

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

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

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

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

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

$$\begin{array}{l} \overline{n_s}=\lambda A\\ (5) \quad \frac{S_i\mathcal{U}_ik_i}{U\mathcal{U}_i=}\\ \{U_1,U_2,...,U_{k_i}\}\mu\sigma^2\\ f_{X,Y}(x,y)(a)=f_X(x)f_Y(y)(b)=\frac{1}{\sqrt{2\pi}\sigma}\exp\left(-\frac{x^2}{2\sigma^2}\right)\cdot\frac{1}{\sqrt{2\pi}\sigma}\exp\left(-\frac{y^2}{2\sigma^2}\right)=\frac{1}{2\pi\sigma^2}\exp\left(-\frac{x^2+y^2}{2\sigma^2}\right)\\ (6) \quad \begin{array}{l} (a)(b)??_xy_Pdf.pdf \\ ?? \end{array} \end{array}$$

$$\begin{array}{l} f_R(r)=\frac{r}{\sigma^2}\exp(-\frac{r^2}{2\sigma^2})\\ (7) \quad R \\ \quad \quad \quad ?? \\ \quad \quad \quad \mathfrak{S}_iU_kP_{i,k}?? \end{array}$$

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

$$\begin{array}{l} I_{i,k}=\sum_{cS_j\in S_{j\neq i}}R_{j,k}^{-\alpha}h_{j,k}P\\ (9) \quad R_{j,k}U_kS_j\alpha h_{j,k}U_kS_jh_{j,k}\sim\\ exp(1)P \\ \quad \quad \quad S_iU_k \end{array}$$

$$\begin{array}{l} \text{SINR}_{i,k}(a)=\frac{P_{i,k}}{I_{i,k}+N}(b)=\frac{R_{i,k}^{-\alpha}h_{i,k}P}{\sum_{cS_j\in S_{j\neq i}}R_{j,k}^{-\alpha}h_{j,k}P+N}\\ (10) \quad S_i\in \\ \mathcal{S} \\ \mathcal{U}_k\in \\ \mathcal{U}_i(a)(b)???? \\ ?? \end{array}$$

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

$$\begin{array}{l} (11) \quad (a)(b)?? \\ \quad \quad ?? \\ S_0\in \\ \mathcal{S}S_0rrS_0h \\ hh\widetilde{\sim} \\ exp(1) \\ \quad \quad \quad \backslash T\alpha\sigma?? \end{array}$$