Homework 1

Due on Oct 22, 2:30pm.

Problem 1

(a) Treat the variable range as the independent variable. Analyze the LIDAR data using Loess regression, kernel method, local polynomial method and penalized spline methods. For each method, use both AIC and GCV to select the smoothing parameter. Provide the fitted plot and comments on your findings.

(b) Can you also try any other approach not mention above to analyze the LIDAR data? Explain why you choose this approach and how you decide whether your fitted model is appropriate or not.

Note: you could use the command read.csv to load the data.