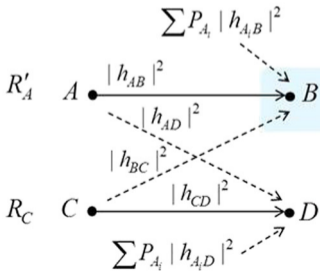
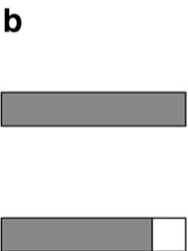


$$SIR_A = \frac{P_A |h_{AB}|^2}{\sum P_{A_i} |h_{A_i B}|^2}$$

$$R_A = \min(\log(1 + SIR_A), \mu_A)$$



$$SIR'_A = \frac{P_A |h_{AB}|^2}{P_C |h_{BC}|^2 + \sum P_{A_i} |h_{A_i B}|^2} \leq SIR_A$$

$$R'_A = \min(\log(1 + SIR'_A), \mu_A) \leq R_A$$

$$SIR_C = \frac{P_C |h_{CD}|^2}{P_A |h_{AD}|^2 + \sum P_{A_i} |h_{A_i D}|^2}$$

$$R_C = \min(\log(1 + SIR_C), \mu_C)$$