

Stat 6021: Sum of Squares in ANOVA

In section 2.3.3, the sum of squares in ANOVA are

$$\begin{aligned} SS_T &= SS_R + SS_{Res} \\ \sum (y_i - \bar{y})^2 &= \sum (\hat{y}_i - \bar{y})^2 + \sum (y_i - \hat{y}_i)^2 \\ \text{Total variance in } y &= \text{Var in } y \text{ that can be explained by model} \\ &+ \text{Var in } y \text{ that cannot be explained by model} \end{aligned}$$