Optimal, Noisy

| Optimal, Noisy $\Gamma^{\text{LP}} \qquad \Gamma^{\mu} \qquad \Gamma^{\epsilon} \qquad \text{RG} \qquad \text{POM} \qquad \text{POM-10\%} \qquad \text{POM-20\%} \qquad \text{POM-30\%}$ | | | | | | | | | | | | | | pun | ıaı, | NOIS | sy | | | | | | | | | | | | | | | |
|--|----------------------------------|--|--------------------------------------|--------------------------------------|---|------------------------------|--------------------------------------|--------------------------------------|---|-----------------------------------|-------------------------------------|--|---|--------------------------------------|--------------------------------------|--------------------------------------|---|---|--------------------------------------|------------------------------|---|--------------------------------------|-------------------------------------|--------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|
| | | Γ^{I} | _P | | | Γ | μ | | | Γ | ϵ | | | R | G | | | PO | M | | | POM-10% | | | | POM | -20% | | | POM-30% | | |
| # % | Time | AGR | ACC | $ \Gamma^{\pmb{h}} $ | Time | AGR | ACC | $ \Gamma^{\pmb{h}} $ | Time | AGR | ACC | $ \Gamma^{\mathbf{h}} $ | ime | AGR | ACC | $ \Gamma^{\pmb{h}} $ | Time | AGR | ACC | $ \Gamma^{\pmb{h}} \Big $ | Time | AGR | ACC | $ \Gamma^{\mathbf{h}} $ | Time | AGR | ACC | $ \Gamma^{\pmb{h}} $ | Time | AGR | ACC | $ \Gamma^{\mathbf{h}} $ |
| | 4.191 | 0.42 0.48 | 0.75 0.72 0.92 | 8.08 3.64 3.14 2.19 1.75 | 4.091 4.15 | 0.41 0.35 0.51 | 0.89 0.92 | 7.67 | 4.125 4.344 4.679 4.689 4.726 | 0.41 0.48 | 0.78 0.75 0.94 | 3.19 (2.44 (1.67 (| 0.027 0.028 0.031 0.108 | 0.4 0.46 0.7 0.75 | 0.89 0.86 0.94 0.83 | 7.0 4.47 3.25 2.58 | 0.001 0.001 0.001 0.0 | 0.17 0.24 0.45 0.54 | 0.28 0.39 0.64 0.92 | 1.31 1.14 1.14 1.5 | 0.001 0.001 0.001 0.0 | 0.22 0.27 0.37 0.5 | 0.58 0.69 0.92 1.0 | 3.53 3.78 2.97 2.17 | $\begin{array}{c} 0.001 \\ 0.001 \\ 0.001 \\ 0.00 \end{array}$ | 0.24 0.28 0.28 0.4 | 0.89 0.94 0.97 1.0 | 8.83 9.19 7.14 4.67 | 0.001 0.001 0.0 0.0 | 0.22 0.2 0.2 0.21 | 0.94 1.0 1.0 1.0 | 14.25 12.0 9.42 |
