Bitit type: Hieritet	Denumne constituin	·· D I	
	PSO-GA	SPSO-GA	GA
1	3919.27	3975.8	5400.05
2	3945.26	3925.11	5367.57
3	3997.27	3943.23	5377.56
4	3942.7	3954.91	5392.61
5	3996.7	3994.35	5472.48
6	3958.85	3935.02	5327.53
7	3955.65	3930.28	5302.64
8	3909.13	3971.07	5476.17
9	3973.11	3929.07	5398.41
10	3938.21	3903.85	5415.79
11	3996.7	3965.04	5451.98
12	3919.09	3953.43	5378.27
13	3941.76	3912.27	5452.54
14	3923.62	3939.58	5319.67
15	3969.84	3955.34	5454.21
16	3983.92	3982.26	5362.6
17	3923.13	3902.66	5333.06
18	3965.61	3973.9	5320.42
19	3928.72	3997.93	5454.52
20	3979.62	3963.42	5435.41
21	3987.9	3961.37	5372.88
22	3938.83	3944.61	5441.77
23	3935.87	3960.14	5318.99
24	3905.17	3943.17	5349.81
25	3943.18	3945.14	5330.57
26	3929.74	3997.48	5311.91
27	3927.57	3972.93	5470.03
28	3938.82	3916.51	5358.74
29	3992.68	3990.29	5316.8
30	3911.07	3934.7	5444.99
31	3938.8	3932.87	5471.62
32	3931.87	3977.73	5435.82
33	3963.63	3930.02	5319.69
34	3957.65	3984.42	5375.52
35	3911.32	3999.28	5319.22
36	3923.35	3952.46	5400.0
37	3968.46	3900.62	5303.14
38	3962.85	3961.59	5420.67
39	3994.89	3997.38	5440.89
40	3977.66	3930.08	5398.23
41	3954.65	3941.17	5403.99
42	3931.89	3909.66	5458.85

Average	3951.11	3952.23	5402.08
50	3976.57	3967.98	5430.15
49	3929.54	3964.82	5322.63
48	3935.97	3940.19	5384.9
47	3971.12	3964.28	5446.54
46	3990.31	3929.31	5419.99
45	3913.52	3955.64	5432.42
44	3907.1	3910.18	5417.75
43	3926.86	3964.36	5392.48

