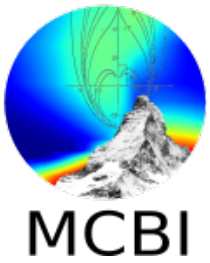

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Low-impedance design with example of kickers (including cables)

Wednesday 25 September 2019 16:55 (25 minutes)

Recently unmatched terminations of single elements were identified
as responsible of instabilities in the CERN-PSB and CERN-LEIR. Impedance models are needed to estimate the impedance of similar devices and assess potential intensity limitations.
Circuital model and simulation techniques to include the effect of coupling to cables on the beam coupling impedance will be discussed. Moreover, examples of low impedance design with special emphasis on the mitigation of ferrite kickers impedance (e.g. longitudinal serigraphy or coated ceramic inserts), optimisation of transitions and shielding of unintentional cavities. Guidelines for low impedance design will be provided.

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