| 10 30 50 70 100 | | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - (C - (C | | 0.27 0.12 0.17 | 0.56 0.58 0.39 0.17 0.17 | 1.11 0.39 0.25 | 0.001 0.001 0.0 | 0.21 0.21 0.44 0.49 0.83 | 0.14 0.28 0.44 0.56 0.92 | 1.75 1.36 1.22 1.17 | 0.001 0.001 0.001 0.0 | 0.4 0.46 0.58 | 0.81 0.92 | 2.14 2.28 1.92 | 0.001 0.001 0.001 0.001 0.0 | 0.52 0.32 0.3 0.3 0.33 | 0.89 0.81 0.78 0.86 0.92 | 3.61 3.33 2.92 | 0.001 0.001 0.0 | 0.51 0.27 0.21 0.2 0.29 | 0.94 0.97 0.92 0.92 1.0 | 7.22 6.53 5.5 5.08 4.0 |
| DO 10 30 50 70 100 | - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - | - | - - - - | - - - - | - C | .008 | 0.23 | 0.89 0.72 0.66 0.53 0.5 | 3.44 2.6 2.06 1.33 | 0.001 0.001 | 0.29 0.45 0.49 0.55 0.65 | 0.33 0.61 0.57 0.75 0.92 | 1.29 1.56 1.67 | 0.001 0.001 0.001 0.0 | 0.45 0.6 | 0.47 0.72 0.74 0.78 1.0 | 2.06 2.11 | 0.001 0.001 0.001 0.001 0.0 | 0.37 0.33 0.27 0.38 0.32 | 0.83 0.89 0.94 0.94 1.0 | 4.06 4.23 | 0.001 0.001 0.0 | 0.34 0.29 0.19 0.27 0.23 | 0.94 0.92 0.94 0.97 1.0 | 5.33 4.92 5.51 4.5 4.83 |
| 30 50 70 100 | - - - | 0.82 | | 2.75 | - - - - 1.669 | - - - - 0.8 | - - - - - 0.92 | 2.94 | - - - - 1.939 | 0.82 | - - - - 0.92 | - 0 - 0 - 0 | .013 .016 .014 | 0.31 0.43 0.43 0.25 0.17 | 0.58 0.67 0.53 0.31 0.17 | 2.53 1.06 0.67 0.17 | 0.001 0.001 0.001 | 0.38 0.48 0.57 0.71 0.79 | 0.67 0.67 | 1.22 1.19 1.03 1.17 | 0.001 0.001 0.001 0.014 | 0.56 0.65 0.62 | 0.94 0.94 0.94 | 3.22 2.39 2.06 | 0.001 0.001 0.001 | 0.34 0.33 0.36 0.32 0.42 | 1.0 1.0 1.0 1.0 1.0 | 5.69 4.5 4.22 3.33 | 0.001 0.001 0.001 | 0.29 0.23 0.21 0.23 0.42 | 1.0 1.0 1.0 1.0 1.0 | 6.5 6.14 6.03 5.33 |
| G 30 50 70 100 | 1.636 1.645 1.649 1.656 | 0.84 0.88 0.94 0.97 | 0.92 0.98 0.98 1.0 | 1.25 1.4 1.17 1.06 | 1.691 1.685 1.694 1.714 | 0.83 0.88 0.92 | 0.94 0.98 0.98 1.0 | 1.35 1.44 1.21 1.06 | 1.927 1.938 | 0.8 0.87 0.94 | 0.9 0.98 0.96 1.0 | 1.25 1.42 1.08 1.13 | 0.007 0.005 0.007 0.013 | 0.52 0.31 0.29 | 0.54 0.33 0.29 0.31 | 0.73 0.44 0.31 | 0.001 | 0.61 0.69 0.88 0.97 | 0.73 0.81 0.94 1.0 | 1.5 1.4 1.19 | 0.001 0.001 0.001 0.008 | 0.59 0.68 0.88 | 0.79 0.85 0.96 1.0 | 2.15 1.65 | 0.001 0.001 0.001 0.008 | 0.57 0.67 0.88 0.94 | 0.92 0.9 0.98 1.0 | 3.17 2.0 | 0.001 0.001 0.001 | 0.49 0.6 0.84 0.93 | 0.92 0.9 0.98 1.0 | 3.81 2.44 1.58 1.19 |
