

Introduction to the V+jets and V+hf Subgroup Session

G. Brandt ¹, , V. Ciulli ², A.-M. Magnan ³, A. Messina ⁴

¹Oxford ²Firenze ³Imperial ⁴CERN



**LHC EWWG Meeting,
CERN
21-22 May 2012**

LPCC

LHC Physics Centre at CERN

V+jets and V+hf in the LPCC EWWG

- Website: http://lpcc.web.cern.ch/LPCC/index.php?page=electroweak_wg
- Mailing list: LHC-EWWG@cern.ch
- Working group conveners:
 - LPCC: M. Mangano
 - ATLAS: M. Boonekamp and J. Guimaraes da Costa
 - CMS: J. Berryhill and K. Kousouris
 - LHCb: R. McNulty and T. Shears
- Subgroups:
 - Inclusive W/Z
 - TGCs
 - **V+jets (inclusive and heavy flavor)**
- **V+jets Subgroup**
 - ATLAS contacts: G.B., A. Messina
 - CMS contacts: A.-M. Magnan, V. Ciulli
 - TWiki: <https://twiki.cern.ch/twiki/bin/viewauth/AtlasProtected/LHCEWWG>
(ATLAS internal - no common TWiki yet)
 - Mailing list: lhc-ewwg-vjets@cern.ch

What happened so far ...

- Kick-off Meeting 2 April 2012
<https://indico.cern.ch/conferenceDisplay.py?confId=184824>
- Workshop Preparatory Meeting 3 May 2012
<https://indico.cern.ch/conferenceDisplay.py?confId=188539>

You are welcome to join the efforts

Goals of the V+jets and V+hf subgroup

- Enable cross comparison of the next round of ATLAS and CMS results on V+jets and V+hf results **at particle level**
- Understand incompatibilities in 2010 V+jets / V+hf results and develop recommendations on how to overcome them in the next round of analyses
- Develop common framework and phase space to do comparisons
- Understand how to do the best possible theory comparison
 - Best available calculations
 - Best observables and phase spaces
 - Treatment of systematics in analysis, predictions and non-perturbative corrections

Today's Agenda

09:00 - 14:00

V+jets

09:00 **Introduction** 10'

09:10 **V+heavy quarks: LHC results** 30'

Speaker: Tristan Arnoldus Du Pree (Universite Catholique de Louvain (BE))

09:40 **W/Z+ bottom quarks : new predictions, new opportunities** 30'

Speaker: Fabio Maltoni (Universite Catholique de Louvain (BE))

10:10 **Discussion** 30'

W+charm 5'

Speakers: Georges Aad (Albert-Ludwigs-Universitaet Freiburg (DE)), Kristin Lohwasser (Albert-Ludwigs-Universitaet Freiburg (DE))

Material: [Slides](#) 

PS in NLO 5'

Speaker: David Lopez Mateos (Harvard University (US))

Material: [Slides](#) 

10:40 **Coffee break** 20'

11:00 **V+jets: LHC results** 30'

Speaker: Monica Dunford (CERN)

11:30 **V+jets: status of NLO calculations** 30'

Speaker: Daniel Maitre (CERN)

12:00 **Z+2 jets at NLO in POWHEG** 20'

Speaker: Emanuele Re

12:20 **Discussion** 30'

W+jets, data theory comparisons 5'

Speaker: Prof. Joey Huston (Michigan State University (US))

Material: [Slides](#)  

First look at jet cone size effects 5'

Speakers: Vitaliano Ciulli (Universita e INFN (IT)), Antonio Tropiano (Universita e INFN (IT))

Material: [Slides](#) 