

# **Lake Louise Winter Institute 2015**

## **Report of Contributions**

Contribution ID: **1**

Type: **Invited Talk**

# Precision Higgs physics

*Monday 16 February 2015 09:40 (1 hour)*

**Presenter:** FURLAN, Elisabetta

**Session Classification:** Monday

Contribution ID: 2

Type: **not specified**

## Higgs results from ATLAS and CMS

*Monday 16 February 2015 08:40 (1 hour)*

**Presenter:** KORYTOV, Andrey

**Session Classification:** Monday

Contribution ID: 3

Type: **not specified**

# Welcome

*Monday 16 February 2015 08:30 (10 minutes)*

**Presenter:** PENIN, Alexander

**Session Classification:** Monday

Contribution ID: 4

Type: **not specified**

## **Searches for Higgs bosons beyond the Standard Model using the ATLAS Experiment**

*Monday 16 February 2015 11:00 (15 minutes)*

**Presenter:** FERRARI, Arnaud

**Session Classification:** Monday

Contribution ID: 5

Type: **not specified**

## **Search for exotic decays of the Higgs boson with the ATLAS detector**

*Monday 16 February 2015 11:30 (15 minutes)*

**Presenter:** VANGURI, Rami

**Session Classification:** Monday

Contribution ID: 6

Type: **not specified**

## BSM Higgs results from CMS

*Monday 16 February 2015 11:15 (15 minutes)*

**Presenter:** SCHRÖDER, Matthias

**Session Classification:** Monday

Contribution ID: 7

Type: **not specified**

## Rare Higgs decays results from CMS

*Monday 16 February 2015 11:45 (15 minutes)*

**Presenter:** MASTROLORENZO, Luca

**Session Classification:** Monday



Contribution ID: 8

Type: **not specified**

## Recent top-physics results from ATLAS

*Monday 16 February 2015 19:45 (15 minutes)*

**Presenter:** WILDAUER, Andreas

**Session Classification:** Monday

Contribution ID: 9

Type: **not specified**

## Recent top quark physics results from CMS

*Monday 16 February 2015 20:00 (15 minutes)*

**Presenter:** COLE, Joanne

**Session Classification:** Monday

Contribution ID: **10**

Type: **not specified**

## **Electroweak measurements with the ATLAS detector**

*Monday 16 February 2015 20:15 (15 minutes)*

**Presenter:** SOMMER, Philip

**Session Classification:** Monday

Contribution ID: **11**

Type: **not specified**

## **Recent multiboson production results from CMS**

*Monday 16 February 2015 20:30 (15 minutes)*

**Presenter:** VILIANI, Lorenzo

**Session Classification:** Monday

Contribution ID: 12

Type: **not specified**

## **Measurements of vector boson with associated jet production with the ATLAS detector**

*Monday 16 February 2015 21:15 (15 minutes)*

**Presenter:** SPAGNOLO, Stefania

**Session Classification:** Monday

Contribution ID: **13**

Type: **not specified**

## Results from ALICE

*Monday 16 February 2015 19:30 (15 minutes)*

**Presenter:** BELMONT, Ron

**Session Classification:** Monday

Contribution ID: 14

Type: **not specified**

## Recent soft QCD and jet physics results from ATLAS

*Monday 16 February 2015 21:30 (15 minutes)*

**Presenter:** MARTIN, Tim

**Session Classification:** Monday

Contribution ID: 15

Type: **not specified**

# Physics prospects with the upgraded ATLAS detector

*Monday 16 February 2015 21:45 (15 minutes)*

**Presenter:** VOLPI, Guido

**Session Classification:** Monday



Contribution ID: **16**

Type: **not specified**

## QCD theory of hadrons

*Tuesday 17 February 2015 08:30 (1 hour)*

**Presenter:** LEPAGE, Peter

**Session Classification:** Tuesday

Contribution ID: 17

Type: **not specified**

## Alternatives to the Standard Model Higgs

*Tuesday 17 February 2015 09:30 (1 hour)*

**Presenter:** LEWIS, Ian

**Session Classification:** Tuesday

Contribution ID: **18**

Type: **not specified**

## **Searches for dark matter and signs of Composite Higgs with the ATLAS detector**

*Tuesday 17 February 2015 10:45 (15 minutes)*

**Presenter:** BLACKBURN, Daniel

**Session Classification:** Tuesday

Contribution ID: **19**

Type: **not specified**

## **Search for $t\bar{t}$ resonances and dark matter at CMS**

*Tuesday 17 February 2015 11:00 (15 minutes)*

**Presenter:** BERRY, Douglas Ryan

**Session Classification:** Tuesday

Contribution ID: 20

Type: **not specified**

## **Searches for dark matter in monojet, monophoton, and monolepton final states in CMS**

*Tuesday 17 February 2015 11:15 (15 minutes)*

**Presenter:** DE BRUYN, Isabelle Helena

**Session Classification:** Tuesday

Contribution ID: 21

Type: **not specified**

## **Search for heavy resonances with the ATLAS detector**

*Tuesday 17 February 2015 11:30 (15 minutes)*

**Presenter:** DALLAIRE, Frederik

**Session Classification:** Tuesday

Contribution ID: 22

Type: **not specified**

## **Search for (pseudo-)scalar boson(s) in the tautau final state at CMS**

*Tuesday 17 February 2015 11:45 (15 minutes)*

**Presenter:** PERRINI, Lucia

**Session Classification:** Tuesday

Contribution ID: 23

Type: **not specified**

# **Searches for electroweak production of supersymmetry, supersymmetry in resonance production, R-parity violating signatures and events with long-lived particles with the ATLAS detector**