| 30 50 70 100 | - - - | 0.75 | - - - - 0.94 | 4.06 | - - - 1.902 | - - - - 0.71 | - - - - 0.94 | - - - 4.47 | 2.14 | 0.75 | - - - 0.94 | - C | .006 | 0.65 0.69 | 0.86 0.78 0.92 0.83 | 2.19 1.33 1.56 1.5 | 0.0 0.0 0.0 0.0 | 0.47 0.5 0.69 0.92 | 0.5 | 1.31 1.19 1.11 1.17 | 0.0 0.0 0.0 | 0.56 0.52 0.67 0.79 | 0.92 0.86 0.97 1.0 | 2.97 2.39 1.83 1.42 | 0.0 0.0 0.0 0.0 0.0 | 0.38 0.28 0.37 0.44 | 1.0 1.0 1.0 1.0 | 4.78 4.58 3.5 3.08 | 0.0 0.0 0.0 0.0 | 0.26 0.19 0.22 0.25 | 1.0 1.0 1.0 1.0 | 6.11 5.92 5.22 4.5 |
| 30 30 50 70 100 | 1.903 1.904 1.904 | 0.8 0.88 0.96 1.0 | 0.97 0.97 1.0 1.0 | 1.78 1.31 1.11 1.0 | 1.897 1.9 1.901 1.903 | 0.67 0.79 0.89 0.96 | 1.0 0.97 1.0 1.0 | 2.67 1.61 1.39 | 2.126 2.137 2.147 2.143 | $0.75 \\ 0.85$ | 0.97 0.97 1.0 1.0 | 1.89 1.36 1.17 | .009 .006 .008 .024 | 0.29 0.11 0.17 | 0.47 0.11 0.17 0.17 | 1.14 0.14 0.17 0.17 | 0.001 0.001 0.001 0.007 0.001 | 0.57 0.7 0.88 1.0 | 0.75 0.75 0.89 1.0 | 1.56 1.17 1.08 1.0 | 0.001 0.001 0.001 0.007 | $0.44 \\ 0.63$ | 0.94 0.94 0.97 1.0 | 3.28 2.22 1.39 1.0 | 0.001 0.001 0.001 0.007 0.001 | 0.28 0.46 0.63 0.78 | 0.97 0.97 1.0 1.0 | 6.0 3.64 2.25 1.67 | $0.001 \\ 0.001$ | 0.18 0.28 0.44 0.6 | 1.0 1.0 1.0 1.0 | 7.89 6.25 3.56 2.5 |
| MICONIC 50 70 100 | 1.195 1.196 1.195 | 0.74 0.88 0.88 0.88 | 0.89 0.94 | 1.58 1.19 1.14 1.25 | 1.198 1.198 1.197 1.199 1.275 | 0.67 0.59 0.61 0.75 | 1.0 1.0 0.97 1.0 | 2.58 2.39 2.11 2.08 | 1.351 1.366 1.357 1.363 | 0.66 0.88 | 0.94 0.94 | 2.03 (1.19 (| 0.009 0.01 0.011 0.04 | 0.54 0.66 | 0.97 0.97 0.97 1.0 | 2.53 1.81 1.42 1.0 | 0.001 | 0.63 0.79 | 0.75 0.89 0.94 1.0 | 1.28 1.22 1.14 1.0 | 0.001 0.001 0.001 0.0 | 0.4 0.57 0.72 0.92 | 0.94 1.0 1.0 1.0 | 3.39 2.22 | 0.001 0.001 0.001 0.001 | 0.28 0.31 0.38 0.46 | 1.0 1.0 1.0 1.0 1.0 | 4.92 4.0 | $0.001 \\ 0.001$ | 0.21 0.23 0.25 0.24 | 1.0 1.0 1.0 1.0 | 5.92 5.08 4.5 4.5 |
| S 30 50 70 100 | 1.275 1.276 1.277 1.277 | 0.71 0.73 0.8 0.96 | 0.81 0.78 0.86 1.0 | 1.69 1.28 1.14 1.08 | 1.276 1.275 1.276 1.28 | 0.7 0.72 0.77 0.9 | 0.83 0.86 0.97 1.0 | 1.81 1.67 1.5 1.25 | 1.474 1.473 1.474 1.484 | 0.71 0.71 0.77 0.96 | 0.81 0.81 0.86 1.0 | 1.69 (1.39 (1.19 (1.08 (| 0.007 0.007 0.009 0.025 | 0.54 0.44 0.53 0.58 | 0.69 0.53 0.64 0.58 | 1.61 0.92 0.97 0.58 | 0.001 0.001 0.0 0.0 0.0 | 0.63 0.73 0.83 0.92 | 0.72 0.83 0.89 0.92 | 1.28 1.19 1.17 1.0 | 0.001 0.001 0.0 0.0 | 0.55 0.59 0.61 0.72 | 0.89 0.97 0.92 1.0 | 2.39 2.28 2.03 1.75 | 0.001 0.001 0.0 0.0 0.0 | 0.43 0.46 0.39 0.51 | 0.97 1.0 0.97 1.0 | 3.67 3.14 3.03 2.58 | 0.001 0.001 0.0 0.0 0.0 | 0.3 0.33 0.31 0.33 | 0.97 1.0 1.0 1.0 | 4.53 4.03 3.97 3.42 |
