



2nd CFHEP symposium on circular collider physics

IHEP, Beijing. Aug. 11, 2014.

Sunday, August 10, 14

A few words about CFHEP

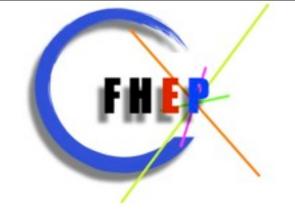




- Started Dec. 2013
- Coordinate international collaboration in the study of the physics for future circular colliders

<u>http://cfhep.ihep.ac.cn/index.htm</u> <u>http://beijingcenterfuturecollider.wikispaces.com/home</u>

Visitor program



- Started early March 2014.
- About 50 visitors so far, each staying for a couple of weeks at least.
- More to come:

Name	Affiliation	Schedule	Office
Prof. Mariangela Lisanti	Princeton University	Oct. 25-Nov. 2	
Dr. Jack Kearney	University of Michigan	Oct. 19-Nov. 1	
Dr. Timothy Cohen	SLAC	Oct. 19-Nov. 1	
Prof. Kathryn Zurek	University of Michigan	Oct. 8-20	
Prof. Michele Papucci	University of Michigan	Oct. 8-20	
Dr. Simon Knapen	Rutgers University	Oct. 5-18	
Dr. Chris Brust	Perimeter Institute for Theoretical Physics	Oct. 5-18	
Prof. Ian Low	Argonne National Laboratory& Northwestern University	Sep. 8-19	
Prof. Masaaki Kuroda	Meijigakuin University	Sep. 9-22	
Prof. Wolfgang Kilian	University of Siegen	Aug. 22-Sep. 2	
Dr. Fabian Bach	DESY	Aug. 19-Sep. 2	

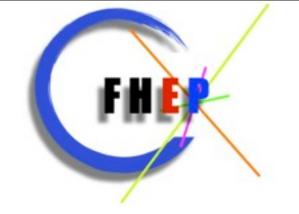
Activities at the center

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Lectures, seminars, visits to other institutions.

Week of Au	ugust 4th Activities, time and location			
Monday				
Tuesday				
Tuesday				
Wednesda	у			
Thursday	2:00 PM: Lecture on "the Phenomenology of the Higgs Boson	r.		
	Location at the Conference Room on the 3rd Floor (usual place),			
	by Stefania Gori (Perimeter Institute for Theoretical Physics, C	anada).		
Friday	10:00 AM: Lecture on "Goldstone Equivalence Theorem",			
	Location at the Conference Room on the 3rd Floor (usual place);			
	3:00 PM: Colloquium on "Beyond the Higgs Boson: Further Questions and Expectations for the Large Hadron Collider",			
	Location in the Main Building at Room C305;			
	by Michael Peskin (SLAC National Accelerator Lab, US).	Week of July	14th Activities, time and location	
		Monday		
Weekend				

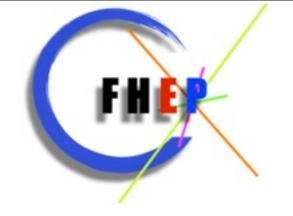
Monday	
Tuesday	Visit Tsinghua Univ.
Wednesday	10:00 am: "Modern Theory of Flavor, 126 GeV Scalar & the 100 TeV Collider" by Prof. Amarjit Soni 2:00 pm: "Review on Electroweak Measurements" by Prof. Ashutosh Kotwal 4:00 pm: Conveners meeting: Cosmo/Flavor/MC
Thursday	Visit Peking Univ. 2:00 pm: Conveners meeting: SM/Higgs/BSM 北京大学高能物理中心102会议室(老化学楼东配楼102会议室)
Friday	10:00 am: Discussion, lead by Prof. Nima Arkani-Hamed 2:00 pm: Discussion, lead by Prof. Nima Arkani-Hamed
Weekend	



Most immediate deliverable

- Physics case for preCDR by the end of this year.
- Strong interest, many studies carried out or being finished.

Working groups



*Working Groups Working groups of conceptual design report:

SM Tests (conveners: Qing-Hong Cao / Li-Lin Yang / Zhao Li / Chong Sheng Li)
Higgs Physics (conveners: Hong-Jian He / Shou-Hua Zhu / Tao Liu)
Beyond SM: SUSY (conveners: Tianjun Li / Jin Min Yang)
Beyond SM: Non-SUSY (conveners: Qi-Shu Yan / Jing Shu / Wen-Gan Ma / Yi Liao / Wei Liao)
Flavor Physics (conveners: Cai-Dian Lu / Zong-Guo Si)
MC Tools (conveners: Qi-Shu Yan / Jian-xiong Wang)
Cosmology Connection (conveners: Xiao-Jun Bi / Yu-Feng Zhou)
Heavy ion physics (conveners: Xin-Nian Wang / Qun Wang)

Working group reports



Working Grou	p Reports	
Reports from workin	g groups	
Flavor: Flavor working group report		
Comso: dark matter, baryogenesis		
MC tools: MC tools		
SUSY: SUSY		
Higgs: <u>Higgs</u>	Thanks all for the hard work!	

http://beijingcenterfuturecollider.wikispaces.com/Working+Group+Reports

Physics case for pre-CDR



- Based on working group reports and other available results.
- A 50-60 page summary of the physics case.
- Goal of this work shop:
 - Work towards a draft

Goals of this workshop

- Survey of available results.
 - What is still needed and obtainable soon?
- Brain storming about the physics case.
 - What are the basic points (will go over the current thinking)?
 - Anything we should do differently.
 - What's still missing?
- Basic theme of every talk
 - Motivation for circular collider(s) ... from the point of view of
 - \blacktriangleright A lot of discussion center on this theme.



Format of the workshop

- After some perspective talks at the beginning.
- Sessions organized around subjects (working groups).
 - ▶ A few presentations + discussion.
- Evenings: more discussion and writing.

- Will have a preliminary draft by the end.