



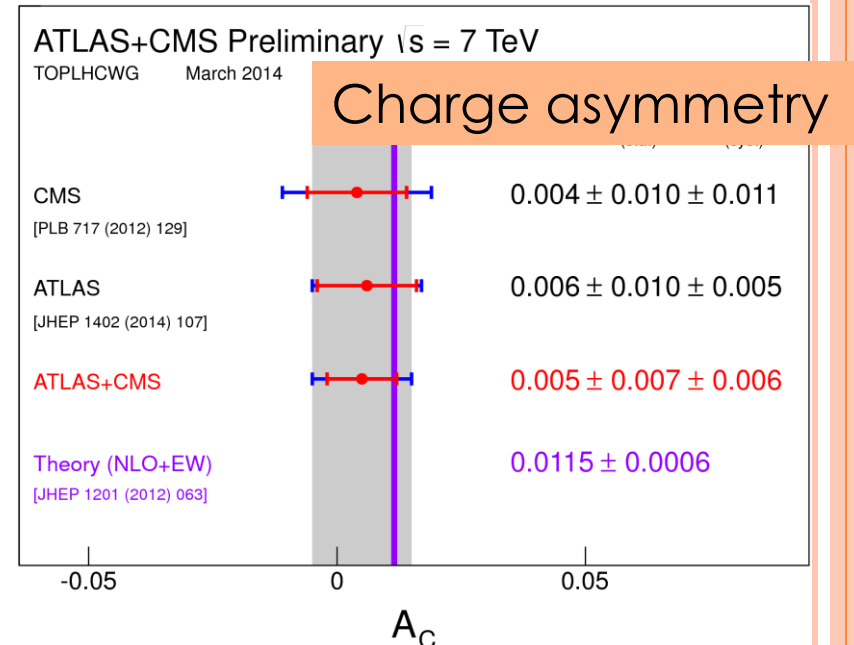
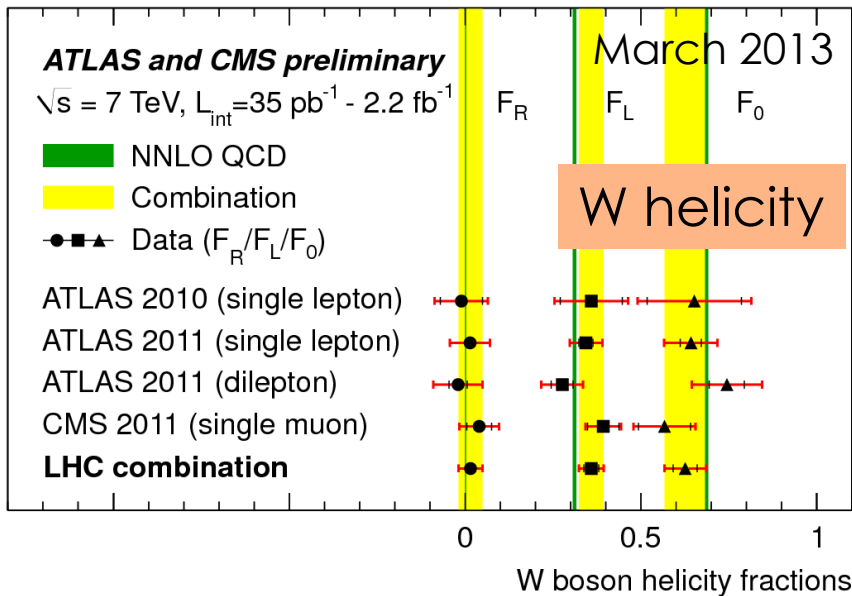
