HV Result file :With POP size as same as all other algorithms (different POP size for diff OBJ)

**Path: D:\OUR\_CODES\SRA&TWO\_AR\_NEW\_algortihms\diff\_popsize-Two\_ar-algorithms**

**1.Two\_Ar with different pop size , 2. SRA**

3**Unique solution space in OBJ spac**e(in main) & in updateDA\_SDE used 🡪SDE(min(distcane)i.e.sde1

4**unique solutions in POP SPACE**(from 6,diff in main file only) (07/01/2018)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| DTLZ1  DTLZ 2  DTLZ 3  DTLZ 4  DTLZ 5  DTLZ 6  DTLZ 7 | Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)    Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ) | 0.1151 0.1953  0.4976 0.0143  0.1647 0.1861  0.4883 0.0163  0.1956 0.0127  0.2068 0.0116  0.1868 0.0150  0.1877 0.0149  0 0  0.2057 0.0109  0 0  0.1891 0.0168  0.1545 0.0792  0.1867 0.0647  0.1147 0.0897  0.0987 0.0856  0.1983 0.0138  0.2113 0.0109  0.1925 0.0159  0.1928 0.0099  0.0087 0.0205  0.2040 0.0104  0.0030 0.0164  0 0  0.0573 0.0390  0.1216 0.0257  0.0330 0.0285  0.0263 0.0233 | 0.0472 0.1272  0.9035 0.0100  0.7938 0.2235  0.8955 0.0114  0.5303 0.0351  0.7773 0.0126  0.7125 0.0167  0.7137 0.0179  0 0  0.9321 0.0084  0.0454 0.1111  0.9206 0.0122  0.6800 0.0715  0.7926 0.1090  0.7457 0.0714  0.7295 0.1280  0.7008 0.0207  0.7271 0.0173  0.7126 0.0162  0.7142 0.0168  0.3027 0.0614  0.9388 0.0087  0.8269 0.0483  0.8268 0.0303  0.0666 0.0436  0.1814 0.0161  0.0935 0.0142  0.0987 0.0147 | 0.0018 0.0100  0.9993 0.0012  0.9727 0.0372  0.9981 0.0027  0.8362 0.0218  0.9889 0.0036  0.9802 0.0043  0.9777 0.0040  0 0  1.0000 0  0.9976 0.0100  1.0000 0  0.9831 0.0075  0.9973 0.0020  0.9942 0.0053  0.9946 0.0046  0.7467 0.0139  0.7700 0.0150  0.7471 0.0129  0.7461 0.0204  0.3769 0.0566  0.9827 0.0092  0.9222 0.0286  0.9280 0.0247  0.0508 0.0299  0.1581 0.0111  0.0878 0.0100  0.0919 0.0083 | 0.0007 0.0033  1.0000 0.0002  0.9992 0.0014  1.0000 0.0002  0.8579 0.0456  0.9971 0.0015  0.9953 0.0021  0.9958 0.0021  0.4351 0.2261  1.0000 0  1.0000 0  1.0000 0  0.9911 0.0035  0.9997 0.0005  0.9996 0.0010  0.9998 0.0004  0.8005 0.0147  0.8147 0.0146  0.8071 0.0219  0.8088 0.0159  0.4735 0.0430  0.9854 0.0076  0.9449 0.0154  0.9422 0.0212  0.0443 0.0359  0.0762 0.0161  0.0904 0.0120  0.0911 0.0107 | 0 0  1.0000 0  0.9993 0.0015  0.9998 0.0008  0.9543 0.0121  0.9985 0.0013  0.9976 0.0018  0.9971 0.0021  0.2058 0.1745  1.0000 0  1.0000 0  1.0000 0  0.9970 0.0019  1.0000 0  1.0000 0  1.0000 0.0002  0.8317 0.0136  0.8454 0.0144  0.8390 0.0177  0.8422 0.0223  0.4189 0.0397  0.9839 0.0095  0.9711 0.0116  0.9684 0.0097  0.3162 0.0252  0.2422 0.0762  0.3189 0.0148  0.3202 0.0133 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| WFG1  WFG2  WFG 3  WFG 4  WFG 5  WFG 6  WFG 7  WFG 8  WFG 9 | Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)    Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ)  Two-Ar  SRA  Grid+SDE(uniquePOP)  Grid+SDE(uniqueOBJ) | 0.6149 0.0190  0.6178 0.0157  0.6130 0.0143  0.6151 0.0172  0.4144 0.0253  0.4414 0.0141  0.4198 0.0182  0.4260 0.0153  0.4913 0.0147  0.4954 0.0173  0.4649 0.0198  0.4660 0.0185  0.2291 0.0130  0.2529 0.0134  0.2371 0.0135  0.2325 0.0112  0.2965 0.0160  0.3096 0.0101  0.2901 0.0145  0.2918 0.0123  0.3088 0.0114  0.3025 0.0165  0.2872 0.0120  0.2884 0.0123  0.2786 0.0133  0.2858 0.0155  0.2367 0.0290  0.2444 0.0279  0.4084 0.0216  0.4873 0.0186  0.3443 0.0177  0.3405 0.0184  0.2168 0.0136  0.2254 0.0126  0.2112 0.0125  0.2091 0.0102 | 0.9777 0.0041  0.9697 0.0066  0.9778 0.0047  0.9778 0.0048  0.1958 0.2026  0.4643 0.0243  0.3813 0.0930  0.3252 0.1210  0.2457 0.0168  0.2545 0.0106  0.2378 0.0117  0.2416 0.0133  0.2678 0.0188  0.3915 0.0151  0.3025 0.0170  0.3070 0.0136  0.2503 0.0158  0.2764 0.0133  0.2772 0.0159  0.2797 0.0151  0.2329 0.0190  0.2760 0.0174  0.2798 0.0207  0.2790 0.0193  0.4544 0.0166  0.4830 0.0121  0.4595 0.0209  0.4575 0.0181  0.1349 0.0216  0.2379 0.0202  0.1629 0.0247  0.1635 0.0235  0.3750 0.0167  0.5310 0.0180  0.3758 0.0249  0.3758 0.0303 | 0.9944 0.0023  0.9848 0.0052  0.9933 0.0025  0.9937 0.0029  0.2655 0.1774  0.3814 0.0627  0.3210 0.1038  0.2867 0.0991  0.1451 0.0165  0.1665 0.0121  0.1630 0.0126  0.1633 0.0137  0.2279 0.0160  0.3743 0.0167  0.3011 0.0210  0.2980 0.0155  0.1921 0.0169  0.2347 0.0173  0.2748 0.0131  0.2746 0.0130  0.1373 0.0271  0.1693 0.0311  0.2332 0.0359  0.2366 0.0305  0.4242 0.0193  0.5436 0.0127  0.4832 0.0178  0.4847 0.0201  0.0832 0.0248  0.1991 0.0199  0.1466 0.0288  0.1528 0.0201  0.4144 0.0200  0.5793 0.0327  0.3652 0.0345  0.3676 0.0368 | 0.9891 0.0038  0.9919 0.0034  0.9943 0.0023  0.9945 0.0025  0.3092 0.1477  0.4436 0.0534  0.3653 0.0992  0.3414 0.0764  0.1047 0.0175  0.1255 0.0138  0.1267 0.0173  0.1245 0.0156  0.3154 0.0178  0.4824 0.0259  0.4318 0.0163  0.4330 0.0199  0.2042 0.0183  0.2471 0.0210  0.3289 0.0158  0.3282 0.0135  0.1106 0.0250  0.1667 0.0216  0.2557 0.0337  0.2522 0.0381  0.3965 0.0216  0.5795 0.0183  0.5020 0.0162  0.5015 0.0193  0.0792 0.0180  0.1678 0.0176  0.1686 0.0369  0.1879 0.0235  0.5205 0.0178  0.6704 0.0303  0.5902 0.0444  0.5723 0.0571 | 0.9927 0.0025  0.9956 0.0028  0.9953 0.0026  0.9962 0.0018  0.4089 0.0867  0.4492 0.0411  0.4371 0.0591  0.4383 0.0488  0.1010 0.0159  0.1111 0.0167  0.1286 0.0123  0.1270 0.0181  0.2964 0.0147  0.4764 0.0337  0.4493 0.0215  0.4476 0.0203  0.1674 0.0197  0.2101 0.0208  0.3409 0.0129  0.3433 0.0132  0.0843 0.0241  0.1313 0.0295  0.2319 0.0320  0.2339 0.0301  0.3673 0.0224  0.6297 0.0134  0.5206 0.0186  0.5206 0.0168  0.0606 0.0121  0.1468 0.0162  0.1764 0.0304  0.1880 0.0240  0.5168 0.0215  0.7083 0.0206  0.6452 0.0584  0.6493 0.0365 |