*Tuesday 17 February 2015 19:30 (15 minutes)*

**Presenter:** CASTILLO, Itzebelt Santoyo

**Session Classification:** Tuesday



Contribution ID: 24

Type: **not specified**

## **Search for stealth supersymmetry with photons or leptons, jets, and low MET**

*Tuesday 17 February 2015 19:45 (15 minutes)*

**Presenter:** CARLSON, Benjamin Taylor

**Session Classification:** Tuesday

Contribution ID: 25

Type: **not specified**

## Searches for squarks and gluinos with the ATLAS detector

*Tuesday 17 February 2015 20:00 (15 minutes)*

**Presenter:** KALDERON, Charles William

**Session Classification:** Tuesday

Contribution ID: 26

Type: **not specified**

## Search for fermionic partners at CMS

*Tuesday 17 February 2015 20:15 (15 minutes)*

**Presenter:** DIETZ, Charles Hermann

**Session Classification:** Tuesday

Contribution ID: 27

Type: **not specified**

## 3rd generation SUSY searches at CMS

*Tuesday 17 February 2015 20:45 (15 minutes)*

**Presenter:** HARE, Daryl

**Session Classification:** Tuesday

Contribution ID: **28**

Type: **not specified**

## **Search for Long-lived particles at CMS**

*Tuesday 17 February 2015 21:00 (15 minutes)*

**Presenter:** QUERTENMONT, Loic

**Session Classification:** Tuesday

Contribution ID: 29

Type: **not specified**

## Search for long-lived particles at BABAR

*Tuesday 17 February 2015 21:15 (15 minutes)*

**Presenter:** SOFFER, Abi

**Session Classification:** Tuesday

Contribution ID: **30**

Type: **not specified**

## **Searches for "new physics" low-mass states at BABAR**

*Tuesday 17 February 2015 21:30 (15 minutes)*

**Presenter:** BEAULIEU, Alexandre

**Session Classification:** Tuesday

Contribution ID: **31**

Type: **not specified**

## Physics of axions

*Wednesday 18 February 2015 08:30 (1 hour)*

**Presenter:** DUBOVSKY, Sergey

**Session Classification:** Wednesday



Contribution ID: **32**

Type: **not specified**

## Dark matter review

*Wednesday 18 February 2015 09:30 (1 hour)*

**Presenter:** TAIT, Tim

**Session Classification:** Wednesday

Contribution ID: 33

Type: **not specified**

## News from ADMX

*Wednesday 18 February 2015 10:45 (15 minutes)*

**Presenter:** LYAPUSTIN, Dmitry

**Session Classification:** Wednesday

Contribution ID: **34**

Type: **not specified**

## **News from DEAP-3600**

*Wednesday 18 February 2015 11:15 (15 minutes)*

**Presenter:** BUENO, James

**Session Classification:** Wednesday

Contribution ID: 35

Type: **not specified**

## World-leading Dark Matter Limits with PICO-2L

*Wednesday 18 February 2015 11:30 (15 minutes)*

**Presenter:** HARRIS, Orin

**Session Classification:** Wednesday

Contribution ID: 36

Type: **not specified**

## The PICO Dark Matter Program

*Wednesday 18 February 2015 11:45 (15 minutes)*

**Presenter:** ROBINSON, Alan

**Session Classification:** Wednesday

Contribution ID: 37

Type: **not specified**

## **Supernova remnant high energy particle acceleration**

*Wednesday 18 February 2015 20:15 (15 minutes)*

**Presenter:** LEAHY, Denis

**Session Classification:** Wednesday

Contribution ID: **38**

Type: **not specified**

## IceCube results

*Friday 20 February 2015 11:30 (15 minutes)*

**Presenter:** WEAVER, Chris

**Session Classification:** Friday

Contribution ID: 39

Type: **not specified**

## IceCube facility upgrades

*Friday 20 February 2015 11:45 (15 minutes)*

**Presenter:** KOPPER, Claudio

**Session Classification:** Friday



Contribution ID: 40

Type: **not specified**

# Electroweak physics in the forward direction at the LHC

*Monday 16 February 2015 21:00 (15 minutes)*

