

LHC2FC

From the LHC to Future Colliders

CERN TH-Institute
February 9-27, 2009

organized by

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Sven Heinemeyer, Karl Jakobs, Georg Weiglein, James Wells

Goals of the Workshop

- PAST: discuss recent physics developments
- PRESENT: anticipate near-term capabilities of Tevatron, LHC and other experiments,
- FUTURE: have discussions on the most effective ways to be prepared for giving science input to plans of the post-LHC era.

Signature Based Discussion

4 broad categories of possible signatures
in the early LHC data $\mathcal{L} \sim 10 \text{ fb}^{-1}$

- (i) a Higgs candidate,
- (ii) no Higgs candidate,
- (iii) missing energy,
- (iv) some more exotic signal(s) of new physics.

4 working groups

Working Group Structure

□ WG#1: Higgs

Sally Dawson, Sven Heinemeyer, Chiara Marriotti and Markus Schumacher

□ WG#2: No Higgs

Georges Azuelos, Christophe Grojean, Mark Lancaster and Georg Weiglein

□ WG#3: Missing Energy

Ben Gripaios, Filip Moortgat, Gudrid Morrtgat-Pick, Giacomo Polesello

□ WG#4: Other Signatures

Tao Han, JoAnne Hewett, Albert De Roeck and Sabine Rienmann

Each WG: 2h/week of plenary talks + discussion session

Future Collider Overview Series

The program also includes talks about

- ✦ various future collider projects
- ✦ physics case for these colliders

SLHC, ILC, LHeC, CLIC, μ collider

Program Overview

WEEK 1 (Feb. 9-13)			
Colonne1	10:00-12:00	14:00-16:00	16:30-18:30
Monday		WG Kickoff Talks (14:00-16:00)	
Tuesday	Plenary (LHC) 10:00-11:00		WG1-WG2 discussion (16:30-18:30)
Wednesday	WG1 Plenary (10:00-12:00)	TH colloquium (14:00-15:00)	WG3-WG4 discussion (16:30-18:30)
Thursday	WG2 Plenary (10:00-12:00)	WG3 Plenary (14:00-16:00)	WG1-WG2 discussion (16:30-18:30)
Friday	WG4 Plenary (10:00-12:00)	CLIC visit	WG3-WG4 discussion (16:30-18:30)

WEEK 2 (Feb. 16-20)			
	10:00-12:00	14:00-16:00	16:30-18:30
Monday	WG1 Plenary (10:00-12:00)		WG1-WG2 discussion (16:30-18:30)
Tuesday	Plenary (ILC) (10:00-12:00)	WG2 discussion (15:30-16:30)	WG3-WG4 discussion (16:30-18:30)
Wednesday	Plenary (LHeC) (10:00-12:00)	TH colloquium	WG2 Plenary (15:30-17:30)
			WG1 discussion (17:30-18:30)
Thursday	Plenary (CLIC) (10:00-12:00)	WG3 Plenary (14:00-16:00)	WG3-WG4 discussion (16:30-18:30)
Friday	WG4 Plenary (10:00-12:00)	Plenary (sLHC) (14:00-15:00)	

WEEK 3 (Feb. 23-27)			
	10:00-12:00	14:00-16:00	16:30-18:30
Monday	WG1 Plenary (10:00-12:00)	WG4 Plenary (14:00-16:00)	WG1-WG2 discussion (16:30-18:30)
Tuesday	Plenary (muon coll.) (10:00-12:00)		WG3-WG4 discussion (16:30-18:30)
Wednesday	WG2 Plenary (10:00-12:00)		WG1-WG2 discussion (16:30-18:30)
Thursday	Plenary (Tevatron) (10:00-11:00)	WG3 Plenary (14:00-16:00)	WG3-WG4 discussion (16:30-18:30)
Friday		WG Summaries (14:00-16:00)	

CLIC Test Facility Visit

a visit to the CLIC Test Facility will be organized
on Friday Feb. 13th at 2pm

limited numbers on seats available

Please sign in at "lhc2fc.thinstitute@cern.ch"

Welcome

and

Thank you for
your participation