# New Physics Interpretations at the LHC



### **Report of Contributions**

Dinner

Contribution ID: 0 Type: not specified

#### Dinner

Monday 2 May 2016 18:00 (3 hours)

https://sites.google.com/site/npinterpretations/dinner

#### **Summary**

Contribution ID: 1 Type: not specified

#### Welcome to Argonne

Monday 2 May 2016 09:01 (4 minutes)

Author: WEERTS, Harry (Argonne National Laboratory (US))

Contribution ID: 2 Type: not specified

#### **Two-photon resuts from ATLAS**

Monday 2 May 2016 09:40 (20 minutes)

Author: SAXON, James (University of Chicago (US))

May 19, 2025

Contribution ID: 3 Type: not specified

#### **Two-photon resuts from CMS**

Monday 2 May 2016 10:10 (20 minutes)

Author: CHOU, John Paul (Rutgers, State Univ. of New Jersey (US))

May 19, 2025

Contribution ID: 4 Type: **not specified** 

#### **Diphotons from an Electroweak Triplet-Singlet**

Monday 2 May 2016 09:10 (20 minutes)

Authors: KNAPEN, Simon; KNAPEN, Simon (Lawrence Berkeley National Lab)

Contribution ID: 5 Type: **not specified** 

#### Diphoton excess: 750 GeV scalar or the kitchen sink?

Monday 2 May 2016 11:15 (20 minutes)

Author: MEADE, Patrick (Stony Brook University)

Contribution ID: 6 Type: **not specified** 

### The Blind Men and an Elephant: an Alternative Interpretation for the Diphoton 750 GeV Excess

Monday 2 May 2016 11:45 (20 minutes)

Author: KIM, Doojin (University of Florida)

Contribution ID: 7 Type: **not specified** 

#### Searches for dibosons involving Higgs at CMS

Monday 2 May 2016 15:00 (20 minutes)

Author: VERNIERI, Caterina (Fermi National Accelerator Lab. (US))

May 19, 2025

Contribution ID: 8 Type: not specified

#### ATLAS results on two-boson resonances

Monday 2 May 2016 14:30 (20 minutes)

Author: ABOUZEID, Hass (University of California, Santa Cruz (US))

Contribution ID: 9 Type: not specified

#### ATLAS results on two-boson resonances with Higgs

Monday 2 May 2016 15:50 (20 minutes)

Author: YU, Jie (Iowa State University (US))

May 19, 2025

Contribution ID: 10 Type: not specified

#### **Lepton Flavor Violating Higgs decays**

Tuesday 3 May 2016 16:20 (20 minutes)

**Authors:** DELGADO, Antonio (University of Notre Dame (US)); DELGADO, Antonio (University of Notre Dame)

Contribution ID: 11 Type: not specified

#### Z'->II and combinations. ATLAS results

Tuesday 3 May 2016 09:01 (20 minutes)

Author: HAYDEN, Daniel (Michigan State University (US))

Contribution ID: 12 Type: not specified

### Searches for dijet-, multijet-, and b-jet resonances. ATLAS results

Tuesday 3 May 2016 10:00 (20 minutes)

Author: DANDOY, Jeff (University of Chicago (US))

Contribution ID: 13 Type: not specified

#### New physics in multijet final states with CMS

Tuesday 3 May 2016 09:30 (20 minutes)

Author: STROBBE, Nadja (Fermi National Accelerator Lab. (US))

Contribution ID: 14 Type: not specified

# Enhancing the Higgs associated production with a top quark pair

Tuesday 3 May 2016 11:50 (20 minutes)

Presenters: BADZIAK, Marcin; BADZIAK, Marcin

Contribution ID: 15 Type: not specified

### Interpretations for the tth excess without an enhanced tth

Tuesday 3 May 2016 11:20 (20 minutes)

Authors: HUANG, Peisi (University of Wisconsin-Madison (US)); HUANG, Peisi

Contribution ID: 16 Type: not specified

### Searching for Supersymmetry with Z bosons and missing ET

Tuesday 3 May 2016 14:00 (20 minutes)

Presenter: HOLMES, Tova Ray (Lawrence Berkeley National Lab. (US))

Contribution ID: 17 Type: not specified

### Direct Measurements of the top-Yukawa Coupling at the LHC and other Related Results

Tuesday 3 May 2016 14:30 (20 minutes)

**Author:** WEBSTER, Jordan S (Argonne National Laboratory (US))

Contribution ID: 18 Type: not specified

#### Generic model interpretations. Theory

Author: SIMMONS, Elizabeth (Michigan State University)

Contribution ID: 19 Type: not specified

### Searches for BSM in multi-lepton events. CMS results

Tuesday 3 May 2016 10:50 (20 minutes)

