



$$\beta_1^2(\omega_0) = 1 + 2\rho_1 \cos(\omega_0 \tau_1) + \rho_1^2$$

and

$$\theta_1(\omega_0) = \tan^{-1} \left[\frac{-\rho_1 \sin(\omega_0 \tau_1)}{1 + \rho_1 \cos(\omega_0 \tau_1)} \right]$$