Concluding Remarks

Annual ILC Detector Meeting
Hitoshi Yamamoto, Tohoku University
March 30, 2017, KEK

‘Staging’

At LCWS2016:

Opening plenary talk by Lyn Evans:

- The beauty of a linear collider is that it can be staged.
- Serious discussions must now start on realistic staging scenarios to bring the cost of the first stage down.

Panel discussion on staging:

- General agreement on focusing on 250 GeV Higgs factory as the first stage
- Some concern expressed on giving up higher energies

‘Staging’

We need to justify the significance of physics of the 250 GeV ILC, and to reach a consensus of the LC community by this summer on the construction of 250 GeV ILC based on the drastic cost reduction with reasonable accuracy. (Talk by Sachio Komamiya, this meeting)

The 250 GeV ILC needs to be scientifically justified on its own. On the other hand, we should keep in mind the energy upgradability of ILC as its merit.

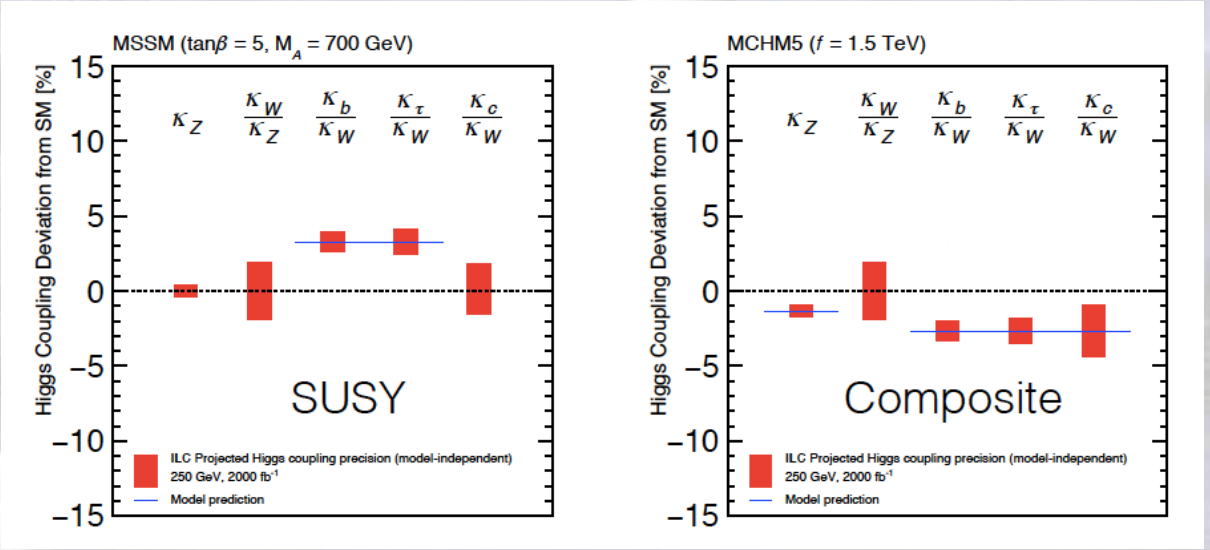
Justifying ILC Higgs Factory

Make optimal use of information obtainable at 250 GeV

- Absolute and relative Brs
- Custodial symmtry ($\kappa_Z = \kappa_W$) for Γ_H

etc. …

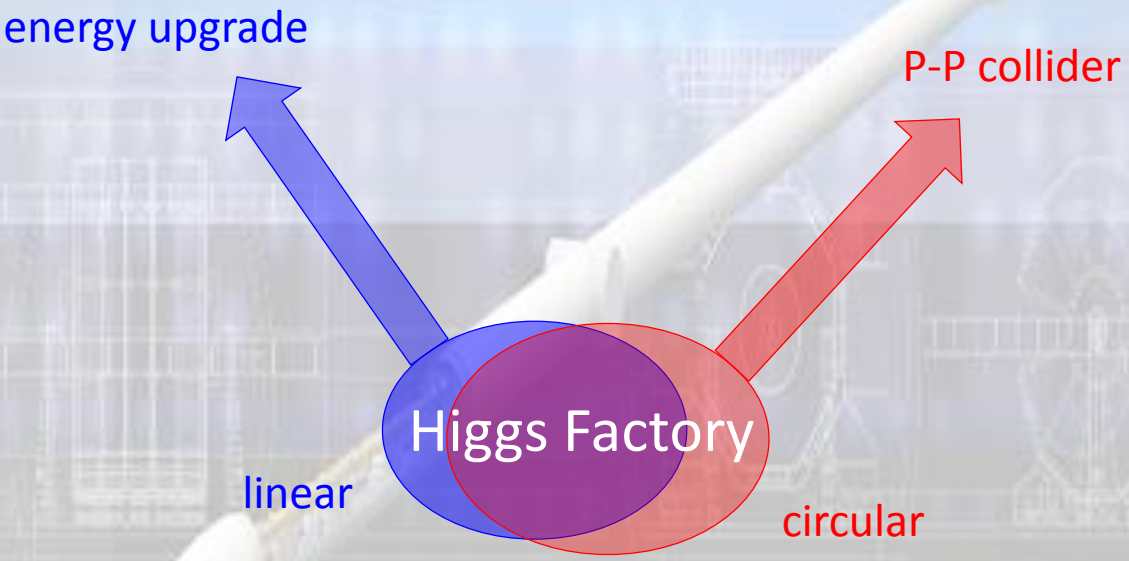
More studies needed... clarified, sreamlined, and documented



Luminosity (tentative): ~2 ab^{-1} in ~10yrs. Can this be improved? (accelerator issue)

Circular and Linear

Most of the physics issues at Higgs factory are common among linear and circular e+e- colliders



→ Close collaboration is a must

Working Together with Other Experiments

Opening Plenary Agenda of this meeting:

11:00	**Opening address**	*Kiyotomo Kawagoe et al.*	
	3-gokan, 1F seminar hall, KEK		11:00 - 11:10
	ILC project status	*Yasuhiro Okada*	
	3-gokan, 1F seminar hall, KEK		11:10 - 11:40
	LCB/LCC report	*Sachio Komamiya*	
	3-gokan, 1F seminar hall, KEK		11:40 - 12:00
12:00	**Lunch**		
