Norm of First-order

Iteration Func-count f(x) step optimality

0 117 26195.3 1.74e+09

1 234 8725.6 1.73398e-05 1.94e+08

2 351 2908.16 5.20193e-05 2.15e+07

3 468 974.898 8.63008 2.42e+06

4 585 324.551 4.13254 2.68e+05

5 702 108.258 1.62223 2.98e+04

6 819 36.1619 1.64763 3.31e+03

7 936 12.1302 1.60001 368

8 1053 4.11988 0.749607 40.9

9 1170 1.4498 0.159688 4.56

10 1287 0.559834 0.328949 0.51

11 1404 0.263322 0.925953 0.058

12 1521 0.164889 2.32087 0.0068

13 1638 0.13309 4.38612 0.000812

14 1755 0.124371 4.81906 7.39e-05

15 1872 0.123145 2.37595 1.65e-06

16 1989 0.123115 0.385417 9.96e-10

Local minimum found.

Optimization completed because the size of the gradient is less than

the default value of the function tolerance.

<stopping criteria details>

Optimization completed: The first-order optimality measure, 9.957408e-10,

is less than options.TolFun = 1.000000e-06.

Optimization Metric Options

relative first-order optimality = 9.96e-10 TolFun = 1e-06 (default)

load('Real\_data\_2015-10-09\_T215900\_10m.mat','k\_data','x\_data');

[h\_hat,resnorm2] = lsqnonlin(@objective\_real\_new, h\_guess+1e-5, zeros(N,1),repmat(12,[N,1]),options);

See plot\_real\_1