

**The Impedance Of Laminated Vacuum Chambers,**  
E. KEIL, O. MEINCKE, B. ZOTTER, CERN - We calculate the transverse resistive wall impedance of the beam screen in the LHC, consisting of a tube of stainless steel with a thin inside layer of copper. For this we use an algorithm for the calculation of the electro-magnetic fields of an oscillating circular cylindrical beam surrounded by any number of concentric layers of arbitrary material properties. The results for the effective impedance of the SPS vacuum chamber and LHC beam screen are compared with earlier calculations. They are also used to estimate the impedance of such a beam screen in much larger future hadrons collider, where the earlier approximation would give incorrect results.