1   3773.7   3737.72   5075.71     2   3746.78   3784.84   5030.36     3   3776.42   3755.12   5058.07     4   3779.2   3752.84   5103.41     5   3790.99   3764.5   5057.86     6   3765.03   3738.55   5079.06     7   3781.82   3745.95   5066.58     8   3787.24   3769.17   5027.64     9   3794.19   3763.81   5081.33     10   3786.17   3756.95   5067.61     11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20		PSO-GA	SPSO-GA	GA
3   3776.42   3755.12   5058.07     4   3779.2   3752.84   5103.41     5   3790.99   3764.5   5057.86     6   3765.03   3738.55   5079.06     7   3781.82   3745.95   5066.58     8   3787.24   3769.17   5027.64     9   3794.19   3763.81   5081.33     10   3786.17   3756.95   5067.61     11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3759.38   5105.42     23   <	1	3773.7	3737.72	5075.71
4   3779.2   3752.84   5103.41     5   3790.99   3764.5   5057.86     6   3765.03   3738.55   5079.06     7   3781.82   3745.95   5066.58     8   3787.24   3769.17   5027.64     9   3794.19   3763.81   5081.33     10   3786.17   3756.95   5067.61     11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   <	2	3746.78	3784.84	5030.36
5 3790.99 3764.5 5057.86   6 3765.03 3738.55 5079.06   7 3781.82 3745.95 5066.58   8 3787.24 3769.17 5027.64   9 3794.19 3763.81 5081.33   10 3786.17 3756.95 5067.61   11 3762.54 3791.88 5099.86   12 3768.48 3758.35 5037.6   13 3749.71 3752.16 5076.48   14 3779.22 3771.81 5096.3   15 3780.64 3765.68 5092.14   16 3755.6 3767.56 5051.05   17 3764.47 3788.86 5034.45   18 3784.81 3759.9 5064.04   19 3776.72 3749.87 5082.0   20 3768.32 3752.03 5064.22   21 3785.37 3738.22 5081.63   22 3752.1 3759.38 5105.42   23 3768.34 3751.96 5036.07   24 3788.53 3765.06 5083.86   25 3745.84 3768.08 5080.3   26 3764.95 3787.58 5058.86 <td>3</td> <td>3776.42</td> <td>3755.12</td> <td>5058.07</td>	3	3776.42	3755.12	5058.07
6   3765.03   3738.55   5079.06     7   3781.82   3745.95   5066.58     8   3787.24   3769.17   5027.64     9   3794.19   3763.81   5081.33     10   3786.17   3756.95   5067.61     11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25	4	3779.2	3752.84	5103.41
7   3781.82   3745.95   5066.58     8   3787.24   3769.17   5027.64     9   3794.19   3763.81   5081.33     10   3786.17   3756.95   5067.61     11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26	5	3790.99	3764.5	5057.86
8   3787.24   3769.17   5027.64     9   3794.19   3763.81   5081.33     10   3786.17   3756.95   5067.61     11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3768.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3784.0   5052.13     28	6	3765.03	3738.55	5079.06
9   3794.19   3763.81   5081.33     10   3786.17   3756.95   5067.61     11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28	7	3781.82	3745.95	5066.58
10   3786.17   3756.95   5067.61     11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29	8	3787.24	3769.17	5027.64
11   3762.54   3791.88   5099.86     12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30	9	3794.19	3763.81	5081.33
12   3768.48   3758.35   5037.6     13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31	10	3786.17	3756.95	5067.61
13   3749.71   3752.16   5076.48     14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	11	3762.54	3791.88	5099.86
14   3779.22   3771.81   5096.3     15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	12	3768.48	3758.35	5037.6
15   3780.64   3765.68   5092.14     16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	13	3749.71	3752.16	5076.48
16   3755.6   3767.56   5051.05     17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	14	3779.22	3771.81	5096.3
17   3764.47   3788.86   5034.45     18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	15	3780.64	3765.68	5092.14
18   3784.81   3759.9   5064.04     19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	16	3755.6	3767.56	5051.05
19   3776.72   3749.87   5082.0     20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	17	3764.47	3788.86	5034.45
20   3768.32   3752.03   5064.22     21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	18	3784.81	3759.9	5064.04
21   3785.37   3738.22   5081.63     22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	19	3776.72	3749.87	5082.0
22   3752.1   3759.38   5105.42     23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	20	3768.32	3752.03	5064.22
23   3768.34   3751.96   5036.07     24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	21	3785.37	3738.22	5081.63
24   3788.53   3765.06   5083.86     25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	22	3752.1	3759.38	5105.42
25   3745.84   3768.08   5080.3     26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	23	3768.34	3751.96	5036.07
26   3764.95   3787.58   5058.86     27   3777.59   3784.0   5052.13     28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	24	3788.53	3765.06	5083.86
27 3777.59 3784.0 5052.13   28 3771.86 3736.09 5070.51   29 3740.42 3750.75 5059.13   30 3736.0 3788.53 5069.88   31 3775.72 3773.63 5052.93	25	3745.84	3768.08	5080.3
28   3771.86   3736.09   5070.51     29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	26	3764.95	3787.58	5058.86
29   3740.42   3750.75   5059.13     30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	27	3777.59	3784.0	5052.13
30   3736.0   3788.53   5069.88     31   3775.72   3773.63   5052.93	28	3771.86	3736.09	5070.51
31 3775.72 3773.63 5052.93	29	3740.42	3750.75	5059.13
	30	3736.0	3788.53	5069.88
32 3746.71 3751.97 5100.7	31	3775.72	3773.63	5052.93
	32	3746.71	3751.97	5100.7

