

# **Report from Physics Coordinator**

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June 29, 2016

# **Physics WG Conveners Mtg.**

## **June 28, 2016**

### **(minutes by Jenny)**

#### ***Physics focus topics schedule:***

July 13: BSM  
July 27: Higgs/EW  
Aug 10: BSM  
Aug 24: top/QCD  
Sep 7: Higgs/EW

#### **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.

## ***List of Activities:***

Subgroup conveners are now updating list of activities.

## ***Overlaps between WGs:***

Higgs CP from ttH => Higgs/EW, but keeps close contact with top group

ee -> bb => top/QCD (same person as ee->tt)

ee -> other ff => Higgs/EW (interpretation in/with BSM)

Higgs -> inv => Higgs/EW (interpretation in/with BSM)

direct production of non-SM-Higgses => BSM

t -> ch (exotic top decays) => top/QCD

BSM group takes care of

- simulation studies for **direct production of new particles**
- specific BSM interpretations of analyses done in other WGs  
in collaboration with the LCC Physics WG / other theory colleagues

# ongoing Higgs/EW analyses

topic	comment	contact	institute
Higgs mass	$H \rightarrow b\bar{b}$	A.Ebrahimi	DESY
Higgs CP	$H \rightarrow \tau\tau$	D.Jeans	U. Tokyo
Higgs CP	$t\bar{t}H$	T.Ogawa	KEK
anomalous HVV couplings	$ZH, \nu H$	T.Ogawa	KEK
Higgs self-coupling	$HH \rightarrow b\bar{b}b\bar{b}$	C.Duerig	DESY
Higgs self-coupling	$HH \rightarrow b\bar{b}WW^*$	M.Kurata	U. Tokyo
Higgs self-coupling	systematics	J.Tian	U. Tokyo
Higgs BRs	$H \rightarrow b\bar{b}/c\bar{c}/g\bar{g}$	H.Ono	NDU
Higgs BRs	$H \rightarrow \mu\mu$	S.Kawada	DESY
Higgs BRs	$H \rightarrow WW^* \rightarrow 4q$	M.Panduravic	Vinca
Higgs BRs	$H \rightarrow \text{invisible}$	Y.Kato	U. Tokyo
W mass	threshold / direct	G.Wilson	U. Kansas
W mass	single W	K.Cotera	DESY
Z-pole running	ILC Parameters	G.Wilson	U. Kansas

## ***Mailing lists:***

Subgroup conveners are now preparing subgroup mailing lists to be established on <http://lists.desy.de/sympa>

ild-physics-bsm done

ild-physics-top Roman

ild-physics-higgs Graham

meant mainly for communication among **active** people, not so much for every interested ILD member to stay informed

## ***WG meetings:***

BSM and Higgs/EW will start setting up WG meetings

top: will discuss next week during top@LC2016 WS at KEK

Main idea is to on one hand create a forum for more topical discussion among the active people and on the other hand then have only more mature analyses presented in the ILD-wide analysis/optimisation meeting.