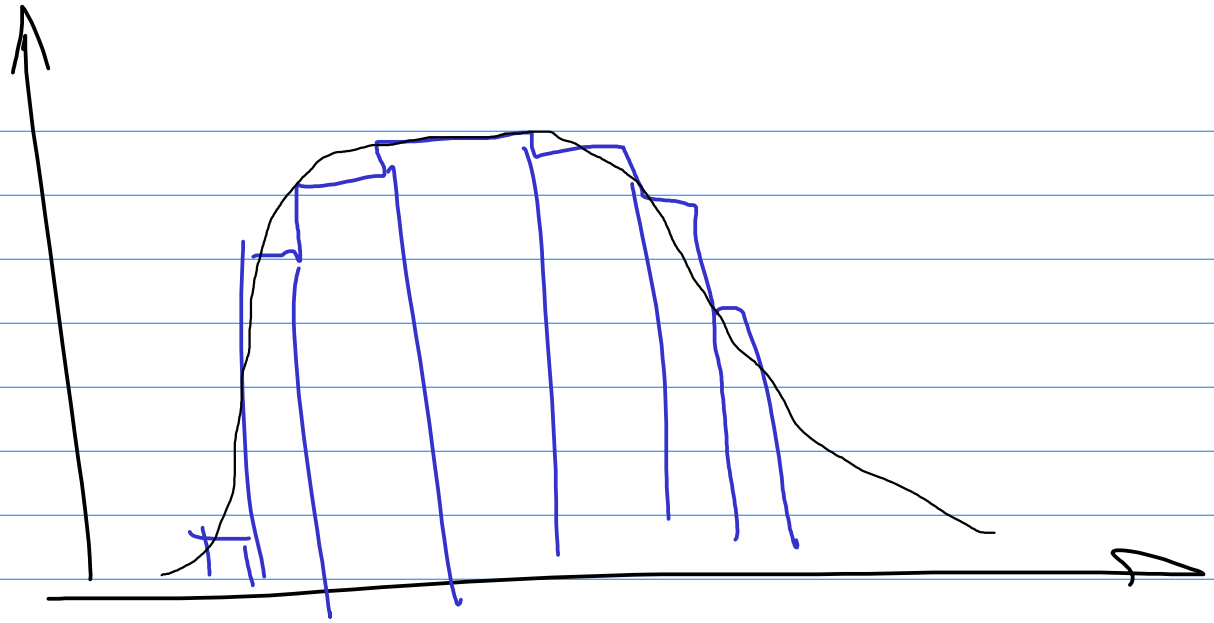


$$m_i = \hat{\beta}_1 + \hat{\beta}_2 h_i + \hat{\varepsilon}_i$$

$$m_i = 30 - 0.6 h_i + \hat{\varepsilon}_i$$

$$(1,6) \quad (0,07)$$

$H_0: \beta_i = 0$

$H_a: \beta_i \neq 0$

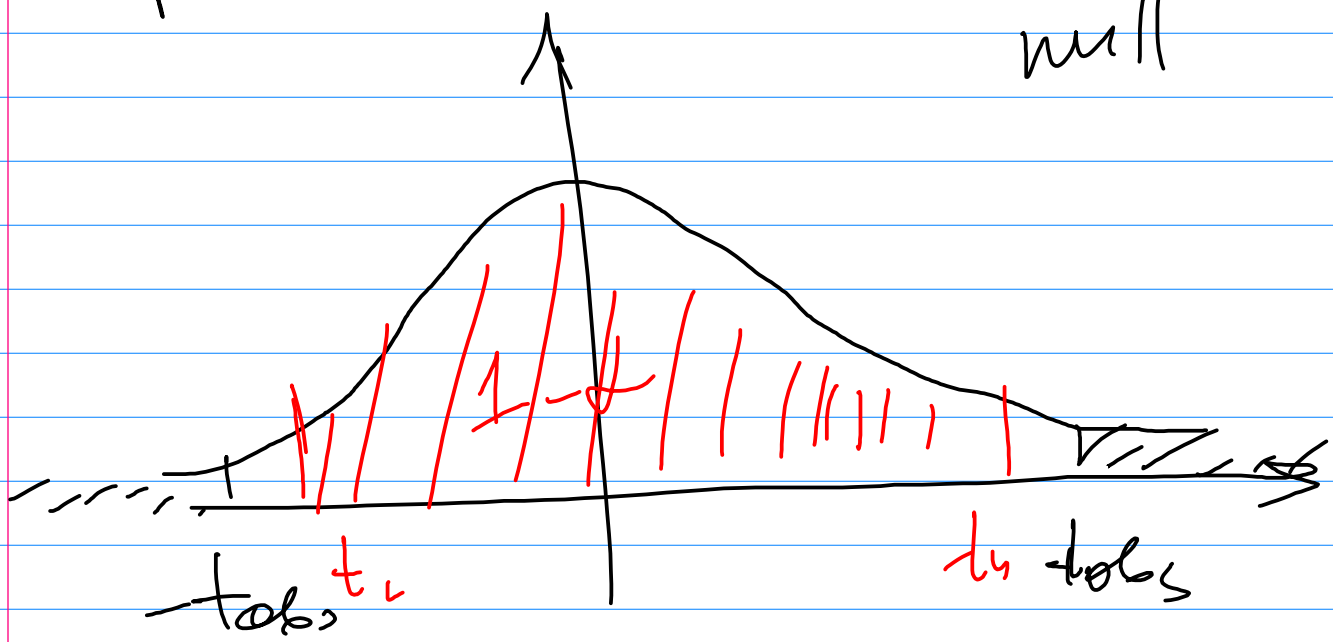
$$t_{obs} = \frac{\hat{\beta}_i - 0}{se(\hat{\beta}_i)} \sim t_{n-k}$$

α

$|t_{obs}| > t_{1-\alpha/2, n-k}$, H_0 rejected

$$p\text{-value} = 2 \cdot P(|T| > |t_{obs}|)$$

p-value $< \alpha \Rightarrow$ reject null



β_1 : $(27, 33)$

$H_0 : \beta_1 = 0$

$H_0 : \beta_1 = 30$

$$P\left(\hat{\beta} + t_L \cdot se(\hat{\beta}) \leq \beta \leq \hat{\beta} + t_U \cdot se(\hat{\beta})\right) = 1-\alpha$$

$$P\left(t_L \leq t_{df} \leq t_U\right) = 1-\alpha$$