33	3745.37	3761.07	5034.51
34	3752.15	3781.97	5069.64
35	3739.38	3763.16	5046.24
36	3794.85	3785.39	5066.84
37	3742.25	3759.75	5089.67
38	3744.14	3759.44	5074.77
39	3765.0	3777.99	5105.43
40	3736.54	3787.16	5055.2
41	3777.38	3738.6	5084.51
42	3753.62	3771.62	5050.21
43	3789.99	3769.01	5061.74
44	3777.91	3771.46	5087.6
45	3786.81	3736.53	5061.44
46	3752.42	3769.49	5039.59
47	3775.98	3737.42	5057.69
48	3774.74	3739.72	5031.6
49	3738.4	3772.24	5053.76
50	3740.56	3749.78	5062.52
Average	3765.67	3764.54	5066.11

	PSO-GA	SPSO-GA	GA
1	3582.36	3599.76	4365.27
2	3570.41	3586.85	4379.26
3	3625.97	3582.31	4314.9
4	3572.75	3621.56	4377.53
5	3623.51	3614.38	4321.22
6	3618.8	3616.99	4325.56
7	3580.92	3588.86	4376.45
8	3628.11	3575.15	4364.75
9	3574.61	3591.49	4314.36
10	3612.01	3583.45	4306.76
11	3588.9	3614.12	4371.51
12	3586.74	3619.38	4396.53
13	3585.24	3579.24	4371.05
14	3582.42	3587.94	4363.16
15	3596.44	3629.28	4391.19
16	3568.64	3632.44	4371.39
17	3596.49	3616.9	4376.14
18	3611.55	3601.61	4325.73
19	3592.83	3573.42	4384.35
20	3570.39	3577.37	4362.33
21	3592.37	3622.4	4356.35
22	3628.12	3573.7	4312.88

