

# TDI modification

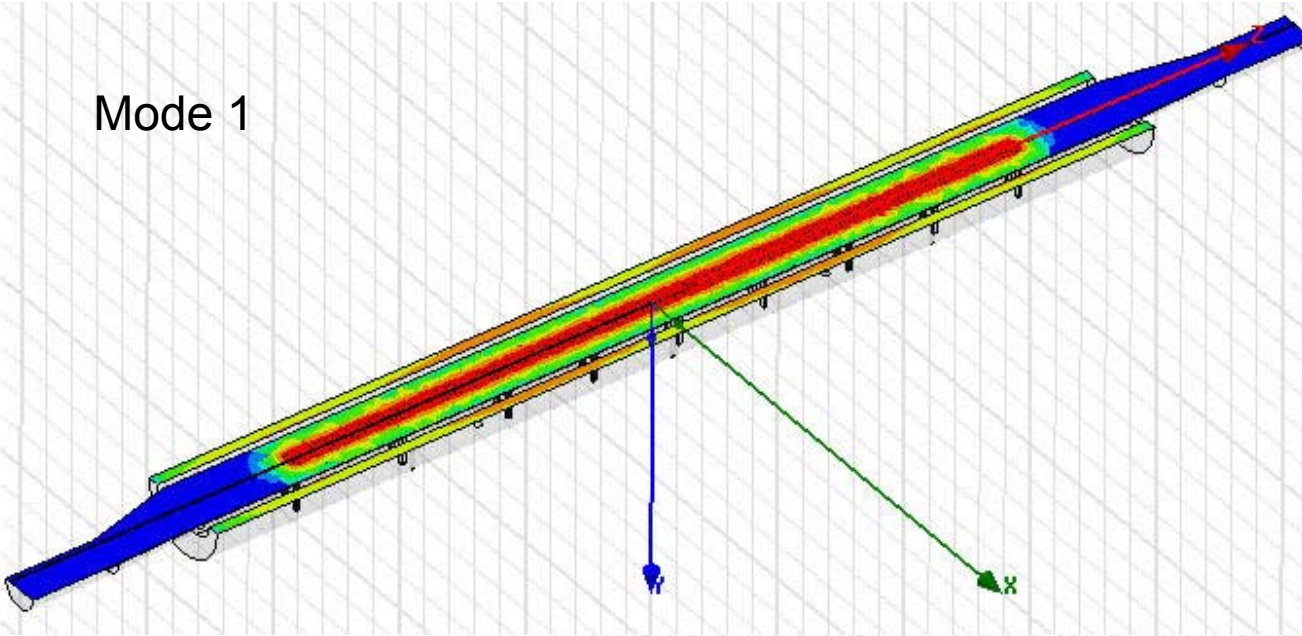
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RLC meeting

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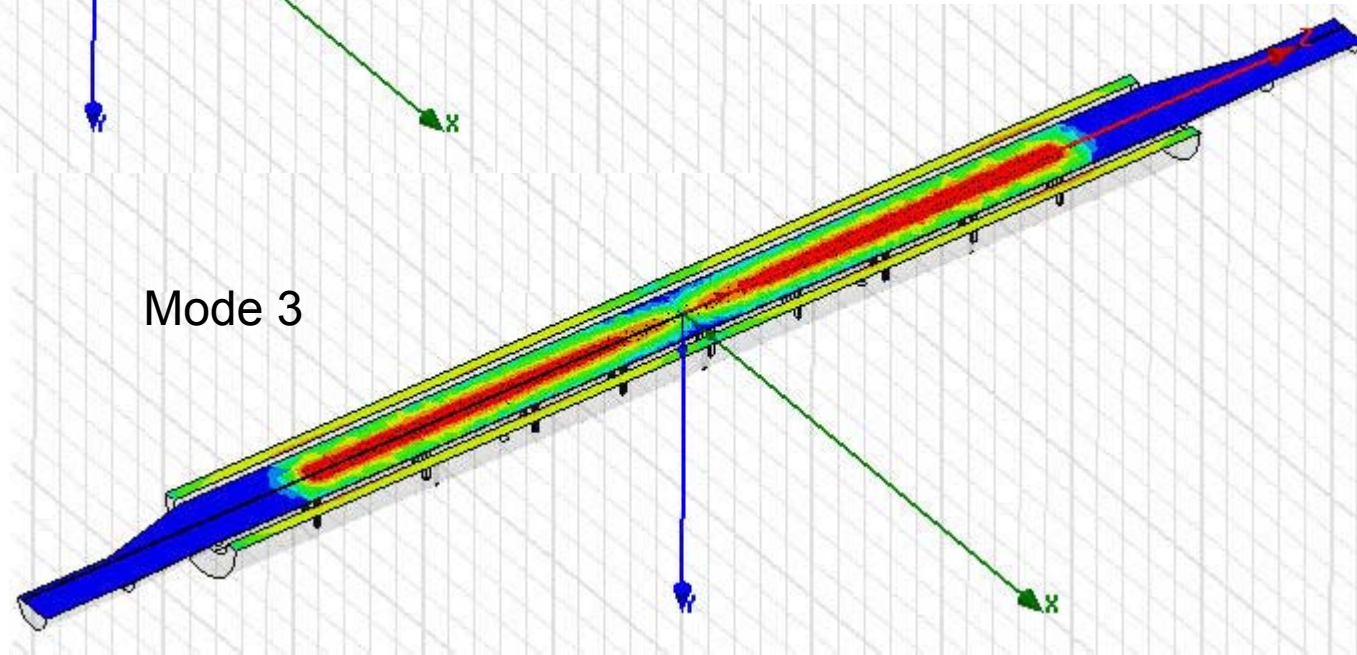
# Dipole modes

