

Experiment4

Experiment5

- SSGA using uniform mutation and probabilistic crossover
- SSGA using normal mutation and probabilistic crossover
- SSGA using uniform mutation and single point crossover
- SSGA using normal mutation and single point crossover
- SSGA using uniform mutation and linear combination crossover
- SSGA using normal mutation and linear combination crossover

Experiment6

- probabilistic crossover
- single point crossover
- linear combination crossover

Experiment7

- normal local search
 - probabilistic crossover
 - single point crossover
 - linear combination crossover
- uniform local search
 - probabilistic crossover
 - single point crossover

Experiment8

- new best 20
- SSGA
- Lamarck1
- Lamarck5
- Lamarck10
- Baldwin1
- Baldwin5
- Baldwin10

Experiment9

- Parameter combination
- SSGA
- Baldwin(L=1)
- ★Baldwin(L=5)
- ★Lamarck(L=5)

Experiment10

- Parameter combination
- SSGA
- Lamarck
- ★F15 and F20
- ★Baldwin

We obtained the best 20 parameter combinations in Experiment4. So I will start at Experiment4.

Experiment4

All the parameter combinations for Experiment4 are listed as following:

```
1 Sequence for iterations : [1000000]
2 Sequence for mutation_rate : [0.1, 0.18, 0.2, 0.5, 1.0, 2.0, 5.0, 10.0]
3 Sequence for num_individuals : [100, 200]
4 Sequence for range_mutation : [0.01, 0.25, 0.55, 0.9, 2.0, 5.0]
5 Sequence for crossover_probability : [0.5, 0.6, 0.7]
```

Best 20/200 parameter combinations(**not properly chosen**):

	iterations	mutation_rate	num_individuals	range_mutation	crossover_probability
1	1000000	1	200	0.01	0.6
2	1000000	2	200	0.01	0.6
3	1000000	2	200	0.01	0.5
4	1000000	0.1	200	0.25	0.7
5	1000000	0.1	200	0.25	0.6
6	1000000	0.18	200	0.25	0.7
7	1000000	0.2	200	0.25	0.7
8	1000000	1	100	0.01	0.7
9	1000000	1	200	0.01	0.7
10	1000000	1	200	0.01	0.5
11	1000000	1	100	0.01	0.6
12	1000000	2	100	0.01	0.7
13	1000000	1	100	0.01	0.5
14	1000000	2	100	0.01	0.5
15	1000000	2	100	0.01	0.6
16	1000000	0.1	100	0.25	0.7
17	1000000	0.18	100	0.25	0.7
18	1000000	0.1	200	0.25	0.5
19	1000000	0.5	100	0.01	0.7
20	1000000	0.5	200	0.01	0.7

`Uniform mutation` : [-range_mutation, range_mutation]

`Normal mutation` : mean=0; STD = 2* range_mutation

Experiment5

we run best 20 parameter combinations for SSGA with dimension=50, using best 20 parameter combinations in Experiment4, and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.

SSGA using uniform mutation and probabilistic crossover

- best 20 parameter combinations used are obtained in Experiment4.
- and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.



SSGA using normal mutation and probabilistic crossover

- best 20 parameter combinations used are obtained in Experiment4.
- and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.



SSGA using uniform mutation and single point crossover

- best 20 parameter combinations used are obtained in Experiment4.
- and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.

Function	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F1	0.00%	0.00%	0.00%	70.00%	80.00%	90.00%	70.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	90.00%	60.00%	40.00%	0.00%	0.00%
F2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F6	0.00%	0.00%	0.00%	100.00%	90.00%	90.00%	70.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	80.00%	90.00%	40.00%	0.00%	0.00%
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F14	50.00%	50.00%	40.00%	50.00%	30.00%	50.00%	60.00%	20.00%	50.00%	50.00%	20.00%	10.00%	10.00%	20.00%	10.00%	10.00%	20.00%	10.00%	40.00%	40.00%
F15	70.00%	60.00%	80.00%	20.00%	0.00%	10.00%	10.00%	20.00%	60.00%	60.00%	70.00%	50.00%	50.00%	40.00%	60.00%	20.00%	0.00%	0.00%	60.00%	80.00%
F16	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
F18	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	50.00%	50.00%	50.00%	60.00%	70.00%	50.00%	20.00%	80.00%	50.00%	70.00%	90.00%	40.00%	20.00%	60.00%	60.00%	40.00%	30.00%	60.00%	30.00%	30.00%
F21	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	30.00%
F22	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	20.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%
F23	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	10.00%	10.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	30.00%

SSGA using normal mutation and single point crossover

- best 20 parameter combinations used are obtained in Experiment4.
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.

SSGA using uniform mutation and linear combination crossover

- best 20 parameter combinations used are obtained in Experiment4.
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.

Function	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
F1	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	10.00%	0.00%	0.00%	90.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	
F2	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	90.00%	0.00%	0.00%	0.00%	
F3	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	10.00%	0.00%	0.00%	90.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	90.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F12	0.00%	0.00%	0.00%	40.00%	20.00%	30.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	20.00%	20.00%	20.00%	0.00%	0.00%
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F14	10.00%	10.00%	0.00%	10.00%	10.00%	10.00%	10.00%	10.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	10.00%	10.00%	20.00%	20.00%	0.00%	10.00%	20.00%
F15	50.00%	80.00%	70.00%	0.00%	20.00%	0.00%	20.00%	60.00%	80.00%	60.00%	60.00%	70.00%	60.00%	20.00%	50.00%	0.00%	10.00%	0.00%	70.00%	60.00%	
F16	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F18	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	40.00%	20.00%	100.00%	50.00%	60.00%	10.00%	40.00%	40.00%	40.00%	30.00%	50.00%	40.00%	50.00%	70.00%	70.00%	70.00%	40.00%	40.00%	40.00%	80.00%	90.00%
F21	80.00%	50.00%	40.00%	30.00%	30.00%	40.00%	10.00%	50.00%	40.00%	50.00%	40.00%	50.00%	40.00%	30.00%	50.00%	40.00%	30.00%	40.00%	40.00%	50.00%	50.00%
F22	60.00%	50.00%	10.00%	20.00%	20.00%	40.00%	0.00%	40.00%	30.00%	30.00%	40.00%	40.00%	30.00%	30.00%	20.00%	20.00%	20.00%	20.00%	20.00%	30.00%	30.00%
F23	80.00%	40.00%	30.00%	30.00%	20.00%	10.00%	10.00%	30.00%	50.00%	50.00%	0.00%	60.00%	10.00%	0.00%	10.00%	60.00%	60.00%	30.00%	20.00%	40.00%	40.00%

SSGA using normal mutation and linear combination crossover

- best 20 parameter combinations used are obtained in Experiment4.
- and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.

Function	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F1	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	30.00%	100.00%	60.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	70.00%	80.00%	
F2	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	20.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F3	90.00%	100.00%	80.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	50.00%	90.00%	100.00%	100.00%	80.00%	100.00%	100.00%	
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F6	100.00%	100.00%	60.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F10	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F12	30.00%	20.00%	20.00%	40.00%	20.00%	30.00%	30.00%	10.00%	10.00%	10.00%	30.00%	10.00%	10.00%	20.00%	10.00%	30.00%	20.00%	20.00%	20.00%	
F13	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F14	0.00%	0.00%	20.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F15	60.00%	90.00%	70.00%	0.00%	0.00%	10.00%	0.00%	40.00%	80.00%	70.00%	50.00%	60.00%	50.00%	80.00%	10.00%	0.00%	0.00%	30.00%	80.00%	
F16	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F18	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	50.00%	30.00%	60.00%	70.00%	40.00%	30.00%	60.00%	50.00%	30.00%	50.00%	40.00%	40.00%	40.00%	50.00%	50.00%	20.00%	50.00%	50.00%	50.00%	
F21	60.00%	30.00%	60.00%	30.00%	50.00%	30.00%	20.00%	20.00%	50.00%	50.00%	40.00%	40.00%	40.00%	70.00%	20.00%	50.00%	50.00%	40.00%	40.00%	
F22	0.00%	0.00%	70.00%	20.00%	20.00%	10.00%	10.00%	30.00%	40.00%	30.00%	10.00%	30.00%	40.00%	30.00%	10.00%	20.00%	30.00%	20.00%	30.00%	
F23	30.00%	30.00%	40.00%	40.00%	20.00%	0.00%	30.00%	30.00%	20.00%	50.00%	20.00%	20.00%	10.00%	10.00%	10.00%	10.00%	20.00%	20.00%	30.00%	