| SATELLITE 30 20 20 100 100 | 1.092 1.094 1.094 1.095 | 0.81 0.78 0.71 0.76 0.79 | 0.94 0.83 0.83 0.92 0.92 | 3.89 2.44 2.0 1.64 1.42 | 1.092 1.087 | 0.63 0.59 0.69 | 0.94 0.83 0.92 0.92 0.92 | 3.89 2.72 3.03 2.61 1.83 | 1.212 1.235 1.214 1.213 | 0.7 0.75 0.83 | 0.94 0.83 0.89 1.0 0.92 | 2.44 (2.11 (2.0 (1.58 (1 | 0.006 0.006 0.007 0.007 0.023 | 0.73 0.66 0.58 0.63 0.75 | 0.86 0.89 0.75 0.86 0.92 | 3.64 3.22 2.19 1.97 1.75 | 0.001 0.0 0.0 0.0 0.0 | 0.47 0.55 0.6 0.68 0.71 | 0.58 0.75 0.78 0.83 0.83 | 2.17 1.5 1.28 1.25 | 0.0 0.0 0.0 0.0 | 0.67 0.53 0.49 0.54 0.64 | 0.92 0.89 0.92 1.0 0.83 | 4.75 3.83 3.14 2.67 1.92 | 0.001 0.0 0.0 0.0 0.0 | 0.63 0.51 0.39 0.41 0.49 | 1.0 1.0 0.97 1.0 1.0 | 5.53 4.78 4.42 3.75 3.08 | 0.001 0.0 0.0 0.0 0.0 | 0.59 0.43 0.3 0.35 0.38 | 1.0 1.0 0.97 1.0 1.0 | 5.97 5.5 5.22 4.47 4.08 |
| | 3.189 3.184 3.167 | 0.35 0.61 0.61 0.65 0.77 | 0.53 0.75 0.89 0.94 0.92 | 1.53 2.72 | 3.242 3.188 3.181 3.165 3.176 | 0.47 0.42 0.5 | 0.69 0.92 0.94 1.0 1.0 | 4.03 3.25 4.97 4.56 3.75 | 3.783 3.782 | 0.61 0.79 0.88 | 0.94 | 1.47 0 1.75 0 1.42 0 1.08 | 0.075 | 0.13 | 0.44 0.5 0.33 0.17 0.17 | 1.58 1.19 0.42 0.33 | 0.005 0.005 0.042 | 0.67 0.71 | 0.75 | 1.19 1.47 1.28 1.17 | 0.005 0.005 0.042 | 0.51 0.66 0.71 | 0.81 0.75 | 2.22 1.47 1.25 | 0.005 0.005 0.005 0.005 0.042 | $0.41 \\ 0.44$ | 0.89 0.86 0.89 0.89 0.92 | 2.92 2.67 | 0.005 0.005 0.005 0.042 | 0.25 0.21 0.27 0.28 0.32 | 0.97 0.97 0.97 0.94 1.0 | 7.08 5.47 5.19 4.36 3.42 |
| 0 30 50 70 100 | - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - 0 - 0 | 0.011 0.012 0.012 0.014 0.049 | 0.8 | 0.92 0.94 0.89 0.92 0.92 | 2.53 1.86 1.47 | 0.001 0.001 0.001 0.001 0.007 | 0.63 0.72 | | 1.22 1.31 1.28 | 0.001 0.001 0.001 0.001 0.007 | 0.51 0.5 0.61 | | 2.39 2.19 | 0.001 0.001 0.001 0.001 0.007 | 0.32 0.39 | 1.0 0.97 | 4.14 3.83 3.31 | 0.001 | | 0.97 1.0 1.0 1.0 1.0 | 5.72 5.33 4.89 4.56 3.83 |
| AVG | 1.202 | 0.44 | 0.52 | 1.27 | 1.213 | 0.4 | 0.55 | 1.82 | 1.371 | 0.44 | 0.53 | 1.22 0 | .024 | 0.48 | 0.64 | 2.07 | 0.002 | 0.58 | 0.68 | 1.38 | 0.002 | 0.55 | 0.85 | 2.54 | 0.002 | 0.42 | 0.95 | 4.34 | 0.002 | 0.33 | 0.98 | 5.81 |

Table 1: Time, agreement ratio (AGR), accuracy (ACC) and spread on optimal dataset.

