

MDI Issues and Organization

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Primary Role of MDI

Major task of MDI is to clarify requirements from the experimental side for the accelerator physicists to design the BDS.

MDI issues

| System | Machine | Detector |
|-------------------|--|---|
| BDS | Crossing angles 2 IPs; "identical" experiments Collimation depth Precise E/P measurements | Backgrounds: μ , synchrotron γ |
| IR | L^* : distance of Final-Q from IP | Solenoid field: $B=3 - 5$ Tesla Min. angle: very forward cal. Precise luminosity measurement Backgrounds: pairs, mini-jets, back-scattered γ, n ; RF-effects Instrumentation: pair/Shintake monitors, feedback, Nano-BPM, laser-wire etc. |
| Extraction | Crossing angle Choice of Final-Q (L^*) Precise E/P measurements | Backgrounds: disrupted beam, back-scattered γ, n Beamstrahlung monitor |

Under the GDI/GDE

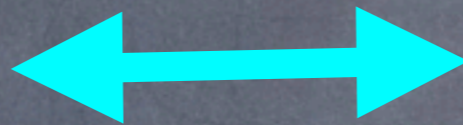
(Global Design Initiative/Effort)

Detector /Physics

WWS

detector R&D panel
concept costing panel
concept support
MDI panel

MDI



collective
view of
requirements
from detector
/physics

Machine

ILC-WG4
for BDS Design

MDI consists of WWS-MDI and ILC-WG4,
and it is coordinated by the MDI panel ?

MDI sub groups ?

Main MDI topics \Rightarrow session convenors

- Energy and luminosity spectrum S. Boogart, K. Kubo
- Polarimetry K. Moffeit, K. Mönig
- Very forward region W. Lohmann, H. Yamamoto
- Backgrounds K. Büsser, T. Maruyama
- IR layout, crossing-angles T. Tauchi, A. Seryi
- Beam RF effects M. Woods

Layout of Two BDSs: ILC-WG1 ?