





MDI – Machine-Detector Interface studies for a 10 TeV muon collider

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Field in the detectors: effect

- The scope of these simulations is to assess the effects of the solenoidal field in the detector area.
 The field is assumed to be hard edge
- In this simulation I still consider one beam going left to right



Geometry of the MDI





Photons and neutrons: no effects





e+/e-: reduction at all energies





e+/e-: reduction close to IP



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Conclusions

- Having no field increases the number of electrons and positrons going in the detector area of a factor 2.
- A 3.57 T field simulation is in the pipeline





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Thank you for your attention!