Mode 1



An example of electric field distribution in the ZX-plane for two modes

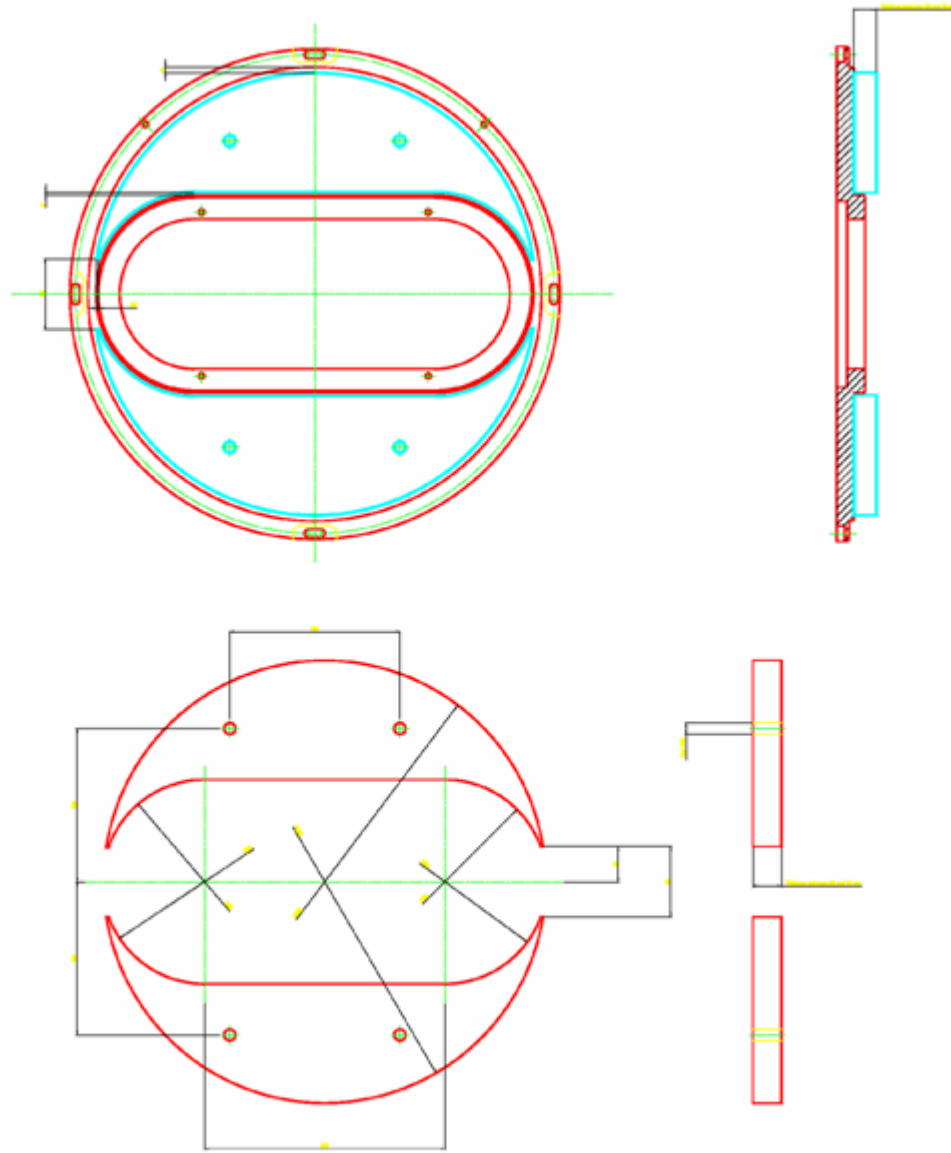
Mode 3



# Conclusions and recommendations (cont.)

- The gap is 8 mm according to the last table provided by Collimation Working Group
- In this case, and given the uncertainty in impedance of higher frequency modes **additional damping is necessary** to keep trapped mode impedance below Landau damping limit
- BB impedance scaled from 40 k $\Omega$ /m for 16 mm gap to  $\sim$ 320 k $\Omega$ /m for 8 mm becomes significant part (16%) of LHC BB transverse impedance budget (2000 k $\Omega$ /m)
- **Tapering the jaw ends is necessary** to reduce BB impedance

# Ferrite 4S60 for damping trapped modes



# Tapering jaws

