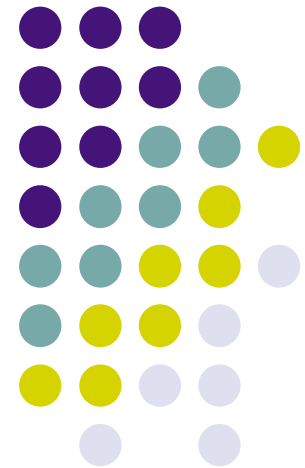
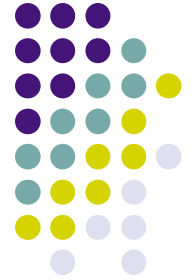


2nd IR

2004/10/6

Y. Sugimoto





Merits and Demerits

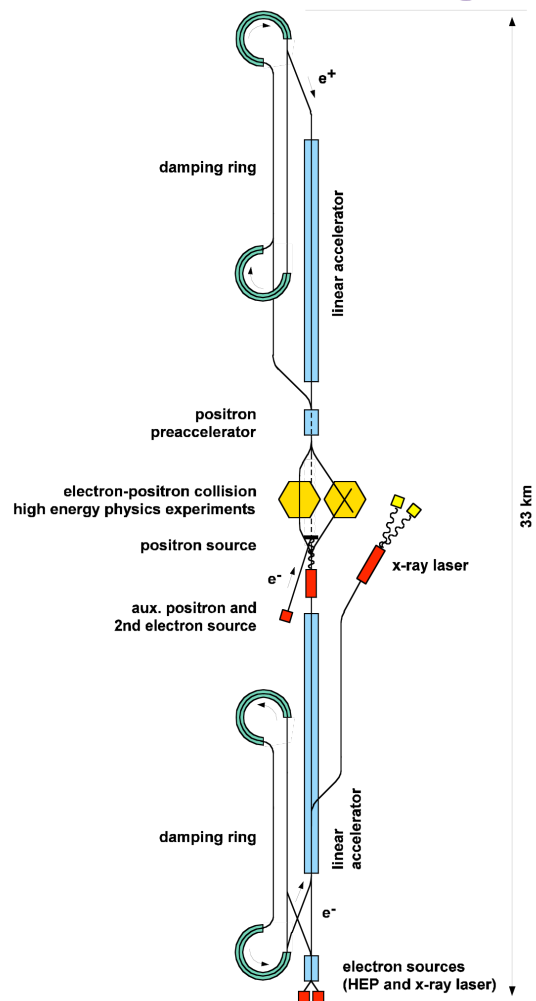
- Merits:
 - Independent measurements which provides cross check for critical physics results
 - Wider physics reach with different types of detector and/or different crossing angles
 - Flexibility in the program of experimentation
 - More participants, more support
- Demerits:
 - More cost
 - but how much?; Neither large tunnel nor 2-tunnel needed
 - More complexity in the accelerator design



Documents

- Linear Collider Physics; Resource Book for Snowmass 2001
 - Asymmetric (HE and LE) 2 interaction regions
 - “Parameters for the Linear Collider” (ILCSC Parameter subcommittee report, Sep. 2003, http://www.fnal.gov/directorate/icfa/LC_parameters.pdf)
 - Two interaction regions with similar energy reach and luminosity should be planned
 - At least one IR should allow a crossing angle compatible with a $\gamma\gamma$ interaction region
- ➔ US Cold design modified; HE/LE → #1/#2

ILC designs



H. Wehn 3/2000

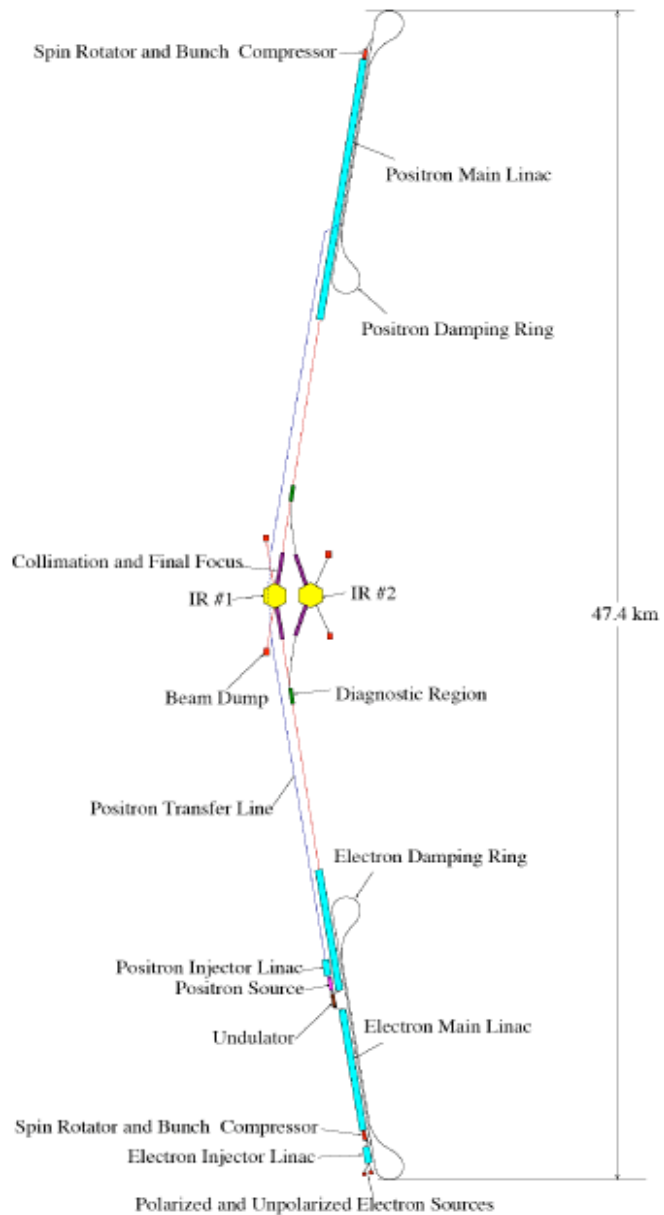
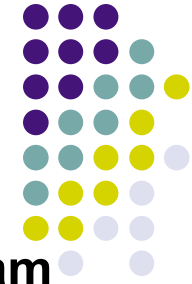


Figure 1.2.1: Sketch of the overall layout of TESLA.

(Dave Miller @Durham)

Proposed Milestones



GDI Milestones

- 2004 – ITRP Technology Recommendation
- 2005 – Accelerator CDR
- 2007 – Accelerator TDR
- 2008 – LC Site Selection
- Site selection + 1 year



Experimental Program

- Single preliminary costing document for at least one whole-detector concept produced by WWS Costing Panel
- CDR's from each detector concept team (expect some individuals to sign multiple CDRs) received by the WWS OC
- Collaborations form and submit LOIs for proposal to the Global Lab (or GDO?)
- Global Lab selects experiments and asks for 2 TDRs



Summary

- Having 2 interaction regions is the consensus among world-wide ILC user community.
- The 2nd IR should be compatible with $\gamma\gamma$ collision, but not necessarily dedicated for $\gamma\gamma$ mode.
- Crossing angle of each IR is to be discussed