Sub-Optimal, Noisy, Noisy

| | | | | | | | | | | | | Sub- | Jþ | uma | 11, I | ioisy | y, INC | nsy | | | | | | | | | | | | | | |
|--|--|--------------------------------------|----------------------|------------------------------|---|-------------------------------------|--------------------------------------|--------------------------------------|---|---|--------------------------------------|--|--------------------------|--|--------------------------------------|--------------------------------------|---|---|--------------------------------------|--------------------------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|--------------------------------------|
| | | Γ^{I} | .P | | | Γ | μ | | | Γ^{ϵ} | | | | RG | | | POM | | М | 4 | | POM- | 10% | | | POM | -20% | | | POM-30% | | |
| # % | Time | AGR | ACC | $ \Gamma^{\mathbf{h}} $ | Time | AGR | ACC | $ \Gamma^{\pmb{h}} $ | Time | AGR | ACC | $ \Gamma^{\mathbf{h}} $ Ti | me | AGR | ACC | $ \Gamma^{\pmb{h}} $ | Time | AGR | ACC | $ \Gamma^{\pmb{h}} $ | Time | AGR | ACC | $ \Gamma^{\pmb{h}} \big $ | Time | AGR | ACC | $ \Gamma^{\pmb{h}} $ | Time | AGR | ACC | $ \Gamma^{\mathbf{h}} $ |
| 30 50 70 100 | 4.857 4.853 | 0.38 0.49 | 0.64 0.81 0.69 | 3.17 3.22 2.11 | 4.847 4.856 4.864 4.858 4.814 | 0.34 0.3 0.35 | | 9.31 9.33 9.11 | 4.333 4.664 4.678 4.672 4.713 | $0.38 \\ 0.48$ | 0.64 0.81 0.69 | 8.11 0.0 3.17 0.0 3.31 0.0 2.11 0.0 2.17 0.1 |)27)31)36 41 | 0.43 0.54 0.57 0.65 | 0.89 0.92 0.94 1.0 | 6.58 3.53 4.03 2.33 | 0.001 0.001 0.001 0.0 | 0.2 0.36 0.4 0.38 | 0.44 0.61 0.72 0.75 | 1.36 1.17 1.17 1.58 | 0.001 0.001 0.001 0.0 | 0.29 0.32 0.34 0.44 | 0.81 0.86 0.92 1.0 | 3.83 3.11 2.78 2.33 | 0.001 0.001 0.001 0.0 | 0.26 0.26 0.31 0.37 | 0.97 1.0 1.0 1.0 | 9.36 7.31 6.58 4.83 | 0.001 0.001 0.001 0.0 | 0.22 0.2 0.2 0.24 | 1.0 1.0 1.0 1.0 | 16.08 13.64 11.83 9.58 |
| 10 30 50 70 100 | - - - | - - - - | - - - - | | - - - - | - - - - | - - - - | | - - - - | - - - - | - - - - | - 0.0 - 0.0 - 0.0 | 007 007 006 016 | 0.18 0.08 | 0.5 0.36 0.25 0.22 0.08 | 1.56 0.61 0.36 0.08 | 0.001 0.001 0.0 | 0.23 0.23 0.35 0.6 0.54 | 0.33 0.36 0.44 0.64 0.58 | 2.0 1.81 1.75 1.19 1.25 | 0.001 0.001 0.001 0.0 | 0.4 0.54 0.46 | 0.72 0.75 0.83 | 1.92 2.5 | 0.001 0.001 0.001 0.001 0.00 | 0.27 0.3 0.38 | 0.86 0.75 0.89 0.89 0.92 | 4.33 3.33 3.42 | 0.001 0.001 0.001 0.001 0.0 | 0.24 0.28 | 0.97 0.89 0.97 0.97 1.0 | 6.97 6.31 6.42 5.17 4.58 |
