

Issues which have been discussed at the ILD workshop and the brief summary

1. Task sharing

1. KEK iron structure, 12-shape, CMS-like assembly, coil and cryostat
W-support tube on the floor - rigidity of structures
for ILD(1), coordinated by H. Yamaoka
 - Estimation of wakefield in the LDC cone beam pipe, Y. Suetsugu (tbc)
 - Estimation of minimum thickness of W-support tube, T. Abe
 - Vacuum at IP, 10n or 1n Torr, hadron production in residual gas interaction, T. Abe
 - Solenoid integrated with (anti-)DID, M. Kawai
 - Estimation of time for the re-commissioning beam lines, T.Okugi (tbc)
 - Self-shielding property of ILD, T. Sanami (tbc)
2. France LDC detector update to ILD
for ILD(2), coordinated by M. Jore (tbc)
 - CFRP support tube rigidity estimation with FCAL collaboration
3. Sub-detector structures should be prepared by each sub-group
4. Performance of precise luminosity measurement with cone and straight beam pipes, FCAL group
5. questions on the TPC structure (field cage and endcap), forced water cooling and B-field uniformity to LCTPC (R.Setteles)
6. Next phone meeting (tba) will concentrate on B-field issues, optimisation WG will be invited!

2. 3d-CAD

1. CAD master in French group
 - to integrate iron structure and sub-detectors for an ILD detector
 - to coordinate a common file such as STEP and files of material properties
 - to prepare a web-site where the files can be uploaded and downloaded
2. CATIA possibility at KEK will be considered, if it is cheap !
3. Common data base
If we choose the EDMS system for common data base, we need detailed introduction as we discussed at phone meetings.
Since EDMS will be considered as future plan, we will use [the ILD homepage](#), where STEP files and material property files are stored.
4. Present CADs and engineers for ILD group
 - Solid Edge(H.Yamaoka) and OneSpace Modeling 2007 (KEK machining center);
2 engineers at KEK
 - suggestion to use AUTOCAD and STEP common file for 3d-CADs
 - e.g. magnetic field calculation needs detailed information from CAD-data.
 - need a cheap CAD as a common tool especially at universities
 - Inventor for 3d-CAD of Lumical; 1 engineer in Poland
 - CATIA and Inventor; 5 engineers in France
 - EDMS is used in CALICE, which is not easy.
 - I-DEAS and Solid Edge; 2 engineers at DESY
 - Since I-DEAS is complicated, we must use it on a daily basis.

3. Meeting before/after Sendai meeting

If we like to discuss with more engineers , KEK is preferable place for the meeting
" suggestion to have MDI face-to-face meeting before or after the Sendai meeting. Optimum place must be KEK for meeting with engineers at KEK for discussion on the technical issues in details. If it is accepted, we would like to invite ILD engineers as much as possible."

Since it is too late for planning such meeting, we will have meetings in parallel as this workshop.

4. Future MDI/I phone meetings

- "EDMS for common data basis" will be postponed for future option.
- B-field issues - VTX inner radius with the optimization group
- stray field tolerance - iron thickness
 - 300 Gauss for electric device
- structure stability/strength with 12- and 8-shape (iron yoke)
- opening method (LDC and GLD methods)
- beam pipe structure; strength and wakefield with the expert
- TPC endcap and field cage thickness,and inner radius with LC-TPC group
 - hadron production in two photon process