

# 2014: progressed very well

## ▣ Physics & Analysis

- ▶ input to ILC physics case for MEXT review: all studies
- ▶ contribute to ILC staging scenario optimisation: i.e. recoil mass at 350 GeV; extrapolation to 350 and 550 GeV; global fit
- ▶ update analyses with  $m_H=125$  GeV:  $BR(H \rightarrow bb, cc, gg)$ ;  $BR(H \rightarrow \tau\tau)$ ;  $BR(H \rightarrow \gamma\gamma, \mu\mu)$ ;  $BR(H \rightarrow \text{inv.})$ ; top-Yukawa; self-coupling
- ▶ improve analyses: leptonic & hadronic recoil mass at 250 GeV
- ▶ start new analyses: heavy / charged Higgs search; single W process; anomalous HVV coupling; Higgs CP study

## ▣ Software & Tool

- ▶ initiate study of ILC computing
- ▶ prepare ILCDirac for mass production
- ▶ develop core algorithm: dEdx; attach  $\pi^0$  to improve flavor tag; matrix element method
- ▶ various tools for analysis: samples data base; source code browser by emacs; etc.

## ▣ Detector Opt.

- ▶ physics performance: impact of TPC radius on recoil mass; impact of ECAL resolution on  $H \rightarrow \gamma\gamma$ ; impact of JER on Higgs invisible decay
- ▶ impact of ECAL inner radius on  $\pi^0$  reconstruction

Thank everyone for the hard working!

# 2015—Year of Good Luck (三羊開泰)

san yang kai tai

- in this year we will continue and finalize ongoing studies, document and publish them; focus more carefully on systematics; continue physics performance study for detector optimization; new ideas, new algorithms
- get prepared for any surprise coming out from LHC Run 2
- best wish to political development of ILC project

