

$$E = hf, \quad f = c/\lambda, \quad d = v \cdot t$$

$$f_A(a) = \frac{a}{\sigma^2} e^{-a^2/2\sigma^2}, \quad m_A = \sigma \sqrt{\frac{\pi}{2}}, \quad F_A(a) = \int_0^a f_A(\alpha) d\alpha = Pr\{A \leq \alpha\}, \quad f_P(p) = \frac{1}{\sigma^2} e^{-p/\sigma^2}$$

$$\sigma_d = \sqrt{\langle t_k^2 \rangle - \langle t_k \rangle^2}, \quad \langle t_k \rangle = \frac{\sum_{i=1}^M p_i t_i}{\sum_{i=1}^M p_i}, \quad \langle t_k^2 \rangle = \frac{\sum_{i=1}^M p_i t_i^2}{\sum_{i=1}^M p_i}$$

$$\rho = \frac{1}{1 + 2\pi(f_2 - f_1)\sigma_d}, \quad B_{coh} = \frac{1}{5\sigma_d}$$

$$f_d = \frac{v}{\lambda} \cos \theta, \quad \rho = J_0^2(2\pi f_d \tau), \quad T_{coh} = \frac{9}{16\pi f_d}$$

$$Q \text{ [dB]} = 10 \log(Q), \quad \log(A \cdot B/C) = \log(A) + \log(B) - \log(C)$$