Experiment6

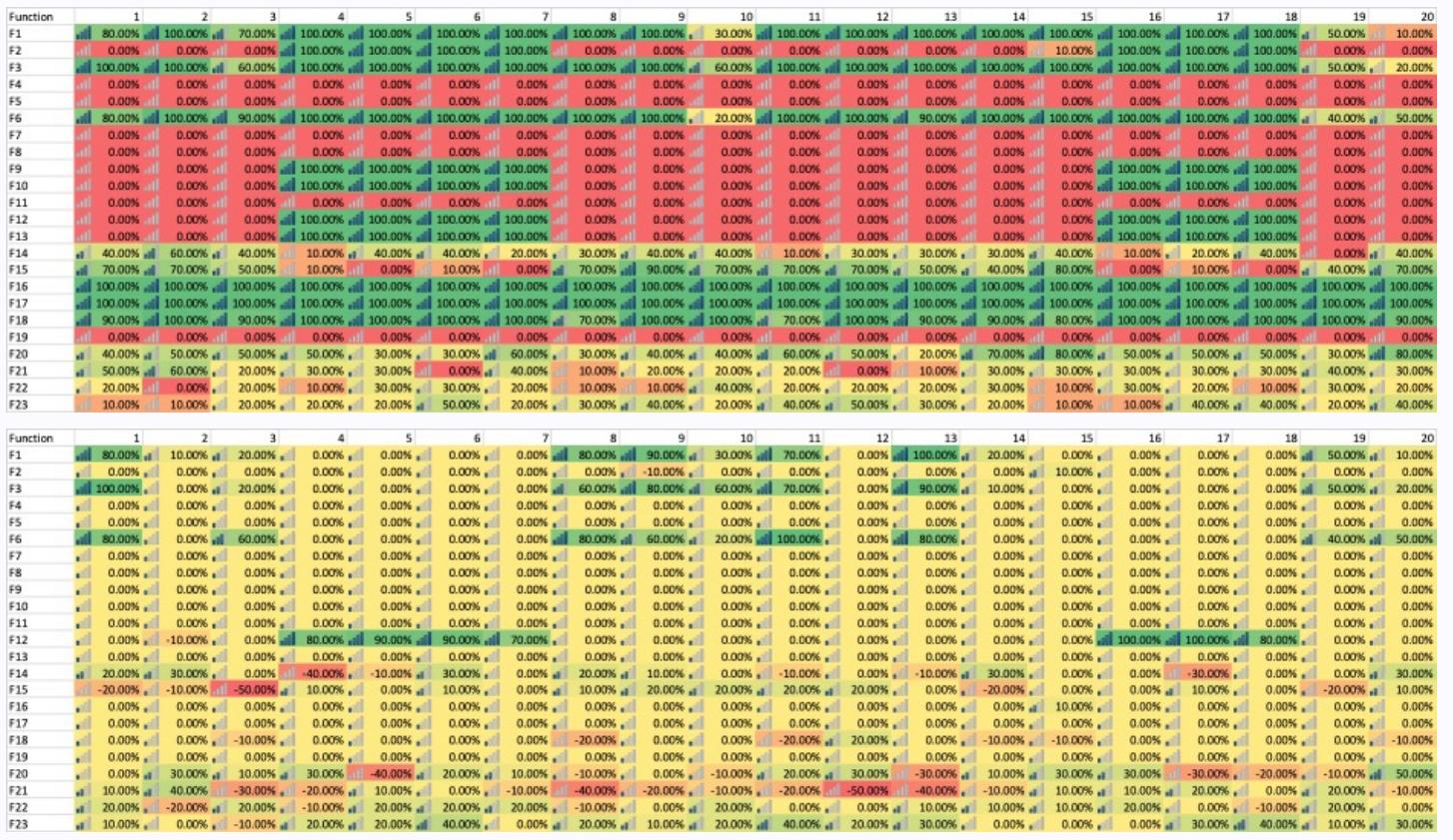
probabilistic crossover

- Lamarck using local search: `normal` and probabilistic crossover
- SSGA using `normal` mutation and probabilistic crossover
- best 20 parameter combinations used are obtained in Experiment4.
- and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.

Function	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F1	80.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	10.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	20.00%	
F2	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F3	100.00%	100.00%	70.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	100.00%	100.00%	80.00%	100.00%	100.00%	100.00%	100.00%	100.00%	30.00%	20.00%	
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F6	90.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	40.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	50.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F10	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F12	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F13	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F14	50.00%	40.00%	20.00%	20.00%	50.00%	30.00%	60.00%	0.00%	50.00%	50.00%	30.00%	20.00%	20.00%	0.00%	10.00%	20.00%	60.00%	0.00%	20.00%	
F15	60.00%	60.00%	70.00%	0.00%	0.00%	20.00%	0.00%	70.00%	60.00%	60.00%	60.00%	70.00%	70.00%	60.00%	60.00%	60.00%	40.00%	40.00%	30.00%	
F16	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F18	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	70.00%	100.00%	100.00%	100.00%	100.00%	100.00%	80.00%	100.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	40.00%	30.00%	40.00%	40.00%	50.00%	40.00%	40.00%	40.00%	50.00%	50.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	50.00%	30.00%	50.00%	
F21	30.00%	0.00%	30.00%	20.00%	20.00%	30.00%	20.00%	40.00%	30.00%	40.00%	40.00%	0.00%	20.00%	20.00%	20.00%	20.00%	10.00%	30.00%	40.00%	
F22	0.00%	50.00%	10.00%	30.00%	0.00%	10.00%	20.00%	50.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	20.00%	20.00%	
F23	10.00%	10.00%	10.00%	10.00%	40.00%	0.00%	0.00%	10.00%	0.00%	10.00%	40.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Function	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F1	80.00%	10.00%	40.00%	0.00%	0.00%	0.00%	0.00%	0.00%	90.00%	10.00%	70.00%	0.00%	90.00%	20.00%						

- best 20 parameter combinations used are obtained in Experiment4.
- and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.



single point crossover

- Lamarck using local search: `normal` and single point crossover
- SSGA using `normal` mutation and single point crossover
- best 20 parameter combinations used are obtained in Experiment4.
- and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.



- Baldwin using local search: `normal` and single point crossover
 - SSGA using `normal` mutation and single point crossover
 - best 20 parameter combinations used are obtained in Experiment4.
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.

linear combination crossover

- Lamarck using local search: `normal` and linear combination crossover
 - SSGA using `normal` mutation and linear combination crossover
 - best 20 parameter combinations used are obtained in Experiment4.
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is not applied.

Experiment 7

normal local search

probabilistic crossover

- SSGA using normal mutation and probabilistic crossover
 - best 20 parameter combinations used are obtained in Experiment4.

- Lamarck using normal mutation, probabilistic crossover, normal local search
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.
 - number of Phenotypes =1
 - best 20 parameter combinations used are obtained in Experiment4.

