Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
0	7	1.185265e+02	5.000e-04	7.000e+02	
1	21	9.866089e+01	1.141e-03	1.758e+02	2.119e-01
2	29	9.286775e+01	3.646e-03	2.048e+02	2.739e-01
3	37	9.011502e+01	4.682e-03	2.798e+02	7.370e-01
4	44	8.965136e+01	4.636e-04	6.286e+01	3.050e-01
5	53	8.926749e+01	4.795e-04	7.935e+01	2.877e-01
6	60	8.887664e+01	5.701e-04	6.015e+01	2.366e-01
7	67	8.852180e+01	9.165e-05	2.984e+01	4.118e-01
8	74	8.830330e+01	7.748e-05	2.483e+01	6.290e-01
9	81	8.768252e+01	2.780e-04	2.531e+01	2.513e+00
10	88	8.685482e+01	3.219e-04	3.471e+01	4.089e+00
11	95	8.508928e+01	1.754e-03	4.304e+01	9.615e+00
12	103	8.380113e+01	8.768e-03	8.473e+01	1.423e+01
13	111	8.272621e+01	4.850e-03	3.577e+01	1.531e+00
14	118	8.265998e+01	3.699e-04	1.484e+01	2.598e-01
15	134	8.265197e+01	3.093e-06	1.118e+01	7.187e-03
16	142	8.265046e+01	3.082e-06	1.115e+01	1.700e-02
17	149	8.240086e+01	2.555e-04	7.731e+00	3.581e+00
18	157	8.230263e+01	3.115e-04	7.022e+00	3.322e+00
19	164	8.222822e+01	1.321e-05	3.938e+00	5.732e-01
20	171	8.212950e+01	3.546e-05	8.974e+00	1.635e+00
21	178	8.207970e+01	7.633e-06	9.030e+00	6.730e-01
22	185	8.204065e+01	4.077e-06	9.080e+00	6.621e-01
23	192	8.202658e+01	2.231e-06	9.812e+00	2.238e-01
24	199	8.198211e+01	5.524e-05	1.236e+01	5.712e-01
25	206	8.189395e+01	3.899e-04	1.845e+01	1.143e+00
26	214	8.176087e+01	5.628e-03	2.737e+01	2.906e+00
27	221	8.159766e+01	1.706e-03	3.344e+01	1.812e+00
28	228	8.131885e+01	1.020e-03	2.738e+01	2.139e+00
29	237	8.087133e+01	3.091e-03	2.749e+01	4.660e+00
30	246	8.057991e+01	2.141e-03	2.792e+01	1.439e+00

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
31	254	8.055039e+01	1.013e-03	4.273e+01	1.337e+00
32	261	8.041322e+01	2.122e-04	1.873e+01	7.493e-01
33	268	8.029941e+01	1.456e-04	2.241e+00	8.987e-01
34	275	8.022313e+01	6.421e-04	8.914e+00	1.398e+00
35	282	8.020885e+01	2.512e-05	2.233e+00	2.962e-01
36	289	8.020237e+01	1.315e-05	1.921e+00	2.685e-01
37	296	8.019958e+01	1.294e-05	1.315e+00	2.740e-01
38	303	8.019949e+01	2.142e-07	3.071e-01	6.256e-02
39	310	8.019880e+01	3.903e-06	1.582e-01	1.686e-01
40	317	8.019885e+01	7.163e-08	2.145e-02	3.060e-02
41	324	8.019881e+01	1.827e-07	1.645e-02	4.017e-02
42	331	8.019881e+01	5.386e-10	2.063e-03	7.314e-04
43	338	8.019881e+01	5.953e-12	2.593e-04	3.615e-05
44	345	8.019881e+01	1.176e-11	5.276e-05	3.182e-04
45	352	8.019881e+01	4.248e-13	1.671e-05	7.421e-05
46	364	8.019881e+01	1.915e-15	4.888e-06	4.941e-07

```
Local minimum found that satisfies the constraints.

Optimization completed because the objective function is non-decreasing in
feasible directions, to within the value of the optimality tolerance,
and constraints are satisfied to within the value of the constraint tolerance.

<stopping criteria details>

params =

   18.7909    0.2127    0.4085    5.7321    0.3635    0.3855

                                            First-order      Norm of
 Iter F-count            f(x)  Feasibility   optimality         step
    0       2    9.577436e+00    0.000e+00    1.038e+01
    1       4    1.850208e-01    0.000e+00    9.367e-02    9.526e+00
    2       6    1.769522e-01    0.000e+00    9.215e-02    8.685e-02
    3       8    1.391139e-01    0.000e+00    8.515e-02    4.272e-01
    4      10    3.451841e-03    0.000e+00    6.121e-02    1.973e+00
    5      15    2.917181e-03    0.000e+00    6.234e-02    1.031e-01
    6      17    3.093013e-04    0.000e+00    6.169e-02    5.203e-02
    7      21    9.047359e-05    0.000e+00    6.191e-02    6.469e-03
    8      24    9.682287e-06    0.000e+00    6.174e-02    1.620e-03
    9      28    2.818634e-06    0.000e+00    6.189e-02    2.022e-04
   10      31    3.105833e-07    0.000e+00    6.174e-02    5.062e-05
   11      35    8.007771e-08    0.000e+00    6.189e-02    6.320e-06
   12      38    1.770955e-08    0.000e+00    6.174e-02    1.582e-06
   13      41    6.706735e-09    0.000e+00    7.732e-03    3.950e-07
   14      43    3.989183e-09    0.000e+00    2.042e-02    4.396e-08

Local minimum possible. Constraints satisfied.

fmincon stopped because the size of the current step is less than
the value of the step size tolerance and constraints are
satisfied to within the value of the constraint tolerance.

<stopping criteria details>

nu_Z =

   12.9572

>>
```