

**BOOST2013 - 5th International  
Workshop on Boosted Object  
Phenomenology,  
Reconstruction and Searches**

**Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Welcome

*Monday, 12 August 2013 09:05 (10 minutes)*

**Presenter:** LOCH, Peter (University of Arizona (US))

**Session Classification:** Introduction and overviews

Contribution ID: 1

Type: **not specified**

## **Status of the BOOST2012 report**

*Monday, 12 August 2013 09:15 (40 minutes)*

**Presenter:** Dr VOS, Marcel (IFIC Valencia (ES))

**Session Classification:** Introduction and overviews

Contribution ID: 2

Type: **not specified**

## Recent results from LHC

*Monday, 12 August 2013 09:55 (35 minutes)*

**Presenter:** Prof. SINERVO, Pekka (University of Toronto (CA))

**Session Classification:** Introduction and overviews

Contribution ID: 3

Type: **not specified**

## **Jets at LHC in the presence of 2011 and 2012 pile-up**

*Monday, 12 August 2013 11:00 (30 minutes)*

**Presenter:** RAPPOCCIO, Salvatore (State University of New York (US))

**Session Classification:** Introduction and overviews

Contribution ID: 4

Type: **not specified**

## **Theoretical progress in dissecting jets: calculations past, present, and future**

*Monday, 12 August 2013 11:30 (30 minutes)*

**Presenter:** THALER, Jesse

**Session Classification:** Introduction and overviews

Contribution ID: 5

Type: **not specified**

## **Jets under HL-LHC conditions**

*Monday, 12 August 2013 12:00 (30 minutes)*

**Presenter:** SCHWARTZMAN, Ariel Gustavo (SLAC National Accelerator Laboratory (US))

**Session Classification:** Introduction and overviews

Contribution ID: 6

Type: **not specified**

## Registration

**Presenters:** POTTER, Connie (CERN); KNIGHT, Vivian (University of Arizona (US))



Contribution ID: 7

Type: **not specified**

## Reception

Contribution ID: 8

Type: **not specified**

## **$t\bar{t}b$ and $t+b$ resonances in CMS**

*Wednesday, 14 August 2013 09:00 (30 minutes)*

**Presenter:** KOGLER, Roman (Hamburg University (DE))

**Session Classification:** Searches with boosted reconstruction techniques

Contribution ID: 9

Type: **not specified**

## **Studies with boosted top quarks in ATLAS**

*Wednesday, 14 August 2013 09:30 (30 minutes)*

**Presenter:** VALERY, Loic (Univ. Blaise Pascal Clermont-Fe. II (FR))

**Session Classification:** Searches with boosted reconstruction techniques

Contribution ID: **10**

Type: **not specified**

## **SUSY in boosted topologies in CMS**

**Presenter:** HARE, Daryl (Rutgers University)

Contribution ID: 11

Type: **not specified**

# Application of substructure in the ATLAS SUSY multi-jet analysis

*Wednesday, 14 August 2013 11:00 (30 minutes)*

**Presenter:** YOUNG, Christopher (CERN)

**Session Classification:** Searches with boosted reconstruction techniques

Contribution ID: 12

Type: **not specified**

# Non-SUSY quark partners in boosted technologies in CMS

*Wednesday, 14 August 2013 10:00 (30 minutes)*

**Presenter:** HOING, Rebekka (Hamburg University (DE))

**Session Classification:** Searches with boosted reconstruction techniques

Contribution ID: 14

Type: **not specified**

## **H->bb and H->VV in boosted topologies in CMS**

*Thursday, 15 August 2013 11:00 (30 minutes)*

**Presenter:** TRAN, Nhan Viet (Fermi National Accelerator Lab. (US))

**Session Classification:** Jet substructure measurements

Contribution ID: 15

Type: **not specified**

## **Boosted jet algorithm development in CMS**

*Thursday, 15 August 2013 14:00 (30 minutes)*

**Presenter:** USAI, Emanuele (Hamburg University (DE))

**Session Classification:** Jet substructure performance



Contribution ID: 16

Type: **not specified**

## **Substructure performance on boosted objects in ATLAS**

*Thursday, 15 August 2013 14:30 (30 minutes)*

**Presenter:** POLLARD, Chris (Duke University (US))

**Session Classification:** Jet substructure performance

Contribution ID: 17

Type: **not specified**

## **b-jet identification in boosted technologies in CMS**

*Thursday, 15 August 2013 15:00 (30 minutes)*

**Presenter:** MARCHESINI, Ivan (Hamburg University (DE))

**Session Classification:** Jet substructure performance

Contribution ID: **18**