**Presenter:** SIRENDI, Marek

**Session Classification:** Monday

Contribution ID: 41

Type: **not specified**

## 50 years of CP violation

*Thursday 19 February 2015 08:30 (1 hour)*

**Presenter:** RONEY, Mike

**Session Classification:** Thursday

Contribution ID: **42**

Type: **not specified**

## Flavor physics

*Thursday 19 February 2015 09:30 (1 hour)*

**Presenter:** WILLIAMS, Michael

**Session Classification:** Thursday

Contribution ID: 43

Type: **not specified**

## Recent B-physics results from ATLAS

*Thursday 19 February 2015 10:45 (15 minutes)*

**Presenter:** BONA, Marcella

**Session Classification:** Thursday

Contribution ID: 44

Type: **not specified**

## Recent flavour physics results at CMS

*Thursday 19 February 2015 11:00 (15 minutes)*

**Presenter:** CRISTELLA, Leonardo

**Session Classification:** Thursday

Contribution ID: 45

Type: **not specified**

## **Rare B and charm decays at LHCb**

*Thursday 19 February 2015 16:30 (15 minutes)*

**Presenter:** MARTINO, Borsato

**Session Classification:** Thursday

Contribution ID: 46

Type: **not specified**

## Heavy quark spectroscopy at LHCb

*Thursday 19 February 2015 17:15 (15 minutes)*

**Presenter:** CHARLOTTE, Wallace

**Session Classification:** Thursday

Contribution ID: 47

Type: **not specified**

## **B production asymmetries in pp collisions**

**Presenter:** FERRARI, Fabio



Contribution ID: 48

Type: **not specified**

## Measurements of CP violating phases in B decays at LHCb

*Thursday 19 February 2015 11:30 (15 minutes)*

**Presenter:** DE BRUYN, Kristof

**Session Classification:** Thursday

Contribution ID: 49

Type: **not specified**

## **Measurements of CP violation and mixing in charm decays at LHCb**

*Thursday 19 February 2015 11:45 (15 minutes)*

**Presenter:** SMITH, Mark

**Session Classification:** Thursday

Contribution ID: 50

Type: **not specified**

## **Measurement of time-dependent CP violation at Belle**

*Thursday 19 February 2015 15:30 (15 minutes)*

**Presenter:** SANTELJ, Luka

**Session Classification:** Thursday

Contribution ID: 51

Type: **not specified**

## Belle II

*Thursday 19 February 2015 17:45 (15 minutes)*

**Presenter:** LIVENTSEV, Dmitri

**Session Classification:** Thursday

Contribution ID: 52

Type: **not specified**

## **Study of CP asymmetry in $B_0$ - $B_0$ bar mixing using inclusive dilepton samples in BABAR**

*Thursday 19 February 2015 15:45 (15 minutes)*

**Presenter:** MIYASHITA, Tomo

**Session Classification:** Thursday

Contribution ID: 53

Type: **not specified**

## **Vcb measurement with B -> Dlnu at Belle**

*Thursday 19 February 2015 16:00 (15 minutes)*

**Presenter:** GLATTAUER, Robin

**Session Classification:** Thursday

Contribution ID: 54

Type: **not specified**

## **phi3 measurement by B0->D0[kspipi]K\*0 at Belle**

*Thursday 19 February 2015 16:15 (15 minutes)*

**Presenter:** NEGISHI, Kentaro

**Session Classification:** Thursday

Contribution ID: 55

Type: **not specified**

## **Measurement of Mass & width of Sigma\_c at Belle**

*Thursday 19 February 2015 17:30 (15 minutes)*

**Presenter:** LEE, Soohyung

**Session Classification:** Thursday



Contribution ID: 56

Type: **not specified**

## Inflation

*Friday 20 February 2015 08:30 (1 hour)*

**Presenter:** KOSOWSKY, Arthur

**Session Classification:** Friday

Contribution ID: 57

Type: **not specified**

## Results from PLANCK

*Friday 20 February 2015 09:30 (30 minutes)*

**Presenter:** FROLOV, Andrei

**Session Classification:** Friday

Contribution ID: 58

