Dataset	3	4	5	6	7	8
wine	0.048 ± 0.020	$0.046\pm0.018(=)$	$0.045\pm0.019(=)$	$0.057\pm0.022(=)$	$0.051\pm0.022(=)$	$0.051\pm0.019(=)$
australian	0.020 ± 0.009	$0.017\pm0.004(=)$	$0.021\pm0.011(=)$	$0.017\pm0.004(=)$	$0.016\pm0.005(=)$	$0.021\pm0.010(=)$
vehicle	0.027 ± 0.023	$0.028\pm0.020(=)$	0.050±0.015(-)	$0.033\pm0.026(=)$	$0.038\pm0.021(=)$	$0.037\pm0.020(=)$
german	0.015 ± 0.005	$0.017\pm0.007(=)$	$0.018\pm0.010(=)$	$0.016\pm0.010(=)$	$0.014\pm0.009(=)$	$0.018\pm0.008(=)$
wbcd	0.032 ± 0.012	$0.037\pm0.007(=)$	$0.036\pm0.008(=)$	$0.038\pm0.010(=)$	$0.038\pm0.007(=)$	$0.033\pm0.013(=)$
ionosphere	0.010 ± 0.003	$0.011\pm0.006(=)$	$0.011\pm0.002(=)$	$0.008\pm0.006(=)$	$0.010\pm0.006(=)$	$0.008\pm0.005(=)$
sonar	0.018 ± 0.006	$0.018\pm0.006(=)$	$0.018\pm0.006(=)$	$0.018\pm0.006(=)$	$0.019\pm0.006(=)$	$0.019\pm0.006(=)$
hillvalley	0.005 ± 0.001	$0.005\pm0.001(=)$	$0.005\pm0.001(=)$	$0.005\pm0.001(=)$	$0.005\pm0.001(=)$	$0.005\pm0.001(=)$
musk1	0.006 ± 0.001	$0.006\pm0.001(=)$	$0.006\pm0.001(=)$	$0.006\pm0.001(=)$	$0.006\pm0.001(=)$	$0.006\pm0.001(=)$
arrhythmia	0.004 ± 0.001	$0.004\pm0.001(=)$	$0.004\pm0.001(=)$	$0.004\pm0.001(=)$	$0.004\pm0.001(=)$	$0.004\pm0.001(=)$
madelon	0.005 ± 0.001	$0.005\pm0.001(=)$	$0.005\pm0.001(=)$	$0.005\pm0.001(=)$	$0.005\pm0.001(=)$	$0.005\pm0.001(=)$
isolet5	0.002 ± 0.001	$0.002\pm0.001(=)$	$0.002\pm0.001(=)$	$0.002\pm0.001(=)$	$0.002\pm0.001(=)$	$0.002\pm0.001(=)$

Table 1: IGD training

Dataset	3	4	5	6	7	8
wine	0.006 ± 0.011	$0.007\pm0.011(=)$	$0.001\pm0.002(=)$	$0.011\pm0.012(=)$	$0.005\pm0.008(=)$	$0.007\pm0.010(=)$
australian	0.039 ± 0.005	$0.038\pm0.003(=)$	$0.037\pm0.004(=)$	$0.038\pm0.003(=)$	$0.039\pm0.006(=)$	$0.038\pm0.003(=)$
vehicle	0.044 ± 0.026	$0.048\pm0.024(=)$	$0.067\pm0.023(=)$	$0.061\pm0.026(=)$	$0.063\pm0.024(=)$	$0.054\pm0.024(=)$
german	0.050 ± 0.011	$0.054\pm0.007(=)$	$0.049\pm0.018(=)$	$0.041\pm0.018(=)$	$0.051\pm0.014(=)$	$0.052\pm0.014(=)$
wbcd	0.009 ± 0.010	$0.005\pm0.008(=)$	$0.007\pm0.009(=)$	$0.002\pm0.003(=)$	$0.005\pm0.008(=)$	$0.004\pm0.007(=)$
ionosphere	0.032 ± 0.003	$0.033\pm0.006(=)$	$0.038\pm0.009(=)$	$0.035\pm0.008(=)$	$0.034\pm0.009(=)$	$0.034\pm0.005(=)$
sonar	0.026 ± 0.009	$0.026\pm0.009(=)$	$0.026\pm0.009(=)$	$0.026\pm0.009(=)$	$0.038\pm0.016(=)$	$0.041\pm0.015(=)$
hillvalley	0.026 ± 0.010	$0.026\pm0.010(=)$	$0.026\pm0.010(=)$	$0.026\pm0.010(=)$	$0.026\pm0.010(=)$	$0.026\pm0.010(=)$
musk1	0.024 ± 0.008	$0.024\pm0.008(=)$	$0.024\pm0.008(=)$	$0.024\pm0.008(=)$	$0.024\pm0.008(=)$	$0.024\pm0.008(=)$
arrhythmia	0.000 ± 0.000	$0.000\pm0.000(=)$	$0.000\pm0.000(=)$	$0.000\pm0.000(=)$	$0.000\pm0.000(=)$	$0.000\pm0.000(=)$
madelon	0.006 ± 0.001	$0.006\pm0.001(=)$	$0.006\pm0.001(=)$	$0.006\pm0.001(=)$	$0.006\pm0.001(=)$	$0.006\pm0.001(=)$
isolet5	0.003 ± 0.001	$0.003\pm0.001(=)$	$0.003\pm0.001(=)$	$0.003\pm0.001(=)$	$0.003\pm0.001(=)$	$0.003\pm0.001(=)$

