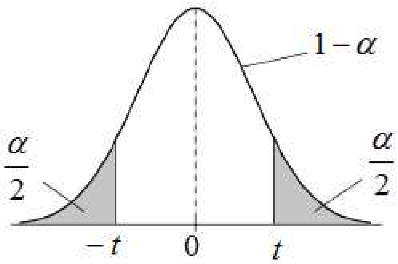
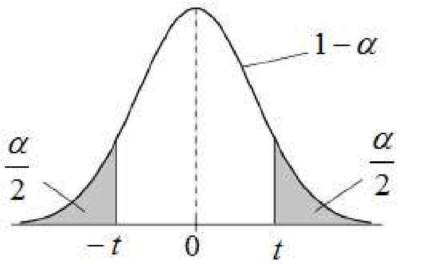
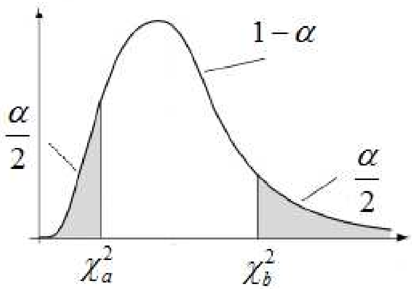
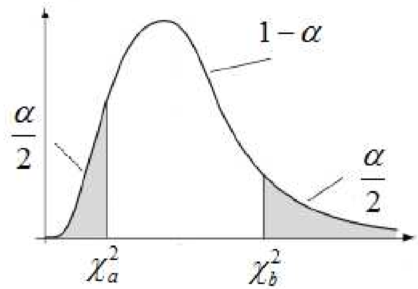
Intervalle de confiance de la moyenne m		***Intervalle de confiance de la variance*** σ^2	
σ ***est connu***	σ ***est inconnu***	m ***est connue***	m ***est inconnu***
La statistique est : $T=\dfrac{\overline{X}_n-m}{\dfrac{\sigma}{\sqrt{n}}}\rightarrow Normle(0,1)$	La statistique est : $T=\dfrac{\overline{X}_n-m}{\dfrac{S}{\sqrt{n}}}\rightarrow Student(n-1)$	La statistique est : $\dfrac{n\hat{\sigma}^2}{\sigma^2}\rightarrow Khi-deux(n)$	La statistique est : $\dfrac{(n-1)S^2}{\sigma^2}\rightarrow Khi-deux(n-1)$
			
$P(\lvert T\rvert<t)=1-\alpha$ $P(-t<T<t)=1-\alpha$ $P\left(-t<\dfrac{\overline{X}_n-m}{\dfrac{\sigma}{\sqrt{n}}}<t\right)=1-\alpha$ $P\left(\overline{X}_n-t\dfrac{\sigma}{\sqrt{n}}<m<\overline{X}_n+t\dfrac{\sigma}{\sqrt{n}}\right)=1-\alpha$ $P\left(m\in\left[\overline{X}_n-t\dfrac{\sigma}{\sqrt{n}},\overline{X}_n+t\dfrac{\sigma}{\sqrt{n}}\right]\right)=1-\alpha$ $IC_{1-\alpha}(m)=\left[\overline{X}_n-t\dfrac{\sigma}{\sqrt{n}},\overline{X}_n+t\dfrac{\sigma}{\sqrt{n}}\right]$	$P(\lvert T\rvert<t)=1-\alpha$ $P(-t<T<t)=1-\alpha$ $P\left(-t<\dfrac{\overline{X}_n-m}{\dfrac{S}{\sqrt{n}}}<t\right)=1-\alpha$ $P\left(\overline{X}_n-t\dfrac{S}{\sqrt{n}}<m<\overline{X}_n+t\dfrac{S}{\sqrt{n}}\right)=1-\alpha$ $P\left(m\in\left[\overline{X}_n-t\dfrac{S}{\sqrt{n}},\overline{X}_n+t\dfrac{S}{\sqrt{n}}\right]\right)=1-\alpha$ $IC_{1-\alpha}(m)=\left[\overline{X}_n-t\dfrac{S}{\sqrt{n}},\overline{X}_n+t\dfrac{S}{\sqrt{n}}\right]$	$P\left(\chi_a^2<\dfrac{n\hat{\sigma}^2}{\sigma^2}<\chi_b^2\right)=1-\alpha$ $P\left(\dfrac{n\hat{\sigma}^2}{\chi_b^2}<\sigma^2<\dfrac{n\hat{\sigma}^2}{\chi_a^2}\right)=1-\alpha$ $P\left(\sigma^2\in\left[\dfrac{n\hat{\sigma}^2}{\chi_b^2},\dfrac{n\hat{\sigma}^2}{\chi_a^2}\right]\right)=1-\alpha$ $IC_{1-\alpha}(\sigma^2)=\left[\dfrac{n\hat{\sigma}^2}{\chi_b^2},\dfrac{n\hat{\sigma}^2}{\chi_a^2}\right]$	$P\left(\chi_a^2<\dfrac{(n-1)S^2}{\sigma^2}<\chi_b^2\right)=1-\alpha$ $P\left(\dfrac{(n-1)S^2}{\chi_b^2}<\sigma^2<\dfrac{(n-1)S^2}{\chi_a^2}\right)=1-\alpha$ $P\left(\sigma^2\in\left[\dfrac{(n-1)S^2}{\chi_b^2},\dfrac{(n-1)S^2}{\chi_a^2}\right]\right)=1-\alpha$ $IC_{1-\alpha}(\sigma^2)=\left[\dfrac{(n-1)S^2}{\chi_b^2},\dfrac{(n-1)S^2}{\chi_a^2}\right]$
$\overline{X}_n=\dfrac{1}{n}\sum_{i=1}^{n}X_i$ n *: taille de l'échantillon* σ *: écart type de la population* t *tel que* $P(T<t)=1-\dfrac{\alpha}{2}$ *où* $T\rightarrow N(0,1)$	$\overline{X}_n=\dfrac{1}{n}\sum_{i=1}^{n}X_i$ n *: taille de l'échantillon* $S=\sqrt{\dfrac{1}{n-1}\sum\left(X_i-\overline{X}_n\right)^2}$ t *tel que* $P(T<t)=1-\dfrac{\alpha}{2}$ *où* $T\rightarrow Student(n-1)$	$\hat{\sigma}^2=\dfrac{1}{n}\sum_{i=1}^{n}(X_i-m)^2$ n *: taille de l'échantillon* χ_a^2 *tel que* $P(\chi^2<\chi_a^2)=\dfrac{\alpha}{2}$ χ_b^2 *tel que* $P(\chi^2<\chi_b^2)=1-\dfrac{\alpha}{2}$ $\chi^2\rightarrow\chi^2(n)$	$S^2=\dfrac{1}{n-1}\sum_{i=1}^{n}\left(X_i-\overline{X}_n\right)^2$ n *: taille de l'échantillon* χ_a^2 *tel que* $P(\chi^2<\chi_a^2)=\dfrac{\alpha}{2}$ χ_b^2 *tel que* $P(\chi^2<\chi_b^2)=1-\dfrac{\alpha}{2}$ $\chi^2\rightarrow\chi^2(n-1)$
	si $n>30$ *alors* $T\approx N(0,1)$		*si* $n>30$ *alors* $\sqrt{2\chi^2(n)}-\sqrt{2n-1}\approx N(0,1)$