

$$U_1 = 3 \frac{s/r}{D_1}$$

$$U_2 = \frac{s/r}{D_2}$$

$$V_1 = \frac{1 - \left(\frac{\Delta}{r}\right)^2 - \frac{9}{4} \left(\frac{s}{r}\right)^2}{D_1}$$

$$V_2 = \frac{1 - \left(\frac{\Delta}{r}\right)^2 - \frac{1}{4} \left(\frac{s}{r}\right)^2}{D_2}$$

$$D_1 = \left(1 + \frac{\Delta}{r}\right)^2 + \frac{9}{4} \left(\frac{s}{r}\right)^2$$

$$D_2 = \left(1 + \frac{\Delta}{r}\right)^2 + \frac{1}{4} \left(\frac{s}{r}\right)^2 \quad (5)$$

$$F_3 = \left(\frac{2\pi}{\ln 2}\right) \left(\frac{1}{1 + \eta_3}\right)$$

where

$$\eta_3 = \frac{1}{2 \ln 2} \ln \frac{\beta_1^2 \beta_2^2}{4\beta_3 \beta_4 \beta_5 \beta_6}$$

$$\beta_1 = (y_2 - y_3)^2 + (x_2 + x_3)^2$$

$$\beta_2 = (y_2 + y_3)^2 + (x_2 + x_3)^2$$

$$\beta_3 = 4 x_3^2$$

$$\beta_4 = 4 x_3^2 + 4 y_3^2$$

$$\beta_5 = 4 x_2^2$$

$$\beta_6 = 4 x_2^2 + 4 y_2^2$$

$$x_2 = \frac{s/r}{D_3}$$