

Project 4

Introduction:

Topic:

Snow Gauge : measuring the density of snow ^{**}???? \longleftrightarrow radioactive source decay (signal emissions)
 \longleftrightarrow predict flooding

Goal: Develop a procedure to calibrate the snow gauge by predicting the snow density.

Data:

Polyethylene blocks \Rightarrow simulate snow . 30 measurements \Rightarrow 10 reported measurements of same thing
 \Rightarrow amplified version of the gamma photon count
 \Rightarrow predict snow density from the "gain"

- * multiple x for one y. (when plotting)
- * Use the blue dot to predict everything else
- * Use regression to predict rather than making causal relationship.
- * Not independent observations \Rightarrow look at the simulated data

Background

x snow density
m "gain" $\} \Rightarrow$ exponentialize them

Investigation

- Fitting
Whether the regression model is appropriate
- Predicting
- Cross-Validation

DUE
At The End of
WK 7