

TOPLHCWG

SECOND OPEN SESSION

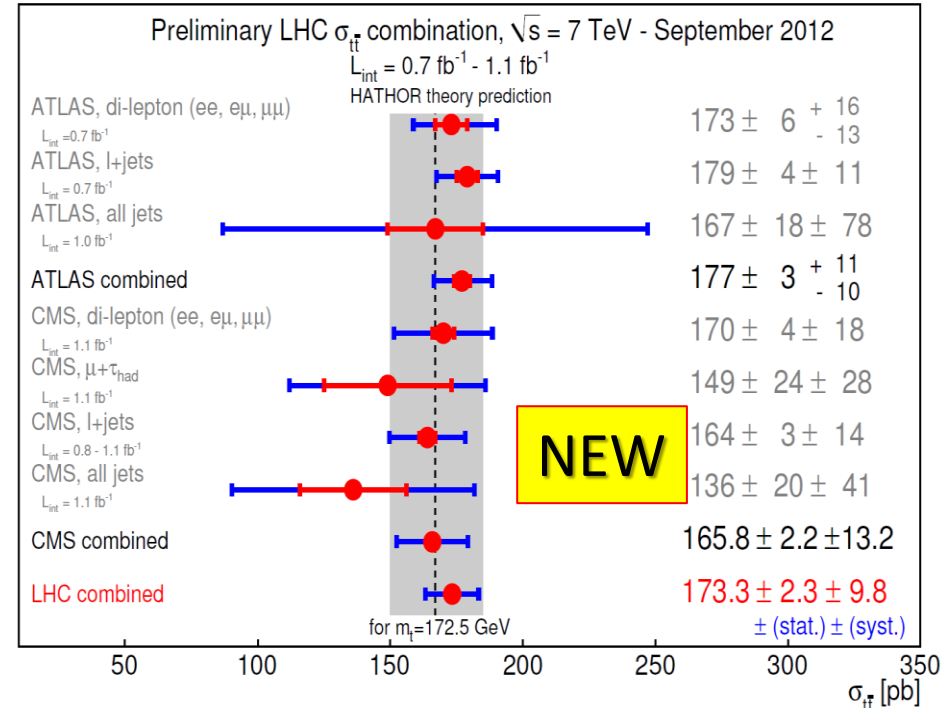
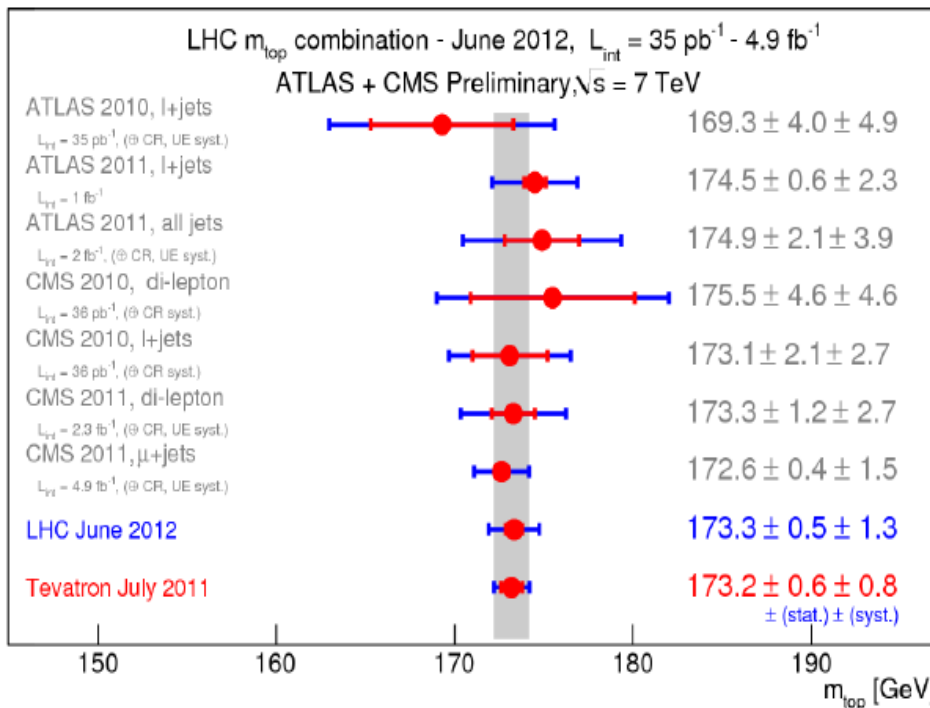
29TH NOVEMBER 2012

Introduction

- **Reminder: forum for public discussions (ATLAS+CMS+TH) on combination and interpretation of top physics measurements at the LHC**
 - Definition of combined quantities
 - Treatment of the experimental systematic errors
 - Theory modelling and Monte Carlo implementation
 - Comparison of theory predictions with experimental results
 - Statistical treatment of data
- **Maintain a format with a few open meetings per year**
 - Likely in correspondence of major conferences
 - Also have topical open discussions (mini-workshops) on key aspects
 - Please make sure you subscribe to the main open list lhc-toplhewg@cern.ch
- **Welcome !**

