Homework Assignment 5

In Homework Assignment 2, you fitted a model under the Poisson assumption for the variance:

\[ \text{var}(Y_j | x_j) = E(Y_j | x_j). \]

The “power of the mean” model

\[ \text{var}(Y_j | x_j) = \sigma^2 [E(Y_j | x_j)]^\theta \]

is often found to give a better description of the dependence of the variance on the mean. Fit this model using GLS-PL, and compare with the fit using the simpler Poisson assumption.