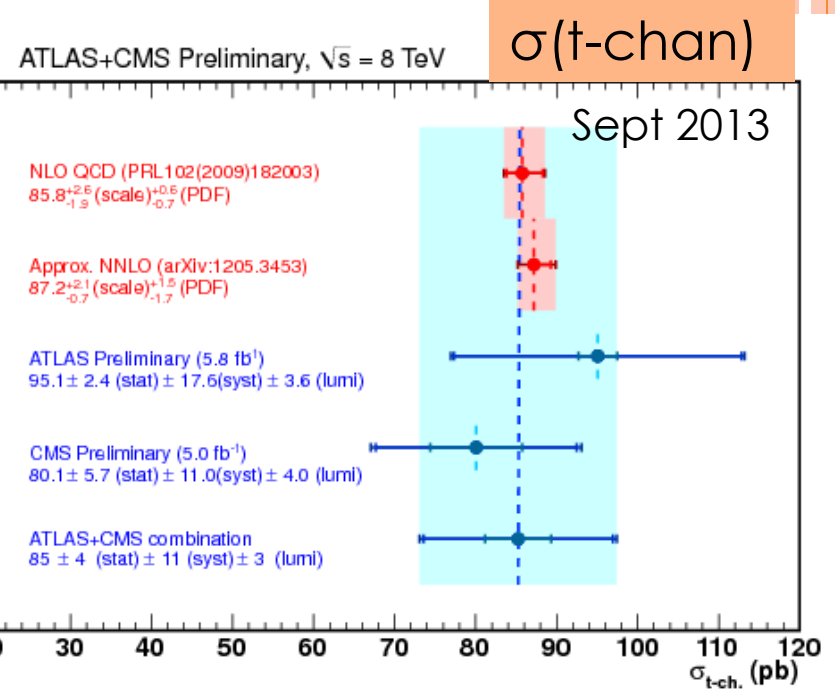
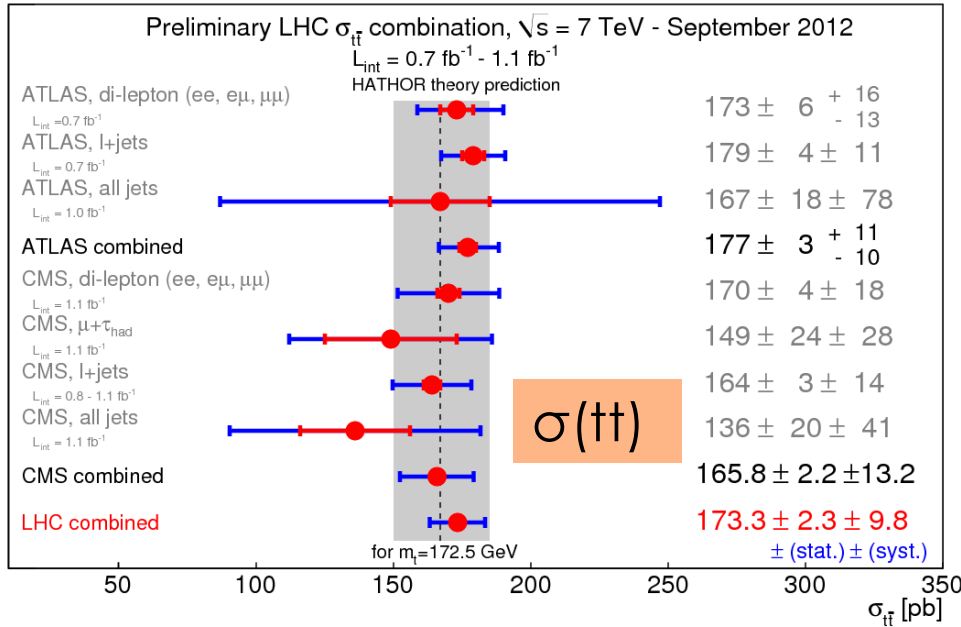
5th TOPLHCWG OPEN MEETING INTRODUCTION

