Status of ILD analyses

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ILD meeting @ LCWS11, Granada

Toward DBD

- proposed plan by optimization & software conveners (June Analysis Meeting)

- proceed with 1 TeV analysis using ILD01 and reconstruction for AHCal & SiWEcal

  ★ ensures delivery of DBD

    - not trivial: validation, event generation, backgrounds

- in parallel: software development for SDHCal & SciWECal

  ★ comparison of options via 500 GeV analyses most sensitive to PFA (e.g. SUSY chargino/neutralino)

  ★ if time allows: redo 1 TeV study

- physics case should to be reinforced by updating existings results

- implement this plan if agreed by ILD

- Analysis at 1 TeV

  - $e^+e^- \to \nu\nu H$

    - m_H=120 GeV, with H→bb, cc, gg, μμ, WW*

  - $e^+e^- \to WW$

    - measurement of beam polarization

  - $e^+e^- \to ttH$

    - H → bb, (a) 6 jets + lepton and (b) 8 jets configuration

- Analysis at 500 GeV

  - ZHH

  - ttbar

  - SUSY point5-like

νvH with H→bb, cc, gg: H. Ono (NDU)

νvH with H→ μμ, WW* : OPEN

WW: ????? (DESY)

ttH: R. Yonamine et al. (KEK, Tokyo) (+ CERN)

ZHH: T. Suehara et al. (Tokyo, KEK)

ttbar: J. Rouene (LAL)

SUSY: ?????

- Validation of reconstruction software

- Event generation for DBD (reported by A. Miyamoto): event generators are ready; waiting for final beam parameters.

- SM background @ 500 GeV: need to compile list of requests for samples from analysts (limited CPU resources!)

- Overlay of background (machine, γγ, ...)