$$X_{1},...,X_{n} \stackrel{iid}{\sim} Poiss(A)$$

$$E[X_{i}] = Var[X_{i}] = A$$

$$X \stackrel{y_{i}, n, T}{\sim} N(E[X_{i}], \frac{var[X_{i}]}{n}) = N(A, \frac{A}{n})$$

$$P(A = AA \pm 2n \times \sqrt{A}) = 1-a$$

$$X_1, ..., X_{n_x} \stackrel{\text{iid}}{\sim} P_{\text{oiss}}(\lambda_x)$$
 $Y_1, ..., Y_{n_y} \stackrel{\text{iid}}{\sim} P_{\text{oiss}}(\lambda_y)$
 $\overline{X} - \overline{Y} \sim N(\lambda_x - \lambda_y, \frac{\lambda_x}{h_x} + \frac{\lambda_y}{h_y})$

$$\mathbb{P}\left(\lambda_{x}-\lambda_{y}\in \Lambda \ \hat{\lambda}_{x}-\hat{\lambda}_{y}\ \pm\ Z_{1}-\frac{\lambda_{z}}{2}\cdot\left(\frac{\lambda_{x}}{h_{x}}+\frac{\lambda_{y}}{h_{y}}\right)\right)=1-\lambda$$

$$\begin{bmatrix} 6;\ 7.5 \end{bmatrix}$$

$$\begin{bmatrix} -2;\ 0 \end{bmatrix} \ \lambda_{x}<\lambda_{y}$$

$$\begin{bmatrix} -2;\ 4 \end{bmatrix} \longrightarrow \begin{bmatrix} 0;\ 4 \end{bmatrix} \ \lambda_{x}>\lambda_{y}$$

$$\mathbb{P}(\chi = x) = \frac{\lambda^{x} \cdot e^{-\lambda}}{x!}$$

$$\mathbb{P}(\chi = x) = \frac{\lambda^{x-1}e^{-\lambda} \cdot (x-\lambda)}{x!}$$

$$\widehat{A} = \overline{X} \sim N \left(\overline{A}, \frac{A}{n} \right)$$

$$P(X = x) = \frac{\widehat{A}x \cdot e^{-\widehat{A}}}{x!}$$

$$\mathbb{P}(\chi=x) \sim \mathcal{N}\left(\frac{\lambda^{x} \cdot e^{-\lambda}}{x!}\right) \frac{\lambda}{n} \left(\frac{\hat{\lambda}^{x-1}e^{-\lambda} \cdot (x-\hat{\lambda})}{x!}\right)^{\frac{1}{2}}$$