| DR IVERLOG 100 100 100 | - - - | - - - - | - - - - | - | - - - - | - - - - | - - - - | | - - - - | - - - - | - - - - | - 0.0 - 0.0 - 0.0 | 007 007 006 027 | 0.32 | 0.72 0.69 0.56 0.31 0.5 | 3.25 1.92 0.69 1.0 | 0.0 | 0.27 0.4 0.47 0.52 0.72 | 0.39 0.56 0.69 0.75 1.0 | 1.33 1.47 1.64 1.58 | 0.001 0.001 0.001 0.0 | 0.43 0.46 0.64 | 1.0 | 1.97 1.94 2.42 1.92 | 0.001 0.001 0.001 0.001 0.001 | 0.37 0.46 | 0.81 0.83 0.94 0.97 1.0 | 4.0 3.75 3.56 3.69 2.92 | 0.001 | 0.3 0.27 | 0.92 0.92 0.94 1.0 1.0 | 5.22 4.75 4.67 4.69 4.17 |
| 10 30 50 70 100 | | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - 0.0 - 0.0 - 0.0 |)14)15)17)58 | 0.36 0.43 0.2 0.09 0.0 | 0.58 0.61 0.25 0.11 0.0 | 1.89 0.69 0.31 0.0 | 0.001 0.001 0.014 | | 0.28 0.67 0.78 0.78 0.75 | 1.22 1.14 1.03 1.0 | 0.002 0.001 0.001 0.001 0.014 | 0.49 0.61 0.57 0.51 | | 2.33 2.0 | 0.002 0.001 0.001 0.001 0.014 | 0.35 0.38 0.34 0.36 | 1.0 1.0 1.0 1.0 1.0 | 6.31 5.14 4.64 4.03 3.5 | 0.001 0.001 0.014 | 0.43 0.29 0.28 0.21 0.24 | 1.0 1.0 1.0 1.0 1.0 | 6.61 6.25 5.97 5.75 5.25 |
| 10 30 50 70 100 | 2.002 2.003 | 0.64 0.81 0.79 0.87 0.88 | 1.0 | 1.17 1.1 | 1.998 1.998 2.001 2.003 2.006 | 0.6 0.73 0.75 0.75 0.74 | 0.92 1.0 1.0 1.0 1.0 | 3.02 2.04 1.73 1.44 1.5 | | | 0.88 1.0 0.9 1.0 1.0 | 1.17 0.0 1.1 0.0 1.13 0.0 | 006 007 004 012 | 0.46 0.25 0.39 0.11 0.13 | 0.67 0.33 0.4 0.13 0.19 | 0.5 0.46 0.13 0.19 | 0.001 0.001 0.001 0.001 0.008 | 0.43 0.75 0.82 0.85 0.94 | 0.65 0.9 0.98 0.94 1.0 | 1.04 1.0 | 0.001 0.001 0.001 0.001 0.008 | 0.8 0.85 0.94 | 0.79 0.92 0.98 0.96 1.0 | 1.17 1.0 | 0.001 0.001 0.001 0.001 0.008 | 0.79 0.83 0.94 | 0.9 0.94 0.98 0.98 1.0 | 1.31 1.0 | 0.001 0.001 0.008 | 0.74 0.78 0.85 | 0.94 0.96 0.98 1.0 1.0 | 5.44 2.98 1.56 1.46 1.19 |
| 10 30 50 70 100 | | - | - - - - | | | - | - - - - | | | - - - - | - - - - | - 0.0 - 0.0 - 0.0 | 007 009 014 082 | 0.55 0.55 0.59 0.56 | 0.94 0.83 0.81 0.78 0.67 | 4.06 2.19 1.67 1.56 1.17 | 0.0 0.0 0.0 0.0 0.0 | 0.44 0.47 0.55 0.66 0.67 | 0.53 0.58 0.69 0.78 0.75 | 1.89 1.19 1.19 1.14 1.08 | 0.0 0.0 0.0 0.0 0.0 | 0.66 | 0.89 0.89 0.89 0.94 0.92 | 4.0 2.72 2.11 2.17 1.75 | 0.0 0.0 0.0 0.0 0.0 | 0.41 0.29 0.34 0.33 0.52 | 0.97 1.0 1.0 1.0 1.0 | 6.0 5.31 4.14 4.03 3.0 | 0.0 0.0 0.0 0.0 0.0 | 0.4 0.22 0.21 0.21 0.25 | 1.0 1.0 1.0 1.0 1.0 | 6.33 5.97 5.81 5.58 4.67 |
