

FOLLOW-UP OF THE GSI WORKSHOP HELD ON 30-31/03/06: COMPARISON WITH GSI RESULTS ON THE CASE OF SIS100

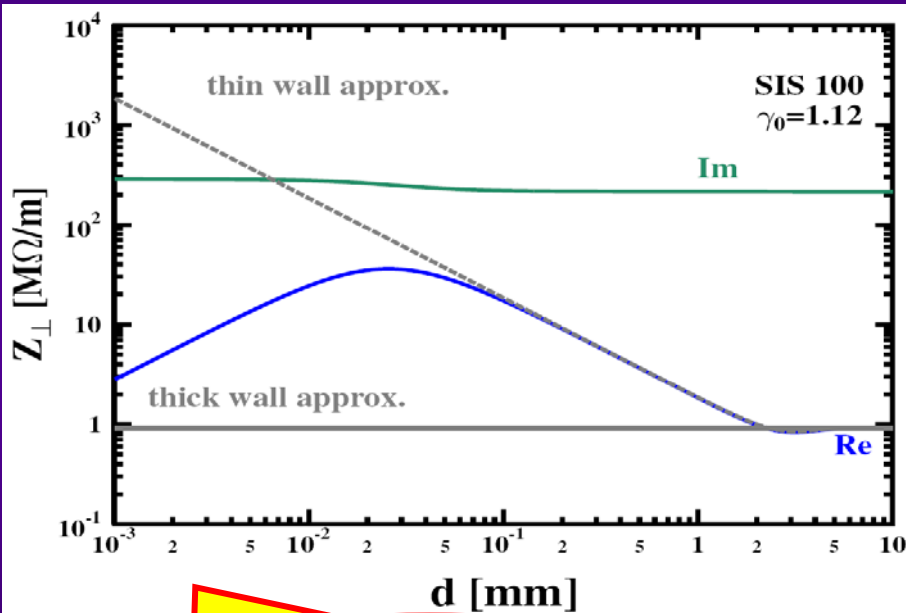
Elias Métral

- ◆ **SIS100 data sent to me by RH on 06/07/06 and 08/08/06**
 - **Cylinder of radius = 4 cm**
 - **Beam radius = 2 cm**
 - **Wall thickness = 0.2 mm \Rightarrow Will be scanned in fact**
 - **Circumference = 1080 m**
 - **Conductivity = $10^6 \Omega^{-1}\text{m}^{-1}$**
 - **Gamma = 1.12 \Rightarrow Beta = 0.45**
 - **Computation done at half the revolution frequency = 62.5 kHz**

With vacuum outside

Transverse resistive-wall impedance for SIS100

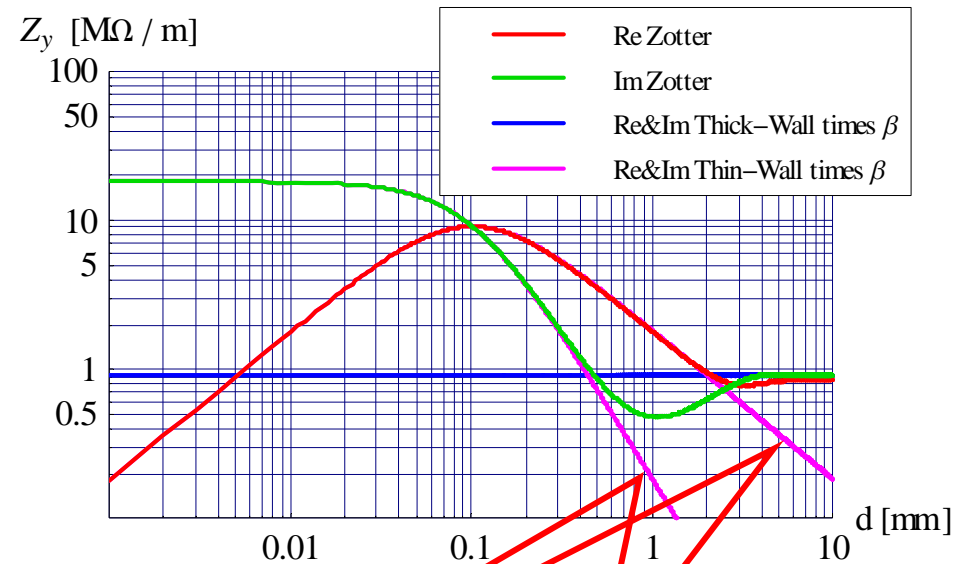
GSI RESULT (EPAC2006)



For half the rev. frequency. It is not said in the EPAC06 paper (email by RH on 08/08/06)

RESULT using the new (extended) Zotter's formula

$$\delta(f_{rev}/2) = 2 \text{ mm}$$



Thin-wall with inductive bypass (CERN-AB-2004-065, already reported in Zotter&Kheifets1998's book)