

| Dataset    |      | #Bits             |                   |                   |                   |                   |
|------------|------|-------------------|-------------------|-------------------|-------------------|-------------------|
|            |      | 4                 | 8                 | 16                | 32                | 64*               |
| Splice     | Base | 92.69 $\pm$ 1.37  | 94.03 $\pm$ 0.59  | 94.36 $\pm$ 0.71  | 94.36 $\pm$ 0.71  | 94.36 $\pm$ 0.71  |
|            | Log. | 93.35 $\pm$ 0.64  | 94.09 $\pm$ 0.63  | 94.56 $\pm$ 0.66  | 94.56 $\pm$ 0.66  | 94.53 $\pm$ 0.67  |
| Waveform   | Base | 77.01 $\pm$ 1.04  | 77.13 $\pm$ 0.89  | 77.18 $\pm$ 0.92  | 77.18 $\pm$ 0.93  | 77.18 $\pm$ 0.93  |
|            | Log. | 76.27 $\pm$ 1.71  | 77.15 $\pm$ 1.07  | 77.21 $\pm$ 1.12  | 77.21 $\pm$ 1.12  | 77.20 $\pm$ 1.13  |
| Pendigits  | Base | 96.07 $\pm$ 0.51  | 95.97 $\pm$ 0.46  | 96.23 $\pm$ 0.44  | 96.23 $\pm$ 0.44  | 96.23 $\pm$ 0.44  |
|            | Log. | 96.07 $\pm$ 0.47  | 95.89 $\pm$ 0.40  | 96.13 $\pm$ 0.39  | 96.13 $\pm$ 0.39  | 96.13 $\pm$ 0.39  |
| Parkinsons | Base | 84.61 $\pm$ 4.47  | 86.82 $\pm$ 5.01  | 88.03 $\pm$ 3.81  | 88.03 $\pm$ 3.81  | 88.03 $\pm$ 3.81  |
|            | Log. | 82.74 $\pm$ 5.84  | 86.67 $\pm$ 4.92  | 86.84 $\pm$ 5.44  | 86.84 $\pm$ 4.84  | 86.67 $\pm$ 4.68  |
| CorrAL100  | Base | 100.00 $\pm$ 0.00 | 100.00 $\pm$ 0.00 | 100.00 $\pm$ 0.00 | 100.00 $\pm$ 0.00 | 100.00 $\pm$ 0.00 |
|            | Log. | 100.00 $\pm$ 0.00 | 100.00 $\pm$ 0.00 | 100.00 $\pm$ 0.00 | 100.00 $\pm$ 0.00 | 100.00 $\pm$ 0.00 |
| Connect4   | Base | 71.13 $\pm$ 0.52  | 69.53 $\pm$ 1.69  | 75.49 $\pm$ 0.41  | 75.48 $\pm$ 0.41  | 75.48 $\pm$ 0.41  |
|            | Log. | 73.56 $\pm$ 0.30  | 69.03 $\pm$ 0.75  | 74.78 $\pm$ 0.27  | 74.78 $\pm$ 0.27  | 75.44 $\pm$ 0.26  |
| Congress   | Base | 96.48 $\pm$ 1.46  | 96.48 $\pm$ 1.46  | 96.48 $\pm$ 1.46  | 96.48 $\pm$ 1.46  | 96.48 $\pm$ 1.46  |
|            | Log. | 95.33 $\pm$ 1.81  | 95.33 $\pm$ 1.81  | 95.33 $\pm$ 1.81  | 95.33 $\pm$ 1.81  | 95.33 $\pm$ 1.81  |

Classification accuracy (%) and standard deviation for the base and logarithmic division versions of the MIM method on low-dimensional datasets for 15-top selected features. Results for C4.5 classifier.