Jong Park

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Math 351 – Numerical Analysis

Prof. Higdon

HW 4 – Data Fitting

1. Fit this data with function of the form

, (c1, c2 = constants TBD)

* 1. Use appx relation for 1 *i* m to derive an overdetermined system of linear equation Ac = b where A = [mx2] b = [mx1], c = c1, c2. The coordinates of the data points appear in A and b
  2. Find the least-squares solution for part a.
  3. Plot

1. Fit the data with function of the form

, (r, s = constants TBD)

* 1. For each I with 1 *i* *m*, one wants (non-linear system of eq for r,s). Use logarithm to break apart the left side, and use the result to derive an overdetermined system of linear equations of the form Ac = b.
  2. Find the least-squares solution for part a
  3. Plot