This experiment contains 3 optimisers and 3 problems with dimension value 5

(Runs,100 for each optimisation process, are spread over 16 available processors)

ISPO CMAES W S W

f1 1.440e+00 ± 1.407e+00 1.174e+00 ± 1.187e+00 - 1.262e+00 ± 6.132e-01 =

f2 6.184e-15 ± 2.823e-15 4.440e-02 ± 4.418e-01 + 3.043e+00 ± 2.380e+00 +

f3 2.417e+02 ± 3.926e+02 4.010e+04 ± 1.959e+05 + 1.552e+09 ± 2.338e+09 +

This experiment contains 3 optimisers and 3 problems with dimension value 10

(Runs,100 for each optimisation process, are spread over 16 available processors)

ISPO CMAES W S W

f1 1.830e+00 ± 1.007e+00 1.446e+00 ± 1.061e+00 = 8.931e-01 ± 3.722e-01 -

f2 1.246e-14 ± 3.816e-15 8.883e-02 ± 6.216e-01 + 3.132e+00 ± 2.308e+00 +

f3 2.408e+02 ± 3.365e+02 7.036e+04 ± 2.551e+05 + 2.049e+09 ± 2.810e+09 +

This experiment contains 3 optimisers and 3 problems with dimension value 20

(Runs,100 for each optimisation process, are spread over 16 available processors)

ISPO CMAES W S W

f1 2.241e+00 ± 5.999e-01 1.560e+00 ± 7.427e-01 - 5.978e-01 ± 2.638e-01 -

f2 2.485e-14 ± 5.599e-15 3.555e-01 ± 1.205e+00 + 2.805e+00 ± 2.231e+00 +

f3 2.237e+02 ± 3.434e+02 4.011e+04 ± 1.959e+05 + 1.989e+09 ± 2.639e+09 +

This experiment contains 3 optimisers and 3 problems with dimension value 5

(Runs,100 for each optimisation process, are spread over 16 available processors)

ISPO CMAES W S W

f1 1.569e+00 ± 1.283e+00 1.170e+00 ± 1.166e+00 - 1.450e+00 ± 5.305e-01 -

f2 6.003e-15 ± 2.926e-15 1.484e-14 ± 9.038e-15 + 3.222e+00 ± 2.631e+00 +

f3 1.723e+02 ± 3.040e+02 1.006e+05 ± 2.998e+05 + 2.447e+09 ± 3.141e+09 +

This experiment contains 3 optimisers and 3 problems with dimension value 10

(Runs,100 for each optimisation process, are spread over 16 available processors)

ISPO CMAES W S W

f1 1.841e+00 ± 1.076e+00 1.501e+00 ± 1.080e+00 = 8.959e-01 ± 3.812e-01 -

f2 1.244e-14 ± 4.195e-15 1.332e-01 ± 7.574e-01 + 3.213e+00 ± 2.252e+00 +

f3 1.878e+02 ± 3.238e+02 5.021e+04 ± 2.179e+05 + 2.030e+09 ± 2.701e+09 +

This experiment contains 3 optimisers and 3 problems with dimension value 20

(Runs,100 for each optimisation process, are spread over 16 available processors)

ISPO CMAES W S W

f1 2.173e+00 ± 6.275e-01 1.502e+00 ± 8.966e-01 - 5.712e-01 ± 2.697e-01 -

f2 2.469e-14 ± 4.988e-15 1.748e-01 ± 8.552e-01 + 2.907e+00 ± 2.252e+00 +

f3 1.816e+02 ± 3.008e+02 1.303e+05 ± 3.362e+05 + 1.721e+09 ± 2.316e+09 +

s deterministic

ispo stochastic