

没到达曲线 $\alpha_i = r_i t + b_i$. 服务曲线 $\beta = C(t-T)^+$

$1 \times CT$

$$\alpha_{R_{15}.f_1} = r_1 t + b_1 + r_1 T$$

$$\beta_{R_{15}.f_2} = (C - r_1) \left(t - T - \frac{b_1 + r_1 T}{C - r_1} \right)^+$$

$$\alpha_{R_{14}.f_2} = r_2 t + b_2 + r_2 \left(T + \frac{b_1 + r_1 T}{C - r_1} \right)$$

$$\begin{aligned} \alpha_{R_{13}.f_2} &= r_2 t + b_2 + r_2 \left(T + \frac{b_1 + r_1 T}{C - r_1} \right) + r_2 T \\ &= r_2 t + b_2 + r_2 \left(2T + \frac{b_1 + r_1 T}{C - r_1} \right) \end{aligned}$$

$$\beta_{R_{13}.f_3} = (C - r_2) \left(t - T - \frac{b_2 + r_2 \left(2T + \frac{b_1 + r_1 T}{C - r_1} \right)}{C - r_2} \right)^+$$

$$\beta_{R_{13}.f_2} = C \left(t - T - \frac{1}{C} \right)^+$$

$$\begin{aligned} \alpha_{R_9.f_2} &= r_2 t + b_2 + r_2 \left(2T + \frac{b_1 + r_1 T}{C - r_1} \right) + r_2 \left(T + \frac{1}{C} \right) \\ &= r_2 t + b_2 + r_2 \left(3T + \frac{1}{C} + \frac{b_1 + r_1 T}{C - r_1} \right) \end{aligned}$$

$$\beta_{R_9.f_3} = (C - r_2) \left(t - T - \frac{b_2 + r_2 \left(3T + \frac{1}{C} + \frac{b_1 + r_1 T}{C - r_1} \right)}{C - r_2} \right)^+$$

$$\beta_{R_{15}.f_3} = C(t - T)^+$$

$$\beta_{R_{11}.f_3} = C(t - T)^+$$

$$\therefore \text{Delay} = H(\alpha_3, \beta_{R_{13}.f_3} \otimes \beta_{R_9.f_3} \otimes \beta_{R_{15}.f_3} \otimes \beta_{R_{11}.f_3})$$

$$\text{Delay} = -$$