Function	combination 1	combination 2	combination 3	combination 4	combination 5	combination 6	combination 7	combination 8	combination 9	combination 10	combination 11	combination 12	combination 13	combination 14	combination 15	combination 16	combination 17	combination 18	combination 19	combination 20	combination 21	combination 22	combination 23	
F1	100.00%	10.00%	50.00%	0.00%	0.00%	0.00%	80.00%	90.00%	60.00%	70.00%	0.00%	90.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	30.00%	30.00%		
F2	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	10.00%	-10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%		
F3	100.00%	0.00%	60.00%	0.00%	0.00%	0.00%	60.00%	80.00%	60.00%	70.00%	0.00%	90.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	30.00%		
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F6	90.00%	0.00%	70.00%	0.00%	0.00%	0.00%	80.00%	60.00%	60.00%	100.00%	0.00%	90.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	30.00%		
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F12	0.00%	-10.00%	0.00%	80.00%	90.00%	90.00%	70.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	80.00%	0.00%	0.00%	
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F14	10.00%	0.00%	20.00%	10.00%	20.00%	30.00%	10.00%	10.00%	-10.00%	30.00%	-10.00%	-10.00%	-10.00%	-10.00%	30.00%	-10.00%	-10.00%	-10.00%	30.00%	-10.00%	0.00%	-20.00%	20.00%	-10.00%
F15	-40.00%	-10.00%	-30.00%	0.00%	0.00%	0.00%	10.00%	0.00%	-30.00%	20.00%	-10.00%	10.00%	20.00%	0.00%	20.00%	0.00%	-40.00%	0.00%	10.00%	0.00%	-10.00%	-10.00%	-10.00%	
F16	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F18	10.00%	-10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-20.00%	0.00%		
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
F20	0.00%	30.00%	-10.00%	10.00%	-30.00%	50.00%	-10.00%	10.00%	0.00%	0.00%	10.00%	20.00%	20.00%	-20.00%	-30.00%	-20.00%	40.00%	-20.00%	-30.00%	20.00%	30.00%	30.00%		
F21	10.00%	20.00%	-30.00%	-20.00%	10.00%	20.00%	-30.00%	-30.00%	-10.00%	-20.00%	-20.00%	-20.00%	-30.00%	0.00%	-10.00%	-10.00%	20.00%	10.00%	10.00%	-10.00%	10.00%	-10.00%		
F22	30.00%	20.00%	20.00%	10.00%	10.00%	20.00%	20.00%	10.00%	20.00%	10.00%	20.00%	20.00%	20.00%	20.00%	20.00%	-20.00%	10.00%	0.00%	-10.00%	-20.00%	10.00%	-20.00%		
F23	30.00%	20.00%	-20.00%	40.00%	40.00%	10.00%	-10.00%	10.00%	-20.00%	40.00%	40.00%	30.00%	0.00%	0.00%	10.00%	-10.00%	30.00%	30.00%	20.00%	0.00%	10.00%	0.00%		

- Lamarck using normal mutation, probabilistic crossover, normal local search
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.

- number of Phenotypes =3
 - best 20 parameter combinations used are obtained in Experiment4.

Function	combination 1	combination 2	combination 3	combination 4	combination 5	combination 6	combination 7	combination 8	combination 9	combination 10	combination 11	combination 12	combination 13	combination 14	combination 15	combination 16	combination 17	combination 18	combination 19	combination 20	combination 21	combination 22	combination 23
F1	100.00%	10.00%	50.00%	0.00%	0.00%	0.00%	80.00%	90.00%	100.00%	70.00%	0.00%	100.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
F2	10.00%	20.00%	10.00%	0.00%	0.00%	0.00%	70.00%	30.00%	0.00%	40.00%	40.00%	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	20.00%	
F3	100.00%	0.00%	60.00%	0.00%	0.00%	0.00%	60.00%	80.00%	100.00%	70.00%	0.00%	90.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
F4	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	100.00%	0.00%	70.00%	0.00%	0.00%	0.00%	80.00%	60.00%	100.00%	100.00%	0.00%	90.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	0.05%	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F12	0.00%	-10.00%	0.00%	80.00%	90.00%	90.00%	70.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	80.00%	0.00%	
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F14	60.00%	0.00%	-10.00%	-30.00%	-10.00%	50.00%	40.00%	10.00%	10.00%	20.00%	-20.00%	-10.00%	-10.00%	30.00%	-40.00%	-10.00%	-10.00%	-10.00%	-10.00%	20.00%	10.00%	20.00%	
F15	-40.00%	-20.00%	-10.00%	0.00%	0.00%	0.00%	10.00%	0.00%	-10.00%	20.00%	10.00%	10.00%	20.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	0.00%	10.00%	10.00%	
F16	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F18	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	0.00%	0.00%	-10.00%	20.00%	20.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	0.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F20	-30.00%	40.00%	-40.00%	30.00%	-20.00%	50.00%	-10.00%	30.00%	0.00%	30.00%	20.00%	50.00%	-10.00%	-30.00%	-20.00%	30.00%	-30.00%	-20.00%	40.00%	10.00%	-20.00%	40.00%	
F21	-30.00%	10.00%	-50.00%	-10.00%	20.00%	30.00%	-10.00%	-10.00%	-10.00%	0.00%	-30.00%	-30.00%	-20.00%	-40.00%	0.00%	20.00%	0.00%	0.00%	0.00%	-10.00%	0.00%	0.00%	
F22	40.00%	10.00%	30.00%	10.00%	30.00%	0.00%	20.00%	-10.00%	30.00%	0.00%	10.00%	10.00%	30.00%	10.00%	20.00%	20.00%	-10.00%	10.00%	20.00%	0.00%	0.00%	0.00%	
F23	20.00%	20.00%	-10.00%	30.00%	20.00%	10.00%	10.00%	-10.00%	20.00%	30.00%	20.00%	20.00%	40.00%	10.00%	0.00%	30.00%	0.00%	10.00%	10.00%	0.00%	0.00%	0.00%	

single point crossover

- SSGA using normal mutation and single point crossover
 - best 20 parameter combinations used are obtained in Experiment4.

- Lamarck using normal mutation, single point crossover, normal local search
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.
 - number of Phenotypes =1
 - best 20 parameter combinations used are obtained in Experiment4.

- Lamarck using normal mutation, single point crossover, normal local search
 - and strategy that "choosing best of genotype and phenotype as final phenotype" **(is applied)**.
 - number of Phenotypes =3
 - best 20 parameter combinations used are obtained in Experiment4.

linear combination crossover

- SSGA using normal mutation and linear combination crossover
 - best 20 parameter combinations used are obtained in Experiment4.

Function	combination 1	combination 2	combination 3	combination 4	combination 5	combination 6	combination 7	combination 8	combination 9	combination 10	combination 11	combination 12	combination 13	combination 14	combination 15	combination 16	combination 17	combination 18	combination 19	combination 20	combination 21	combination 22	combination 23
F1	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	30.00%	100.00%	100.00%	60.00%	100.00%	100.00%	100.00%	100.00%	100.00%	70.00%	80.00%		
F2	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	20.00%	10.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%		
F3	90.00%	100.00%	80.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	50.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	80.00%	100.00%			
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	100.00%	100.00%	60.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	10.00%	100.00%	100.00%	80.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%		
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	0.00%	0.00%		
F10	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	0.00%	0.00%		
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F12	30.00%	20.00%	20.00%	40.00%	20.00%	30.00%	10.00%	10.00%	10.00%	10.00%	30.00%	0.00%	10.00%	20.00%	10.00%	0.00%	30.00%	20.00%	0.00%	30.00%	20.00%	0.00%	
F13	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	
F14	0.00%	0.00%	20.00%	10.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	10.00%	0.00%	10.00%	10.00%	20.00%	0.00%	0.00%	10.00%	0.00%	0.00%	10.00%	
F15	60.00%	90.00%	70.00%	0.00%	0.00%	10.00%	0.00%	40.00%	80.00%	70.00%	70.00%	50.00%	60.00%	50.00%	80.00%	10.00%	0.00%	30.00%	80.00%				
F16	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
F18	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%		
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F20	50.00%	30.00%	60.00%	70.00%	40.00%	30.00%	60.00%	50.00%	30.00%	30.00%	50.00%	40.00%	40.00%	40.00%	40.00%	20.00%	50.00%	60.00%	20.00%	50.00%	50.00%		
F21	60.00%	30.00%	60.00%	30.00%	50.00%	30.00%	20.00%	20.00%	50.00%	50.00%	40.00%	50.00%	40.00%	40.00%	40.00%	70.00%	20.00%	50.00%	50.00%	40.00%	40.00%		
F22	0.00%	0.00%	70.00%	20.00%	20.00%	10.00%	30.00%	40.00%	30.00%	30.00%	10.00%	30.00%	30.00%	40.00%	30.00%	10.00%	20.00%	30.00%	20.00%	30.00%	30.00%		
F23	30.00%	30.00%	40.00%	0.00%	40.00%	20.00%	0.00%	30.00%	20.00%	20.00%	30.00%	20.00%	50.00%	20.00%	10.00%	0.00%	20.00%	30.00%	30.00%	0.00%	30.00%		

- Lamarck using normal mutation, linear combination crossover, normal local search
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.
 - number of Phenotypes =1
 - best 20 parameter combinations used are obtained in Experiment4.

