 ± 0.184	0.561 ± 0.115	0.597 ± 0.137	0.562 ± 0.131	0.514 ± 0.158	0.460 ± 0.120	0.575 ± 0.123	0.574 ± 0.135	0.485 ± 0.172	0.322 ± 0.314	0.344 ± 0.209
<i>yeast</i> – 0 – 2 – 5 – 6	0.497 ± 0.184	0.693 ± 0.057	0.707 ± 0.057	0.697 ± 0.052	0.681 ± 0.063	0.649 ± 0.056	0.699 ± 0.061	0.699 ± 0.071	0.405 ± 0.157	0.092 ± 0.126	0.424 ± 0.076
<i>yeast</i> – 0 – 3 – 5 – 9	0.497 ± 0.184	0.492 ± 0.059	0.540 ± 0.070	0.520 ± 0.076	0.520 ± 0.076	0.501 ± 0.108	0.520 ± 0.067	0.540 ± 0.068	0.229 ± 0.138	0.068 ± 0.024	0.216 ± 0.172
<i>abalone</i> – 17	0.87 ± 8 – 9 – 10	0.559 ± 0.092	0.566 ± 0.094	0.552 ± 0.094	0.466 ± 0.089	0.531 ± 0.097	0.545 ± 0.088	0.559 ± 0.092	0.224 ± 0.069	0.210 ± 0.175	0.262 ± 0.154
<i>abalone</i> – 19	0.87 ± 11 – 12 – 13	0.281 ± 0.085	0.287 ± 0.094	0.294 ± 0.105	0.188 ± 0.097	0.237 ± 0.092	0.250 ± 0.101	0.281 ± 0.085	0.112 ± 0.073	0.138 ± 0.142	0.150 ± 0.135
<i>abalone</i> – 20	0.87 ± 9 – 10	0.536 ± 0.052	0.554 ± 0.132	0.562 ± 0.142	0.362 ± 0.119	0.469 ± 0.116	0.523 ± 0.175	0.531 ± 0.126	0.285 ± 0.119	0.115 ± 0.180	0.338 ± 0.134
<i>abalone</i> – 21	0.886 ± 0.178	0.557 ± 0.162	0.657 ± 0.159	0.657 ± 0.159	0.614 ± 0.170	0.614 ± 0.129	0.671 ± 0.170	0.686 ± 0.178	0.429 ± 0.202	0.357 ± 0.241	0.429 ± 0.181
<i>flare</i> – F	0.465 ± 0.092	0.415 ± 0.079	0.460 ± 0.103	0.465 ± 0.091	0.410 ± 0.094	0.470 ± 0.081	0.465 ± 0.081	0.465 ± 0.092	0.111 ± 0.080	0.009 ± 0.018	0.148 ± 0.114
<i>kidcup – buffer,overflow,pack</i>	0.913 ± 0.095	0.913 ± 0.095	0.913 ± 0.095	0.913 ± 0.095	0.893 ± 0.100	0.920 ± 0.083	0.893 ± 0.085	0.913 ± 0.095	0.913 ± 0.080	0.913 ± 0.090	0.913 ± 0.090
<i>kidcup – rootkit – insip,pack</i>	0.945 ± 0.045	0.927 ± 0.079	0.945 ± 0.045	0.945 ± 0.045	0.909 ± 0.091	0.891 ± 0.055	0.909 ± 0.100	0.945 ± 0.045	0.927 ± 0.079	0.927 ± 0.079	0.927 ± 0.079
<i>kr – es – k – zero,night</i>	0.887 ± 0.098	0.865 ± 0.105	0.895 ± 0.098	0.895 ± 0.098	0.857 ± 0.121	0.895 ± 0.124	0.864 ± 0.118	0.887 ± 0.098	0.520 ± 0.329	0.000 ± 0.000	0.503 ± 0.353
<i>poker – 8 – 9</i>	0.265 ± 0.121	0.177 ± 0.072	0.280 ± 0.135	0.263 ± 0.127	0.119 ± 0.092	0.373 ± 0.103	0.272 ± 0.129	0.265 ± 0.121	0.112 ± 0.138	0.038 ± 0.079	0.121 ± 0.156
<i>poker – 8 – 9</i>	0.265 ± 0.121	0.841 ± 0.068	0.919 ± 0.081	0.919 ± 0.081	0.823 ± 0.110	0.983 ± 0.050	0.896 ± 0.063	0.920 ± 0.081	0.975 ± 0.075	0.952 ± 0.096	0.952 ± 0.096
<i>poker – 8</i>	0.265 ± 0.121	0.910 ± 0.120	0.910 ± 0.120	0.910 ± 0.120	0.788 ± 0.197	0.989 ± 0.053	0.887 ± 0.157	0.910 ± 0.120	0.812 ± 0.244	0.863 ± 0.225	0.728 ± 0.334
<i>poker – 9</i>	0.700 ± 0.312	0.700 ± 0.312	0.700 ± 0.312	0.700 ± 0.312	0.650 ± 0.278	0.600 ± 0.255	0.675 ± 0.297	0.700 ± 0.312	0.600 ± 0.450	0.625 ± 0.375	0.475 ± 0.378