Roberto Chierici (CNRS-Lyon)
Michelangelo Mangano (CERN)
María José Costa (IFIC-Valencia)
TOPLHCWG meeting 4th April 2014

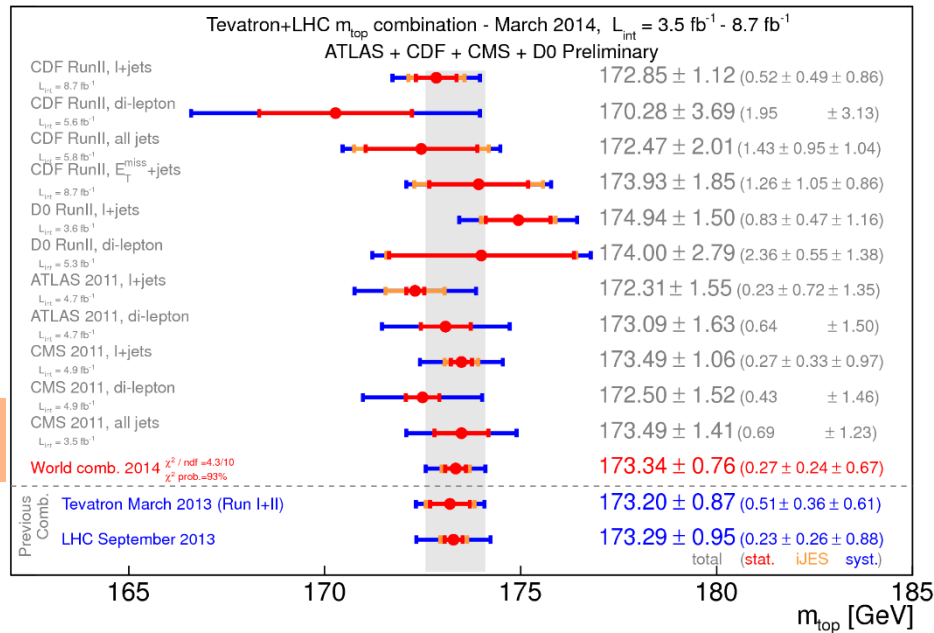
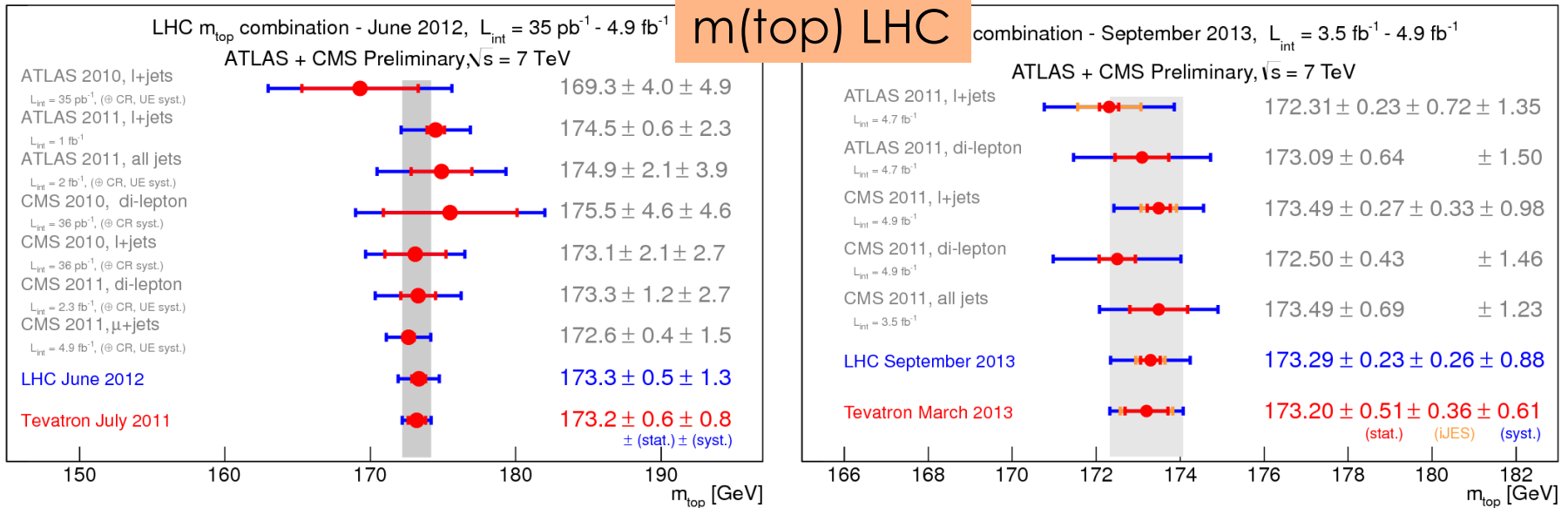
TOPLHCWG COORDINATES

- Forum for discussions (ATLAS, CMS and Theorists) on combinations, discuss strategies/methods (in particular systematic uncertainties) and interpretations of top physics measurements at the LHC.
- Typically two open sessions per year, and several topical meetings in between
- Integrated in the LPCC structure at CERN
- Documentation and coordinates:
 - LPCC web page:
http://lpcc.web.cern.ch/LPCC/index.php?page=top_wg
 - TWiki:
<https://twiki.cern.ch/twiki/bin/view/LHCPhysics/TopLHCWG>
 - If interested, subscribe to lhc-toplhwcwg@cern.ch

TOPLHCWG RESULTS



TOPLHCWG RESULTS



m(top) world

TOPLHCWG RESULTS BEYOND COMBINATIONS

- Understanding systematic categorization & correlations:
 - JES uncertainty
 - b-tagging uncertainty (to be discussed in this meeting)
- Theory predictions and uncertainties:
 - top quark pair cross section
 - t-channel cross section (to be discussed in this meeting)
 - MC modelling in top pair and single top
- Common ATLAS and CMS fiducial region(s)
 - Definition of top quarks at particle level for unfolding

