

$$\frac{A\alpha N}{hh\widetilde{\sim}exp(1)h}$$

$$\begin{array}{l} f_H(h)=\exp(-h)\\ (1) \quad F_H(h)=P[H\leq h]=1-\exp(-h) \end{array}$$

$$(2) \quad Pn\lambda??$$

$$(3) \quad n_s=\left\lfloor \lambda_s S\right\rfloor$$

$$\begin{array}{l} \left\lfloor \cdot \right\rfloor \mathcal{S}iS_i\mathcal{S} = \\ \{S_1,S_2,\ldots,S_{n_s}\} \\ S_i k_i \quad ??_dis.pdf \\ ??_{\mathfrak{m}\times} \\ 100\mathfrak{m}\lambda\overline{\overline{=}} \\ 10^{-3}\mathfrak{m}^{-2} \\ \phi ?? \\ An\lambda A \\ P(n_s=i)=\frac{e^{-\lambda A}(\lambda A)^i}{i!} \end{array}$$

$$(4) \quad A\lambda$$

$$\begin{array}{l} \overline{n_s}=\lambda A\\ (5) \quad \frac{S_i\mathcal{U}_ik_i}{U\mathcal{U}_i=} \\ \{U_1,U_2,...,U_{k_i}\}\mu\sigma^2 \\ f_{X,Y}(x,y)(a)=f_X(x)f_Y(y)(b)=\frac{1}{\sqrt{2\pi}\sigma}\exp\left(-\frac{x^2}{2\sigma^2}\right)\cdot\frac{1}{\sqrt{2\pi}\sigma}\exp\left(-\frac{y^2}{2\sigma^2}\right)=\frac{1}{2\pi\sigma^2}\exp\left(-\frac{x^2+y^2}{2\sigma^2}\right) \end{array}$$

$$(6) \quad \begin{array}{l} (a)(b)??_xy_pdf.pdf \\ ?? \end{array}$$

$$(7) \quad f_R(r)=\frac{r}{\sigma^2}\exp(-\frac{r^2}{2\sigma^2})$$

$$R \quad \begin{array}{l} ?? \\ \mathfrak{S}_iU_kP_{i,k}?? \end{array}$$

$$\begin{array}{l} P_{i,k}=R_{i,k}^{-\alpha}h_{i,k}P\\ (8) \quad R_{i,k}U_kS_i\alpha h_{i,k}U_kS_ih_{i,k}\sim \\ exp(1)P?? \\ S_iU_k?? \end{array}$$

$$(9) \quad I_{i,k}=\sum_{cS_j\in S_{j\neq i}}R_{j,k}^{-\alpha}h_{j,k}P$$

$$\begin{array}{l} R_{j,k}U_kS_j\alpha h_{j,k}U_kS_jh_{j,k}\sim \\ exp(1)P \\ S_iU_k \end{array}$$

$$(10) \quad \text{SINR}_{i,k}(a)=\frac{P_{i,k}}{I_{i,k}+N}(b)=\frac{R_{i,k}^{-\alpha}h_{i,k}P}{\sum_{cS_j\in S_{j\neq i}}R_{j,k}^{-\alpha}h_{j,k}P+N}$$

$$\begin{array}{l} S_i\in \\ \mathcal{S} \\ \mathcal{U}_k\in \\ \mathcal{U}_i(a)(b)???? \\ ?? \end{array}$$

$$(11) \quad \text{SIR}_{i,k}(a)=P_{i,k}/I_{i,k}(b)=\frac{R_{i,k}^{-\alpha}h_{i,k}}{\sum_{cS_j\in S_{j\neq i}}R_{j,k}^{-\alpha}h_{j,k}}$$

$$\begin{array}{l} (a)(b)?? \\ ?? \\ S_0\in \\ \mathcal{S}S_0rrS_0h \\ hh\widetilde{\sim} \\ exp(1) \\ \setminus T\alpha\sigma?? \end{array}$$