

# AUTOMATIC COLLIMATOR IMPEDANCE COMPUTATIONS

E. Metral

- ◆ **Comparison with L. Vos computations for Phase 1 = Baseline layout at injection**

◆ My results

$$Z_y^{eff} = -0.74 + 4.9 j \text{ M}\Omega/\text{m}$$

$$\Delta Q_y = - (6.3 + 0.95 j) 10^{-4}$$

$$\tau = 150 \text{ ms}$$

**L. Vos  
conventions**

◆ L. Vos results

$$Z_y^{eff} = -7.6 + 74 j \text{ M}\Omega/\text{m}$$

$$Z_y^{eff} (\textit{rest of machine}) \\ = -49 + 26 j \text{ M}\Omega/\text{m}$$

$$Z_y^{eff} (\textit{total}) \\ = -57 + 100 j \text{ M}\Omega/\text{m}$$

$$\Delta Q_y (\textit{total}) = - (3.6 + 6.3 j) 10^{-4}$$

$$\tau (\textit{total}) = 23 \text{ ms}$$

⇒ 
$$\Delta Q_y (\textit{coll}) = - (2.7 + 0.84 j) 10^{-4}$$

$$\tau (\textit{coll}) = 170 \text{ ms}$$