| | 2.235 2.242 2.245 | 0.79 0.83 0.79 0.94 1.0 | 1.0 1.0 | 1.56 1.47 1.17 1.0 | 2.232 2.234 2.234 2.234 2.235 | 0.9 | 1.0 1.0 1.0 1.0 1.0 | 3.11 2.44 1.56 1.25 | 2.131 2.148 2.143 2.157 | 0.79 0.78 0.82 0.94 1.0 | 1.0 1.0 0.97 1.0 1.0 | 1.69 0.0 1.47 0. 1.17 0.0 1.0 0.0 | 009 01 009 024 | 0.25 0.08 | 0.58 0.42 0.33 0.25 0.08 | 0.64 0.36 0.28 0.08 | 0.002 0.001 0.001 0.001 0.007 | 0.49 0.74 0.88 0.99 1.0 | 0.56 0.75 0.94 1.0 1.0 | 2.03 1.25 1.14 1.0 1.0 | 0.001 0.001 0.001 0.007 | 0.93 1.0 | 1.0 1.0 | 1.17 1.0 | 0.002 0.001 0.001 0.001 0.007 | 0.4 0.52 0.77 0.82 | 1.0 1.0 0.97 1.0 1.0 | 8.5 4.81 2.75 1.58 1.42 | 0.002 0.001 0.001 0.001 0.007 | 0.21 0.23 0.29 0.53 0.6 | 1.0 1.0 1.0 1.0 1.0 | 9.75 6.78 4.83 2.72 2.58 |
| ≥ 100 | 1.422 1.422 1.422 1.427 | 0.79 0.81 0.92 | 0.89 0.92 | 1.58 1.17 1.19 1.0 | 1.419 1.42 1.421 1.422 1.419 | 0.57 | 0.94 1.0 1.0 1.0 1.0 | 2.83 | 1.365 1.366 1.409 | 0.88 0.92 | 0.92 | 1.69 0.0 1.25 0.0 1.19 0.0 1.0 0.0 |)09)11)14)65 | 0.76 0.77 0.96 | 1.0 0.94 0.94 0.97 1.0 | 2.39 1.5 1.5 1.08 | 0.0 | 0.47 0.69 0.8 0.85 0.92 | 0.44 0.83 0.89 0.89 0.92 | 1.25 1.19 1.08 1.0 | 0.001 0.001 0.001 0.001 0.0 | 0.67 0.63 0.96 | 0.97 1.0 1.0 0.97 1.0 | 3.11 2.0 1.94 1.08 | 0.001 0.001 0.001 0.001 0.001 | 0.5 | 1.0 1.0 1.0 1.0 1.0 | 5.81 4.64 3.92 3.47 2.5 | 0.001 0.001 0.0 | 0.31 0.22 0.21 0.23 0.23 | 1.0 1.0 1.0 1.0 1.0 | 6.0 5.69 5.22 4.86 4.42 |
| 30 50 70 | 1.537 1.539 1.536 1.538 1.54 | $0.82 \\ 0.72$ | 0.78 0.86 | 1.39 1.28 1.22 1.08 | 1.537 1.538 1.533 1.556 1.542 | 0.66 0.61 0.64 0.83 | 0.83 0.86 0.86 0.97 1.0 | 3.03 2.28 2.06 2.33 1.58 | 1.472 1.474 1.472 | | 0.81 0.83 0.75 0.83 0.92 | 1.67 0.0 1.28 0.0 | 008 008 007 | 0.38 | 0.89 0.83 0.56 0.42 0.33 | 1.94 0.86 0.61 0.33 | 0.001 0.001 0.001 0.0 0.0 | 0.43 0.64 0.63 0.76 0.94 | 0.56 0.75 0.75 0.83 1.0 | 1.14 1.33 1.14 1.17 | 0.001 0.001 0.0 0.0 0.0 | 0.58 0.58 0.48 0.57 0.67 | 0.86 0.94 0.92 0.97 1.0 | 2.22 2.08 | 0.001 0.001 0.001 0.0 0.0 0.0 | 0.55 0.42 0.38 0.42 0.48 | 1.0 1.0 1.0 1.0 1.0 | 4.39 3.61 3.72 3.19 2.67 | 0.001 | 0.47 0.32 0.29 0.31 0.35 | 1.0 1.0 1.0 1.0 1.0 | 5.25 4.78 4.53 4.11 3.58 |
