

Some News (Valencia & since)

Parameters Group Report

GDE descoping

ILC Detector R&D Reviews

Roadmap beyond DCR

US R&D Project Plan

Reviewed Higgs, SUSY, Top, New Physics

- Luminosity
 - Reducing luminosity should be the very last option.
 - Staging in the first few years to be discussed.
 - No permanent de-scoping.
- Beamstrahlung
 - with reduced beamstrahlung slightly lower current acceptable
 - Higher beamstrahlung undesirable (to be quantified)
- Energy
 - Removing safety margins in energy reach is acceptable. Max. lumi not needed at the top energy (500 GeV), however, 500 GeV should be reachable assuming nominal gradient before knowing more about physics scenarion realised
- Positron Polarziation
 - Positron Polarisation is very beneficial in many scenarios, including SM scenarios → this option mandatory to be kept open
- Number of IRs
 - Two detectors highly desired, one IR feasible
- Energy Upgrade to Approx. 1 Tev
 - An option mandatory to be kept open

- Proposal to reduce to $\frac{1}{2}$ bunches
 - Strong negative reaction from physics community
- Push-pull
 - Eliminate one IR
 - Seryei task force

- Place the R&D in global context
- Review
 - Beijing (Feb, 2007)--tracking
 - DESY (LCWS) (June 2007)--calorimetry
 - Fermilab (Oct. 2007)--vertexing
 - Asia (tbd 2008)--particle ID, muon tracking, solenoid, beam diagnostics, and DAQ
- Review team for tracking/Beijing
 - WWS R&D Panel members
 - GDE RDBoard chair
 - External reviewers
 - Connection to DESY PRC/& other regional reviews
- Care to ease burden on R&D groups
 - eg. Coordinate schedule with PRC reviews

- Beijing (Feb, 2007)—proposed tracking agenda
 - Sunday 4th Feb **ILC Workshop, opening plenaries**
 - Monday 5th Feb **Tracking Review** - open session presentations, followed by dinner for all involved.
 - Tuesday 6th Feb **Tracking Review** - closed session discussions with individual groups
 - Wednesday 7th Feb **ILC Workshop, closing plenaries**
 - Thursday 8th Feb **Tracking Review** - closed session feedback of draft report to individual groups
- Details of requested input from R&D teams soon

Detector Roadmap (assumptions)

- Important to synchronize the detector design work with the accelerator effort
- Technical design takes >2 years of intense engineering to work out details sufficient to propose construction
- Program can only afford this intense engineering effort for the two detectors which are likely to be built
- R&D program continuing, and must for several years

- GDE plans EDR in 2010
- Detector EDRs must be completed to begin seeking funding for construction in 2010/2011
- Period required for intense engineering design is 2-3 years
- EDR effort should begin in 2008
- Many R&D results will come during EDR effort

Detector Roadmap (the future)

- GOAL – Synchronize to accelerator effort
Prepare for construction start soon after 2011
- REQUIRES – focused Technical Design (EDR) effort beginning in 2008
- PROCESS – International Detector Advisory Group (IAG) of ILCSC/ICFA evaluates concepts and guides definition of two detectors for EDR preparation
 - This process is under discussion in the ILC detector community of the WWS from now up to Beijing – proposal may be refined through this discussion

Detector Roadmap (the future)

- 2008 – Conceptual Design Reports received by IDAG
Panel characterizes positive aspects and criticizes weaknesses
Guides community to the definition of two detectors for
EDR preparation
Collaborations formed to develop EDRs
- 2009-2011 – Development of two technical designs,
produce first technical design report for the overall detectors,
which will be followed by additional volumes
(detailed technical reports on subsystems)

- 5 Year Plan Requested by DOE
 - univ + labs
 - DOE + NSF
- Bottom-up
- Top-down
 - 5 year ~ \$91M
- Next steps
 - ALCPG exec
 - LCSGA
 - Agencies