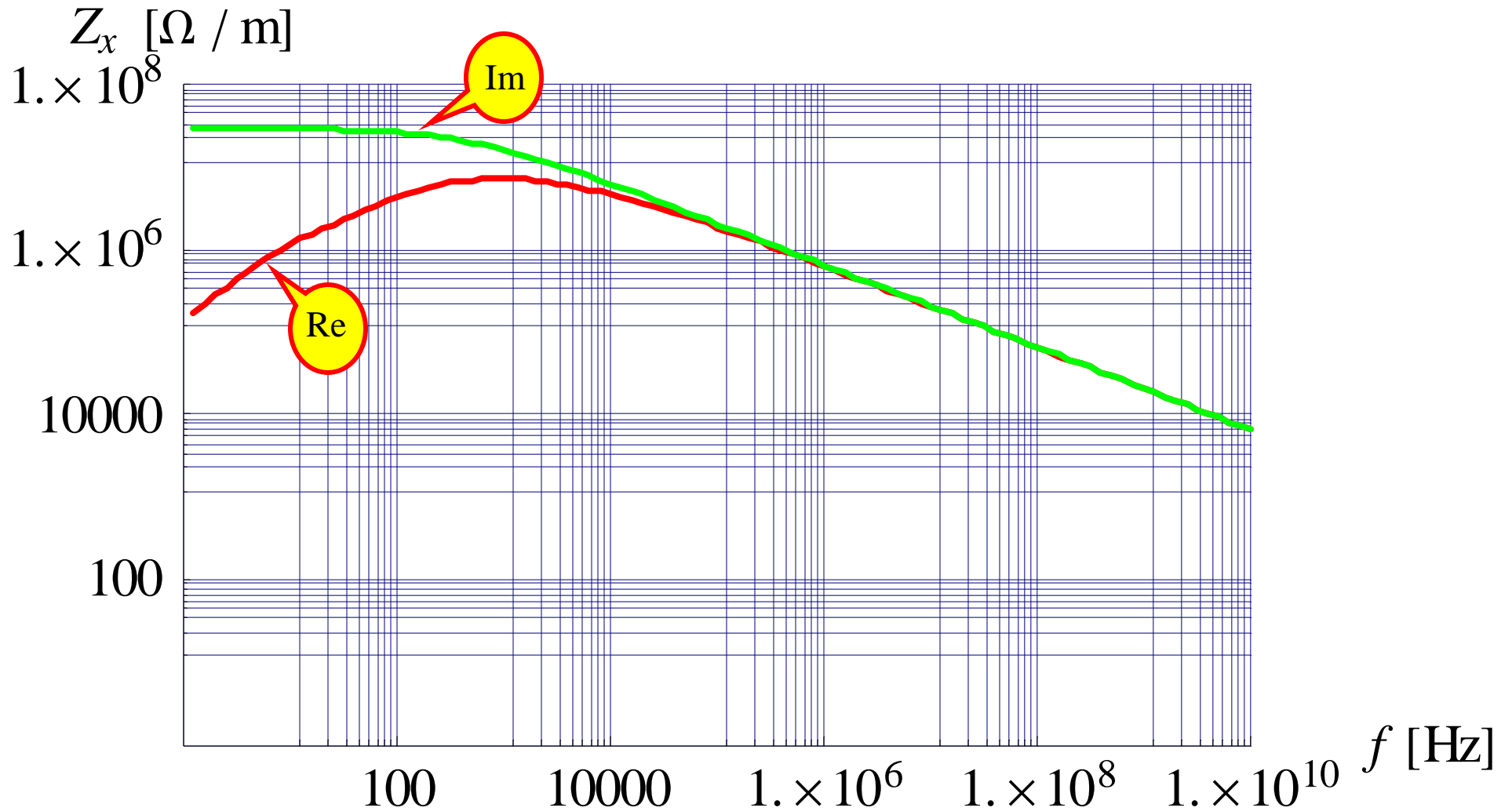


TRANSVERSE RW IMPEDANCE AND COUPLED-BUNCH TUNE SHIFT FOR THE 8m LONG FP420 BEAM PIPE

E. Métral

- ◆ **8m long pipe**
- ◆ **1-sided**
- ◆ **Copper (2.5 cm, 17 nΩm)**
- ◆ **Distance to the beam = 3mm**
- ◆ **Horizontal betatron function ≈ 150 m**