23   3575.67   3581.79   4391.59     24   3630.24   3586.34   4321.48     25   3626.91   3593.49   4335.41     26   3603.75   3572.94   4336.04     27   3610.73   3627.24   4355.52     28   3601.5   3622.17   4359.69     29   3631.7   3628.7   4352.48     30   3587.51   3584.67   4358.76     31   3620.57   3595.68   4331.15     32   3591.82   3618.75   4370.39     33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42 </th <th></th> <th></th> <th></th> <th></th>				
25     3626.91     3593.49     4335.41       26     3603.75     3572.94     4336.04       27     3610.73     3627.24     4335.52       28     3601.5     3622.17     4359.69       29     3631.7     3628.7     4352.48       30     3587.51     3584.67     4358.76       31     3620.57     3595.68     4331.15       32     3591.82     3618.75     4370.39       33     3623.82     3597.18     4368.06       34     3582.46     3617.03     4325.18       35     3609.33     3579.08     4312.94       36     3570.96     3604.47     4304.91       37     3604.77     3614.64     4378.83       38     3588.19     3593.85     4336.27       39     3626.48     3596.09     4324.63       40     3630.85     3629.29     4321.13       41     3630.32     3578.83     4355.73       42     3608.56     3598.35     4327.73 <	23	3575.67	3581.79	4391.59
26   3603.75   3572.94   4336.04     27   3610.73   3627.24   4335.52     28   3601.5   3622.17   4359.69     29   3631.7   3628.7   4352.48     30   3587.51   3584.67   4358.76     31   3620.57   3595.68   4331.15     32   3591.82   3618.75   4370.39     33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45 <td>24</td> <td>3630.24</td> <td>3586.34</td> <td>4321.48</td>	24	3630.24	3586.34	4321.48
27   3610.73   3627.24   4335.52     28   3601.5   3622.17   4359.69     29   3631.7   3628.7   4352.48     30   3587.51   3584.67   4358.76     31   3620.57   3595.68   4331.15     32   3591.82   3618.75   4370.39     33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47	25	3626.91	3593.49	4335.41
28   3601.5   3622.17   4359.69     29   3631.7   3628.7   4352.48     30   3587.51   3584.67   4358.76     31   3620.57   3595.68   4331.15     32   3591.82   3618.75   4370.39     33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48	26	3603.75	3572.94	4336.04
29   3631.7   3628.7   4352.48     30   3587.51   3584.67   4358.76     31   3620.57   3595.68   4331.15     32   3591.82   3618.75   4370.39     33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48 <td>27</td> <td>3610.73</td> <td>3627.24</td> <td>4335.52</td>	27	3610.73	3627.24	4335.52
30   3587.51   3584.67   4358.76     31   3620.57   3595.68   4331.15     32   3591.82   3618.75   4370.39     33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49 </td <td>28</td> <td>3601.5</td> <td>3622.17</td> <td>4359.69</td>	28	3601.5	3622.17	4359.69
31   3620.57   3595.68   4331.15     32   3591.82   3618.75   4370.39     33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50 </td <td>29</td> <td>3631.7</td> <td>3628.7</td> <td>4352.48</td>	29	3631.7	3628.7	4352.48
32   3591.82   3618.75   4370.39     33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	30	3587.51	3584.67	4358.76
33   3623.82   3597.18   4368.06     34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	31	3620.57	3595.68	4331.15
34   3582.46   3617.03   4325.18     35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	32	3591.82	3618.75	4370.39
35   3609.33   3579.08   4312.94     36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	33	3623.82	3597.18	4368.06
36   3570.96   3604.47   4304.91     37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	34	3582.46	3617.03	4325.18
37   3604.77   3614.64   4378.83     38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	35	3609.33	3579.08	4312.94
38   3588.19   3593.85   4336.27     39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	36	3570.96	3604.47	4304.91
39   3626.48   3596.09   4324.63     40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	37	3604.77	3614.64	4378.83
40   3630.85   3629.29   4321.13     41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	38	3588.19	3593.85	4336.27
41   3630.32   3578.83   4355.73     42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	39	3626.48	3596.09	4324.63
42   3608.56   3598.35   4327.73     43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	40	3630.85	3629.29	4321.13
43   3610.75   3574.0   4339.6     44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	41	3630.32	3578.83	4355.73
44   3577.78   3592.74   4320.62     45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	42	3608.56	3598.35	4327.73
45   3630.43   3623.26   4362.08     46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	43	3610.75	3574.0	4339.6
46   3591.37   3593.1   4378.57     47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	44	3577.78	3592.74	4320.62
47   3613.18   3613.63   4309.42     48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	45	3630.43	3623.26	4362.08
48   3628.87   3595.42   4358.52     49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	46	3591.37	3593.1	4378.57
49   3571.87   3612.71   4395.66     50   3591.16   3576.03   4394.94	47	3613.18	3613.63	4309.42
50 3591.16 3576.03 4394.94	48	3628.87	3595.42	4358.52
	49	3571.87	3612.71	4395.66
Average 3599.87 3601.47 4346.89	50	3591.16	3576.03	4394.94
	Average	3599.87	3601.47	4346.89

	PSO-GA	SPSO-GA	GA
1	3279.28	3302.66	3849.03
2	3306.01	3292.02	3856.31
3	3300.4	3309.56	3882.15
4	3325.13	3334.17	3873.85
5	3363.33	3335.12	3858.08
6	3311.18	3318.51	3838.8
7	3333.46	3299.56	3910.5
8	3310.47	3309.89	3906.25
9	3342.53	3329.85	3921.82
10	3330.12	3306.31	3834.02
11	3344.83	3307.96	3920.44
12	3328.44	3290.36	3876.65