Function	combination1	combination2	combination3	combination4	combination5	combination6	combination7	combination8	combination9	combination10	combination11	combination12	combination13	combination14	combination15	combination16	combination17	combination18	combination19	combination20	combination21	combination22	combination23
F1	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	0.00%	70.00%	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	20.00%			
F2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	30.00%	0.00%	0.00%	70.00%	10.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F3	10.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	50.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%		
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	0.00%	90.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	
F12	-30.00%	-20.00%	-20.00%	60.00%	80.00%	80.00%	70.00%	-10.00%	-10.00%	-10.00%	-10.00%	-30.00%	-10.00%	-10.00%	-10.00%	-20.00%	90.00%	100.00%	70.00%	-20.00%	0.00%		
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F14	10.00%	30.00%	-20.00%	-10.00%	20.00%	0.00%	10.00%	20.00%	10.00%	20.00%	0.00%	0.00%	10.00%	-10.00%	-10.00%	-10.00%	-10.00%	10.00%	0.00%	0.00%	-10.00%		
F15	10.00%	-30.00%	-10.00%	10.00%	0.00%	10.00%	20.00%	-10.00%	20.00%	20.00%	30.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	-10.00%			
F16	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F18	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	0.00%		
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F20	-10.00%	10.00%	-30.00%	-30.00%	10.00%	20.00%	10.00%	0.00%	0.00%	20.00%	-30.00%	0.00%	50.00%	20.00%	10.00%	0.00%	-20.00%	0.00%	-10.00%	-40.00%			
F21	10.00%	30.00%	-20.00%	0.00%	10.00%	10.00%	10.00%	30.00%	-20.00%	10.00%	10.00%	-20.00%	20.00%	10.00%	-40.00%	30.00%	-40.00%	10.00%	-10.00%	0.00%			
F22	40.00%	70.00%	-40.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	10.00%	0.00%	40.00%	30.00%	-10.00%	10.00%	20.00%	-20.00%	10.00%	10.00%	0.00%			
F23	30.00%	10.00%	20.00%	40.00%	-20.00%	10.00%	40.00%	30.00%	20.00%	30.00%	0.00%	10.00%	0.00%	30.00%	40.00%	30.00%	20.00%	20.00%	10.00%	20.00%			

- Lamarck using normal mutation, linear combination crossover, normal local search
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.
 - number of Phenotypes =3
 - best 20 parameter combinations used are obtained in Experiment4.

uniform local search

probabilistic crossover

- SSGA using uniform mutation and probabilistic crossover
 - best 20 parameter combinations used are obtained in Experiment4.

Function	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F1	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	0.00%	0.00%
F2	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	80.00%	0.00%	0.00%
F3	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	0.00%	0.00%
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F6	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	0.00%	0.00%
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F12	0.00%	0.00%	0.00%	0.00%	10.00%	10.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	10.00%	0.00%	0.00%
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F14	30.00%	40.00%	30.00%	40.00%	30.00%	30.00%	20.00%	40.00%	50.00%	50.00%	10.00%	20.00%	30.00%	10.00%	0.00%	10.00%	30.00%	70.00%	10.00%	50.00%
F15	70.00%	60.00%	50.00%	0.00%	0.00%	0.00%	0.00%	60.00%	70.00%	80.00%	50.00%	60.00%	90.00%	50.00%	50.00%	0.00%	0.00%	60.00%	80.00%	0.00%
F16	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	90.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
F18	90.00%	100.00%	90.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	80.00%	90.00%	80.00%	90.00%	100.00%	90.00%	90.00%	70.00%	90.00%	90.00%
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	40.00%	50.00%	30.00%	30.00%	70.00%	30.00%	60.00%	50.00%	50.00%	60.00%	30.00%	30.00%	50.00%	50.00%	50.00%	40.00%	70.00%	30.00%	40.00%	60.00%
F21	20.00%	20.00%	30.00%	60.00%	10.00%	20.00%	30.00%	30.00%	40.00%	40.00%	40.00%	50.00%	20.00%	20.00%	10.00%	30.00%	60.00%	20.00%	20.00%	30.00%
F22	40.00%	10.00%	20.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	30.00%	50.00%	10.00%	0.00%	20.00%	30.00%	20.00%	0.00%	30.00%	0.00%	10.00%
F23	30.00%	0.00%	0.00%	10.00%	40.00%	20.00%	10.00%	30.00%	10.00%	30.00%	20.00%	20.00%	0.00%	10.00%	20.00%	10.00%	20.00%	60.00%	20.00%	10.00%

- Lamarck using normal mutation, probabilistic crossover, normal local search
 - and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.
 - number of Phenotypes =3
 - best 20 parameter combinations used are obtained in Experiment4.

Function	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F1	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	30.00%	20.00%	0.00%	100.00%	0.00%	20.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%
F2	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%
F3	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	40.00%	0.00%	0.00%	0.00%	100.00%	0.00%	20.00%	90.00%	100.00%	100.00%	100.00%	0.00%	0.00%
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F6	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	50.00%	10.00%	0.00%	10.00%	100.00%	0.00%	10.00%	90.00%	100.00%	100.00%	100.00%	0.00%	0.00%
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F14	40.00%	40.00%	40.00%	60.00%	20.00%	20.00%	60.00%	20.00%	60.00%	30.00%	20.00%	30.00%	50.00%	30.00%	10.00%	30.00%	50.00%	10.00%	50.00%	10.00%
F15	60.00%	70.00%	90.00%	20.00%	30.00%	100.00%	80.00%	40.00%	70.00%	70.00%	30.00%	70.00%	90.00%	70.00%	30.00%	0.00%	50.00%	20.00%	60.00%	50.00%
F16	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
F18	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	50.00%	80.00%	90.00%	90.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	40.00%	60.00%	40.00%	50.00%	20.00%	50.00%	70.00%	30.00%	40.00%	70.00%	60.00%	30.00%	50.00%	40.00%	50.00%	50.00%	30.00%	30.00%	50.00%	10.00%
F21	40.00%	20.00%	30.00%	20.00%	20.00%	40.00%	40.00%	30.00%	40.00%	20.00%	40.00%	0.00%	10.00%	30.00%	20.00%	30.00%	0.00%	30.00%	10.00%	10.00%
F22	30.00%	50.00%	20.00%	50.00%	10.00%	30.00%	10.00%	20.00%	30.00%	10.00%	10.00%	10.00%	10.00%	20.00%	30.00%	10.00%	10.00%	20.00%	10.00%	10.00%
F23	30.00%	30.00%	40.00%	10.00%	10.00%	0.00%	20.00%	30.00%	30.00%	30.00%	50.00%	0.00%	60.00%	20.00%	10.00%	30.00%	30.00%	10.00%	30.00%	50.00%

Function	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
F1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	20.00%	0.00%	0.00%	100.00%	0.00%	20.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	100.00%	0.00%	20.00%	90.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	0.00%	0.00%	0.00%	100.00%	90.00%	90.00%	70.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F12	0.00%	0.00%	0.00%	0.00%	-10.00%	-10.00%	-20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-30.00%	-10.00%	0.00%	0.00%	
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F14	10.00%	20.00%	-10.00%	-10.00%	40.00%	-20.00%	10.00%	-20.00%	10.00%	0.00%	0.00%	40.00%	30.00%	0.00%	0.00%	-20.00%	0.00%	0.00%	0.00%	0.00%	
F15	-10.00%	10.00%	40.00%	20.00%	30.00%	100.00%	80.00%	-20.00%	0.00%	-10.00%	-20.00%	10.00%	0.00%	20.00%	-20.00%	0.00%	50.00%	20.00%	-30.00%	0.00%	
F16	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	10.00%	0.00%	0.00%	10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	0.00%	0.00%	0.00%	
F17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F18	0.00%	0.00%	10.00%	0.00%	0.00%	10.00%	0.00%	-30.00%	0.00%	0.00%	-40.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	10.00%	
F19	0.00%	0.00%	10.00%	20.00%	20.00%	10.00%	-20.00%	-10.00%	-10.00%	10.00%	0.00%	-20.00%	0.00%	-10.00%	10.00%	0.00%	0.00%	-60.00%	0.00%	-20.00%	
F20	20.00%	0.00%	-40.00%	10.00%	20.00%	10.00%	0.00%	0.00%	0.00%	0.00%	-50.00%	0.00%	-10.00%	-10.00%	10.00%	10.00%	0.00%	-60.00%	10.00%	-20.00%	
F21	-10.00%	40.00%	0.00%	40.00%	0.00%	30.00%	10.00%	10.00%	20.00%	-20.00%	-50.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	30.00%	30.00%	-10.00%	
F22	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	20.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	
F23	0.00%	30.00%	40.00%	0.00%	-30.00%	-20.00%	10.00%	0.00%	20.00%	0.00%	30.00%	-20.00%	60.00%	10.00%	-10.00%	20.00%	20.00%	0.00%	0.00%	20.00%	30.00%

