

participants: Y. Aoki, T. Mizuno, K. Yumino, J. Nakajima, Y. Kato, K. Fujii, D. Jeans, K. Hidaka, T. Suehara, J. Tian

— announcement:

- get subscribed to mailing lists of IDT WG3-Physics groups
- ILC tutorial on next Monday, get KEKCC account in advance

— focused talk: radiative return process at ILC250 $e^+e^- \rightarrow \gamma Z$ by T. Mizuno

- jet energy calibration by kinematical reconstruction of jet energy from jet angles, masses and photo angles
- full simulation, ILD DBD model
- samples $2f_{z_h}$, generic $e^+e^- \rightarrow 2\text{-quark}$, two peaks seen one at M_z one at \sqrt{s}
- photon selection, Pandora Photon PID, $E > 50$, recovery of split clusters
- method for excluding events with wrongly selected photons, 99.5% signal photon, 0.5% wrong photon
- jet energy reconstruction method: 4-momentum conservation, input: jet angles, masses, photon angles; output: momentum magnitude of two jets, signal photon, extra ISR
- jet energy resolution: fit with two gaussian, base and core gaussian.
- studied JER as a function of jet energy or jet angle

Q: include neutrinos in the MC truth? Flavor dependence?

A: yes in previous definition, no in the new definition for studying pure detect effect; flavor dependence studied previously, but to do for new definition

Q: PFO energy resolution?

A: to understand more in detail the pure detect effect better from particle by particle level

Q: jet angular distribution?

A: to answer next time

— roundtable

- study of $e^+e^- \rightarrow \gamma + \text{higgs}$ (Y. Aoki)
progress: still working on MC uncertainty with a few bugs fixed

- tau polarization measurement in $e^+e^- \rightarrow \text{di-tau}$ process (K. Yumino)

progress: full event & selected events for mid-point and cone methods; investigating lepton selection efficiency; mid-point method seems not to add back lost efficiency

next step: to investigate more the mid-point method; to reconstruct neutrino momentum using impact parameters

- study on right handed neutrino at ILC (J. Nakajima)

progress: still working on analyzing background $e^+e^+e^-e^-$;
next step: apply same sign requirement for two electrons

- study of kinematic fit (Y. Kato)
 - progress: performed top MC to valid kinematic fitting algorithm
 - next step: producing signal samples $H \rightarrow aa \rightarrow 4b$
- Next week's long talk: K. Yumino