This work is essential to properly compare our results and for improving in the coming measurements and combinations

TOPLHCWG CONTACTS

Working groups

- **Top pair cross section:** Elizaveta Shabalina (ATLAS), Maria Aldaya (CMS)
- **Single top cross section:** Julien Noce Donini (ATLAS), Luca Lista (CMS),
- **Top mass:** Giorgio Cortiana (ATLAS), Steve Wimpenny (CMS)
- **W helicity:** Kevin Kröniger (ATLAS), Mara Senghi (CMS)
- **Charge asymmetry:** Frederic Deliot (ATLAS), Thorsten Chwalek (CMS)
- **Differential distributions:** Francesco Spano' (ATLAS), Maria Aldaya (CMS)

Task forces on specific activities:

- **Jet/MET:** Caterina Doglioni, Bogdan Malescu (ATLAS), Henning Kirschenmann, Mikko Voutilainen (CMS)
- **Common acceptance and pseudo-tops:** William Bell, Dominic Hirschbuhel (ATLAS), Tyler Dorland (CMS)
- **Radiation and generators:** Dominic Hirschbuhel and Alexander Grohsjean (ATLAS), Benedikt Maier (CMS)
- **B-tagging:** Martin zur Nedden (ATLAS), Luca Scodellaro (CMS)

AGENDA OF THE 5TH TOPLHCWG OPEN MEETING

TODAY AND TOMORROW MORNING: **TOP MASS MINI-WORKSHOP**

- Brief review of the current status
 - Experimental reviews on new and standard methods, and status on current LHC and World averages
 - Focus on TH errors as determined within the experiments
 - New ideas on the phenomenology side
- Understanding the TH issues
 - Relation between MC and pole top mass
 - Theory uncertainties associated to the MC top mass
 - Theory uncertainties associated to top mass extracted using non standard techniques
- Ample time is reserved for discussion

AGENDA OF THE 5TH TOPLHCWG OPEN MEETING

TOMORROW AND FRIDAY: TOPLHCWG OPEN SESSION

- Top pair production
 - Discussion about modelling of top pair production (TH uncertainties)
 - Top pair cross section status
 - Expert recommendation for the treatment of the b-tagging uncertainty
- Single top
 - Status of single top cross section combinations
 - t-channel modelling uncertainties
 - Discussion on reference cross sections
- Session on Top Beyond Standard Model (NEW !)
 - Idea: use the WG as natural forum where to exchange ideas and plan common efforts
 - Invited CMS and ATLAS relevant physics searches groups
 - Improvements on top physics (measurements and tools) that can be used to improve the sensitivity on searches
 - Discuss any new combination activity that can be hosted in the WG?

ANNOUNCEMENT: TOP2014

- ❑ From September 29th to October 3rd
- ❑ Cannes-Mandelieu, France
- ❑ Info/contact:
 - <http://top2014.cea.fr>
 - top2014-l@in2p3.fr
- ❑ registration will open this week

- ❑ The conference will be preceded by a 2-day workshop on $t\bar{t}$ differential distributions

<http://indico.cern.ch/e/top-differential-distributions-2014>

7th International Workshop on Top Quark Physics
top 2014
September 29 - October 3, 2014
Cannes, France

International Advisory Committee

- Werner Bernreuther, RWTH
- Tancredi Carli, CERN
- Jorgen D'Hondt, VUB
- Ulrich Husemann, KIT (Chair)
- Andreas Jung, FNAL
- Fabio Maltoni, UCLouvain
- Michelangelo Mangano, CERN
- Andreas Meyer, DESY
- Antonio Ohofre, LIP
- Gilad Perez, CERN
- Roberto Tenchini, INFN
- Scott Willenbrock, UIUC
- Jon Wilson, University of Michigan

Local Organising Committee

- Jeremy Andrea, IPHC
- Matteo Cacciari, LPTHE
- Roberto Chierici, IPNL
- Frédéric Déliot, CEA (Chair)
- Frédéric Derue, LPNHE
- Arnaud Lucotte, LPSC
- Dominique Pallin, LPC
- Mossadek Talby, CPPM

<http://top2014.cea.fr>
top2014-l@in2p3.fr

Related topical workshop on top quark differential distributions
26-28 September 2014, same location