# Evolutionary strategies

## Algorithm

|  |  |
| --- | --- |
| Initialization | Uniform random |
| Recombination | Whole arithmetic recombination |
| Mutation | Uncorrelated Mutation with One Step Size |
| Parent selection | Uniform random |
| Survivor selection | (μ, λ) selection |

## Settings

|  |  |  |
| --- | --- | --- |
| Population size | μ | 100 |
| Offspring per generation | λ | 400 |
| Problem size | n | 10 |
| Initial mutation step size | σ | 1 |
| Lower bound mutation step size | ε0 |  |
| Learning rate | τ |  |
| Mating pool size |  | 2 |
| Offspring per mating pool |  | 1 |

## Results

|  |  |
| --- | --- |
| Test Function Sphere Evaluation | 9.999985100789951 |
| Test Function Rastrigin Evaluation | 9.99999999573514 |
| Test Function Fletcher Powell Evaluation | 9.992394882242467 |
| Function 1 | 9.99963366683482 |
| Function 2 | 9.999989303721524 |
| Function 3 | 9.999879578763988 |