

Report from Physics Coordinator

Keisuke Fujii
Nov. 30, 2016

ILD-related talks submitted to Higgs/EW sessions at LCWS16

- “Higgs self-coupling analysis at the ILC”, by C.Duerig (DESY)
- “Anomalous VVH couplings at the ILC”, by T.Ogawa (KEK & Sokendai)
- **“Measurement of the $H \rightarrow WW^*$ decay at 500 GeV ILD”, by M.Pandurovic (University of Belgrade)**
- “CP measurements in Higgs \rightarrow tau tau at ILC”, by D.Jeans (U’ Tokyo)
- **“BSM search using Higgs to invisible decay at the ILC”, by Y.Kato (U’ Tokyo)**
- “A new method for Higgs mass measurement”, by J.Tian (U’ Tokyo)
- “Model-Independent Determination of the Triple Higgs Coupling at e^+e^- Colliders”, by T.Barklow (SLAC), (ILD-SiD-Theorists collaboration)

ILD-related talks submitted to Top/QCD sessions at LCWS16

- ***“Top electroweak coupling study using di-muonic state” by Yo Sato (Tohoku)***
 - ***“ $b\bar{b}$ analysis” by S. Bilokin (LAL)***
 - “top-quark mass determination using radiative events” by J. Fuster on behalf of Pablo Gomis (IFIC)
 - “CP-violation in the top sector” by M. Vos on behalf of Martin Perello & Nacho Gracia (IFIC).
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- ***“Polarization Measurement from Collision Data” by Robert Karl (DESY)***

ILD-related talks submitted to BSM sessions at LCWS16

- “WIMPs at LCs” by T. Tanabe (Tokyo) on behalf of M. Habermehl (DESY), et al.
Update: Closing the Gap in the Bhabha Phase Space by M. Habermehl (DESY)
- **“Search for Light Higgsinos with Compressed Mass Spectrum at ILC” by J. Yan (KEK)**
- “SUSY Parameters from Measurements of Light Higgsinos at the ILC” by S. Lehtinen (DESY)
- “SUSY co-annihilation” by M. Berggren (DESY)

Support Document that follows up the ICFA letter

First authors' meeting held on Sep. 9

Discussed the structure and basic ideas about contents together with how to share the writing.

2nd authors' meeting held on Oct. 13

Reviewed the status of the draft and discussed the request from JHEPC and possible readjustment of the contents of the document.

3rd authors' meeting held on Nov. 1

Reviewed the status of the draft (significant progress, but there are still missing parts, expected to be filled in shortly) and discussed the timeline until LCWS 2016.

4th authors' meeting held on Nov. 16

Reviewed the status of the draft (significant progress, most part filled). All the part to be filled and frozen by next Monday for final editing by Jenny and KF until Nov. 28.

A draft sent to the plenary speakers at LCWS2016. We will further update the draft until the end of this week and then sent it to LCC physics WG and LCC physics&detector EB.

Physics focus schedule

Nov 30: **LCWS preparation**

Dec 14: Top/QCD

Jan 11: Higgs/EW

Jan 25: BSM

Clarification:

Software talks (organised by Frank&Akiya) will come in addition, as well as the overall software and physics coordination updates in the beginning of each meeting.

Subgroup meetings