Compeng 3SK3

Project 2
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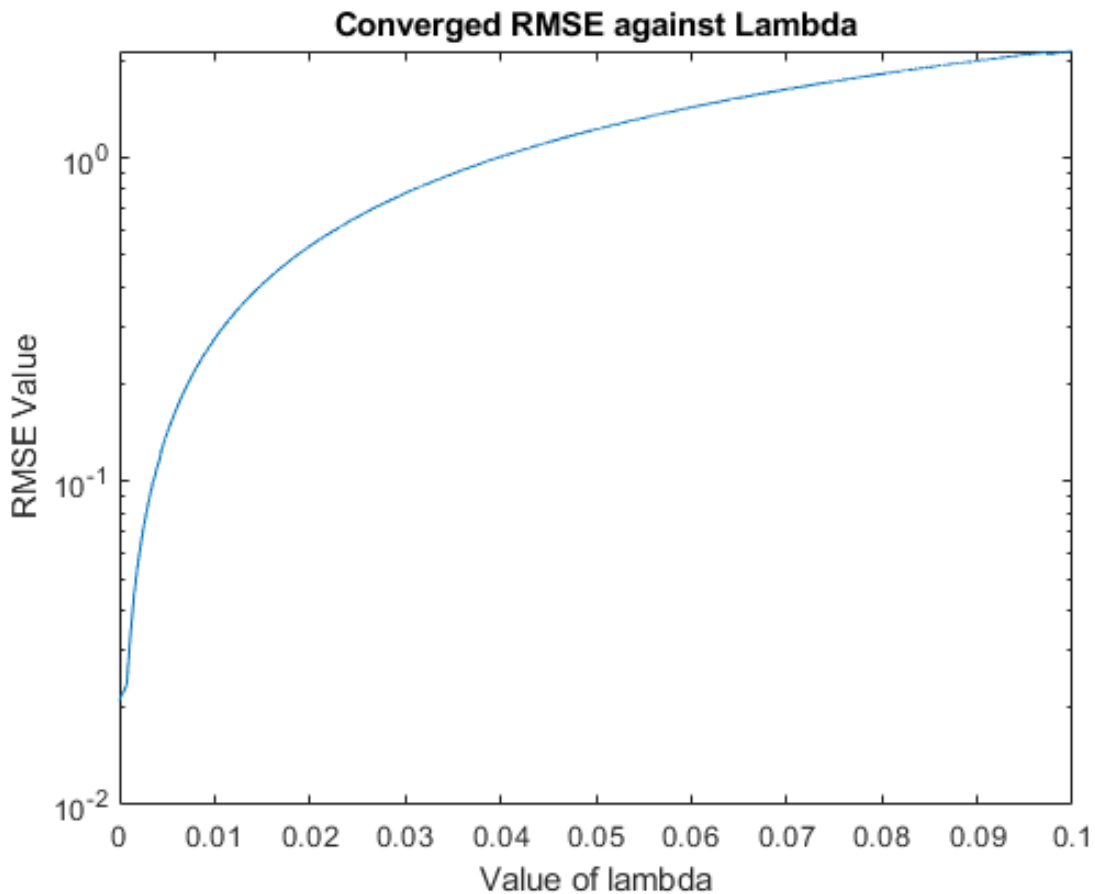
The pseudocode and simulation program are included in the MATLAB file.

1)

The RMSE for my algorithm is 0.0214.
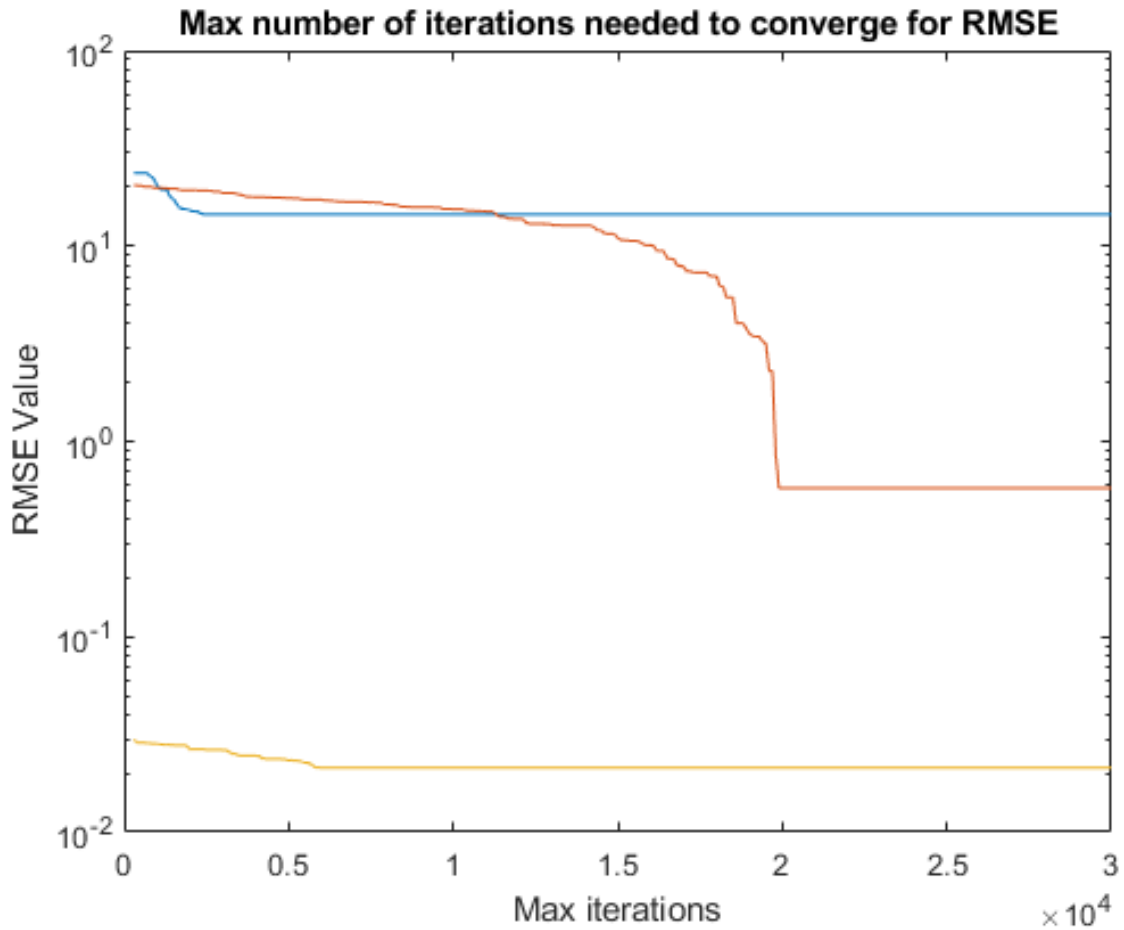
2)

My λ_{op} was 0.0001.

3)

Lambda = 0.0001. The blue line represents the RMSE over iterations with choosing the first measured coordinate as the initialization for all the points, the red line is with random initialization for all the coordinates, and the yellow line is initialization with averaging the K measured coordinates.

Max number of iterations needed to converge for RMSE

The blue line converges the quickest at around 2500 iterations needed, but with the highest RMSE, the red line takes the longest to converge at around 20000 iterations needed, but has an order of magnitude better RMSE than the blue line, and the yellow line takes the 2nd longest to converge at 6000 iterations required, but has the best RMSE by another order of magnitude.