Curve fitting with optimal parameters:



How do we find the optimal values of *a*0, *a*1, …., *aM*?

Object function 1 (without weight):



Object function 2 (with weight):



where x[n] (n = n1, n1+1, …, n2) are the data

 for *k* = 0, 1, …, *M*

{*x*[*n*] | *n*1 ≤ *n* ≤ *n*2} are training data

{*x*[*n*] | *n*3 ≤ *n* ≤ *n*4} are test data

*n*1 < *n*2 < *n*3 < *n*4