- Lamarck using normal mutation, single point crossover, normal local search
- and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.
- number of Phenotypes =3
- best 20 parameter combinations used are obtained in Experiment4.

	iterations	mutation_rate	num_individuals	range_mutation	crossover_probability	Mutation_type	Crossover_type
1	1000000	2	100	0.9	0.5	Normal	Probabilistic_crossover
2	1000000	2	100	2	0.5	Normal	Probabilistic_crossover
3	1000000	1	200	5	0.6	Normal	Probabilistic_crossover
4	1000000	2	100	0.55	0.6	Normal	Probabilistic_crossover
5	1000000	2	100	0.55	0.7	Normal	Probabilistic_crossover
6	1000000	2	100	0.9	0.6	Normal	Probabilistic_crossover
7	1000000	1	200	2	0.6	Normal	Probabilistic_crossover
8	1000000	2	100	0.55	0.5	Normal	Probabilistic_crossover
9	1000000	1	200	0.55	0.5	Normal	Probabilistic_crossover
10	1000000	1	100	2	0.6	Normal	Probabilistic_crossover
11	1000000	2	100	0.9	0.7	Normal	Probabilistic_crossover
12	1000000	1	200	0.9	0.5	Normal	Probabilistic_crossover
13	1000000	2	100	2	0.6	Normal	Probabilistic_crossover
14	1000000	0.5	200	5	0.5	Normal	Probabilistic_crossover
15	1000000	1	200	0.55	0.6	Normal	Probabilistic_crossover
16	1000000	1	100	5	0.7	Normal	Probabilistic_crossover
17	1000000	1	200	2	0.5	Normal	Probabilistic_crossover
18	1000000	1	200	0.9	0.6	Normal	Probabilistic_crossover
19	1000000	1	100	0.55	0.6	Normal	Probabilistic_crossover
20	1000000	1	100	0.9	0.6	Normal	Probabilistic_crossover

SSGA

- SSGA using new best 20 parameter combinations obtained in Experiment8

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555	
F1	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F2	100.0%	60.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	30.0%	0.0%	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F3	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F4	100.0%	20.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%	100.0%	100.0%	50.0%	0.0%	100.0%	0.0%	80.0%	100.0%	100.0%	100.0%	100.0%
F5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F6	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F9	100.0%	100.0%	10.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	100.0%	20.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F10	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F11	40.0%	100.0%	0.0%	0.0%	20.0%	20.0%	70.0%	10.0%	0.0%	10.0%	10.0%	60.0%	70.0%	0.0%	90.0%	40.0%	10.0%	0.0%	0.0%	0.0%	0.0%
F12	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F13	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F14	30.0%	100.0%	100.0%	30.0%	10.0%	0.0%	100.0%	10.0%	50.0%	100.0%	10.0%	20.0%	100.0%	100.0%	20.0%	100.0%	100.0%	50.0%	30.0%	10.0%	0.0%
F15	0.0%	0.0%	0.0%	30.0%	40.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%
F16	90.0%	60.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F17	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F18	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F19	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F20	60.0%	50.0%	50.0%	40.0%	70.0%	70.0%	40.0%	50.0%	20.0%	60.0%	40.0%	30.0%	30.0%	40.0%	70.0%	30.0%	40.0%	40.0%	40.0%	40.0%	40.0%
F21	60.0%	60.0%	10.0%	40.0%	70.0%	60.0%	40.0%	40.0%	70.0%	30.0%	80.0%	50.0%	60.0%	10.0%	30.0%	10.0%	30.0%	50.0%	40.0%	30.0%	30.0%
F22	40.0%	40.0%	30.0%	40.0%	20.0%	70.0%	50.0%	80.0%	50.0%	10.0%	60.0%	20.0%	40.0%	20.0%	30.0%	20.0%	40.0%	40.0%	50.0%	20.0%	20.0%
F23	90.0%	30.0%	10.0%	50.0%	40.0%	60.0%	0.0%	50.0%	50.0%	30.0%	80.0%	60.0%	60.0%	20.0%	40.0%	40.0%	40.0%	50.0%	60.0%	20.0%	20.0%

Lamarck1

- Lamarck using new best 20 parameter combinations obtained in Experiment8
- Local search rate = mutation rate
- local searh type = mutation type
- STD = 2 * range_mutation
- number of phenotypes = 1
- and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F2	100.0%	60.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	40.0%	0.0%	100.0%	0.0%	100.0%	100.0%	
F3	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F4	100.0%	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	60.0%	0.0%	100.0%	100.0%	100.0%	100.0%	
F5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F6	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F9	100.0%	100.0%	70.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	70.0%	100.0%	80.0%	100.0%	100.0%	100.0%	
F10	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F11	100.0%	100.0%	100.0%	70.0%	30.0%	80.0%	80.0%	90.0%	30.0%	20.0%	60.0%	60.0%	90.0%	100.0%	0.0%	100.0%	100.0%	20.0%	0.0%	0.0%
F12	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F13	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F14	30.0%	100.0%	100.0%	20.0%	20.0%	60.0%	100.0%	40.0%	80.0%	100.0%	70.0%	60.0%	100.0%	100.0%	60.0%	100.0%	60.0%	10.0%	40.0%	
F15	0.0%	0.0%	0.0%	30.0%	50.0%	10.0%	0.0%	40.0%	10.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	30.0%	0.0%	0.0%	10.0%	
F16	100.0%	70.0%	100.0%	100.0%	100.0%	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	60.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F17	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F18	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F19	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F20	10.0%	20.0%	20.0%	50.0%	40.0%	70.0%	70.0%	30.0%	30.0%	50.0%	20.0%	40.0%	40.0%	40.0%	40.0%	60.0%	60.0%	40.0%	40.0%	
F21	90.0%	70.0%	40.0%	90.0%	60.0%	90.0%	70.0%	80.0%	50.0%	60.0%	90.0%	80.0%	60.0%	10.0%	40.0%	40.0%	60.0%	80.0%	70.0%	
F22	60.0%	80.0%	30.0%	70.0%	30.0%	10.0%	40.0%	50.0%	40.0%	20.0%	50.0%	70.0%	50.0%	20.0%	60.0%	10.0%	20.0%	40.0%	20.0%	
F23	70.0%	60.0%	0.0%	70.0%	90.0%	90.0%	70.0%	70.0%	80.0%	60.0%	100.0%	50.0%	30.0%	30.0%	70.0%	20.0%	50.0%	100.0%	50.0%	

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F4	0.0%	80.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	10.0%	0.0%	10.0%	20.0%	0.0%	0.0%	
F5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F9	0.0%	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	0.0%	0.0%	60.0%	0.0%	0.0%	
F10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F11	60.0%	0.0%	0.0%	70.0%	30.0%	60.0%	60.0%	20.0%	20.0%	20.0%	50.0%	50.0%	30.0%	30.0%	0.0%	10.0%	60.0%	10.0%	0.0%	
F12	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F13	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F14	0.0%	0.0%	-10.0%	10.0%	60.0%	0.0%	30.0%	30.0%	0.0%	60.0%	40.0%	0.0%	0.0%	40.0%	0.0%	0.0%	10.0%	-20.0%	30.0%	
F15	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	0.0%	20.0%	10.0%	0.0%	0.0%	10.0%	0.0%	0.0%	30.0%	0.0%	0.0%	0.0%	20.0%	
F16	10.0%	10.0%	0.0%	0.0%	0.0%	-10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F17	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F18	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F19	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
F20	-50.0%	-30.0%	-30.0%	10.0%	0.0%	30.0%	-20.0%	0.0%	-30.0%	10.0%	-10.0%	10.0%	-10.0%	-10.0%	-30.0%	10.0%	30.0%	10.0%	0.0%	
F21	30.0%	10.0%	30.0%	50.0%	-10.0%	30.0%	40.0%	-20.0%	30.0%	10.0%	30.0%	0.0%	0.0%	10.0%	30.0%	30.0%	10.0%	40.0%	40.0%	
F22	20.0%	40.0%	0.0%	30.0%	10.0%	-60.0%	-10.0%	-10.0%	10.0%	10.0%	-10.0%	50.0%	10.0%	0.0%	30.0%	-10.0%	-20.0%	0.0%	-30.0%	
F23	-20.0%	30.0%	-10.0%	20.0%	50.0%	30.0%	70.0%	20.0%	30.0%	30.0%	-10.0%	-10.0%	-10.0%	-30.0%	30.0%	-20.0%	0.0%	40.0%	30.0%	

