Impedance Boundary Condition for Computing Coupling Impedances of a Perforated Beam Pipe, S. PETRACCA, I. PINTO, University of Salerno; F. RUGGIERO, CERN - The impedance boundary condition has been used to compute the longitudinal and transverse coupling impedances for a perforated beam pipe with general transverse geometry. The effect of a outer coaxial tube has been also considered and the results have been applied to a simplified LHC geometry.