Table 2: IGD testing

Dataset	3	4	5	6	7	8
wine	0.878 ± 0.005	$0.878\pm0.002(=)$	$0.880\pm0.001(=)$	0.875±0.007(-)	$0.878\pm0.005(=)$	$0.878\pm0.005(=)$
australian	0.772 ± 0.013	$0.775\pm0.004(=)$	$0.775\pm0.005(=)$	$0.776\pm0.004(=)$	$0.774\pm0.006(=)$	$0.775\pm0.004(=)$
vehicle	0.801 ± 0.005	$0.794\pm0.008(=)$	$0.800\pm0.008(=)$	$0.799 \pm 0.006(=)$	$0.797 \pm 0.006(=)$	$0.798\pm0.008(=)$
german	0.718 ± 0.010	$0.720\pm0.009(=)$	$0.713\pm0.011(=)$	$0.717\pm0.013(=)$	$0.721\pm0.009(=)$	$0.713\pm0.010(=)$
wbcd	0.921 ± 0.005	$0.922\pm0.000(=)$	$0.922\pm0.000(=)$	$0.922\pm0.000(=)$	$0.922\pm0.000(=)$	$0.923\pm0.002(=)$
ionosphere	0.897 ± 0.009	$0.897\pm0.008(=)$	$0.895\pm0.004(=)$	$0.896\pm0.013(=)$	$0.897 \pm 0.012(=)$	$0.902\pm0.007(=)$
sonar	0.871 ± 0.009	$0.871\pm0.009(=)$	$0.871\pm0.009(=)$	$0.871\pm0.009(=)$	$0.874\pm0.006(=)$	$0.877 \pm 0.014(=)$
hillvalley	0.591 ± 0.005	$0.591\pm0.005(=)$	$0.591\pm0.005(=)$	$0.591\pm0.005(=)$	$0.591\pm0.005(=)$	$0.591\pm0.005(=)$
musk1	0.912 ± 0.007	$0.912\pm0.007(=)$	$0.912\pm0.007(=)$	$0.912\pm0.007(=)$	$0.912\pm0.007(=)$	$0.912\pm0.007(=)$
arrhythmia	0.954 ± 0.002	$0.954\pm0.002(=)$	$0.954\pm0.002(=)$	$0.954\pm0.002(=)$	$0.954\pm0.002(=)$	$0.954\pm0.002(=)$
madelon	0.877 ± 0.007	$0.877\pm0.007(=)$	$0.877\pm0.007(=)$	$0.877\pm0.007(=)$	$0.877 \pm 0.007(=)$	$0.877 \pm 0.007(=)$
isolet5	0.985 ± 0.000	$0.985 \pm 0.000(=)$				

Table 3: Volumes training

Dataset	3	4	5	6	7	8
wine	0.843 ± 0.008	$0.844\pm0.006(=)$	$0.847\pm0.001(=)$	$0.840\pm0.009(=)$	$0.845\pm0.006(=)$	$0.844\pm0.006(=)$
australian	0.767 ± 0.021	$0.776\pm0.006(=)$	$0.779\pm0.008(=)$	$0.778\pm0.006(=)$	$0.767\pm0.025(=)$	$0.773\pm0.007(=)$
vehicle	0.812 ± 0.004	$0.808\pm0.008(=)$	$0.810\pm0.004(=)$	$0.811\pm0.001(=)$	$0.812\pm0.003(=)$	$0.807\pm0.009(=)$
german	0.693 ± 0.017	$0.699\pm0.003(=)$	$0.694 \pm 0.024(=)$	$0.705\pm0.011(+)$	$0.698\pm0.020(=)$	$0.701\pm0.009(=)$
wbcd	0.913 ± 0.013	$0.919\pm0.001(=)$	$0.918\pm0.001(=)$	$0.918\pm0.003(=)$	$0.919\pm0.001(=)$	$0.919\pm0.001(=)$
ionosphere	0.857 ± 0.014	$0.858\pm0.018(=)$	0.838±0.021(-)	$0.855\pm0.022(=)$	$0.853\pm0.030(=)$	$0.854\pm0.016(=)$
sonar	0.716 ± 0.018	$0.716\pm0.018(=)$	$0.716\pm0.018(=)$	$0.716\pm0.018(=)$	$0.688\pm0.048(=)$	0.673±0.042(-)
hillvalley	0.548 ± 0.017	$0.548 \pm 0.017 (=)$	$0.548 \pm 0.017(=)$			
musk1	0.840 ± 0.015	$0.840\pm0.015(=)$	$0.840\pm0.015(=)$	$0.840\pm0.015(=)$	$0.840\pm0.015(=)$	$0.840\pm0.015(=)$
arrhythmia	0.956 ± 0.000	$0.956\pm0.000(=)$	$0.956\pm0.000(=)$	$0.956\pm0.000(=)$	$0.956\pm0.000(=)$	$0.956\pm0.000(=)$
madelon	0.852 ± 0.008	$0.852\pm0.008(=)$	$0.852\pm0.008(=)$	$0.851\pm0.007(=)$	$0.852\pm0.008(=)$	$0.852\pm0.008(=)$
isolet5	0.984 ± 0.001	$0.984\pm0.001(=)$	$0.984\pm0.001(=)$	$0.984\pm0.001(=)$	$0.984\pm0.001(=)$	$0.984 \pm 0.001(=)$

Table 4: Volumes testing