	待估参数	已知条件	双侧置信区间	置信上限	置信下限
单个正态总体	μ	σ^2已知	$\left(\bar{X}\pm\frac{\sigma}{\sqrt{n}}u_{\alpha/2}\right)$	$\hat{\theta}_U=\bar{X}+\frac{\sigma}{\sqrt{n}}u_{\alpha}$	$\hat{\theta}_L=\bar{X}-\frac{\sigma}{\sqrt{n}}u_{\alpha}$
	μ	σ^2未知	$\left(\bar{X}\pm\frac{S}{\sqrt{n}}t_{\alpha/2}(n-1)\right)$	$\hat{\theta}_U=\bar{X}+\frac{S}{\sqrt{n}}t_{\alpha}(n-1)$	$\hat{\theta}_L=\bar{X}-\frac{S}{\sqrt{n}}t_{\alpha}(n-1)$
	σ^2	μ未知	$\left(\frac{(n-1)S^2}{\chi^2_{\alpha/2}(n-1)},\frac{(n-1)S^2}{\chi^2_{1-\alpha/2}(n-1)}\right)$	$\hat{\theta}_U=\frac{(n-1)S^2}{\chi^2_{1-\alpha}(n-1)}$	$\hat{\theta}_L=\frac{(n-1)S^2}{\chi^2_{\alpha}(n-1)}$
两个正态总体	$\mu_1-\mu_2$	σ_1^2,σ_2^2已知	$\left(\bar{X}-\bar{Y}\pm u_{\alpha/2}\sqrt{\frac{\sigma_1^2}{n_1}+\frac{\sigma_2^2}{n_2}}\right)$	$\hat{\theta}_U=\bar{X}-\bar{Y}+u_{\alpha}\sqrt{\frac{\sigma_1^2}{n_1}+\frac{\sigma_2^2}{n_2}}$	$\hat{\theta}_L=\bar{X}-\bar{Y}-u_{\alpha}\sqrt{\frac{\sigma_1^2}{n_1}+\frac{\sigma_2^2}{n_2}}$
	$\mu_1-\mu_2$	σ_1^2,σ_2^2未知,n很大	$\left(\bar{X}-\bar{Y}\pm u_{\alpha/2}\sqrt{\frac{S_1^2}{n_1}+\frac{S_2^2}{n_2}}\right)$	$\hat{\theta}_U=\bar{X}-\bar{Y}+u_{\alpha}\sqrt{\frac{S_1^2}{n_1}+\frac{S_2^2}{n_2}}$	$\hat{\theta}_L=\bar{X}-\bar{Y}-u_{\alpha}\sqrt{\frac{S_1^2}{n_1}+\frac{S_2^2}{n_2}}$
	$\mu_1-\mu_2$	$\sigma_1^2=\sigma_2^2=\sigma^2$未知	$\left(\bar{X}-\bar{Y}\pm t_{\alpha/2}(n_1+n_2-2)S_w\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}\right)$ $S_w^2=\frac{(n_1-1)S_1^2+(n_2-1)S_2^2}{n_1+n_2-2}$, $S_w=\sqrt{S_w^2}$	$\hat{\theta}_U=\bar{X}-\bar{Y}+t_{\alpha}(n_1+n_2-2)S_w\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}$	$\hat{\theta}_L=\bar{X}-\bar{Y}-t_{\alpha}(n_1+n_2-2)S_w\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}$
	σ_1^2/σ_2^2	$\mu_{1,2}$未知	$\left(\frac{S_1^2}{S_2^2}\frac{1}{F_{\alpha/2}(n_1-1,n_2-1)},\frac{S_1^2}{S_2^2}\frac{1}{F_{1-\alpha/2}(n_1-1,n_2-1)}\right)$	$\hat{\theta}_U=\frac{S_1^2}{S_2^2}\frac{1}{F_{1-\alpha}(n_1-1,n_2-1)}$	$\hat{\theta}_L=\frac{S_1^2}{S_2^2}\frac{1}{F_{\alpha}(n_1-1,n_2-1)}$