Lamarck5

- Lamarck using new best 20 parameter combinations obtained in Experiment8
- Local search rate = mutation rate
- local searh type = mutation type
- STD = 2 * range_mutation
- number of phenotypes = 5
- and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F2	0.00%	40.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70.00%	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
F3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F4	0.00%	80.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	50.00%	100.00%	0.00%	100.00%	20.00%	0.00%	0.00%	0.00%
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	90.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	80.00%	0.00%	0.00%	0.00%	0.00%
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F11	60.00%	0.00%	0.00%	100.00%	100.00%	80.00%	80.00%	30.00%	100.00%	90.00%	90.00%	40.00%	30.00%	90.00%	10.00%	60.00%	90.00%	100.00%	100.00%	100.00%
F12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F14	50.00%	0.00%	0.00%	40.00%	30.00%	80.00%	0.00%	70.00%	50.00%	0.00%	40.00%	80.00%	0.00%	0.00%	70.00%	0.00%	0.00%	50.00%	10.00%	60.00%
F15	40.00%	10.00%	0.05%	40.00%	10.00%	40.00%	0.05%	60.00%	50.00%	0.00%	50.00%	50.00%	0.00%	0.00%	70.00%	0.00%	0.00%	30.00%	60.00%	50.00%
F16	10.00%	40.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F18	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	-30.00%	-50.00%	-40.00%	-10.00%	-50.00%	-50.00%	-20.00%	-40.00%	0.00%	-30.00%	-30.00%	-20.00%	-20.00%	-30.00%	-50.00%	-30.00%	-30.00%	-20.00%	0.00%	0.00%
F21	10.00%	20.00%	40.00%	30.00%	10.00%	-10.00%	40.00%	0.00%	10.00%	50.00%	0.00%	0.00%	20.00%	50.00%	20.00%	30.00%	20.00%	20.00%	20.00%	40.00%
F22	0.00%	0.00%	-10.00%	20.00%	20.00%	30.00%	-10.00%	0.00%	10.00%	10.00%	60.00%	20.00%	20.00%	20.00%	0.00%	10.00%	20.00%	20.00%	20.00%	50.00%
F23	0.00%	40.00%	20.00%	0.00%	0.00%	20.00%	60.00%	10.00%	40.00%	50.00%	-20.00%	20.00%	0.00%	-10.00%	10.00%	0.00%	60.00%	0.00%	30.00%	50.00%

Baldwin1

- Baldwin using new best 20 parameter combinations obtained in Experiment8
- Local search rate = mutation rate
- local searh type = mutation type
- STD = 2 * range_mutation
- number of phenotypes = 1
- and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555	
F1	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F2	100.00%	20.00%	0.00%	100.00%	100.00%	100.00%	100.00%	70.00%	100.00%	80.00%	90.00%	100.00%	10.00%	0.00%	100.00%	0.00%	40.00%	100.00%	100.00%	100.00%	100.00%
F3	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F4	80.00%	0.00%	0.00%	30.00%	0.00%	10.00%	0.00%	70.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	100.00%	90.00%	0.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F10	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F11	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F12	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F13	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F14	50.00%	100.00%	100.00%	30.00%	40.00%	40.00%	100.00%	20.00%	40.00%	100.00%	20.00%	20.00%	20.00%	40.00%	20.00%	100.00%	100.00%	30.00%	0.00%	20.00%	
F15	10.00%	0.00%	0.00%	30.00%	40.00%	0.00%	20.00%	10.00%	0.00%	10.00%	10.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	10.00%	0.00%	
F16	100.00%	70.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F18	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F20	50.00%	20.00%	50.00%	30.00%	40.00%	40.00%	10.00%	-10.00%	10.00%	40.00%	40.00%	0.00%	20.00%	0.00%	0.00%	0.00%	-20.00%	0.00%	0.00%	0.00%	
F21	40.00%	100.00%	40.00%	60.00%	90.00%	60.00%	30.00%	60.00%	40.00%	90.00%	100.00%	60.00%	20.00%	60.00%	50.00%	60.00%	70.00%	80.00%	60.00%	60.00%	
F22	50.00%	60.00%	30.00%	20.00%	60.00%	40.00%	40.00%	70.00%	60.00%	20.00%	60.00%	50.00%	70.00%	30.00%	50.00%	40.00%	40.00%	60.00%	70.00%	60.00%	
F23	90.00%	80.00%	10.00%	70.00%	60.00%	50.00%	40.00%	70.00%	60.00%	80.00%	70.00%	70.00%	40.00%	80.00%	20.00%	20.00%	40.00%	50.00%	80.00%	80.00%	

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1																				

Baldwin5

- Baldwin using new best 20 parameter combinations obtained in Experiment8
- Local search rate = mutation rate
- local searh type = mutation type
- STD = 2 * range_mutation
- number of phenotypes = 5
- and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F2	100.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F3	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	100.00%	100.00%	100.00%	
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	100.00%	40.00%	0.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	80.00%	100.00%	100.00%	
F10	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F11	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F12	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F13	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F14	90.00%	100.00%	100.00%	30.00%	50.00%	60.00%	100.00%	50.00%	70.00%	100.00%	50.00%	50.00%	90.00%	100.00%	70.00%	100.00%	100.00%	80.00%	60.00%	50.00%
F15	30.00%	0.00%	0.00%	40.00%	80.00%	20.00%	0.00%	90.00%	70.00%	10.00%	20.00%	10.00%	0.00%	40.00%	0.00%	0.00%	10.00%	40.00%	30.00%	
F16	100.00%	70.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F18	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F20	10.00%	10.00%	10.00%	20.00%	20.00%	30.00%	30.00%	10.00%	20.00%	20.00%	10.00%	30.00%	30.00%	40.00%	20.00%	30.00%	20.00%	20.00%	20.00%	
F21	80.00%	50.00%	50.00%	50.00%	80.00%	90.00%	80.00%	80.00%	80.00%	60.00%	70.00%	50.00%	60.00%	40.00%	80.00%	20.00%	30.00%	80.00%	50.00%	70.00%
F22	60.00%	70.00%	10.00%	50.00%	70.00%	60.00%	70.00%	50.00%	80.00%	60.00%	70.00%	60.00%	30.00%	70.00%	30.00%	70.00%	70.00%	70.00%	60.00%	
F23	70.00%	90.00%	40.00%	100.00%	50.00%	70.00%	50.00%	70.00%	80.00%	60.00%	60.00%	90.00%	40.00%	90.00%	60.00%	60.00%	90.00%	60.00%	90.00%	

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F2	0.00%	-60.00%	0.00%	0.00%	0.00%	-100.00%	0.00%	0.00%	-90.00%	-10.00%	0.00%	-30.00%	0.00%	0.00%	-90.00%	0.00%	0.00%	0.00%	0.00%	
F3	0.00%	0.00%	-90.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-80.00%	0.00%	0.00%	0.00%	0.00%	
F4	-100.00%	-20.00%	0.00%	-100.00%	-100.00%	-100.00%	-90.00%	-100.00%	-90.00%	-100.00%	-100.00%	-50.00%	0.00%	-100.00%	-100.00%	0.00%	-80.00%	-100.00%	-100.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	0.00%	-60.00%	-10.00%	0.00%	0.00%	-50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-50.00%	0.00%	0.00%	-20.00%	-20.00%	0.00%	0.00%	0.00%	
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F11	60.00%	0.00%	100.00%	100.00%	80.00%	80.00%	30.00%	90.00%	100.00%	90.00%	90.00%	40.00%	30.00%	100.00%	10.00%	60.00%	90.00%	100.00%	100.00%	
F12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F14	60.00%	0.00%	0.00%	40.00%	60.00%	0.00%	40.00%	20.00%	0.00%	40.00%	70.00%	0.00%	0.00%	50.00%	0.00%	0.00%	30.00%	30.00%	40.00%	
F15	30.00%	0.00%	0.00%	10.00%	40.00%	20.00%	0.00%	70.00%	70.00%	10.00%	20.00%	10.00%	10.00%	0.00%	40.00%	0.00%	0.00%	30.00%	30.00%	
F16	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F18	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F20	-50.00%	-40.00%	-40.00%	-20.00%	-50.00%	-40.00%	-10.00%	-40.00%	0.00%	-40.00%	-30.00%	0.00%	-10.00%	-40.00%	10.00%	-10.00%	-10.00%	-20.00%	-20.00%	
F21	20.00%	-10.00%	40.00%	10.00%	10.00%	30.00%	40.00%	10.00%	30.00%	-10.00%	0.00%	0.00%	30.00%	50.00%	10.00%	0.00%	30.00%	10.00%	40.00%	
F22	20.00%	30.00%	-20.00%	10.00%	10.00%	50.00%	-10.00%	20.00%	-30.00%	30.00%	50.00%	20.00%	10.00%	40.00%	10.00%	-10.00%	30.00%	20.00%	40.00%	
F23	-20.00%	60.00%	30.00%	50.00%	10.00%	50.00%	20.00%	30.00%	30.00%	0.00%	0.00%	10.00%	50.00%	0.00%	0.00%	10.00%	0.00%	0.00%	70.00%	

Baldwin10

- Baldwin using new best 20 parameter combinations obtained in Experiment8
- Local search rate = mutation rate
- local searh type = mutation type
- STD = 2 * range_mutation
- number of phenotypes = 10
- and strategy that "choosing best of genotype and phenotype as final phenotype" is applied.

