

Case: Process

Story

The dataset *process* contains measurements of air flow, water temperature, and acid concentration of a process loss.

Variables

variable name	description
loss	loss from process
airflow	air flow
watertemp	temperature of water
acidconc	concentration of acid

Exercise

1. Determine whether air flow, temperature of water, or concentration of acid influence on the process loss by a graphical comparison
2. Determine whether air flow, temperature of water or concentration of acid influence on the process loss by analysing each variable using simple linear regression
3. Determine whether air flow, temperature of water or concentration of acid influence on the process loss using multiple linear regression
4. Is there evidence of multicollinearity?
5. Plot the residuals and analyse the results. Which x-variable should be removed if we want to reduce the model?
6. Save the results of your analysis in a text document (e.g. latex, word or star-office)

Hints