

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

$$\begin{aligned} (1) \quad & f_H(h)=\exp(-h) \\ (2) \quad & F_H(h)=P[H\leq h]=1-\exp(-h) \\ & Pn\lambda_s?? \end{aligned}$$

$$\begin{aligned} (3) \quad & n_s=\left\lfloor \lambda_s S \right\rfloor \\ & \left\lfloor \cdot \right\rfloor S_i S_i \mathcal{S} = \\ & \{S_1, S_2, \ldots, S_{n_s}\} \\ & S_i k_i \end{aligned}$$

$$\begin{aligned} (4) \quad & \begin{aligned} &??_{dis.pdf} \\ &??_{m\times} \\ &\frac{100\text{m}\lambda}{10^{-3}\text{m}^{-2}} \\ &\phi?? \\ &S_i\mathcal{U}_ik_i \\ &U\mathcal{U}_i= \\ &\{U_1,U_2,...,U_{k_i}\}\mu\sigma^2 \\ &f_{X,Y}(x,y)(a)=f_X(x)f_Y(y)(b)=\frac{1}{\sqrt{2\pi}\sigma}\exp\left(-\frac{x^2}{2\sigma^2}\right)\cdot\frac{1}{\sqrt{2\pi}\sigma}\exp\left(-\frac{y^2}{2\sigma^2}\right)=\frac{1}{2\pi\sigma^2}\exp\left(-\frac{x^2+y^2}{2\sigma^2}\right) \end{aligned} \\ & (a)(b)??_{xy_pdf.pdf} \\ & ?? \end{aligned}$$

$$\begin{aligned} (5) \quad & f_R(r)=\frac{r}{\sigma^2}\exp(-\frac{r^2}{2\sigma^2}) \\ & R \\ & S_i??U_kP_{i,k}?? \end{aligned}$$

$$\begin{aligned} (6) \quad & P_{i,k}=R_{i,k}^{-\alpha}h_{i,k}P \\ & R_{i,k}U_kS_i\alpha h_{i,k}U_kS_ih_{i,k}\sim \\ & \exp(1)P?? \\ & S_iU_k?? \end{aligned}$$

$$\begin{aligned} (7) \quad & I_{i,k}=\sum_{cS_j\in\mathcal{S}j\neq i}R_{j,k}^{-\alpha}h_{j,k}P \\ & R_{j,k}U_kS_j\alpha h_{j,k}U_kS_jh_{j,k}\sim \\ & \exp(1)P \\ & S_iU_k \end{aligned}$$

$$\begin{aligned} (8) \quad & \text{SINR}_{i,k}(a)=\frac{P_{i,k}}{I_{i,k}+N}(b)=\frac{R_{i,k}^{-\alpha}h_{i,k}P}{\sum_{cS_j\in\mathcal{S}j\neq i}R_{j,k}^{-\alpha}h_{j,k}P+N} \\ & S_i\in \\ & S \\ & U_k\in \\ & \mathcal{U}_i(a)(b)???? \\ & ?? \end{aligned}$$

$$\begin{aligned} (9) \quad & \text{SIR}_{i,k}(a)=P_{i,k}/I_{i,k}(b)=\frac{R_{i,k}^{-\alpha}h_{i,k}}{\sum_{cS_j\in\mathcal{S}j\neq i}R_{j,k}^{-\alpha}h_{j,k}} \\ & (a)(b)?? \\ & ?? \\ & S_0\in \\ & S S_0 r r S_0 h \\ & hh\sim \exp(1) \\ & \lambda T\alpha\sigma?? \end{aligned}$$

$$\begin{aligned} (10) \quad & p_c(T,\lambda,\alpha,\sigma)(a)=P[\text{SINR}>T](b)=E_r[\text{SINR}>T\mid r](c)=\int_0^\infty P[\text{SINR}>T\mid r]\frac{r}{\sigma^2}\exp(-\frac{r^2}{2\sigma^2})\text{d}r \end{aligned}$$