Type: **not specified**

## **Jet tagging at ATLAS**

*Thursday, 15 August 2013 15:30 (30 minutes)*

**Presenter:** HOLLOWAY, Ayana (Duke University (US))

**Session Classification:** Jet substructure performance

Contribution ID: 19

Type: **not specified**

## **Boosted vector bosons in ATLAS**

**Presenter:** DE LORENZI, Francesco (Iowa State University (US))

Contribution ID: 20

Type: **not specified**

## **Non-Higgs X->VV in boosted technologies in CMS**

*Thursday, 15 August 2013 11:30 (30 minutes)*

**Presenter:** MAKSIMOVIC, Petar (Johns Hopkins University (US))

**Session Classification:** Jet substructure measurements

Contribution ID: 21

Type: **not specified**

## **Pileup: impact and mitigation for jet $p_T$ and substructure in ATLAS**

*Tuesday, 13 August 2013 14:00 (30 minutes)*

**Presenter:** MENKE, Sven (Max-Planck-Institut fuer Physik (Werner-Heisenberg-Institut) (D))

**Session Classification:** Jet substructure performance

Contribution ID: 22

Type: **not specified**

## **Substructure and pileup developments in CMS**

*Tuesday, 13 August 2013 14:30 (30 minutes)*

**Presenter:** HARRIS, Philip Coleman (CERN)

**Session Classification:** Jet substructure performance

Contribution ID: 23

Type: **not specified**

## **Exploration of new substructure techniques in ATLAS**

*Tuesday, 13 August 2013 15:00 (30 minutes)*

**Presenter:** SWIATLOWSKI, Maximilian J (SLAC National Accelerator Laboratory (US))

**Session Classification:** Jet substructure performance



Contribution ID: 24

Type: **not specified**

## **Studies of substructure and boosted objects post-LS1 (Snowmass)**

*Tuesday, 13 August 2013 15:30 (30 minutes)*

**Presenter:** DOLEN, James William (State University of New York (US))

**Session Classification:** Jet substructure performance

Contribution ID: 25

Type: **not specified**

## **RIVET tutorial**

*Wednesday, 14 August 2013 16:30 (45 minutes)*

**Presenter:** BUCKLEY, Andy (University of Edinburgh (GB))

**Session Classification:** Tutorials and demonstrations

Contribution ID: 26

Type: **not specified**

## **Fastjet\_contrib demonstration**

*Tuesday, 13 August 2013 16:30 (45 minutes)*

**Presenter:** SALAM, Gavin (CERN)

**Session Classification:** Tutorials and demonstrations

Contribution ID: 27

Type: **not specified**

## **Boosted HH->bb bb: a new topology in searches for TeV scale resonances at the LHC**

*Wednesday, 14 August 2013 11:30 (30 minutes)*

**Presenter:** COOPER, Ben (University of London (GB))

**Session Classification:** Searches with boosted reconstruction techniques

Contribution ID: 28

Type: **not specified**

## **Applying computer vision techniques to jet flavor identification: from FisherFaces to FisherJets**

*Thursday, 15 August 2013 09:00 (30 minutes)*

**Presenter:** COGAN, Josh (SLAC National Accelerator Laboratory (US))

**Session Classification:** New approaches and developments

Contribution ID: 29

Type: **not specified**

## **Jet cleansing: pile-up mitigation at high luminosity**

*Monday, 12 August 2013 16:30 (30 minutes)*

**Presenter:** LOW, Matthew (University of Chicago (US))

**Session Classification:** New approaches and developments

Contribution ID: **30**

Type: **not specified**

## **Telescoping jets: multiple event interpretations with multiple R**

*Thursday, 15 August 2013 09:30 (30 minutes)*

**Presenter:** CHIEN, Yang-Ting (Harvard University)

**Session Classification:** New approaches and developments

Contribution ID: **31**

Type: **not specified**

## **Jet substructure by accident**

*Tuesday, 13 August 2013 09:00 (30 minutes)*

**Presenter:** LOU, Hou Keong (Princeton University)

**Session Classification:** Jet substructure phenomenology



Contribution ID: 32

Type: **not specified**

## **Recent developments in boosted jet tagging with template overlap methods**

*Tuesday, 13 August 2013 12:00 (30 minutes)*

**Presenter:** BACKOVIC, Mihailo (Weizmann Institute of Science)

**Session Classification:** Jet substructure phenomenology

Contribution ID: 33

Type: **not specified**

## **A top tagger based on shower deconstruction**

*Tuesday, 13 August 2013 09:30 (30 minutes)*

