

ATLAS-UK Higgs Group Meeting

Sinead Farrington (Oxford), Ricardo Gonalo (RHUL)
ATLAS-UK Higgs Group Meeting at CERN – July 19th 2010

Introduction

Last meeting:

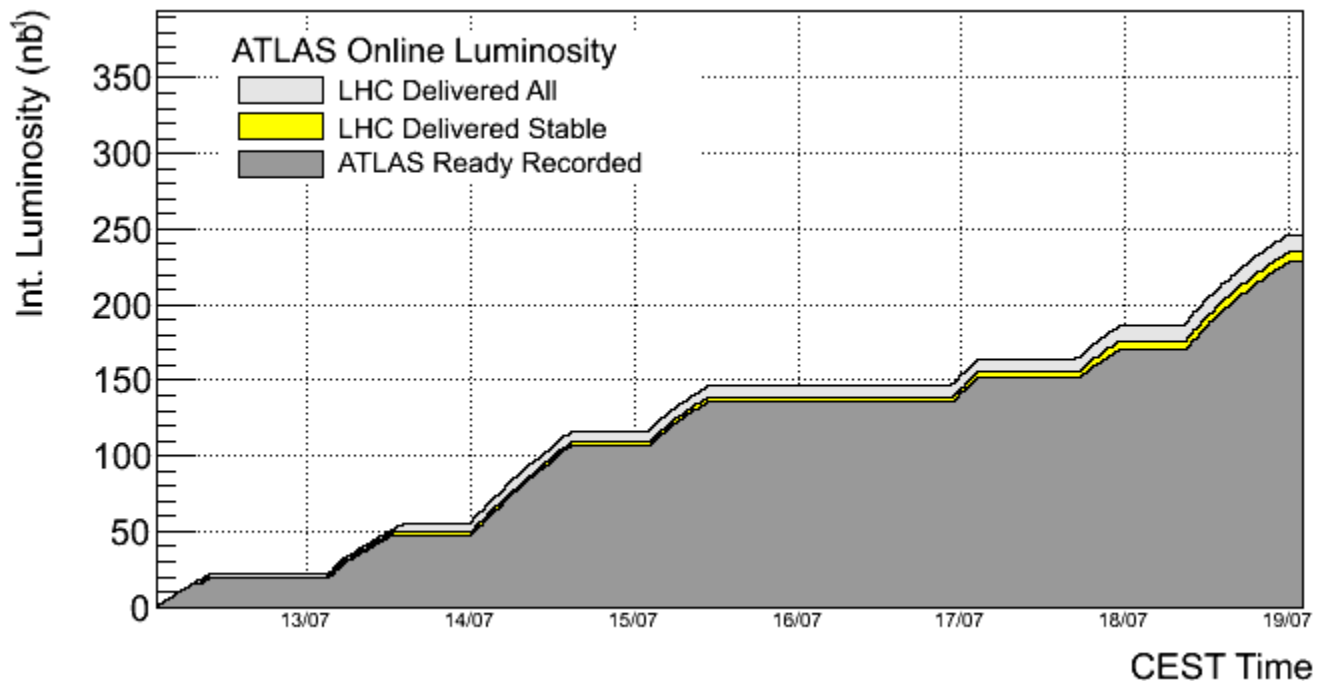
- Status reports on Higgs analysis ongoing in seven UK institutes:
 - Glasgow: ttH, VH (H->bb)
 - Liverpool: VBF H-> $\tau\tau$, heavy H->ZZ->4l, llbb, llvv
 - Manchester: light H+ (->csbar)
 - Oxford: H->WW, VBF H-> $\tau\tau$, VH and ttH
 - RAL: ttH (hadronic), H->bb γ
 - RHUL: fermiophobic H->hh->4 γ , VBF H->ZZ->llvv, H-> $\gamma\gamma$
 - UCL: VH (H->bb), ttH, VBF H->bb

This meeting:

- Business as usual
 - Recent news on Higgs Cross Section Workshop and Higgs trigger
 - Reports on: H->WW, H-> $\tau\tau$, H->llvv

News: Data Taking

- Data flowing in: $\sim 0.3 \text{ pb}^{-1}$ now!
 - The past week has seen 0.23 pb^{-1} recorded data



News: Conference Notes

- Notes in preparation for summer conferences from each subgroup
 - From Bill and Ketevi, last Higgs meeting 9/7/10:
 - **For ICHEP 2010, “7 TeV Higgs sensitivity projections”**
 - The 7 TeV Higgs PUB note is in the final stage of approval. It should be available for this talk
 - **For HCP, SUSY2010, we propose 3 CONF notes, based on real data**
 - HSG2: “Measurement of Z+jets \rightarrow 4leptons rate as background to H \rightarrow 4leptons in pp collisions at 7 TeV”
 - HSG3: “Measurement of W+jets \rightarrow 2leptons+MET 3rate as background to H \rightarrow WW in pp collisions at 7 TeV”
 - HSG4: “Data-driven background estimation for the H \rightarrow tautau \rightarrow lh search at 7 [TeV](#) with the ATLAS detector”
 - **ISMD2010, 21-25 September 2010** <http://www.ua.ac.be/ISMD2010>
 - What we’ll propose for ISMD2010 will depend on the progress on the above CONF notes

News: Upcoming Conferences

- Speakers Committee: <http://atlas-speakers-committee.web.cern.ch/atlas-speakers-committee/ConfTalks2010.html>
 - ICHEP 2010: <http://www.ichep2010.fr/>
 - 22-28 July, Paris
 - **There were rumors of a H->WW signal from the Tevatron to be shown at ICHEP; this has been officially denied:** <http://www.bbc.co.uk/news/10625172>
 - Higgs Hunting: <http://higgshunting.fr/>
 - In Orsay 29-31 July, right after ICHEP
 - HCP2010: <http://hcp2010.physics.utoronto.ca/>
 - 23-27 August, Toronto
 - SUSY 2010: <http://susy10.uni-bonn.de/>
 - 23-28 August, Bonn
 - PIC 2010: <http://www.pic2010.kit.edu/>
 - 1-4 September, Karlsruhe
 - High-PT 2010: <http://www.nucleares.unam.mx/highpt2010/>
 - 27 Sep - 1 Oct, Mexico City
 - Vector Boson + Jets Workshop: <http://www.ippp.dur.ac.uk/Workshops/>
 - 8-10 September, Durham
 - Charged Higgs 2010: <http://www.grid.tsl.uu.se/chargedhiggs2010/>
 - 27-30 September, Uppsala
 - ISMD 2010: <http://indico.cern.ch/conferenceDisplay.py?confId=68643>
 - 21-25 September, Antwerp
 - LHC Days 2010: <http://www.fesb.hr/lhc2010/>
 - 4-9 October, Split

Why are we here?

- The ATLAS-UK Higgs group has existed since late 2004
 - Old page: <http://www.hep.ucl.ac.uk/atlas/UKHiggs/>
- Our view of the aims of this group:
 - It should provide “local support” to ATLAS-UK people working on Higgs analyses:
 - A place for people to show their work at an initial stage, especially starting students
 - A sounding board for analysis ideas
 - A place to ask “silly questions” amongst friends
 - It should be a forum to exchange information
 - On analysis and physics results from ATLAS and elsewhere
 - On upcoming events and opportunities
 - This should be beneficial for both the ATLAS-UK community and ATLAS in general

UK ATLAS Higgs Meetings

- We'll try to keep this page updated with your current activities:
 - <https://twiki.cern.ch/twiki/bin/view/Main/ATLASUKPeopleAndActivities>
- Seek feedback on:
 - How frequently we should have meetings
 - What format
 - Should we discuss more strategy?
 - Or mainly be a forum to share results?
 - Students in particular who want to find others working in their area should feel free to approach us for help finding others