区间估计一览表

	待估	情形	置信区间	单侧置信限
单正态	μ	σ^2 已知	$\bar{X} \pm z_{\frac{\alpha}{2}} \frac{\sigma}{\sqrt{n}}$	$\overline{\mu} = \bar{X} + z_\alpha \frac{\sigma}{\sqrt{n}}$ $\underline{\mu} = \bar{X} - z_\alpha \frac{\sigma}{\sqrt{n}}$
	μ	σ^2 未知	$\bar{X} \pm t_{\frac{\alpha}{2}}(n-1) \frac{S}{\sqrt{n}}$	$\overline{\mu} = \bar{X} + t_\alpha(n-1) \frac{S}{\sqrt{n}}$ $\underline{\mu} = \bar{X} - t_\alpha(n-1) \frac{S}{\sqrt{n}}$
	σ^2		$\left(\frac{(n-1)S^2}{\chi^2_{\frac{\alpha}{2}}(n-1)}, \frac{(n-1)S^2}{\chi^2_{1-\frac{\alpha}{2}}(n-1)} \right)$	
双正态	$\mu_1 - \mu_2$	σ_1^2, σ_2^2 已知	$(\bar{X} - \bar{Y}) \pm z_{\frac{\alpha}{2}} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}$	
	$\mu_1 - \mu_2$	$\sigma_1^2 = \sigma_2^2$ 未知	$(\bar{X} - \bar{Y}) \pm t_{\frac{\alpha}{2}}(n_1 + n_2 - 2) S_w \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}$ $S_w^2 = \frac{(n_1-1)S_1^2 + (n_2-1)S_2^2}{n_1 + n_2 - 2}$	
单比率	p	n 很大	$\bar{X} \pm z_{\frac{\alpha}{2}} \sqrt{\frac{\bar{X}(1-\bar{X})}{n}}$	$\overline{p} = \bar{X} + z_\alpha \sqrt{\frac{\bar{X}(1-\bar{X})}{n}}$ $\underline{p} = \bar{X} - z_\alpha \sqrt{\frac{\bar{X}(1-\bar{X})}{n}}$
双比率	$p_1 - p_2$	n, m 很大	$(\bar{X} - \bar{Y}) \pm z_{\frac{\alpha}{2}} \sqrt{\frac{\bar{X}(1-\bar{X})}{n} + \frac{\bar{Y}(1-\bar{Y})}{m}}$	
一般总体	μ	n 很大	$\bar{X} \pm z_{\frac{\alpha}{2}} \frac{S}{\sqrt{n}}$	
	$\mu_1 - \mu_2$	n_1, n_2 很大	$(\bar{X} - \bar{Y}) \pm z_{\frac{\alpha}{2}} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}$	