**Presenter:** Prof. SOPER, Davison (University of Oregon)

**Session Classification:** Jet substructure phenomenology

Contribution ID: 34

Type: **not specified**

## **Semi-classical approach to jet clustering and background subtraction**

*Tuesday, 13 August 2013 11:00 (30 minutes)*

**Presenter:** TSENG, Jeffrey (University of Oxford (GB))

**Session Classification:** Jet substructure phenomenology

Contribution ID: 35

Type: **not specified**

## Energy correlation functions in jet substructure

*Tuesday, 13 August 2013 11:30 (30 minutes)*

**Presenter:** LARKOSKI, Andrew (SLAC)

**Session Classification:** Jet substructure phenomenology

Contribution ID: 36

Type: **not specified**

## Workshop summary: theory

*Friday, 16 August 2013 09:00 (45 minutes)*

**Presenter:** SCHWARTZ, Matthew (Harvard University)

**Session Classification:** Summary

Contribution ID: 37

Type: **not specified**

## **Workshop summary: experiment**

*Friday, 16 August 2013 09:45 (45 minutes)*

**Presenter:** MILLER, David (University of Chicago (US))

**Session Classification:** Summary

Contribution ID: **38**

Type: **not specified**

## **Learning how to count: a high multiplicity search for the LHC**

*Tuesday, 13 August 2013 10:00 (30 minutes)*

**Presenter:** EL HEDRI, sonia (SLAC)

**Session Classification:** Jet substructure phenomenology

Contribution ID: 39

Type: **not specified**

## **Towards the understanding of jet substructure**

*Monday, 12 August 2013 14:00 (30 minutes)*

**Presenter:** SALAM, Gavin (CERN)

**Session Classification:** Jet substructure theory



Contribution ID: 40

Type: **not specified**

## **Jet substructure with analytical methods**

*Monday, 12 August 2013 14:30 (30 minutes)*

**Presenter:** MARZANI, Simone (IPPP / Durham University)

**Session Classification:** Jet substructure theory

Contribution ID: 41

Type: **not specified**

## **Exclusive jet mass observables and non-global logarithms**

*Monday, 12 August 2013 15:00 (30 minutes)*

**Presenter:** SCHABINGER, Robert (Johannes Gutenberg Universitaet, Mainz)

**Session Classification:** Jet substructure theory

Contribution ID: 42

Type: **not specified**

## **Unsafe but calculable: ratio observables in perturbative QCD**

*Wednesday, 14 August 2013 15:00 (30 minutes)*

**Presenter:** THALER, Jesse

**Session Classification:** Jet substructure theory

Contribution ID: 43

Type: **not specified**

## Calculating track-based observables for the LHC

*Wednesday, 14 August 2013 14:00 (30 minutes)*

**Presenter:** WAALEWIJN, Wouter (UCSD)

**Session Classification:** Jet substructure theory

Contribution ID: 44

Type: **not specified**

## **Scale-invariant resonance tagging in multi-jet events and new physics in Higgs pair production**

*Wednesday, 14 August 2013 15:30 (30 minutes)*

**Presenters:** SALAM, Gavin (CERN); ROJO CHACON, Juan (CERN)

**Session Classification:** Jet substructure theory

Contribution ID: 45

Type: **not specified**

## **Jets without jets**

*Monday, 12 August 2013 16:00 (30 minutes)*

**Presenter:** BERTOLINI, Daniele (Massachusetts Institute of Technology)

**Session Classification:** New approaches and developments

Contribution ID: 46

Type: **not specified**

## Divorcing soft substructure from kinematics

*Wednesday, 14 August 2013 14:30 (30 minutes)*

**Presenter:** CURTIN, David (Cornell)

**Session Classification:** Jet substructure theory

Contribution ID: 47

Type: **not specified**

## Jet radiation radius and pileup

*Thursday, 15 August 2013 10:00 (30 minutes)*

**Presenter:** HAN, Zhenyu (Harvard University)

**Session Classification:** New approaches and developments



Contribution ID: 48

Type: **not specified**

## Registration

**Presenters:** POTTER, Connie (CERN); KNIGHT, Vivian (University of Arizona (US))

Contribution ID: 49

Type: **not specified**

## Welcome from the University of Arizona Physics Department

*Monday, 12 August 2013 09:00 (5 minutes)*

**Presenter:** JOHNS, Kenneth (University of Arizona (US))

**Session Classification:** Introduction and overviews

Contribution ID: **50**

Type: **not specified**

## **Workshop photo**

*Wednesday, 14 August 2013 12:15 (15 minutes)*