

$$\left( \frac{z_e^2}{Re z_{of}} \right) \left( \frac{z_k^2}{z_{of} z_{or}} \right) \left( \frac{z_g^2}{z_{or} z_g} \right)$$

$$Q_g = \frac{z_e^2 z_k^2 z_g^2}{Re z_{of}^2 z_{or}^2 z_g} \frac{4(\delta x)^4}{24(\delta x)^4}$$

mine:

this off resonance.

Dan's

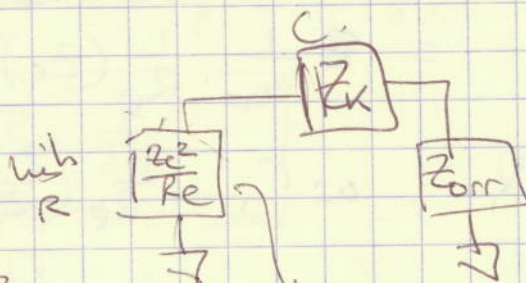
$$Q_g = \frac{Q_F^2 Q_{or} z_g (C_g)^2}{z_{or}} 4(\delta x)^4$$

$$Q_F = \frac{z_e^2}{Re z_{of}} = 2(\delta x)^2$$

→ This on resonance

$Q_F + Q_{or}$  are for on resonance.

$$Q_F = \frac{z_e^2}{Re z_{of}} \quad \text{imped + ref.}$$



$$Re z_f(\delta x \rightarrow 0) = Q_F z_{of} = \frac{z_e^2}{Re}$$

100%

$$Q_F \approx 50, \quad z_e \sim 2.502$$

50:502.

so not too large.

$$Q_{FF} = \frac{z_k^2}{(z_e^2 / Re) z_{or}} = Re \left( \frac{z_k}{z_e} \right)^2 \frac{1}{z_{or}} ?$$

$$Q_g = \frac{z_e^2 Q_{FF} (z_e^2 / Re) z_{or} z_g^2}{Re z_{of}^2 z_{or}^2 z_g} 4\delta x^2$$

$$= \frac{(Q_F Re / z_{of})^2 Q_{FF} z_{or} z_g^2}{Re^2 z_{of}^2 z_{or}^2 z_g} 4\delta x^2$$