<i>winequality – red – 3</i>	0.200 ± 0.126	0.180 ± 0.108	0.200 ± 0.126	0.200 ± 0.126	0.180 ± 0.108	0.200 ± 0.126	0.180 ± 0.108	0.200 ± 0.126	0.120 ± 0.133	0.020 ± 0.060	0.160 ± 0.120
<i>winequality – red – 4</i>	0.317 ± 0.059	0.317 ± 0.044	0.390 ± 0.072	0.384 ± 0.059	0.328 ± 0.047	0.317 ± 0.052	0.317 ± 0.052	0.317 ± 0.052	0.124 ± 0.064	0.083 ± 0.110	0.200 ± 0.093
<i>winequality – red – 8</i>	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.144 ± 0.132	0.122 ± 0.144	0.133 ± 0.083
<i>winequality – red – 8</i>	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.312 ± 0.076	0.256 ± 0.122	0.233 ± 0.168	0.300 ± 0.105
<i>winequality – white – 3</i>	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.068	0.121 ± 0.100	0.089 ± 0.068	0.184 ± 0.167
<i>winequality – white – 3</i>	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.068	0.629 ± 0.060	0.571 ± 0.260	0.000 ± 0.000
<i>winequality – white – 3</i>	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.076	0.313 ± 0.068	0.303 ± 0.061	0.313 ± 0.152	0.000 ± 0.000
<i>winequality – white – 9</i>	0.800 ± 0.208	0.800 ± 0.208	0.800 ± 0.208	0.800 ± 0.208	0.800 ± 0.208	0.800 ± 0.208	0.800 ± 0.208	0.800 ± 0.208	0.517 ± 0.391	0.517 ± 0.391	0.517 ± 0.391
<i>ecoli1</i> – 0.837 ± 0.048	0.829 ± 0.056	0.847 ± 0.055	0.845 ± 0.053	0.850 ± 0.054	0.837 ± 0.063	0.839 ± 0.067	0.839 ± 0.067	0.844 ± 0.043	0.721 ± 0.127	0.146 ± 0.292	0.000 ± 0.000
<i>ecoli2</i> – 0.908 ± 0.062	0.904 ± 0.067	0.908 ± 0.062	0.908 ± 0.062	0.904 ± 0.065	0.908 ± 0.049	0.908 ± 0.062	0.908 ± 0.062	0.908 ± 0.062	0.758 ± 0.139	0.186 ± 0.299	0.000 ± 0.000
<i>ecoli3</i> – 0.840 ± 0.053	0.817 ± 0.041	0.846 ± 0.035	0.823 ± 0.039	0.806 ± 0.067	0.835 ± 0.063	0.828 ± 0.037	0.840 ± 0.023	0.840 ± 0.023	0.670 ± 0.114	0.185 ± 0.288	0.000 ± 0.000
<i>glass0</i> – 0.854 ± 0.052	0.874 ± 0.053	0.851 ± 0.061	0.866 ± 0.057	0.863 ± 0.052	0.843 ± 0.052	0.869 ± 0.060	0.871 ± 0.041	0.803 ± 0.104	0.657 ± 0.241	0.000 ± 0.000	0.000 ± 0.000
<i>glass1</i> – 0.732 ± 0.076	0.758 ± 0.069	0.729 ± 0.063	0.732 ± 0.067	0.718 ± 0.068	0.708 ± 0.057	0.726 ± 0.054	0.732 ± 0.085	0.732 ± 0.085	0.508 ± 0.060	0.671 ± 0.065	0.000 ± 0.000
<i>haberman</i> – 0.546 ± 0.083	0.502 ± 0.096	0.536 ± 0.127	0.516 ± 0.078	0.486 ± 0.090	0.469 ± 0.090	0.509 ± 0.091	0.548 ± 0.073	0.548 ± 0.073	0.303 ± 0.061	0.313 ± 0.152	0.000 ± 0.000
<i>page – black0</i> – 0.896 ± 0.023	0.846 ± 0.025	0.893 ± 0.026	0.875 ± 0.027	0.883 ± 0.024	0.789 ± 0.032	0.901 ± 0.021	0.897 ± 0.023	0.810 ± 0.041	0.841 ± 0.025	0.000 ± 0.000	