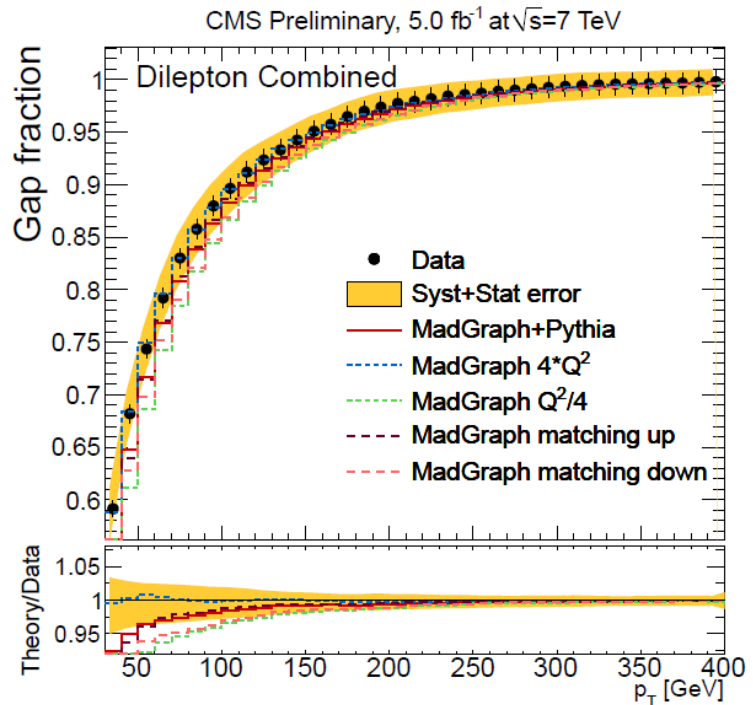
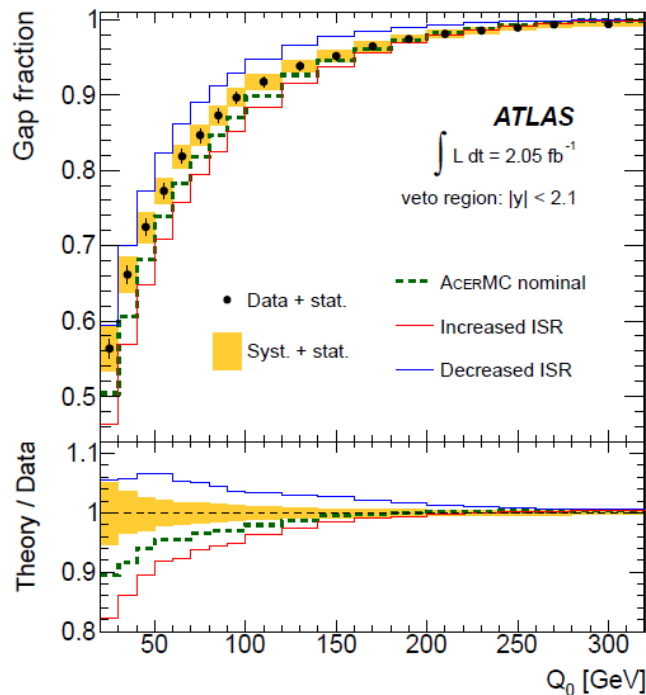
Current activities (I)

- The group is currently delivering four LHC combinations
 - Top pair production cross-section (**new combination available**)
 - Single top production cross-section
 - Top mass
 - W helicity in top events → Constraints on V_{tb} (**new effort since last meeting**)
- Focus is given to the harmonization of input between experiments
 - Observables/conventions/systematic breakdown



Current activities (II)

- Discussions on the definition and categorization of systematic uncertainties. The most important sources in our measurements are:
 - Jet energy scales
 - See presentation in this meeting
 - Modelling of QCD radiation
 - A full session devoted to this
 - Essential to have exchange with the TH community
- Synchronization between experiments may help our comparisons:



TOP LHC WG meeting

chaired by Michelangelo Mangano (CERN), Roberto Chierici (Universite Claude Bernard-Lyon I (FR)), Markus Cristinziani (Universitaet Bonn (DE))

Thursday, November 29, 2012 from 13:30 to 19:00 (Europe/Zurich)
at CERN (40-S2-D01 - Salle Dirac)

Agenda today

Description This is the second open meeting of the TOP LHC Working Group.

EVO connection will be available: the link will appear on the agenda page 30' before the start of the meeting

Thursday, November 29, 2012

13:30 - 13:45 Welcome and Introduction 15'
Speakers: Roberto Chierici (Universite Claude Bernard-Lyon I (FR)), Markus Cristinziani (Universitaet Bonn (DE)), Michelangelo Mangano (CERN)

13:45 - 15:00 Current combination activities

13:45 **Status of top mass (world) average** 15'

Speaker: Martijn Mulders (CERN)

14:00 **Status of LHC top pair cross section combination** 15'

Speaker: Elizaveta Shabalina (Georg-August-Universitaet Goettingen (DE))

14:15 **Status of LHC single top cross section combination** 15'

Speaker: Julien Noce Donini (Univ. Blaise Pascal Clermont-Fe. II (FR))

14:30 **Status of W helicity LHC combination** 15'

14:45 **Discussion** 15'

15:00 - 15:30 Revisited BLUE and a new way to show our combinations 30'

Speaker: Dr. Andrea Valassi (CERN)

15:30 - 16:00 Coffee/Tea break

16:00 - 17:40 Modelling and constraining radiation in top-pair

16:00 **NNLO cross section** 20'

Speaker: Alexander Dimitrov Mitov (CERN)

16:20 **Constraining radiation in ATLAS** 20'

16:40 **Constraining radiation in CMS** 20'

Speaker: Maria Aldaya Martin (Deutsches Elektronen-Synchrotron (DE))

17:00 **Inclusive variables NLO vs NLO+PS** 20'

17:20 **Discussion** 20'

17:40 - 18:25 Jet/MET prescriptions for LHC combinations + discussion 45'

Session on status and plans
of current combinations

BLUE prescriptions

Session on QCD radiation

Jet/MET prescriptions