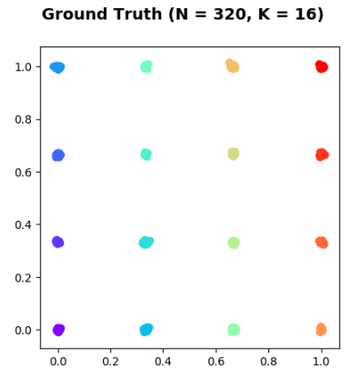
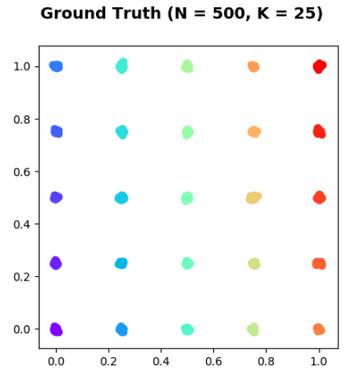
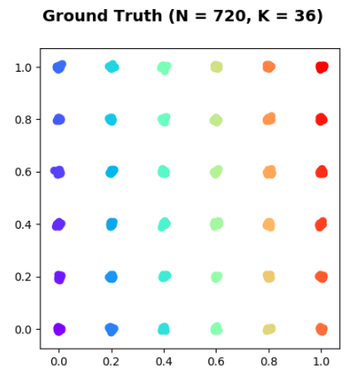
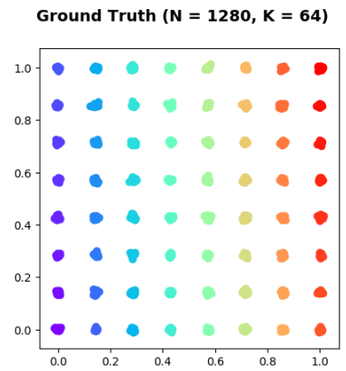
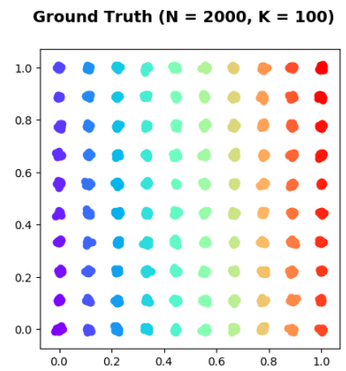
Table 1: Local Search performance for large K

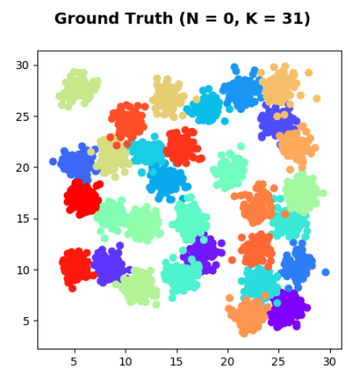








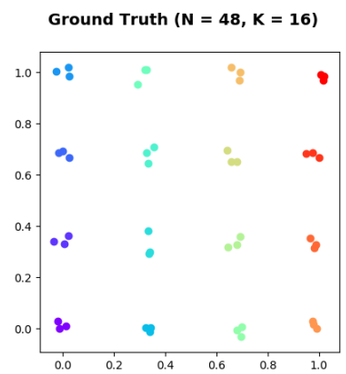


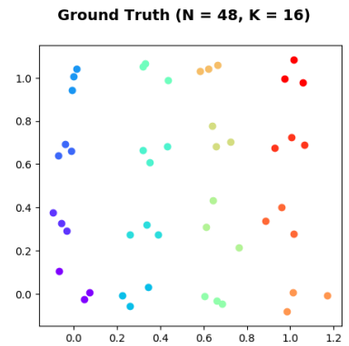


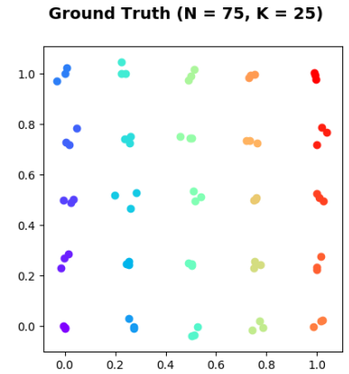
Mean (100 trials)	LS	LS	LS	LS	LS	LS
Purity	0.9650 ± 0.0357 Max: 1.0000	0.9256 ± 0.0335 Max: 1.0000	0.8913 ± 0.0299 Max: 0.9444	0.8447 ± 0.0245 Max: 0.8906	0.7980 ± 0.0222 Max: 0.8500	0.9410 ± 0.0230 Max: 0.9758
Min Purity	0.8203 ± 0.1751 Max: 1.0000	0.6794 ± 0.0917 Max: 1.0000	0.5960 ± 0.0559 Max: 0.6897	0.5370 ± 0.0487 Max: 0.6452	0.4991 ± 0.0091 Max: 0.5000	0.6661 ± 0.1630 Max: 0.9307
Energy Percentage (%)	99.91 ± 0.0009 Max: 100.00	99.93 ± 0.0003 Max: 100.00	99.95 ± 0.0001 Max: 99.97	99.98 ± 0.0000 Max: 99.98	99.99 ± 0.0000 Max: 99.99	99.96 ± 0.0000 Max: 99.96
SI Index (↑) [1]	0.9251 ± 0.0745 Max: 0.9991	0.8448 ± 0.0648 Max: 0.9983	0.7977 ± 0.0474 Max: 0.8937	0.7459 ± 0.0310 Max: 0.8186	0.7130 ± 0.0199 Max: 0.7575	0.7414 ± 0.0188 Max: 0.7702
DB Index (↓)	0.2375 ± 0.1945 Min: 0.0384	0.4301 ± 0.1331 Min: 0.0514	0.5122 ± 0.0798 Min: 0.3421	0.5589 ± 0.0590 Min: 0.4213	0.6183 ± 0.0393 Min: 0.5188	0.5992 ± 0.0345 Min: 0.5472
DU Index (↑)	4.7807 ± 4.9709 Max: 9.9546	0.4078 ± 1.5897 Max: 6.7000	0.0057 ± 0.0017 Max: 0.0095	0.0062 ± 0.0020 Max: 0.0126	0.0063 ± 0.0023 Max: 0.0110	0.0166 ± 0.0042 Max: 0.0311
Time (s)	0.2940 ± 0.0380	0.8305 ± 0.1109	1.9090 ± 0.2545	7.5411 ± 0.8094	21.8418 ± 2.4428	25.9682 ± 5.8871

