Resumen de procedimientos de prueba de hipótesis en medias y varianzas

Hipótesis nula	Estadística de prueba	Hipótesis alternativa	Criterio de rechazo	Parámetro de la curva CO
$H_0: \mu = \mu_0$ σ^2 conocida	$Z_0 = \dfrac{\bar{X} - \mu_0}{\sigma/n}$	$H_1: \mu \neq \mu_0$ $H_1: \mu > \mu_0$ $H_1: \mu < \mu_0$	$Z_0 > Z_{\frac{\alpha}{2}}$ $Z_0 > Z_{\alpha}$ $Z_0 > -Z_{\alpha}$	$d = \lvert\mu - \mu_0\rvert/\sigma$ $d = (\mu - \mu_0)/\sigma$ $d = (\mu_0 - \mu)/\sigma$
$H_0: \mu = \mu_0$ σ^2 desconocida	$t_0 = \dfrac{\bar{X} - \mu_0}{S/n}$	$H_1: \mu \neq \mu_0$ $H_1: \mu > \mu_0$ $H_1: \mu < \mu_0$	$\lvert t_0\rvert > t_{\frac{\alpha}{2},n-1}$ $t_0 > t_{\alpha,n-1}$ $t_0 > -t_{\alpha,n-1}$	$d = \lvert\mu - \mu_0\rvert/\sigma$ $d = (\mu - \mu_0)/\sigma$ $d = (\mu_0 - \mu)/\sigma$
$H_0: \mu_1 = \mu_2$ σ_1^2 y σ_2^2 conocidas	$Z_0 = \dfrac{\bar{X}_1 - \bar{X}_2}{\sqrt{\dfrac{\sigma_1^2}{n_1} - \dfrac{\sigma_2^2}{n_2}}}$	$H_1: \mu_1 \neq \mu_2$ $H_1: \mu_1 > \mu_2$ $H_1: \mu_1 < \mu_2$	$Z_0 > Z_{\frac{\alpha}{2}}$ $Z_0 > Z_{\alpha}$ $Z_0 > -Z_{\alpha}$	$d = \lvert\mu_1 - \mu_2\rvert/\sqrt{\sigma_1^2 + \sigma_2^2}$ $d = (\mu_1 - \mu_2)/\sqrt{\sigma_1^2 + \sigma_2^2}$ $d = (\mu_2 - \mu_1)/\sqrt{\sigma_1^2 + \sigma_2^2}$
$H_0: \mu_1 = \mu_2$ $\sigma_1^2 = \sigma_2^2 = \sigma^2$ desconocidas	$t = \dfrac{\bar{X}_1 - \bar{X}_2}{S_p\sqrt{\dfrac{1}{n_1} - \dfrac{1}{n_2}}}$	$H_1: \mu_1 \neq \mu_2$ $H_1: \mu_1 > \mu_2$ $H_1: \mu_1 < \mu_2$	$\lvert t_0\rvert > t_{\frac{\alpha}{2},n_1+n_2-2}$ $t_0 > t_{\alpha,n_1+n_2-2}$ $t_0 > -t_{\alpha,n_1+n_2-2}$	$d = \dfrac{\lvert\mu_1 - \mu_2\rvert}{2\sigma}$ $d = \dfrac{(\mu_1 - \mu_2)}{2\sigma}$ $d = \dfrac{(\mu_2 - \mu_1)}{2\sigma}$
$H_0: \mu_1 = \mu_2$ $\sigma_1^2 \neq \sigma_2^2$ desconocida	$t_0 = \dfrac{\bar{X}_1 - \bar{X}_2}{\sqrt{\dfrac{S_1^2}{n_1} - \dfrac{S_2^2}{n_2}}}$ $\nu = \dfrac{\left(\dfrac{S_1^2}{n_1} - \dfrac{S_2^2}{n_2}\right)^2}{\dfrac{(S_1^2/n_1)^2}{n_{1+1}} + \dfrac{(S_2^2/n_2)^2}{n_{2+1}}}$	$H_1: \mu_1 \neq \mu_2$ $H_1: \mu_1 > \mu_2$ $H_1: \mu_1 < \mu_2$	$\lvert t_0\rvert > t_{\frac{\alpha}{2},\nu}$ $t_0 > t_{\alpha,\nu}$ $t_0 > -t_{\alpha,\nu}$	
$H_0: \sigma^2 = \sigma_0^2$	$\chi_0^2 = \dfrac{(n-1)S^2}{\sigma_0^2}$	$H_1: \sigma^2 \neq \sigma_0^2$	$\chi_0^2 > \chi^2_{\frac{\alpha}{2},n-1}$ O $\chi_0^2 > \chi^2_{\frac{1-\alpha}{2},n-1}$	$\lambda = \sigma/\sigma_0$
		$H_1: \sigma^2 > \sigma_0^2$	$\chi_0^2 > \chi^2_{\alpha,n-1}$	$\lambda = \sigma/\sigma_0$
		$H_1: \sigma^2 < \sigma_0^2$	$\chi_0^2 > \chi^2_{1-\alpha,n-1}$	$\lambda = \sigma/\sigma_0$
$H_0: \sigma_1^2 = \sigma_2^2$	$F_0 = \dfrac{S_1^2}{S_2^2}$	$H_1: \sigma_1^2 \neq \sigma_2^2$	$F_0 > F_{\frac{\alpha}{2},n_1-1,n_1-1}$ O $F_0 < F_{\frac{1-\alpha}{2},n_1-1,n_1-1}$	$\lambda = \sigma/\sigma_0$
		$H_1: \sigma_1^2 > \sigma_2^2$	$F_0 > F_{\alpha,n_1-1,n_1-2}$	$\lambda = \sigma/\sigma_0$