

Multiple linear model

The diagram illustrates the multiple linear model equation: $Y \sim \beta_0 + \beta_1 \cdot X_1 + \dots + \beta_p \cdot X_p + \varepsilon$. Annotations include: an orange box labeled "Outcome" pointing to Y ; a yellow box labeled "Intercept" pointing to β_0 ; a yellow box labeled "Slope" pointing to β_1 ; a yellow box labeled "Slope" pointing to β_p ; an orange box labeled "Influencer" pointing to X_p ; and a grey label "Residuen" pointing to ε . A grey bracket labeled "Coefficients" spans from β_0 to β_p . An orange curved arrow connects the "Influencer" box to the X_1 term.

Outcome $Y \sim \beta_0 + \beta_1 \cdot X_1 + \dots + \beta_p \cdot X_p + \varepsilon$ **Influencer**

Intercept **Slope** **Slope**

Coefficients *Residuen*

$Y = \mathbf{Outcome}$, reponse, endpoint or dependent variable
 $X = \mathbf{Influencer}$, explanator, predictor or independent variable