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1 /Users/meijiaojiao/opt/anaconda3/envs/RunToEnd/bin/python /Users/meijiaojiao/Desktop/Evolution_algorithm/stuck in local minima/L/Lamarck_main.py
2 [['iterations', 'mutation_rate', 'num_individuals', 'crossover_probability', 'Mutation_type', 'Crossover_type', 'Local_search_rate', 'Local_search_type', 'R']]
3 [[1000000, 1.0, 200, 0.6, 'Normal', 'Probabilistic_crossover', 0.5, 'Uniform', 0.1]] [579]
4 2022-11-20 20:28:40
5 Now testing Function21
6 Times is 0
7 Iter at 1998, best solution is -2.68042E+00, optima is -10.1532, similarity is 8.01705E+00, phenotype is [6.000933089093139, 6.019733144254691, 5.997384613420313, 5.9977592149542085]
8 Iter at 3998, best solution is -2.68278E+00, optima is -10.1532, similarity is 2.03152E+00, phenotype is [6.000933089093139, 6.000124713177372, 5.997384613420313, 5.9977592149542085]
9 Iter at 5998, best solution is -1.00040E+01, optima is -10.1532, similarity is 4.18904E+00, phenotype is [4.019538759339812, 3.973147847175947, 4.019480426974489, 3.994900753162343]
10 Iter at 7998, best solution is -1.01420E+01, optima is -10.1532, similarity is 8.93999E-01, phenotype is [3.993183398548543, 4.00473096202928, 3.995939459032602, 3.994900753162343]
11 Iter at 9998, best solution is -1.01439E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.994738067111393, 4.00473096202928, 3.995939459032602, 3.994900753162343]
12 Iter at 11998, best solution is -1.01491E+01, optima is -10.1532, similarity is 1.37961E+00, phenotype is [3.998087250172453, 4.001947110568122, 4.002608719926189, 3.994900753162343]
13 Iter at 13998, best solution is -1.01511E+01, optima is -10.1532, similarity is 1.38760E+00, phenotype is [3.9993390728142257, 4.001947110568122, 4.002608719926189, 4.003333987548011]
14 Iter at 15998, best solution is -1.01512E+01, optima is -10.1532, similarity is 1.27641E+00, phenotype is [3.9993390728142257, 4.001947110568122, 4.002383834554724, 4.003333987548011]
15 Iter at 17998, best solution is -1.01524E+01, optima is -10.1532, similarity is 1.01860E+00, phenotype is [3.9993390728142257, 4.001947110568122, 4.001740212880089, 3.998965066350065]
16 Iter at 19998, best solution is -1.01525E+01, optima is -10.1532, similarity is 7.47081E-01, phenotype is [3.9993390728142257, 4.001947110568122, 4.001740212880089, 3.9996377079310608]
17 Iter at 21998, best solution is -1.01528E+01, optima is -10.1532, similarity is 6.72829E-01, phenotype is [3.9993390728142257, 4.001947110568122, 4.00019994150715, 3.9996377079310608]
18 Iter at 23998, best solution is -1.01528E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 4.001947110568122, 4.00019994150715, 3.9996377079310608]
19 Iter at 25998, best solution is -1.01528E+01, optima is -10.1532, similarity is 1.67091E+00, phenotype is [3.9993390728142257, 4.001947110568122, 4.00019994150715, 3.9996377079310608]
20 Iter at 27998, best solution is -1.01529E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 3.9986855227996654, 4.00019994150715, 4.000538961059432]
21 Iter at 29998, best solution is -1.01529E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 3.9986855227996654, 4.00019994150715, 4.000538961059432]
22 Iter at 31998, best solution is -1.01529E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 3.9986855227996654, 4.00019994150715, 4.000538961059432]
23 Iter at 33998, best solution is -1.01529E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 3.9986855227996654, 4.00019994150715, 4.000538961059432]
24 Iter at 35998, best solution is -1.01529E+01, optima is -10.1532, similarity is 2.21434E-01, phenotype is [3.9993390728142257, 3.9986855227996654, 4.00019994150715, 4.000538961059432]
25 Iter at 37998, best solution is -1.01529E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 3.9986855227996654, 4.00019994150715, 4.000538961059432]
26 Iter at 39998, best solution is -1.01529E+01, optima is -10.1532, similarity is 1.01519E+00, phenotype is [3.9993390728142257, 3.9986855227996654, 4.000166461426971, 4.000538961059432]
27 Iter at 41998, best solution is -1.01529E+01, optima is -10.1532, similarity is 5.25974E-01, phenotype is [3.9993390728142257, 3.9986855227996654, 4.000166461426971, 4.000538961059432]
28 Iter at 43998, best solution is -1.01529E+01, optima is -10.1532, similarity is 1.29765E+00, phenotype is [3.9993390728142257, 3.9986855227996654, 4.000166461426971, 4.000538961059432]
29 Iter at 45998, best solution is -1.01531E+01, optima is -10.1532, similarity is 8.33728E-01, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000538961059432]
30 Iter at 47998, best solution is -1.01531E+01, optima is -10.1532, similarity is 1.11645E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000538961059432]
31 Iter at 49998, best solution is -1.01531E+01, optima is -10.1532, similarity is 2.11451E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000538961059432]
32 Iter at 51998, best solution is -1.01531E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000538961059432]
33 Iter at 53998, best solution is -1.01531E+01, optima is -10.1532, similarity is 6.10574E-01, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
34 Iter at 55998, best solution is -1.01531E+01, optima is -10.1532, similarity is 5.47507E-01, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
35 Iter at 57998, best solution is -1.01531E+01, optima is -10.1532, similarity is 4.22062E-01, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
36 Iter at 59998, best solution is -1.01531E+01, optima is -10.1532, similarity is 1.59408E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
37 Iter at 61998, best solution is -1.01531E+01, optima is -10.1532, similarity is 7.14378E-01, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
38 Iter at 63998, best solution is -1.01531E+01, optima is -10.1532, similarity is 1.54109E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
39 Iter at 65998, best solution is -1.01531E+01, optima is -10.1532, similarity is 1.45550E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
40 Iter at 67998, best solution is -1.01531E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
41 Iter at 69998, best solution is -1.01531E+01, optima is -10.1532, similarity is 4.37585E-01, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
42 Iter at 71998, best solution is -1.01531E+01, optima is -10.1532, similarity is 1.36660E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
43 Iter at 73998, best solution is -1.01531E+01, optima is -10.1532, similarity is 5.60094E-01, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
44 Iter at 75998, best solution is -1.01531E+01, optima is -10.1532, similarity is 5.14635E-01, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
45 Iter at 77998, best solution is -1.01531E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
46 Iter at 79998, best solution is -1.01531E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
47 Iter at 81998, best solution is -1.01531E+01, optima is -10.1532, similarity is 0.00000E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
48 Iter at 83998, best solution is -1.01531E+01, optima is -10.1532, similarity is 1.40434E+00, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
49 Iter at 85998, best solution is -1.01531E+01, optima is -10.1532, similarity is 1.17891E-02, phenotype is [3.9993390728142257, 4.000624758894711, 4.000166461426971, 4.000445753384682]
50 current optimal is -10.1532,global minima is -10.1532,similarity is 0.14067149857435668
51
52 Process finished with exit code 0
53
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