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555		
F1	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
F2	100.00%	0.00%	0.00%	100.00%	100.00%	80.00%	0.00%	100.00%	100.00%	100.00%	60.00%	100.00%	0.00%	0.00%	100.00%	0.00%	30.00%	100.00%	100.00%	100.00%	100.00%	
F3	100.00%	100.00%	20.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	100.00%	100.00%	100.00%	100.00%	
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	100.00%	10.00%	0.00%	100.00%	100.00%	40.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	70.00%	100.00%	100.00%	100.00%	100.00%	
F10	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F11	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F12	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F13	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F14	100.00%	100.00%	100.00%	40.00%	40.00%	80.00%	90.00%	50.00%	50.00%	90.00%	100.00%	100.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	80.00%	80.00%	
F15	20.00%	0.00%	0.00%	70.00%	80.00%	80.00%	90.00%	90.00%	90.00%	10.00%	40.00%	0.00%	70.00%	0.00%	50.00%	0.00%	0.00%	50.00%	80.00%	20.00%	20.00%	20.00%
F16	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F18	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F20	10.00%	10.00%	10.00%	20.00%	20.00%	10.00%	10.00%	30.00%	10.00%	30.00%	20.00%	20.00%	30.00%	0.00%	0.00%	0.00%	0.00%	20.00%	20.00%	20.00%	10.00%	10.00%
F21	90.00%	90.00%	40.00%	40.00%	100.00%	80.00%	80.00%	50.00%	80.00%	70.00%	60.00%	80.00%	70.00%	40.00%	50.00%	20.00%	80.00%	100.00%	70.00%	80.00%	80.00%	
F22	60.00%	70.00%	30.00%	80.00%	50.00%	80.00%	60.00%	60.00%	70.00%	70.00%	50.00%	90.00%	30.00%	20.00%	90.00%	70.00%	70.00%	80.00%	60.00%	60.00%	60.00%	
F23	70.00%	60.00%	30.00%	50.00%	70.00%	60.00%	70.00%	60.00%	60.00%	90.00%	100.00%	80.00%	60.00%	60.00%	50.00%	80.00%	90.00%	70.00%	70.00%	70.00%	70.00%	

Experiment9

Parameter combination

R is introduced in Experiment9.

R=0.01, other parameters are the same as Experiment8, ~~range_mutation is deleted~~ because we have R now, new column R is added.

	iterations	mutation_rate	num_individuals	crossover_probability	Mutation_type	Crossover_type	R
1	1000000	2	100	0.5	Normal	Probabilistic_crossover	0.01
2	1000000	2	100	0.5	Normal	Probabilistic_crossover	0.01
3	1000000	1	200	0.6	Normal	Probabilistic_crossover	0.01
4	1000000	2	100	0.6	Normal	Probabilistic_crossover	0.01
5	1000000	2	100	0.7	Normal	Probabilistic_crossover	0.01
6	1000000	2	100	0.6	Normal	Probabilistic_crossover	0.01
7	1000000	1	200	0.6	Normal	Probabilistic_crossover	0.01
8	1000000	2	100	0.5	Normal	Probabilistic_crossover	0.01
9	1000000	1	200	0.5	Normal	Probabilistic_crossover	0.01
10	1000000	1	100	0.6	Normal	Probabilistic_crossover	0.01
11	1000000	2	100	0.7	Normal	Probabilistic_crossover	0.01
12	1000000	1	200	0.5	Normal	Probabilistic_crossover	0.01
13	1000000	2	100	0.6	Normal	Probabilistic_crossover	0.01
14	1000000	0.5	200	0.5	Normal	Probabilistic_crossover	0.01
15	1000000	1	200	0.6	Normal	Probabilistic_crossover	0.01
16	1000000	1	100	0.7	Normal	Probabilistic_crossover	0.01
17	1000000	1	200	0.5	Normal	Probabilistic_crossover	0.01
18	1000000	1	200	0.6	Normal	Probabilistic_crossover	0.01
19	1000000	1	100	0.6	Normal	Probabilistic_crossover	0.01
20	1000000	1	100	0.6	Normal	Probabilistic_crossover	0.01

SSGA

- R=0.01
- and strategy that "choosing best of genotype and phenotype as final phenotype" **(is applied)**.

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555	
F1	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
F2	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	20.0%	100.0%	100.0%	100.0%	100.0%	100.0%	30.0%	100.0%	90.0%	20.0%	0.0%	0.0%
F3	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	80.0%	40.0%	100.0%	100.0%	100.0%	90.0%	20.0%	100.0%	90.0%	30.0%	0.0%	0.0%
F4	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F6	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F9	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F10	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F11	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F12	70.0%	100.0%	50.0%	70.0%	60.0%	90.0%	60.0%	90.0%	70.0%	40.0%	80.0%	40.0%	80.0%	50.0%	40.0%	20.0%	40.0%	30.0%	70.0%	80.0%	0.0%
F13	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F14	20.0%	40.0%	20.0%	20.0%	20.0%	0.0%	20.0%	40.0%	40.0%	60.0%	30.0%	10.0%	40.0%	0.0%	50.0%	40.0%	10.0%	50.0%	40.0%	0.0%	0.0%
F15	40.0%	90.0%	60.0%	60.0%	70.0%	70.0%	50.0%	90.0%	0.0%	50.0%	70.0%	50.0%	0.0%	80.0%	0.0%	50.0%	60.0%	10.0%	0.0%	0.0%	0.0%
F16	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%	100.0%	100.0%	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F17	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
F18	100.0%	80.0%	100.0%	100.0%	90.0%	70.0%	100.0%	100.0%	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%	90.0%	0.0%
F19	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
F20	40.0%	60.0%	40.0%	40.0%	40.0%	30.0%	40.0%	60.0%	60.0%	60.0%	40.0%	20.0%	40.0%	40.0%	30.0%	40.0%	30.0%	50.0%	50.0%	60.0%	60.0%
F21	20.0%	20.0%	30.0%	40.0%	40.0%	20.0%	30.0%	30.0%	20.0%	40.0%	10.0%	40.0%	40.0%	40.0%	60.0%	40.0%	40.0%	10.0%	20.0%	20.0%	40.0%
F22	20.0%	0.0%	20.0%	10.0%	20.0%	30.0%	30.0%	50.0%	10.0%	20.0%	30.0%	10.0%	10.0%	20.0%	0.0%	30.0%	20.0%	20.0%	10.0%	20.0%	10.0%
F23	20.0%	20.0%	20.0%	10.0%	40.0%	10.0%	30.0%	40.0%	40.0%	30.0%	0.0%	40.0%	30.0%	20.0%	40.0%	30.0%	20.0%	40.0%	50.0%	10.0%	10.0%

Baldwin(L=1)