| SATELLITE 20 20 20 20 20 100 | 1.286 1.287 1.29 | 0.7 0.67 0.92 | 0.86 0.92 1.0 | 2.33 1.83 2.08 1.42 | 1.287 1.285 1.286 1.288 1.292 | 0.6 0.54 0.55 0.73 | 0.89 0.92 0.94 1.0 1.0 | 3.89 3.36 3.33 3.53 2.5 | | 0.59 0.74 0.71 0.92 | 0.89 0.78 0.86 0.92 1.0 | 1.69 0.0 1.94 0.0 1.42 0.0 | 006 007 007 025 | | 0.92 0.72 0.89 0.78 0.83 | 4.53 2.92 2.33 2.28 1.58 | 0.001 0.0 0.0 0.0 0.0 | 0.51 0.46 0.6 0.67 0.74 | 0.72 0.72 0.81 0.86 1.0 | 2.75 1.86 1.44 1.44 1.33 | 0.001 0.0 0.0 0.0 0.0 | 0.59 0.38 0.44 0.6 0.6 | 0.89 0.92 0.92 0.97 1.0 | 4.39 4.08 3.08 2.67 2.08 | 0.001 0.0 0.0 0.0 0.0 | 0.35 0.44 0.51 | 0.97 0.94 0.94 1.0 1.0 | 5.22 5.08 4.14 3.75 3.33 | 0.001 0.0 0.0 0.0 0.0 | 0.57 0.32 0.28 0.36 0.43 | 1.0 1.0 1.0 1.0 1.0 | 5.75 5.67 5.17 4.64 4.08 |
| 00 00 00 00 00 00 00 00 00 00 00 00 00 | 3.818 3.817 3.805 | 0.41 0.64 0.54 0.5 0.47 | 0.75 0.89 | 2.14 2.08 4.0 | 3.848 3.816 3.818 3.807 3.815 | 0.4 0.38 0.27 | 0.69 0.97 0.89 0.94 0.92 | 3.67 5.19 4.69 6.0 5.67 | 3.835 3.827 3.866 3.862 3.815 | $0.66 \\ 0.71$ | 0.75 0.89 | 1.39 0.0 1.53 0.0 1.19 0.0 1.0 0.2 | 063 059 052 207 | 0.05 0.03 0.0 | 0.58 0.39 0.08 0.03 0.0 | 1.39 0.42 0.14 0.0 | 0.042 | 0.37 0.5 0.51 0.51 0.74 | 0.64 0.69 0.67 0.75 0.92 | 1.61 1.44 1.42 1.25 | 0.005 0.005 0.005 0.042 | 0.48 0.41 0.74 | 1.0 | 1.42 | 0.005 0.005 0.005 0.005 0.042 | 0.32 0.32 0.54 | 0.92 0.81 0.86 0.92 1.0 | 3.69 2.67 | 0.005 0.005 0.042 | 0.22 0.26 0.35 | 1.0 0.94 0.97 0.97 1.0 | 6.86 5.56 5.58 5.06 3.83 |
| 0 30 50 70 100 | - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - | - 0.0 - 0.0 - 0.0 |)12)14)16 | 0.7 0.8 | 0.94 0.94 0.89 0.94 0.92 | 1.61 1.42 | 0.001 | 0.24 0.5 0.72 0.75 0.79 | 0.25 0.56 0.78 0.86 0.92 | 1.28 1.22 1.25 | 0.001 0.001 0.001 0.001 0.007 | 0.65 0.67 | 0.69 0.72 0.94 0.94 1.0 | 1.97 | 0.001 0.001 0.001 0.001 0.007 | 0.38 0.45 | 0.97 0.94 0.97 1.0 1.0 | 3.31 2.97 | | | 1.0 1.0 1.0 1.0 1.0 | 5.39 4.81 4.42 4.19 4.0 |
| AVG | 1.431 | 0.41 | 0.51 | 1.27 | 1.429 | 0.34 | 0.55 | 2.2 | 1.385 | 0.43 | 0.51 | 1.15 0.0 |)24 | 0.41 | 0.59 | 1.92 | 0.002 | 0.58 | 0.71 | 1.37 | 0.002 | 0.54 | 0.88 | 2.52 | 0.002 | 0.42 | 0.96 | 4.17 | 0.002 | 0.32 | 0.99 | 5.71 |

Table 2: Time, agreement ratio (AGR), accuracy (ACC) and spread on sub-optimal dataset.