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# Introduction

Joey Huston

Michigan State University

for the QCD conveners

John Campbell, Ken Hatakeyama,  
Frank Petriello

# Reminder of charge

- The charge for the QCD group (like every other group) is to determine the
  1. current state of the art
  2. what is likely/priority for the next 5 years?
  3. what is likely/priority for longer time scale (20 years)?
- Of course a) is the easiest, b) is less so and parts of c) are in the realm of pure speculation
- We have broken down each question into a series of more definite sub-issues that should be addressed. For each issue, we include a discussion of the current status and outlook, some possible projects, and overlap/synergy with the other physics groups.

# Today's meeting

- We'll be concentrating on a few of the issues discussed in the first Snowmass-CPM meeting
  - PDFs
  - eLHC
  - scale choices and scale uncertainties
  - jet substructure
- Future meetings will cover others

09:00	Introduction <i>Joey HUSTON et al.</i>
	WH11NE (Sunrise), Fermilab 09:00 - 09:05
	Use of LHC data in PDF fits now and in the future <i>Juan ROJO CHACON et al.</i>
	WH11NE (Sunrise), Fermilab 09:05 - 09:45
10:00	Need for precision PDFs and need for an LHeC <i>Max KLEIN et al.</i>
	WH11NE (Sunrise), Fermilab 09:45 - 10:35
	Break
	WH11NE (Sunrise), Fermilab 10:35 - 11:00
11:00	NNLO Progress <i>Frank PETRIELLO</i>
	WH11NE (Sunrise), Fermilab 11:00 - 11:30
	Scale dependence for inclusive and non-inclusive cross sections <i>Joey HUSTON et al.</i>
	WH11NE (Sunrise), Fermilab 11:30 - 12:00
12:00	Lunch
	WH11NE (Sunrise), Fermilab 12:00 - 13:00
13:00	Scale choices for complex processes <i>Kalanand MISHRA</i>
	WH11NE (Sunrise), Fermilab 13:00 - 13:40
	MINLO procedure for scale setting <i>Keith Murray HAMILTON</i>
14:00	WH11NE (Sunrise), Fermilab 13:40 - 14:20
	Break for Fermilab Theory Seminar
15:00	WH11NE (Sunrise), Fermilab 14:20 - 16:00
16:00	QCD issues in jet substructure <i>Liantao WANG et al.</i>
	WH11NE (Sunrise), Fermilab 16:00 - 16:40
17:00	Followup discussions
	WH11NE (Sunrise), Fermilab 16:40 - 17:40

# Future meetings before Minneapolis

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- At BNL April 3-6 (Energy Frontier)
  - <http://www.bnl.gov/snowmass2013/>
- After LoopFest at Florida State (May 16)  
(QCD+ Computing + Electroweak)
  - <http://indico.cern.ch/conferenceDisplay.py?confId=223649>
- University of Washington June 29-July 3  
(Energy Frontier)
- Plus vidyo only meetings as needed, especially in regards to preparation for Les Houches

# Snow-Houches

- Many of these issues have been addressed in the Les Houches workshops which have taken place since 1999
  - witness the many Les Houches accords
  - the next workshop will be before the Minneapolis meeting (June 3-23 2013)



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==Snow-Houches

- We will try to coordinate some of the common work between the two

# Les Houches

- Two more weeks to apply

**ÉCOLE DE PHYSIQUE DES HOUCHES**

Université Joseph Fourier GRENOBLE

**Workshop**

**PHYSICS at TeV COLLIDERS**

**Les Houches, France, June 3 - 21, 2013**

**Local Organizing Committee**

**FORMAT**

The Workshop runs over one year, including two meetings in Les Houches in the month of June, and exchanges and collaborations before and after the meetings. The meetings in Les Houches will consist of two sessions:

- Session I: 3-12 June 2013 with emphasis on SM-related issues
- Session II: 12-21 June 2013 with emphasis on New-Physics searches

**AIM**

This Workshop is the eighth in a series whose aim is to bring together theorists and experimentalists working on the phenomenology of TeV colliders. The emphasis in this series of workshops has been on the physics at the LHC and the Tevatron. The highlight of the 2013 Les Houches Edition is that for the first time in this series we will have plenty of data. With this much data, following the discovery of a Higgs-like particle, one aim of this Workshop is how to best sharpen our tools and techniques in order to reconstruct the profile of this particle and possibly uncover New Physics. An equally important aim is to reassess some of the still open fundamental questions in the light of this discovery and investigate which kind of New Physics such a particle may be hinting at.

Les Houches is a village located in the Chamonix valley, in the French Alps. Established in 1951, the Physics School is situated at 1150 m above sea level in natural surroundings, with breathtaking views on the Mont-Blanc range. The Les Houches Physics School is affiliated with the Université Joseph Fourier Grenoble I (UJF). It is a joint interuniversity facility of UJF and Grenoble-INP, and is supported by the UJF, the Centre National de la Recherche Scientifique (CNRS) and the Direction des Sciences de la Matière du Commissariat à l'Énergie Atomique (CEA/DSM).  
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For more information, see: <http://phystev.in2p3.fr/Houches2013/>

