LCB MEETING
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Linear Collider Overview

Lyn Evans reported on LCC activities. A visit to the preferred site showed that there was much local enthusiasm for the ILC. Evans described several test facilities valuable for the ILC at labs around the world, while noting that all have uncertainties on their futures. He said that until a Japanese government decision on the ILC is made, some funding is still needed for ILC activities, and funding requests for this have been made to MEXT and to DOE.

ILC Accelerator Status

Akira Yamamoto noted the significant progress since the TDR in cavity gradient and IR spot size. ASTA reached the ILC specified gradient of 31.5 MV/m. ATF2 has reached a 44 nm spot size, close to the 37 nm goal; this latter number translates to 6 nm for the ILC.

Some design changes since the TDR have been made to optimize for the preferred site: a common L* for both detectors; vertical access to the IR; a ~ 1.5 km extension of each accelerator tunnel for timing and redundancy; and searches for cost savings are ongoing. Yamamoto discussed the anticipated facilities worldwide which could contribute to the ILC construction; he noted that LCLS II and XFEL will be completed before ILC construction starts, giving much experience and confidence. There are ongoing discussions on whether the maximum initial ILC energy should be 550 GeV rather than 500 GeV, to improve top-Yukawa studies; this would add ~ 1% to the ILC cost.

Yamamoto described the MEXT organization for studying the ILC. It has been estimated that the ILC Lab will initially need ~ 100 staff members, eventually rising to ~ 1000.

CLIC Status

Steinar Stapnes gave a possible CLIC schedule, noting that three stages are under consideration: sqrt(s) = 500, 1500 and 3000 GeV, and he gave the timescales and power consumptions for each. Although there are only limited statistics, it appears that 100 MV/m is a realistic gradient.

Stapnes described the interest in X-band facilities for XFELs, and the increasing involvement of industry in X-band activities.

Linear Collider Detector Activities

The LCC, reported Hitoshi Yamamoto, is making the ILC physics case for MEXT. A 500 GeV ILC will produce a factor of 3-10 smaller errors on Higgs physics (except for the photon channel) than the HL LHC. Yamamoto then discussed ILC running scenarios; the ILC Parameters Joint Working Group has come up with several scenarios.

Yamamoto is setting up a Physics and Detector Advisory Panel, chaired by Paul Grannis; a charge for the Panel is under discussion.

PAC Meeting

There will be a Project Advisory Committee (PAC) meeting on 13/14 April at LAL, Orsay; a revised charge for the meeting was approved.

Subcommittee 1 on Linear Collider Governance

Changes in the PIP document since the TDR were presented by Brian Foster; new information has been collected, especially from ESS and ITER, and the Okinawa Institute of Science and Technology has been a useful model for an international facility in Japan. Major changes to the PIP include: a mission statement has been added; a limited liability company option has been discarded as this entity does not exist in Japan; there are more details on the Council and management structure; and the duration of the agreement has been specified (~ 8 years construction and over 20 years operation). There are clear statements on contingency and the common fund, and on host responsibilities.