13	3281.97	3294.53	3888.94
14	3285.97	3319.74	3830.09
15	3328.73	3287.08	3855.95
16	3314.69	3293.43	3877.22
17	3339.07	3314.65	3921.88
18	3280.77	3309.74	3887.94
19	3317.31	3322.39	3853.47
20	3342.09	3360.97	3879.69
21	3341.81	3328.43	3919.04
22	3345.46	3329.53	3827.06
23	3327.85	3295.43	3866.23
24	3293.58	3342.94	3867.89
25	3304.6	3333.73	3909.33
26	3294.67	3355.69	3910.39
27	3349.21	3353.21	3843.91
28	3328.57	3316.06	3877.41
29	3308.27	3315.05	3875.01
30	3325.81	3319.88	3839.94
31	3329.57	3291.29	3911.58
32	3355.8	3313.5	3918.13
33	3324.28	3329.44	3837.2
34	3330.0	3347.64	3883.11
35	3281.29	3335.8	3926.92
36	3293.95	3354.99	3850.13
37	3279.16	3363.08	3847.4
38	3289.82	3281.94	3931.33
39	3289.08	3355.47	3885.88
40	3337.04	3361.93	3896.18
41	3354.81	3327.12	3886.67
42	3349.38	3338.13	3864.66
43	3311.25	3302.36	3929.78
44	3323.88	3345.57	3856.62
45	3327.97	3299.1	3856.31
46	3307.3	3305.53	3926.36
47	3343.38	3296.32	3863.03
48	3333.52	3281.11	3878.07
49	3324.8	3356.15	3859.56
50	3310.0	3342.44	3904.43
Average	3310.22	3313.31	3888.39

	PSO-GA	SPSO-GA	GA
1	3046.63	3160.13	3644.73
2	3117.85	3135.43	3582.64

3	3145.56	3062.39	3603.12
4	3150.62	3165.75	3632.75
5	3168.16	3144.23	3601.57
6	3136.63	3113.69	3608.49
7	3112.9	3138.29	3656.53
8	3060.1	3163.52	3672.81
9	3071.82	3048.96	3653.16
10	3109.14	3077.0	3567.83
11	3048.09	3153.31	3642.06
12	3047.92	3091.14	3608.08
13	3132.92	3085.61	3642.83
14	3154.79	3136.77	3611.75
15	3128.83	3085.93	3639.26
16	3139.33	3052.09	3652.99
17	3145.48	3107.95	3629.12
18	3054.02	3057.24	3582.88
19	3133.24	3065.17	3612.23
20	3150.95	3153.38	3610.52
21	3045.76	3141.86	3589.11
22	3161.9	3099.4	3581.92
23	3121.33	3136.89	3575.28
24	3080.61	3116.03	3629.72
25	3093.81	3050.1	3665.77
26	3055.43	3108.91	3660.43
27	3079.19	3089.98	3656.6
28	3154.19	3133.15	3676.01
29	3163.6	3054.49	3681.79
30	3167.83	3126.46	3682.39
31	3100.54	3097.32	3627.85
32	3109.1	3103.8	3651.86
33	3068.21	3067.57	3581.27
34	3061.89	3086.86	3640.62
35	3093.16	3167.17	3686.21
36	3168.77	3067.88	3637.93
37	3081.32	3087.21	3664.66
38	3056.51	3146.92	3687.83
39	3148.21	3171.66	3672.42
40	3103.14	3163.15	3597.82
41	3063.51	3080.61	3582.41
42	3147.29	3091.08	3641.17
43	3149.56	3104.86	3628.73
44	3116.89	3147.4	3651.16
45	3107.88	3110.99	3688.76
46	3142.06	3050.11	3629.78

Average	3114.22	3111.41	3623.19
50	3128.02	3099.71	3690.01
49	3173.16	3093.95	3577.25
48	3119.44	3085.97	3614.0
47	3120.01	3133.54	3682.39