Gradiente delta F (0.0000001)

f1

x0	Iter.	Opt. Point	Opt. Value	Error
50 50	367	0.990169, 0.990169	0.000195216	0.000195216
10 10	60	0.975245, 0.975245	0.00125583	0.00125583
5 5	26	0.999199, 0.999199	1.28384e-006	0.000001283
2.5 2.5	11	0.999999, 0.999999	2.01883e-012	0
1.5 1.5	5	0.994507, 0.994507	6.06773e-005	0.000060677
1 1	0	1 1	0	0
0.5 0.5	4	1.0125, 1.0125	0.000308462	0.000308462

Gradiente X - last X (0.0000001)

f1

x0	Iter.	Opt. Point	Opt. Value	Error
50 50	367	0.990169, 0.990169	0.000195216	0.000195216
10 10	60	0.975245, 0.975245	0.00125583	0.00125583
5 5	26	0.999199, 0.999199	1.28384e-006	0.000001283
2.5 2.5	11	0.999999, 0.999999	2.01883e-012	0
1.5 1.5	5	0.994507, 0.994507	6.06773e-005	0.000060677
1 1	0	1 1	0	0
0.5 0.5	4	1.0125, 1.0125	0.00	0.000308462

Gradiente iter

f1

x0	Iter.	Opt. Point	Opt. Value	Error
10 10	100000	1 1	0	0
5 5	100000	1 1	0	0
2.5 2.5	100000	1 1	0	0
1.5 1.5	100000	1 1	0	0
1 1	100000	1 1	0	0
0.5 0.5	100000	1 1	0	0
50 50	100000	1 1	0	0

Newton delta F

f1

x0	Iter.	Opt. Point	Opt. Value	Error
1.5 1.5	483	1.00156 1.00156	4.845e-06	0.000004845
1.3 1.3	470	1.00157 1.00157	4.91364e-06	0.000004913
1.1 1.1	398	1.00156 1.00156	4.85673e-06	0.000004856
0.9 0.9	427	0.998435 0.998435	4.90904e-06	0.000004909
0.7 0.7	553	0.998434 0.998434	4.91519e-06	0.000004915
1 1	1	1 1	0	0

Newton last X

f1

x0	Iter.	Opt. Point	Opt. Value	Error
1.5 1.5	529	1.00098 1.00098	1.91965e-06	0.000001919
1.3 1.3	516	1.00099 1.00099	1.94682e-06	0.000001946
1.1 1.1	444	1.00098 1.00098	1.92429e-06	0.000001924
0.9 0.9	473	0.999013 0.999013	1.94959e-06	0.000001949
0.7 0.7	599	0.999013 0.999013	1.95204e-06	0.000001952
1 1	1	1 1	0	0

Newton iter

f1

x0	Iter.	Opt. Point	Opt. Value	Error
50 50	100000	50.1428 50.1428	3.45482	345482
10 10	100000	10.026 10.026	2.4534	962082
5 5	100000	5.01246 5.01246	1.824	1824
2.5 2.5	100000	2.50693 2.50693	0.989294	989294
1.5 1.5	100000	1 1	0	0
1 1	100000	1 1	0	0
0.5 0.5	100000	1 1	0	0
0.1 0.1	100000	1 1	0	0

Quasi Newton delta F

f1

x0	Iter.	Opt. Point	Opt. Value	Error
1, 1	1	1, 1	0	0
1.1 , 1.1	100	-nan -nan	nan	#VALUE!
0.9 , 0.9	100	-nan -nan	nan	#VALUE!
0.5 , 0.5	100	-nan -nan	nan	#VALUE!
1.3 , 1.3	100	-nan -nan	nan	#VALUE!

Quasi Newton last X

f1

x0	Iter.	Opt. Point	Opt. Value	Error
1, 1	1	1, 1	0	0
1.1 , 1.1	10000	-nan -nan	nan	#VALUE!
0.9 , 0.9	10000	-nan -nan	nan	#VALUE!
0.5 , 0.5	10000	-nan -nan	nan	#VALUE!
1.3 , 1.3	10000	-nan -nan	nan	#VALUE!

Quasi Newton iter

f1

x0	Iter.	Opt. Point	Opt. Value	Error
1, 1	10000	1, 1	0	0
1.1 , 1.1	10000	-nan -nan	nan	#VALUE!
0.9 , 0.9	10000	-nan -nan	nan	#VALUE!
0.5 , 0.5	10000	-nan -nan	nan	#VALUE!
1.3 , 1.3	10000	-nan -nan	nan	#VALUE!