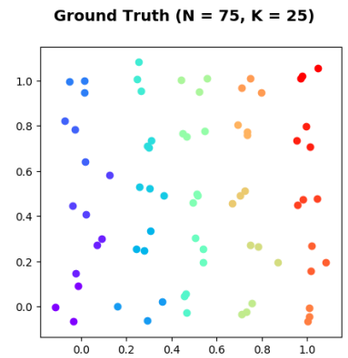
[1] The symbol ↑ stands for "the greater the measure, the better the result". Similarly, the symbol ↓ represents the opposite

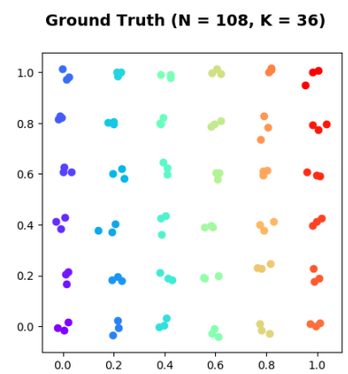
Table 2: Local Search performance for large K (with diferent noise parameters)

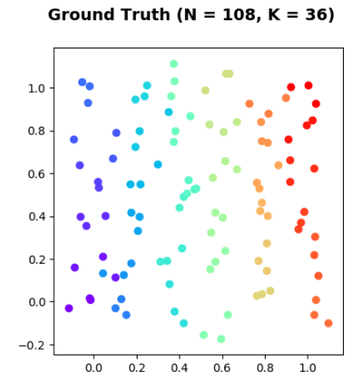












Mean (30 trials)	LS	LS	LS	LS	LS	LS
Purity	0.912 ± 0.050 Max: 1.000	0.917 ± 0.039 Max: 1.000	0.892 ± 0.029 Max: 0.960	0.876 ± 0.033 Max: 0.960	0.872 ± 0.029 Max: 0.917	0.807 ± 0.026 Max: 0.852
Min Purity	0.650 ± 0.138 Max: 1.000	0.567 ± 0.149 Max: 1.000	0.588 ± 0.048 Max: 0.750	0.521 ± 0.087 Max: 0.600	0.527 ± 0.044 Max: 0.600	0.461 ± 0.070 Max: 0.500
Energy Percentage (%)	99.79 ± 0.001 Max: 99.99	99.85 ± 0.000 Max: 99.92	99.90 ± 0.000 Max: 99.97	99.92 ± 0.000 Max: 99.94	99.95 ± 0.000 Max: 99.97	99.95 ± 0.000 Max: 99.96
SI Index (↑) [2]	0.778 ± 0.110 Max: 0.981	0.768 ± 0.053 Max: 0.846	0.754 ± 0.057 Max: 0.899	0.718 ± 0.028 Max: 0.771	0.708 ± 0.052 Max: 0.793	0.571 ± 0.039 Max: 0.649
DB Index (↓)	0.371 ± 0.099 Min: 0.154	0.469 ± 0.044 Min: 0.406	0.390 ± 0.042 Min: 0.283	0.496 ± 0.099 Min: 0.418	0.418 ± 0.030 Min: 0.368	0.633 ± 0.042 Min: 0.565
DU Index (↑)	0.425 ± 0.941 Max: 2.823	0.329 ± 0.135 Max: 0.614	0.069 ± 0.035 Max: 0.202	0.185 ± 0.085 Max: 0.363	0.070 ± 0.024 Max: 0.114	0.120 ± 0.032 Max: 0.213
Time (s)	0.075 ± 0.008	0.081 ± 0.007	0.187 ± 0.020	0.200 ± 0.018	0.395 ± 0.033	0.452 ± 0.044

[1] The symbol ↑ stands for "the greater the measure, the better the result". Similarly, the symbol ↓ represents the opposite