Author: CASTELLO, Roberto (CERN)

Presenter: CASTELLO, Roberto (CERN)

Contribution ID: 20 Type: not specified

#### Vector-like quarks searches at CMS

Tuesday 3 May 2016 15:00 (20 minutes)

Author: KHALIL, Sadia (Kansas State University (US))

Presenter: KHALIL, Sadia (Kansas State University (US))

Contribution ID: 21 Type: not specified

#### A theory talk

Presenters: FARINA, Marco (Cornell University); FARINA, Marco (Sezione di Pisa (IT))

Contribution ID: 22 Type: not specified

#### New displaced signatures and strategies at the LHC

Wednesday 4 May 2016 11:50 (20 minutes)

**Presenters:** SHELTON, Jessie (Yale University); SHELTON, Julia (Jessie) (Rutgers University); Dr SHELTON, Julia

Contribution ID: 23 Type: not specified

#### A 750 GeV Heavy Pion and its Companions

Tuesday 3 May 2016 16:50 (20 minutes)

Presenters: BAI, Yang (University of Wisconsin, Madison); BAI, yang

Contribution ID: 24 Type: not specified

#### Searches for two vector bosons at CMS

Monday 2 May 2016 14:05 (20 minutes)

Presenters: XU, Zijun (Peking University (CN)); XU, Zijun (Peking University (CN))

Contribution ID: 25 Type: not specified

### Generic interpretation considerations across search channels

Tuesday 3 May 2016 15:50 (20 minutes)

Presenter: KAADZE, Keti (Kansas State University (US))

Contribution ID: 26 Type: not specified

#### Right-handed neutrinos and Iljj searches in Run I

Monday 2 May 2016 16:20 (20 minutes)

**Presenters:** COLOMA, Pilar (Universidad Autónoma de Madrid); COLOMA, Pilar (Virginia Tech University); COLOMA, Pilar (Fermilab)

Contribution ID: 27 Type: not specified

#### **Diboson Excess Theory Updates**

Monday 2 May 2016 16:50 (20 minutes)

**Presenters:** LIU, Zhen (Fermilab); LIU, Zhen (University of Pittsburgh)

Contribution ID: 28 Type: not specified

#### Strong tW Scattering at the LHC

Wednesday 4 May 2016 10:50 (20 minutes)

Presenters: FARINA, Marco (Cornell University); FARINA, Marco (Sezione di Pisa (IT))

Contribution ID: 29 Type: not specified

### The F particle

Wednesday 4 May 2016 10:00 (20 minutes)

Presenter: TESI, Andrea

diphotons TBD

Contribution ID: 30 Type: not specified

### diphotons TBD

**Presenter:** MOHAN, Kirtimaan (Michigan State University)

Contribution ID: 31 Type: not specified

#### Z + MET in supersymmetry

Wednesday 4 May 2016 14:00 (20 minutes)

Presenter: ISMAIL, Ahmed (Argonne National Laboratory/University of Illinois at Chicago)

Contribution ID: 32 Type: not specified

#### Stop searches in the compressed region

Wednesday 4 May 2016 14:30 (20 minutes)

**Presenter:** CHENG, Hsin-Chia (University of California, Davis)

Contribution ID: 33 Type: not specified

### Roman or Greek? Distinguishing gg from gamma gamma Fusion

Wednesday 4 May 2016 09:01 (20 minutes)

Presenter: ISAACSON, Joshua (Michigan State University)

Contribution ID: 34 Type: not specified

### Soft Gluon Resummation in Higgs Plus Jets Production at the LHC

Wednesday 4 May 2016 09:30 (20 minutes)

**Presenters:** SUN, peng (MSU); SUN, peng (LBNL)

Contribution ID: 35 Type: not specified

### Searching for the QCD Axion at Advanced LIGO with Black Holes and Gravitational Waves

Wednesday 4 May 2016 15:15 (45 minutes)

https://indico.hep.anl.gov/indico/conferenceDisplay.py?confId=609

#### **Summary**

**Presenters:** BARYAKHTAR, Maria I (Stanford University (US)); BARYAKHTAR, Masha (Perimeter Institute)

Contribution ID: 36 Type: not specified

# Tadpole-Induced Electroweak Symmetry Breaking and pNGB Higgs Models

Wednesday 4 May 2016 11:20 (20 minutes)

**Presenters:** KEARNEY, Jack (H); KEARNEY, John (University of Michigan (US))

Contribution ID: 37 Type: not specified

#### Welcome to the ANL HEP division

Monday 2 May 2016 09:05 (5 minutes)

**Presenter:** DEMARTEAU, Marcel (Argonne National Laboratory)