Gradiente delta F

x0	Iter.	Opt. Point	Opt. Value	Error
50 50	94	6.94318, 50.5887	4.00509	4.00509
10 10	20	3.14879, 10.4104	2.41237	2.41237
5 5	8	2.17905, 5.30976	1.80229	1.80229
2.5 2.5	5	1.4521, 2.68392	1.23535	1.23535
1.5 1.5	13	-0.0375187, -0.00582551	0.00145891	0.00145891
1 1	9	0.0191135, -0.00959819	0.000464491	0.000464491
0.5 0.5	6	0.0123947, -0.0149315	0.000381116	0.000381116
0 0	0	0 0	0	0

f2

Gradiente last X

x0	Iter.	Opt. Point	Opt. Value	Error
50 50	94	6.94318, 50.5887	4.00509	4.00509
10 10	100000	0.0638678, -0.043403	0.00631368	0.00631368
5 5	8	2.17905, 5.30976	1.80229	1.80229
2.5 2.5	5	1.4521, 2.68392	1.23535	1.23535
1.5 1.5	13	-0.0375187, -0.00582551	0.00145891	0.00145891
1 1	9	0.0191135, -0.00959819	0.000464491	0.000464491
0.5 0.5	6	0.0123947, -0.0149315	0.000381116	0.000381116
0 0	0	0 0	0	0

f2

Gradiente iter

x0	Iter.	Opt. Point	Opt. Value	Error
10 10	100000	0.638678 -0.043403	0.00631368	0.00631368
5 5	100000	0.0854977 0.00918034	0.00728674	0.00728674
2.5 2.5	100000	-0.0153297 -0.0426741	0.00207404	0.00207404
1.5 1.5	100000	0.0142757 -0.00518007	0.000232753	0.000232753
1 1	100000	-0.00127809 0.0098959	9.95251e-005	0.0000995251
0.5 0.5	100000	-0.00406265 0.00622682	5.50716e-005	0.0000550716
0 0	100000	0 0	0	0
50 50	100000	-0.0600919 0.0204274	0.00388627	0.00388627

f2

Newton delta F

x0	Iter.	Opt. Point	Opt. Value	Error
1.5 1.5	6	-7.59117e-06 -5.74587e-06	9.06415e-11	0
0.5 0.5		-2.5107e-07 1.35932e-06	1.91092e-12	0
0 0	0	0 0	0	0
0.2 0.2		-4.93574e-07 1.45822e-06	2.36988e-12	0

f2

Newton last X

x0	Iter.	Opt. Point	Opt. Value	Error
1.5 1.5	7	-4.37694e-07 -3.31289e-07	3.01315e-13	0
0.5 0.5	6	-1.44729e-08 7.83613e-08	6.43929e-15	0
0 0	0	0 0	0	0
0.2 0.2	5	-2.8452e-08 8.40623e-08	7.99361e-15	0

f2

Newton iter

x0	Iter.	Opt. Point	Opt. Value	Error
50 50	100000	50.0117 41.9119	15.6156	15.6156
10 10	100000	10.0083 9.76655	9.02078	9.02078
5 5	100000	5.00555 4.95524	6.06396	6.06396
2.5 2.5	100000	2.50398 2.484	3.07283	3.07283
1.5 1.5	100000	-6.17427 38.9993	3.68617	3.68617
1 1	100000	0.997417 1.04811	0.691986	0.691986
0.5 0.5	100000	0.174032 0.159383	0.0458839	0.0458839
0 0	100000	0 0	0	0
0.2 0.2	1000000	0.00165634 0.00194382	6.51122e-06	0.00000651122
0.5 0.5	10000000	-3.96695e-09 -3.96513e-09	0	0
0.6 0.6	1000000	14.7521 218.104	5.38841	5.38841

f2

Quasi Newton delta F

x0	Iter.	Opt. Point	Opt. Value	Error
0, 0	1	0, 0	0	0
0.1 , 0.1	100	-nan -nan	nan	#VALUE!
0.3 , 0.3	100	-nan -nan	nan	#VALUE!
0.001, 0.00	100	-nan -nan	nan	#VALUE!
1e-5, 1e-5	100	-nan -nan	nan	#VALUE!

f2

Quasi Newton last X

x0	Iter.	Opt. Point	Opt. Value	Error
0, 0	1	0, 0	0	0
0.1 , 0.1	100	-nan -nan	nan	#VALUE!
0.3 , 0.3	100	-nan -nan	nan	#VALUE!
0.001, 0.00	100	-nan -nan	nan	#VALUE!
1e-5, 1e-5	100	-nan -nan	nan	#VALUE!

f2

Quasi Newton iter

x0	Iter.	Opt. Point	Opt. Value	Error
0, 0	10000	0, 0	0	0
0.1 , 0.1	10000	-nan -nan	nan	#VALUE!
0.3 , 0.3	10000	-nan -nan	nan	#VALUE!
0.001, 0.00	10000	-nan -nan	nan	#VALUE!
1e-5, 1e-5	10000	-nan -nan	nan	#VALUE!

f2