

naturalness panel bullet points

* blackboard items --- see photos

* λ_m for higgs self couplings evolves to very small negative value, so maybe there is a symmetry that really wants $\lambda_m=0$. need to improve m_t measurement.

* ibanez paper

* really light stops decaying to charm ,... compressed spectra that would not ever be seen at the lhc but maybe at ilc

* of diagrams on board, all the multi top signals could not be reached by ILC, only the higgsino pair production process would be ILC accessible.

* so ILC mainly justified by Higgs a priori? deviations would imply something somewhere, but would we know enough to know what it meant?

* 3 guarantees at ILC and one hope

- a) higgs studies
- b) $t \bar{t}$ threshold studies
- c) $t\bar{t}h$ production and top quark coupling to higgs;
- d) at 500 gev marginal access to $h^* \rightarrow hh$ triple higgs coupling

* if stop squark is the key to naturalness, maybe need 33 tev LHC

* 3000 fb⁻¹ a LHC --- what does it buy you?

* 500 million to japan ilc is only 50 million per year over 10 years; of course there is manpower ... from us

* higgs to invisible and cdms events, ilc can reach 5% br and that could be very key.