Type: **not specified**

## Results from BICEP

**Presenter:** TBA

Contribution ID: 59

Type: **not specified**

## Neutrinos

*Friday 20 February 2015 10:30 (1 hour)*

**Presenter:** WARK, David

**Session Classification:** Friday

Contribution ID: **60**

Type: **not specified**

## **Results from CUORE-0, status of CUORE and R&D with bolometers.**

*Saturday 21 February 2015 10:50 (15 minutes)*

**Presenter:** YEOMAN, Raul Hennings

**Session Classification:** Saturday

Contribution ID: **61**

Type: **not specified**

## **EXO-200/nEXO status**

*Friday 20 February 2015 19:30 (15 minutes)*

**Presenter:** SCHUBERT, Alexis

**Session Classification:** Friday

Contribution ID: 62

Type: **not specified**

## **Search for the neutrinoless double beta decay of $^{76}\text{Ge}$ with the GERDA experiment**

*Friday 20 February 2015 19:45 (15 minutes)*

**Presenter:** KIRSCH, Andrea

**Session Classification:** Friday

Contribution ID: 63

Type: **not specified**

## **Towards a Ton-Scale Ge-76 Neutrinoless Double-Beta Decay Experiment: Recent Progress on the MAJORANA DEMONSTRATOR**

*Friday 20 February 2015 20:00 (15 minutes)*

**Presenter:** BUUCK, Micah

**Session Classification:** Friday



Contribution ID: 64

Type: **not specified**

## Status of SNO+

*Wednesday 18 February 2015 20:30 (15 minutes)*

**Presenter:** STRAIT, Matt

**Session Classification:** Wednesday

Contribution ID: 65

Type: **not specified**

## Recent results Daya Bay

*Friday 20 February 2015 20:15 (15 minutes)*

**Presenter:** NAKAJIMA, Yasuhiro

**Session Classification:** Friday

Contribution ID: **66**

Type: **not specified**

## Recent results Double Chooz

*Friday 20 February 2015 20:45 (15 minutes)*

**Presenter:** KANEDA, Michiru

**Session Classification:** Friday

Contribution ID: 67

Type: **not specified**

## RENO results

*Friday 20 February 2015 21:00 (15 minutes)*

**Presenter:** CHOI, Wonqook

**Session Classification:** Friday

Contribution ID: **68**

Type: **not specified**

## **KATRIN status**

*Saturday 21 February 2015 10:20 (15 minutes)*

**Presenter:** BODINE, Laura

**Session Classification:** Saturday

Contribution ID: **69**

Type: **not specified**

## Recent Results from the MINERvA Experiment

*Saturday 21 February 2015 09:15 (20 minutes)*

**Presenter:** MAHER, Emily

**Session Classification:** Saturday

Contribution ID: 70

Type: **not specified**

## The short baseline program at Fermilab

*Friday 20 February 2015 21:15 (20 minutes)*

**Presenter:** STRAUSS, Thomas

**Session Classification:** Friday

Contribution ID: 71

Type: **not specified**

## **MINOS and first MINOS+ data**

*Friday 20 February 2015 21:35 (20 minutes)*

**Presenter:** TONER, Ruth

**Session Classification:** Friday



Contribution ID: 72

Type: **not specified**

## **Measurement of neutrino CP phase and mixing angles with $\nu_e$ appearance and $\nu_{\mu}$ disappearance in the T2K experiment**

*Saturday 21 February 2015 09:00 (15 minutes)*

**Presenter:** KIKAWA, Tatsuya

**Session Classification:** Saturday

Contribution ID: 73

Type: **not specified**

## **Charged current muon neutrino and muon antineutrino interactions in the T2K off-axis near detector, ND280**

*Saturday 21 February 2015 08:45 (15 minutes)*

**Presenter:** SHORT, Sam

**Session Classification:** Saturday

Contribution ID: 74

Type: **not specified**

## **Neutrino Cross Section and Interaction Rate Measurements involving Charged Current $\nu_e$ and Neutral Current $\pi^0$ with the T2K Near Detector**

