There are no 1D objects in the accelerator world

- For complicated structures like a kicker we cannot simply plug a mechanical drawing in electronic format with all its details into some electromagnetic simulation code

We need certain simplifications which depend on the experience and skill of the “operator” of the code; similar arguments apply for setting up bench measurements

- Are there generally accepted DO’s and DONT’s as well as properly defined limits and criteria of validity for such simplifications ???

Example: A. Mostacci mentioned in his talk the case of an resistively coated ceramic beam-pipe. Although the length can be much larger than its diameter, it is electrically not yet “infinitely” long; the radial transmission line based formula [Piwinski] can give misleading results
Is the well know 2-wire method for transverse [bench–type] impedance measurements ALWAYS applicable?
  
  In particular when we don’t have a TEM–like field distribution such as in a kicker cell shown below

MKE-kicker cell with bypass strips

The 2 wire method can only see the influence from the near vicinity [ferrite] ; but in short objects like show here we may have a strong “bypass” effect, i.e. a considerable amount of image current is traveling far away from the beam axis on good conductors.

Displaced wire measurements (based on Panowski-Wenzel) are normally equivalent [apart from practical aspects]

Is this also true here?