	3-gokan, 1F seminar hall, KEK		12:00 - 13:00
13:00	**LHC status and upgrade plan (accelerator)**	*Tatsushi Nakamoto*	
	3-gokan, 1F seminar hall, KEK		13:00 - 13:30
LHC	**LHC status and upgrade plan (physics & detector)**	*Yosuke Takubo et al.*	
14:00	*3-gokan, 1F seminar hall, KEK*		13:30 - 14:15
SuperKEKB Belle-II	**SuperKEKB status and plan**	*Hirotaka NAKAI et al.*	
	3-gokan, 1F seminar hall, KEK		14:15 - 14:45
	Belle II status and prospects	*Satoru Yamada*	
	3-gokan, 1F seminar hall, KEK		14:45 - 15:30

JSPS ‘R&D of a novel detector system for ILC’

Belle-II /SuperKEKB & ILC

JPS Symposium (March 18, 2017)

'Physics and prospects of electron-positron collider experiments (ILC and SuperKEKB) – in view of LHC results – '

Belle-II Japan Party

(March 17, 2017)

Belle-II /SuperKEKB & ILC

(from the introduction talk by Kawagoe-san)

- A proposal of Grant-in-aid "Scientific Research in Innovative Area" was submitted to MEXT.
  - 'Belle II + ILC + THEORY", Prof. Aihara (U-Tokyo) as PI,
  1. Heavy quark physics (M. Nakao, KEK)
  2. Tau physics (H. Aihara, Tokyo)
  3. Higgs physics (K. Kawagoe, Kyushu)
  4. Dark sector (H. Yamamoto, Tohoku)
  5. Hadron physics and QCD (T. Nakano, Osaka)
  6. Application of detector technologies to Nuclear Medicine (T. Takahashi, JAXA)
  - Survived documentary elimination !!
  - Interview will take place in May, result in June
  - If successful, we can use the funding from July.

Such efforts will continue regardless of whether the proposal is approved.

The staging scenario is causing a ‘phase transition’ in the academic and political situations of the ILC.

(Okada Yasuhiro, this meeting)

The next 1.5 years are the critical time to realize the ILC in Japan.

And when the project gets a green light, we do not have much time left for getting the detector (R&Ds) ready in time.

So, let us get back to work and push each task forward!