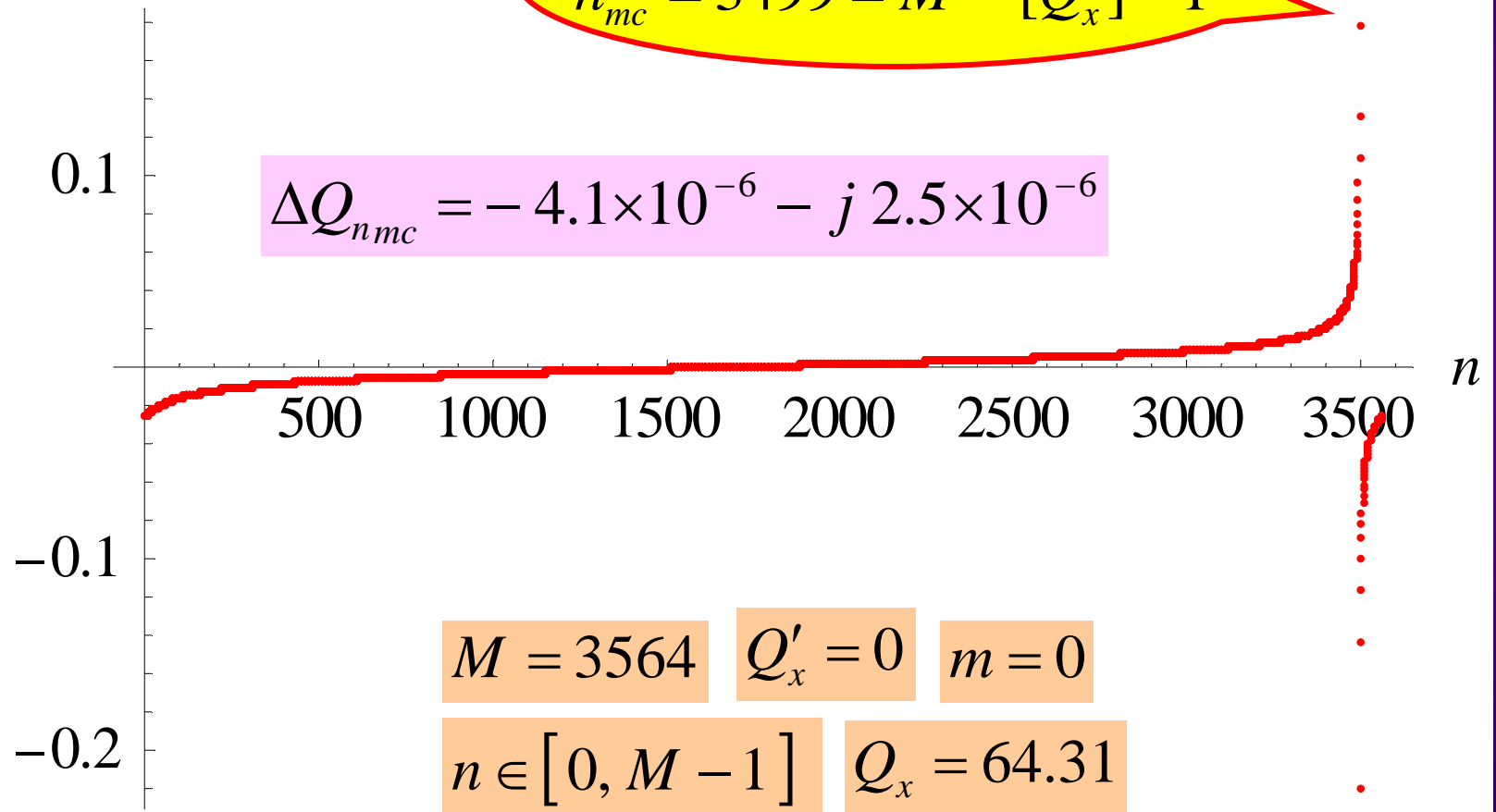
Transverse RW impedance



Coupled-bunch instability growth-rates vs. coupled-bunch mode n

Instability growth-rate [s^{-1}]

Most critical mode
 $n_{mc} = 3499 = M - [Q_x] - 1$



Tune shift and stability diagram