- K=100%
- L=1
- local search = gradient search
- others are the same as SSGA

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F2	100.00%	100.00%	70.00%	100.00%	100.00%	100.00%	100.00%	90.00%	10.00%	100.00%	90.00%	100.00%	0.00%	100.00%	30.00%	100.00%	90.00%	20.00%	10.00%	
F3	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	90.00%	30.00%	100.00%	100.00%	100.00%	0.00%	80.00%	0.00%	100.00%	90.00%	30.00%	20.00%	
F4	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F6	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F10	100.00%	90.00%	100.00%	100.00%	90.00%	100.00%	100.00%	90.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	90.00%	
F11	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F12	70.00%	80.00%	70.00%	70.00%	80.00%	30.00%	80.00%	50.00%	20.00%	80.00%	50.00%	90.00%	30.00%	70.00%	40.00%	30.00%	70.00%	40.00%	50.00%	
F13	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F14	30.00%	40.00%	40.00%	10.00%	0.00%	20.00%	70.00%	30.00%	20.00%	0.00%	20.00%	40.00%	10.00%	40.00%	40.00%	30.00%	50.00%	70.00%	0.00%	
F15	30.00%	70.00%	50.00%	50.00%	60.00%	70.00%	30.00%	70.00%	30.00%	10.00%	50.00%	30.00%	60.00%	0.00%	20.00%	70.00%	40.00%	10.00%	0.00%	
F16	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	100.00%	90.00%	90.00%	
F17	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
F18	80.00%	90.00%	100.00%	80.00%	90.00%	90.00%	100.00%	100.00%	100.00%	100.00%	90.00%	100.00%	100.00%	60.00%	100.00%	80.00%	80.00%	80.00%	80.00%	
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
F20	60.00%	70.00%	30.00%	60.00%	40.00%	40.00%	30.00%	60.00%	40.00%	60.00%	60.00%	40.00%	60.00%	10.00%	40.00%	80.00%	50.00%	30.00%	50.00%	
F21	20.00%	40.00%	30.00%	10.00%	30.00%	40.00%	10.00%	60.00%	50.00%	50.00%	20.00%	20.00%	40.00%	20.00%	30.00%	10.00%	30.00%	30.00%	10.00%	
F22	10.00%	30.00%	40.00%	10.00%	30.00%	20.00%	30.00%	40.00%	40.00%	0.00%	30.00%	40.00%	30.00%	30.00%	40.00%	50.00%	20.00%	20.00%	30.00%	
F23	30.00%	10.00%	10.00%	10.00%	40.00%	30.00%	40.00%	40.00%	50.00%	30.00%	40.00%	40.00%	30.00%	10.00%	0.00%	30.00%	20.00%	30.00%	10.00%	

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F2	0.00%	0.00%	-30.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-20.00%	0.00%	0.00%	20.00%
F3	0.00%	0.00%	-10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	-10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	-20.00%	0.00%	0.00%
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F10	0.00%	-10.00%	0.00%	0.00%	-10.00%	0.00%	0.00%	-10.00%	0.00%	-10.00%	0.00%	-10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	-10.00%	
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F12	0.00%	-20.00%	20.00%	0.00%	10.00%	-10.00%	-30.00%	-20.00%	-20.00%	-20.00%	0.00%	10.00%	-20.00%	30.00%	20.00%	-10.00%	40.00%	-30.00%	-30.00%	
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F14	10.00%	0.00%	20.00%	-10.00%	-20.00%	20.00%	50.00%	-10.00%	-40.00%	-30.00%	10.00%	0.00%	10.00%	-10.00%	0.00%	20.00%	0.00%	30.00%	0.00%	0.00%
F15	-10.00%	-20.00%	-10.00%	-10.00%	-10.00%	0.00%	-40.00%	20.00%	-60.00%	10.00%	0.00%	-40.00%	10.00%	0.00%	-60.00%	0.00%	20.00%	-20.00%	0.00%	
F16	10.00%	0.00%	0.00%	0.00%	-10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	-10.00%	0.00%	0.00%	-10.00%	-10.00%
F17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F18	-20.00%	10.00%	0.00%	-20.00%	0.00%	10.00%	-10.00%	0.00%	0.00%	10.00%	0.00%	-10.00%	10.00%	0.00%	0.00%	-40.00%	0.00%	-20.00%	-10.00%	-10.00%
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	20.00%	10.00%	-10.00%	20.00%	0.00%	10.00%	-10.00%	0.00%	-20.00%	0.00%	20.00%	20.00%	20.00%	-30.00%	10.00%	40.00%	20.00%	0.00%	-20.00%	-10.00%
F21	0.00%	20.00%	0.00%	-30.00%	-10.00%	20.00%	-10.00%	30.00%	20.00%	30.00%	-20.00%	-10.00%	30.00%	-20.00%	-10.00%	-50.00%	-10.00%	20.00%	-10.00%	-20.00%
F22	-10.00%	30.00%	20.00%	0.00%	10.00%	-10.00%	0.00%	-10.00%	30.00%	20.00%	-20.00%	0.00%	30.00%	20.00%	10.00%	40.00%	20.00%	0.00%	0.00%	20.00%
F23	10.00%	-10.00%	-10.00%	0.00%	20.00%	10.00%	0.00%	-10.00%	20.00%	30.00%	0.00%	-10.00%	20.00%	30.00%	0.00%	-10.00%	-40.00%	0.00%	-30.00%	20.00%

Lamarck(L=5)

- local search type = gradient search
- L=5
- K=100%

Experiment10

Parameter combination

	iterations	mutation_rate	num_individuals	crossover_probability	Mutation_type	Crossover_type	R
1	1000000	2	100	0.5	Normal	Probabilistic_crossover	0.1
2	1000000	2	100	0.5	Normal	Probabilistic_crossover	0.1
3	1000000	1	200	0.6	Normal	Probabilistic_crossover	0.1
4	1000000	2	100	0.6	Normal	Probabilistic_crossover	0.1
5	1000000	2	100	0.7	Normal	Probabilistic_crossover	0.1
6	1000000	2	100	0.6	Normal	Probabilistic_crossover	0.1
7	1000000	1	200	0.6	Normal	Probabilistic_crossover	0.1
8	1000000	2	100	0.5	Normal	Probabilistic_crossover	0.1
9	1000000	1	200	0.5	Normal	Probabilistic_crossover	0.1
10	1000000	1	100	0.6	Normal	Probabilistic_crossover	0.1
11	1000000	2	100	0.7	Normal	Probabilistic_crossover	0.1
12	1000000	1	200	0.5	Normal	Probabilistic_crossover	0.1
13	1000000	2	100	0.6	Normal	Probabilistic_crossover	0.1
14	1000000	0.5	200	0.5	Normal	Probabilistic_crossover	0.1
15	1000000	1	200	0.6	Normal	Probabilistic_crossover	0.1
16	1000000	1	100	0.7	Normal	Probabilistic_crossover	0.1
17	1000000	1	200	0.5	Normal	Probabilistic_crossover	0.1
18	1000000	1	200	0.6	Normal	Probabilistic_crossover	0.1
19	1000000	1	100	0.6	Normal	Probabilistic_crossover	0.1
20	1000000	1	100	0.6	Normal	Probabilistic_crossover	0.1

SSGA

- R=0.1

Lamarck

- local search rate = 0.5
 - local search type = uniform
 - $L=1$

Function	590	593	579	588	589	591	576	587	569	558	592	572	594	542	570	562	575	573	552	555
F1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F6	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F15	0.00%	30.00%	20.00%	10.00%	0.00%	40.00%	0.00%	20.00%	30.00%	20.00%	50.00%	10.00%	-20.00%	0.00%	0.00%	0.00%	20.00%	0.00%	-20.00%	10.00%
F16	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F18	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F20	20.00%	20.00%	-20.00%	-10.00%	-20.00%	10.00%	0.00%	-10.00%	10.00%	-20.00%	-10.00%	-10.00%	0.00%	10.00%	0.00%	-20.00%	0.00%	20.00%	-20.00%	-10.00%
F21	40.00%	50.00%	80.00%	70.00%	50.00%	30.00%	40.00%	50.00%	40.00%	50.00%	30.00%	30.00%	20.00%	40.00%	20.00%	30.00%	10.00%	70.00%	20.00%	50.00%
F22	40.00%	50.00%	0.00%	60.00%	30.00%	60.00%	10.00%	0.00%	10.00%	20.00%	40.00%	0.00%	40.00%	40.00%	50.00%	50.00%	60.00%	60.00%	30.00%	40.00%
F23	10.00%	10.00%	60.00%	20.00%	20.00%	20.00%	40.00%	50.00%	50.00%	40.00%	60.00%	30.00%	30.00%	20.00%	70.00%	60.00%	40.00%	40.00%	60.00%	40.00%

★ F15 and F20

- local search rate = 0.5
 - local search type = uniform
 - $L=1$

★Baldwin

- local search rate = 0.5
- local search type = uniform
- L=1