

- T₁
- ① 简单假设
 - ② 复合假设
 - ③ 复合假设
 - ④ 复合假设

T₂ $\bar{X} = 10.06$ $S^2 = 0.06044$

$$\frac{0.06}{S/\sqrt{10}} < t_{\alpha/2}(9) = 3.2498$$

接受

T₃ $\bar{X} = 3.252$ $S^2 = 0.017$

$$\frac{0.002}{S/\sqrt{5}} < t_{\alpha/2}(4) = 4.6041$$

能

T₄ 拒绝域 $W = \left\{ \frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}} \geq u_\alpha \right\}$

$u_\alpha = 2.33$ $\frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}} = 1.5$

\therefore 不能

T₅ $u = \frac{\bar{X} - \bar{Y}}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$

$\bar{X} = 25$ $\bar{Y} = 29$

拒绝域 $W = \{|u| \geq u_{\alpha/2}\}$

$2\sqrt{2} > 2.57$

有显著差异

$$T_9 \quad \chi^2 = \frac{(n-1)S^2}{\sigma^2}$$

$$\text{拒绝域为 } W = \{ \chi^2 \geq \chi_{\alpha}^2(n-1) \}$$

$$\frac{19 \times 0.03}{0.02} > 6.844$$

拒绝域

$$T_{10} \quad F = \frac{S_1^2}{S_2^2} \sim F(n_1-1, n_2-1)$$

$$F = \frac{S_1^2}{S_2^2} = \frac{0.318}{0.273} = 1.165$$

$$W = \{ F \leq F_{1-\alpha/2}(7, 6) \} \cup \{ F \geq F_{\alpha/2}(7, 6) \}$$

$$F_{\alpha/2}(7, 6) = 5.7$$

接受