*Saturday 21 February 2015 08:30 (15 minutes)*

**Presenter:** JO, Jay

**Session Classification:** Saturday

Contribution ID: 75

Type: **not specified**

## Status of the NA62 experiment

*Thursday 19 February 2015 11:15 (15 minutes)*

**Presenter:** GONNELLA, Francesco

**Session Classification:** Thursday

Contribution ID: 76

Type: **not specified**

## **Mu2e: Probing the Fontiers of Physics Using Rare Particle Decays**

*Thursday 19 February 2015 18:00 (15 minutes)*

**Presenter:** DUKES, Craig

**Session Classification:** Thursday

Contribution ID: 77

Type: **not specified**

## Study of baryonic decays of B mesons

*Thursday 19 February 2015 17:00 (15 minutes)*

**Presenter:** HESS, Miriam

**Session Classification:** Thursday

Contribution ID: 78

Type: **not specified**

## Results from the OPERA experiment

*Saturday 21 February 2015 10:05 (15 minutes)*

**Presenter:** ARIGA, Akitaka

**Session Classification:** Saturday

Contribution ID: 79

Type: **not specified**

## Status of NOvA

*Saturday 21 February 2015 09:35 (15 minutes)*

**Presenter:** DAVIES, Gavin

**Session Classification:** Saturday



Contribution ID: **80**

Type: **not specified**

## Project8 status

*Saturday 21 February 2015 10:35 (15 minutes)*

**Presenter:** KOFRON, Jared

**Session Classification:** Saturday

Contribution ID: **81**

Type: **not specified**

## **SuperCDMS: recent results and status of project -with EURECA- at SNOLAB**

*Wednesday 18 February 2015 19:30 (30 minutes)*

**Presenter:** GERBIER, Gilles

**Session Classification:** Wednesday

Contribution ID: **82**

Type: **not specified**

## **SABRE status**

*Wednesday 18 February 2015 11:00 (15 minutes)*

**Presenter:** FROBORG, Francis

**Session Classification:** Wednesday

Contribution ID: 84

Type: **not specified**

**Search for direct production of charginos and  
neutralinos decaying via the 125~GeV Higgs boson in  
 $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector**

*Wednesday 18 February 2015 20:45 (1h 30m)*

**Presenter:** GIGNAC, Matthew

**Session Classification:** Poster Session

Contribution ID: 85

Type: **not specified**

## **Non-prompt Lepton Jets search with the ATLAS detector at $\sqrt{s} = 8$ TeV LHC proton-proton collider**

**Presenter:** DEL GAUDIO, Michela

Contribution ID: **86**

Type: **not specified**

## **8TeV Non-Resonant dilepton search**

*Wednesday 18 February 2015 20:45 (1h 30m)*

**Presenter:** SAVAGE, Graham

**Session Classification:** Poster Session

Contribution ID: 87

Type: **not specified**

# **Flavour-tagged time-dependent angular analysis of the $B_s^0 \rightarrow J/\psi(\mu^+\mu^-)\Phi(K^+K^-)$ decay with the ATLAS detector**

*Wednesday 18 February 2015 20:45 (1h 30m)*

**Presenter:** JAKOUBEK, Tomas

**Session Classification:** Poster Session

Contribution ID: **88**

Type: **not specified**

## **Novel methods and expected run II performance of ATLAS track reconstruction in dense environments**

*Wednesday 18 February 2015 20:45 (1h 30m)*

**Presenter:** JANSKY, Roland Wolfgang

**Session Classification:** Poster Session



Contribution ID: 89

Type: **not specified**

## **Search for the associated production of the Higgs boson with top quarks in the multi-lepton final state**

**Presenter:** DEMARCO, David

Contribution ID: **90**

Type: **not specified**

## **Monitoring tools for the CMS upgraded outer tracker detector**

*Wednesday 18 February 2015 20:45 (1h 30m)*

**Presenter:** DE BRUYN, Isabelle Helena J

**Session Classification:** Poster Session

Contribution ID: **91**

Type: **not specified**

## **Measurement of Upsilon(nS) cross sections at 7 TeV**

*Wednesday 18 February 2015 20:45 (1h 30m)*

**Presenter:** CARLSON, Benjamin Taylor

**Session Classification:** Poster Session

Contribution ID: 92

Type: **not specified**

## **Production asymmetries of neutral B mesons in pp collisions at LHCb**

*Wednesday 18 February 2015 20:45 (1h 30m)*

**Presenter:** FERRARI, Fabio

**Session Classification:** Poster Session

Contribution ID: **93**

Type: **not specified**

## Darkside status

*Wednesday 18 February 2015 20:00 (15 minutes)*

**Presenter:** BRODSKY, Jason

**Session Classification:** Wednesday

Contribution ID: 94

Type: **not specified**

## Roadmap to controlling penguins

*Wednesday 18 February 2015 20:45 (1h 30m)*

**Presenter:** DE BRUYN, Kristof

**Session Classification:** Poster Session